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Transcript of Wenke Lee, Ph.D.

Date: July 17, 2023

Case: Crowdstrike, Inc. -v- Open Text Inc. (PTAB)

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IPR2023-00124
Open Text Inc. EX-2025

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2
3 BEFORE THE PATENT TRIAL AND APPEAL BOARD

4
5 CROWDSTRIKE, INC.,

6 Petitioner,

7 vs.

8 OPEN TEXT INC.,

9 Patent Owner.

10
11 Case: IPR2023-00126

12 U.S. Patent No. 10,257,224

13
14 DEPOSITION OF WENKE LEE, Ph.D.

15 via videoconference

16 Monday, July 17, 2023

17 10:04 a.m. EST

18
19 Job No.: 497954

20 Pages: 1 - 223

21 Stenographically Reported By:

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

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11

12 ALSO PRESENT:

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T A B L E O F C O N T E N T S	
Witness	Page
WENKE LEE, Ph.D.	
EXAMINATION	
BY MR. BLYTHE:	7

E X H I B I T I N D E X

Exhibit

Page

(Exhibits attached to transcript.)

EXHIBIT 1

11

Patent Owner Open Text Inc.'s

Notice of Deposition of Dr. Wenke Lee

EXHIBIT 2

13

Declaration of Dr. Wenke Lee

EXHIBIT 3

60

Claim Construction Order

EXHIBIT 4

70

Patent No.: US 10,257,224 B2 - Jaroch

EXHIBIT 5

105

Pub. No.: US 2007/0016953 A1 - Morris

1 DEPOSITION OF WENKE LEE, Ph.D.

2 Monday, July 17, 2023

3

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

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

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

17 MR. BLYTHE: Russell Blythe on behalf of
18 Patent Owner Open Text Inc.

19 MR. HORTON: And Hunter Horton on behalf of
20 Petitioner CrowdStrike, Inc. No objections.

21 [No objections made]

22 STENOGRAPHER: Hearing no objections,

1 Dr. Lee, would you please raise your right hand.

2 Do you swear or affirm the testimony you
3 are about to give in this matter will be the truth,
4 the whole truth, and nothing but the truth?

5 DR. LEE: I do.

6 STENOGRAPHER: Thank you.

7 You may proceed.

8 MR. BLYTHE: Good morning.

9 THE WITNESS: Good morning.

10 WENKE LEE, Ph.D.,
11 was thereupon called as a witness herein, and after
12 having first been duly sworn to testify to the truth,
13 the whole truth and nothing but the truth, was
14 examined and testified as follows:

15 EXAMINATION

16 BY MR. BLYTHE:

17 Q. Please state your name for the record.

18 A. Wenke Lee.

19 Q. And what is your address?

20 Is it Dr. Lee?

21 A. Yes. I mean, for the title. You know they call it
22 first-name basis, that's fine, yeah.

1 Q. Okay. Yeah. Please state your address, Dr. Lee.

2 A. 4545 Powers Ferry Road, Atlanta, Georgia.

3 Q. Have you ever been deposed before?

4 A. I have been, yes.

5 Q. And was one of those depositions recently in another
6 IPR in connection with an Open Text patent?

7 A. Yeah, I was deposed recently, but also last year as
8 well. I mean, yeah.

9 Q. Have you been deposed several times?

10 A. I'm sorry? Can you repeat the question?

11 Q. About how many times have you been deposed
12 previously?

13 A. I think maybe six, seven times now, yeah.

14 Q. Okay. Well, you may be familiar with this, but I'd
15 still like to start with just a few of the ground
16 rules so we're on the same page.

17 As you know, the way this will work is I
18 will ask questions and we will expect you to provide
19 answers. If you can provide those answers using words
20 instead of visual signals or other sounds, that will
21 help make for a clear record. Okay?

22 A. Okay.

1 Q. Similarly, if you will let me state the entire
2 question before you provide an answer, and if we can
3 generally avoid talking over each other, that will
4 also help our court reporter and provide a clear
5 record. All right?

6 A. Okay.

7 Q. If you need a break at any time, just let me know and
8 we'll take a break. We will probably try to finish
9 the question and answer, but we can take a break when
10 you need one, so just let me know. All right?

11 A. Okay.

12 Q. Are you feeling okay today?

13 A. Yes.

14 Q. Any reason you cannot testify to the best of your
15 ability?

16 A. No.

17 Q. Do you have any materials with you that are related to
18 the matters that you plan to testify about today?

19 A. Yes. I have printed out some materials and I also
20 have folder that contains all the exhibits.

21 Q. Okay. What materials do you have printed out?

22 A. So I have with me my declaration here, the -- yeah,

1 right here. The '224 patent. The Morris '953
2 patent. And then Oorschot's '087 patent. And also,
3 let me see, Capalik's '166 patent. And also, just in
4 case, I also printed out Morris's '340 patent. So
5 that's all.

6 Q. Are those clean copies of each of those documents or
7 do they have --

8 A. Yeah, yeah, yeah. It's a -- it's all very clean,
9 yeah. It's all clean, yeah.

10 Q. Okay. Okay. If you -- I'm fine with you looking at
11 the paper copies of those materials today as we go
12 through the deposition. We may mark some to use
13 electronically, but you're welcome to look at the
14 electronic version or the paper version. If you look
15 at anything else other than the documents that you
16 just mentioned in providing your responses, will you
17 let me know?

18 A. Yes, I will. Yeah.

19 Q. Okay.

20 MR. BLYTHE: All right, Ms. Pybas, if you
21 would pull up paper 16 from IPR2023-00126, I'd like to
22 mark that as Exhibit 1 in the deposition.

1 PLANET DEPOS TECH: Okay. Please stand by.

2 MARKED FOR IDENTIFICATION:

3 EXHIBIT 1

4 10:08 a.m.

5 BY MR. BLYTHE:

6 Q. All right, Dr. Lee, if you would pull up what has been
7 marked as Exhibit 1 to your deposition.

8 A. That would be my -- that would be my declaration.
9 Right?

10 Q. No. It's going to be in the Chat.

11 A. I'm sorry.

12 Q. Yeah.

13 A. Okay. Let me see. Okay. Let me see how to download
14 this thing. Yep. Okay. Sure.

15 Q. Okay. Do you recognize this exhibit, Dr. Lee?

16 A. Yeah, this is the same as I printed out. That's
17 my -- yeah. That's my expert declaration.

18 Q. Okay. If you would look at --

19 MR. BLYTHE: If we would call that up on
20 the screen, what's been marked as Exhibit 1, so
21 Dr. Lee can see it, we can all see it together.

22 A. Yep. I -- yeah.

1 BY MR. BLYTHE:

2 Q. Okay. If you see there in the middle of this
3 document, it says, Patent Owner Open Text Inc's Notice
4 of Deposition of Dr. Wenke Lee. Do you see that?

5 A. Yes. I see that, yes.

6 Q. So is this your declaration, Dr. Lee? I believe it's
7 the notice of your deposition today.

8 A. Yeah, that's my declaration.

9 Q. Okay. Flip -- if you will, flip through what's been
10 marked as Exhibit 1 and let me know if it looks like
11 your exhibit -- your declaration.

12 And I'll tell you, Dr. Lee, this -- what I
13 believe this is and what I see it to be is a notice of
14 your deposition and not your declaration. Do you see
15 that?

16 A. Yeah, I mean, the title is a little bit different,
17 but, yeah, I mean...

18 Q. Okay. So, yeah, this -- Exhibit 1, Dr. Lee, is a
19 notice of your deposition --

20 A. Right.

21 Q. -- and it says in the middle of the page
22 IPR2023-00126. Do you see that?

1 A. Right. Right.

2 Q. And is that -- is that the proceeding in which you
3 understand you're testifying today?

4 A. Yes.

5 Q. And this proceeding relates to U.S. Patent 10,257,224;
6 is that right?

7 A. Yes.

8 Q. And if -- can we refer to that as the '224 patent
9 today?

10 A. Yes.

11 Q. Okay.

12 MR. HORTON: All right, Ms. Pybas, if you
13 would pull up Exhibit 1003 from IPR2023-00126. I'd
14 like to mark that as Exhibit 2.

15 PLANET DEPOS TECH: And you said
16 Exhibit 1003. Correct?

17 MR. BLYTHE: That's correct.

18 MARKED FOR IDENTIFICATION:

19 EXHIBIT 2

20 10:12 a.m.

21 BY MR. BLYTHE:

22 Q. All right, Dr. Lee, Exhibit 2 in the deposition is

1 Exhibit 1003 from IPR2023-00126. Do you recognize
2 this document?

3 A. Yeah. So -- so this is the -- this is my
4 declaration. Yeah. I misspoke the previous exhibit.
5 I mean, I thought that was -- I was -- I was looking
6 at the case number, so I was a little confused.

7 Q. Okay. But Exhibit 1003 is your declaration in this
8 IPR. Correct?

9 A. Right.

10 Q. Okay. If you would, turn to page -- and you can use
11 either your hard copy or the exhibit, but turn to
12 page 155.

13 A. You said 155? Okay.

14 Q. 155, yeah.

15 A. Yes.

16 Q. All right. And do you see on the screen there where
17 it says -- where it has the signature?

18 A. Yes, I see it.

19 Q. Is that your signature on this document?

20 A. Yes.

21 Q. Okay. And then let's flip over to page 156.

22 Is page 156, through the end of this

1 document, which is page 202, is that a true and
2 correct copy of your CV?

3 A. Yes, I believe so. Yes.

4 Q. All right. Let's look at page 157 of your CV.

5 A. Uh-huh.

6 Q. It lists there your employment history. Do you see
7 that?

8 A. Yes.

9 Q. Is that list of your employment information accurate?

10 A. Yes.

11 Q. Is there anything about your CV, as of today, that
12 should be updated from the time that you submitted
13 this declaration?

14 A. No.

15 Q. Okay. I'd like to ask you a little bit about your
16 educational background.

17 A. Uh-huh.

18 Q. It says that you have a master's degree from The City
19 College of New York in computer science; is that
20 right?

21 A. That's correct.

22 Q. Was there any particular area of focus in your

1 computer science degree from The City College of
2 New York?

3 A. No, not necessarily. I mean, maybe AI was, interest
4 in AI, but very, sort of, broad, yeah.

5 Q. Did you write a thesis or any other sort of final
6 paper in connection with your master's degree?

7 A. Not a thesis, but definitely a project with a
8 professor, yeah.

9 Q. Do you recall what that project related to?

10 A. Actually it's about using some sort of machine
11 learning model to, let's say, try to recognize
12 characters, example.

13 Q. Okay. And that was sometime around 1990; is that
14 right?

15 A. Yeah. I got out of there 1990, like by April, so,
16 yeah. It was probably like 1989, early 1990, yes.

17 Q. And you got a Ph.D. from Columbia University in
18 computer science in 1999; is that correct?

19 A. That's correct.

20 Q. Did you have a thesis in connection with your Ph.D.
21 studies?

22 A. Yes.

1 Q. And do you recall what the thesis was about?

2 A. So the -- my P.C. thesis at Columbia was about
3 applying machine learning to network intrusion
4 detection.

5 Q. What is network intrusion detection?

6 A. So network intrusion detection is about analyzing
7 network traffic and detect malicious activities and
8 attacks to a network or familial network to the
9 Internet, yeah.

10 Q. And when you say analyze "network traffic," does that
11 include analyzing information that is stored on
12 computers or just over the network?

13 A. Actually, yeah, now that you mention, yeah, part of
14 my thesis actually was also about analyzing
15 activities on the host. And the reason was, some of
16 the activities, you cannot only look at network
17 traffic. For example, unless you connect to a
18 network, you send a attack that will cause a buffer
19 flow attack, so all you see on the network traffic is
20 the input. Exactly what happened, you have to see it
21 on the host. So my thesis does include analyzing
22 host data.

1 Q. I believe, at some places in your declaration, you
2 refer to community antimalware systems. Do you recall
3 that?

4 A. I recall I mentioned that term, yes. But exactly --
5 I think probably multiple places. I think so.

6 Q. Did your thesis have anything to do with
7 community-based antimalware systems?

8 A. So the way that my thesis touch upon
9 community-based -- sorry. You say community-based
10 what again? The exact term you used?

11 Q. Yeah, community-based antimalware systems.

12 A. Okay. Yeah. So I am almost certain that in my
13 thesis when I talk about work or state of the art
14 work there, I would probably talk about the state of
15 the art of intrusion detection encoding antimalware.

16 And I think by the end it was very well
17 understood that when you install -- when you purchase
18 an antimalware product, you actually communicate with
19 the vendor, you actually send some of the local data
20 to the vendor. So that's -- since your vendor
21 already has a community-based kind of view. That's
22 the, you know, state of the art at the time.

1 My thesis research itself, when I mentioned
2 machine learning, actually back then we didn't -- I
3 didn't use the term "machine learning," I used the
4 term "data mining." That was the -- you know,
5 essentially, the trendiest term back then.
6 Essentially, data mining in today's term would be,
7 essentially, big data. Big data, deep learning kind
8 of thing. Except the algorithm was a little bit more
9 primitive than today's deep learning.

10 But anyway, so one of the -- the assumption
11 of my thesis research was that there would be a lot of
12 data available. So to you -- first to make data
13 mining or machine learning work, we need a lot of
14 data. So data, you know -- data -- so the assumption
15 is that we should be able to get as much data as
16 possible not just from your local network but also,
17 you know, anybody who can contribute data.
18 Essentially, the community can contribute data that
19 will allow you to, you know, use as a reference or
20 incorporate some of the, you call it, the community
21 knowledge or domain knowledge into your chain name.

22 So, yeah, I guess -- you know, I don't

1 recall the details of my thesis, but I would -- I
2 would believe that, you know, it has reference to the
3 need to have data and reference materials from a broad
4 community for sure.

5 Q. Okay. So you're here to testify in connection with
6 the '224 patent today. Correct?

7 A. Yes.

8 Q. All right. And do you have a general understanding of
9 what technology is at issue in the '224 patent?

10 A. Yes, I do.

11 Q. Okay. And what is that technology?

12 A. So if I look at the '224 patent, the title is "Method
13 and apparatus for providing forensic visibility into
14 systems and networks." So basically the broad area
15 of this patent is about looking at, again, forensic
16 data in the systems and networks and detect malwares
17 and attack.

18 Q. Are you familiar with a concept called the level of
19 ordinary skill in the art?

20 A. Yes.

21 Q. What is the -- what do you understand that the concept
22 of "level of ordinary skill in the art" means?

1 A. So I believe I discussed this in my declaration. Let
2 me see here. So as I said in paragraph 32, I talk
3 about the way we think about a person having ordinary
4 skill of the art, look at certain characteristics,
5 you know, at the time of the claim you mention.
6 Right?

7 So essentially we're looking at -- I would
8 say I would -- "I was told to consider several
9 factors, including the type of problems encountered
10 in the art, the solutions to these problems, the
11 rapidity with which innovations are made in the
12 field, the sophistication of the technology, and the
13 education level of active workers in the field."

14 Q. Okay. Did you consider -- strike that.

15 Would you consider this to be a
16 sophisticated technology?

17 MR. HORTON: Object to form.

18 BY MR. BLYTHE:

19 Q. The technology -- yeah. Would you consider the
20 technology at issue in the '224 patent to be
21 sophisticated?

22 MR. HORTON: Same objection.

1 A. So, again, you know, I think -- sophisticated or not
2 is actually relative. So, I mean, like I said, all I
3 can see there was -- like I said here in my
4 declaration, looking at the problems and the
5 solutions and how innovation were made and how fast
6 they improved and the sophistication technology so
7 that, you know, what skills a person needs to have to
8 understand the technology.

9 So I would say any technology has certain
10 degree of sophistication, that's for sure.

11 Q. So did you consider the degree of sophistication of
12 the technology at issue in the '224 patent?

13 A. So, again, I considered that in the context of having
14 ordinary skill in the art. That means, for this kind
15 of technology, what kind of knowledge and preparation
16 one needs to have to understand it.

17 Q. Okay. So what was your view on the degree of
18 sophistication of the technology at issue in the '224
19 patent?

20 A. Can you repeat that question again?

21 Q. Sure. What was your view --

22 A. Uh-huh.

1 Q. -- on the degree of sophistication of the technology
2 in the '224 patent?

3 A. Yeah. So, again, I mean, you know, when I talk about
4 degrees, it's like, I mean, I'm not in the business
5 of measuring. You know, having a scale kind of thing
6 to measure sophistication. Just basically say, hey,
7 look, this type of technology would require this kind
8 of -- let's say this kind of solution require this
9 kind of technology and how this technology could be
10 obtained. You know, if you take certain classes or
11 you work on certain projects, I mean, that's how I
12 make that -- a determination of what a person having
13 ordinary skill in the art. Yeah.

14 Q. Great. So did you come to any conclusion about the
15 degree of sophistication of the technology at issue in
16 the '224 patent?

17 A. So if you're asking degree of like -- you know, like
18 a numerical number or, you know, super high, you
19 know, super low, I mean, that's not how I do this
20 kind of work.

21 I'm just again saying, hey, for this kind
22 of area, this kind of technologies, like I said, you

1 know, what classes; you know, what kind of subject
2 matter preparations in terms of education and work
3 experience would have prepared a person to be -- to
4 be considered a person having ordinary skill in the
5 art.

6 That's how I -- I mean, I -- that's what I
7 said in this paragraph 33. I lay out, you know,
8 based on my understanding of technology and -- you
9 know, and, I mean, the kind of problems and solutions
10 and their ability with the innovations and
11 certification technology and educational level of
12 active workers in the field, like I describe in 32.

13 That's how I use those factors to draw --
14 to basically outline, in paragraph 33, what I can
15 see -- what I consider as a person having ordinary
16 skill in the art.

17 Q. So if I understand you correctly, you didn't come to a
18 specific conclusion about the level of sophistication
19 of the technology at issue in the '224 patent; is that
20 correct?

21 MR. HORTON: Object to the form.

22 A. So like I said, you know, I mean, depending on what

1 you mean by degree of sophistication. Right? So if
2 you say how sophisticated '224 is, well, I mean, like
3 anything, you may talk about how sophisticated it is,
4 it is actually you want to have some comparison.

5 So in paragraph 34 I do offer comparison,
6 let's say, between '224 and '591. I would say the
7 '591 probably is a little bit more specialized and you
8 can -- you can say that it is -- you know, it is --
9 you know, most people would agree that a little bit
10 more sophisticated, but doesn't mean the '224 is not
11 sophisticated.

12 So, I mean, I don't want to get into debate
13 of -- debate of, hey, is '591 a degree of 9 out of 10
14 and '224 is 2 out of 10? No, I don't want to get into
15 that kind of debate. It doesn't matter in terms of --
16 it doesn't affect how I decide what a person of
17 ordinary skill in the art should be.

18 Q. Did you consider whether the technology that's claimed
19 in the '224 patent is -- let me strike that.

20 Did you consider the level of
21 predictability associated with the technology claimed
22 in the '224 patent?

1 A. Predictability? What do you mean?

2 Q. Did you consider the predictability of potential
3 solutions in connection with the type of technology at
4 issue in the '224 patent?

5 A. Let me -- let me see. Looking at my declaration, the
6 kind of legal consideration that I have. Let me see.
7 I'm looking at my legal framework, do I --
8 were I asked to talk about the ability.

9 So, I mean, I was looking over my
10 declaration. Right? Where I talk about the legal
11 framework I used. That's, you know, from page 11, in
12 the paragraph 11 through paragraph 23. I do not find
13 anywhere that I use the term "predictability." I did
14 talk about the legal framework that was instructed to
15 use, which, you know, include considering
16 anticipation, obviousness. You know, a reason to
17 combine obviousness, that kind of thing. So, yeah, I
18 don't know what you mean by predictability.

19 Q. Do you have any view, Dr. Lee, on whether the type of
20 technology at issue in the '224 patent is predictable
21 to a person of ordinary skill in the art?

22 A. That's not how I was told to look at '224 patent,

1 like I said, I -- for the legal framework that I lay
2 out in my declaration.

3 Q. So if I understand you correctly, you don't have a
4 view on the level of predictability associated with
5 the technology claimed in the '224 patent; is that
6 correct?

7 A. I wouldn't say -- first of all, I wasn't given any
8 legal advice of what "predictability" would mean, so
9 I --

10 Q. Just to be clear, that's not what I'm asking. What
11 I'm asking is, Dr. Lee, do you have a view on the
12 level of predictability associated with the technology
13 in the '224 patent?

14 A. So, again, I'm here to discuss the opinions that I
15 offer in my declaration. Anything that's something
16 new to me, it would take me time to consider that, so
17 I -- you know, I just could not offer anything right
18 on the spot.

19 Q. Okay. So if I understand you correctly, your
20 testimony is that you do not have a view on the level
21 of predictability associated with the technology in
22 the '224 patent; is that correct?

1 MR. HORTON: Object to form.

2 A. Like I said, I don't know the legal definition of
3 "predictability" and how I should use it to analyze
4 the subject matter. Like I said, I analyzed the
5 subject matter based on legal framework that I
6 discuss in my declaration and that was, you know, the
7 framework that I use.

8 BY MR. BLYTHE:

9 Q. Okay. Can you point me to anywhere in your
10 declaration where you describe your view on the level
11 of predictability associated with the technology
12 claimed in the '224 patent?

13 A. So, again, I said this multiple times that I don't
14 recall using the term "predictability." I mean, if
15 you say predictability, I guess can mean many things.

16 Network security predictability can be,
17 hey, my model can predict that attack likely to
18 happen. That's completely a technical term of
19 predictability. But in the sort of -- in the -- in
20 the sort of -- in the legal domain what
21 predictability of a patent means, that's something
22 that I am not aware of.

1 I wasn't told to use that kind of
2 perspective to analyze the patent, so that's why I --
3 I don't think I offer opinion of the predictability
4 of '224 in my declaration.

5 Q. Okay. In paragraph 32 of your declaration, you say,
6 "I also placed myself back in the time frame of the
7 claimed invention and considered the colleagues with
8 whom I had worked at that time."

9 Do you see that?

10 A. Okay. Yes. I saw that, yes.

11 Q. And what timeframe were you referring to here?

12 A. So that would be the -- like I said at the beginning
13 of paragraph 32, right, you know, the way I look at
14 this is that -- you know, like I said, "I have been
15 asked to provide my opinion as to the level of skill
16 of a person having ordinary skill in the art at the
17 time of the '224 patent, which I have been instructed
18 to assume is May 3rd, 2013."

19 So then basically at the end of
20 paragraph 32 when I cite, you know, consider -- when I
21 "considered the colleagues with whom I had worked"
22 with -- I work at that time will be around, you know,

1 2013, the people of ordinary skill -- having ordinary
2 skill in the art at that time.

3 Q. And what colleagues, in particular, are you referring
4 to in paragraph 32?

5 A. So I have -- actually -- so there were multiple kind
6 of colleagues. So of course at Georgia Tech. Also I
7 do have a lot of -- a number of technical
8 consultancies with various companies, but also I
9 cofounded a company called Damballa,
10 D-a-m-b-a-l-l-a, in 2006, and the company ran until
11 2016. I wasn't there full-time, but I was the
12 cofounder, you know, so I -- you know, I pop in every
13 now and then. I mean, I do have a consulting kind of
14 arrangement with them. So I consider everybody at
15 Damballa, you know, they were either my former
16 students and/or colleagues too. Yeah.

17 Q. So in part what you're referring to by colleagues with
18 whom you had worked, in paragraph 32, is your time at
19 Damballa?

20 A. That's not what I meant. I meant the colleagues can
21 be -- can be in academia, can be in industry, can
22 be -- in three or four industry, can be the company

1 that I cofounded.

2 Q. Okay. But you say you considered the colleagues with
3 whom you had worked in paragraph 32. Right?

4 A. Yes.

5 Q. And so -- and so does that include your colleagues at
6 Damballa?

7 A. That would include them, yes.

8 Q. And you also -- you said you also had other consulting
9 arrangements with companies; is that correct?

10 A. That's correct.

11 Q. And did you consider those consulting arrangements as
12 part of formulating your level of ordinary skill in
13 the art in this case?

14 A. I do, yes.

15 Q. What consulting arrangements are you referring to?
16 With which company?

17 A. I worked on various kind of projects, for example,
18 Intel, Microsoft, I think Google at some time, yeah.
19 So I do interact with the technical people there a
20 lot on various different projects. So that's how I
21 get a sense of what people in the industry -- you
22 know, how would I consider them as being ordinary

1 skill in the art.

2 And by the way, all these colleagues --
3 all these people that I worked with in the industry,
4 they are all basically doing security work, doing
5 cybersecurity work.

6 Q. Was there any individual you focused on in particular
7 to help set the level of ordinary skill in the art?

8 A. I mean, sure. I mean, I -- it probably take me time
9 to recall the names, but there are a variety of
10 people, some of them basically having bachelor
11 degree, some of them have master's degree, some have
12 a Ph.D. So, I mean, that's, you know, yeah, pretty
13 broad, yeah, background.

14 Q. Okay. Are you familiar with Dr. Medvidovic's
15 declaration in this case?

16 A. So refer to the expert of -- the expert for the
17 Open Text side. Right?

18 Q. That's right.

19 A. Yeah, I have read his declaration. I know he is a
20 professor at USC, yes.

21 Q. Would you consider Dr. Medvidovic to be a person of at
22 least ordinary skill in the art as it relates to the

1 technology in the '224 patent?

2 MR. HORTON: Object to form.

3 A. Well, I mean, -- so according to my definition,
4 right, so I say -- and so May 2003 [sic], would have
5 a "bachelor's degree in computer science, computer
6 engineering, or an equivalent, as well as two years
7 of industry experience."

8 So I think somewhere -- let me see here.

9 And then -- let me see...

10 So then and "would have working knowledge
11 of host monitoring systems, software security
12 analysis," so on and so forth.

13 So like I said in paragraph 34, I think
14 further down, I said a lot of technology -- a lot of
15 "technology at issue in the '224 Patent is still
16 complex and four or more years of industry experience
17 would be preferred, it is my opinion that a person
18 having a bachelor's degree in computer science,
19 computer engineering, or the equivalent, as well as
20 two years of industry experience and a working
21 knowledge of host monitoring systems, software
22 security analysis, and dynamic analysis will suffice

1 here and would be capable of understanding the '224
2 Patent and the prior art at issue."

3 So I think the professor at USC, I think by
4 2013, I think he has a Ph.D. in computer science. I
5 believe -- I mean, I haven't -- I mean, if you can
6 bring up his CV I can take a closer look, but I
7 believe that he has a computer science Ph.D. from USC
8 Online, which I am very familiar with the program. I
9 think he's -- that all of his degrees are USC Online,
10 if I'm not mistaken, so I would consider him a person
11 of ordinary skill in the art, yep.

12 Q. So just to clarify, it is your opinion that
13 Dr. Medvidovic is a person of ordinary skill in the
14 art as it relates to the technology addressed in the
15 '224 patent; is that correct?

16 MR. HORTON: Object to form.

17 A. So I said that -- you know, I gave a definition of my
18 opinion for a person of ordinary skill in the art. I
19 know that the other expert, he has a Ph.D. degree in
20 computer science. I know that he is domain name
21 expertise on the Pogo analysis side. Some of the --
22 so I do understand -- I do believe that he has

1 working knowledge of, you know, host systems, you
2 know, software analysis and so on. So I do believe,
3 you know -- you know, I would consider him as a
4 person of ordinary skill in the art.

5 Q. Let's turn back to your CV, page 165 of Exhibit 1003,
6 Exhibit 2 in the deposition. Page 165.

7 Page 165 begins a list of published journal
8 papers that you indicate are referred; is that
9 correct?

10 A. Yes.

11 Q. Do any of the published journal papers you list there
12 relate to the technology that's at issue in the '224
13 patent?

14 THE WITNESS: Can you scroll down?

15 A. Yeah, I would say that, you know -- I would say the
16 journal number -- the journal paper number 4 talks
17 about detecting peer-to-peer network in a corporate
18 network, peer-to-peer Botnet detection. I think that
19 may be relevant.

20 I think the paper number 6 talks about
21 packed executable, meaning that malware can be
22 packed. You actually have to unpack it to analyze

1 the statically -- you know, how the malware is
2 packed -- how are executable is packed to detect
3 whether it's malware or not. That's completely -- I
4 think that's relevant to '224.

5 Yeah, I mean, those are the journal
6 papers -- I mean, so just -- just so you know, in
7 computer science and is in my field, journal papers
8 not really looked at for the most -- how do I put it?
9 Most cutting-edge work.

10 So that's why I only have like, I don't
11 know, 10, 15 journal papers out of my hundreds -- you
12 know, more than hundred conference papers at top
13 conferences. I mean, that's -- so I'm not saying that
14 nothing I published here is useful, but normally the
15 most cutting-edge work is in -- is at the conferences,
16 not in the journals. But still, like I say, number 4,
17 number 6, I think they're relevant.

18 BY MR. BLYTHE:

19 Q. Okay. Let's look at the section that starts --
20 section C, that starts on page 166, Published Books
21 and Parts of Books. Do you see that?

22 A. Yes.

1 Q. Do any of the books on that list relate to the
2 technology claimed in the '224 patent?

3 A. I -- you know, I mean, I literally -- I don't have
4 time to -- well, I mean, like I said, I would need
5 time to refresh my memory and look at the papers, but
6 I think number 5 may be relevant just because mining
7 system audit data, so could be analyzing some of the
8 system event. But, you know, I would need to look at
9 it to confirm. But that's how I remember. Could be
10 relevant, yeah.

11 Q. Okay. And I believe you said that conference
12 presentations typically deal with the most
13 up-to-date --

14 A. Uh-huh.

15 Q. -- cutting-edge information; is that right?

16 A. That's correct, yes. In computer science.

17 Q. All right. So let's look at section E of your CV,
18 which starts on page 167. Are any of the
19 presentations --

20 A. Well, I mean, if you want to look at --

21 Q. Sorry, just -- let me get the whole -- let me start
22 over and get the whole question out.

1 A. Okay.

2 Q. So, Dr. Lee, if you look at the conference
3 presentations listed starting on page 167 of your
4 CV --

5 A. Uh-huh.

6 Q. -- do any of these relate to the technology that's at
7 issue in the '224 patent?

8 A. Yes. Now, I need to caution that, you know, we
9 are -- sort of technology-wise is relevant, but the
10 timeline, of course, is different. Right? We're
11 talking about the papers that we looked at, you know,
12 in front of us on page 167, these are papers in the
13 2021. So -- but if you ask just technically are they
14 relevant, you know, are they essentially covering
15 similar subject matters, then I would say, yeah, a
16 number of them, yes.

17 For example, the first paper. You know,
18 even the second one. You know, the paper number 5.
19 Number 6. Number 7 definitely. I mean, talks about
20 malware.

21 Yeah, so those would be the papers on 167
22 from a technical point of view. But, again, like I

1 said, the time -- the timeline is these are in 2021.
2 Of course I have earlier papers since, you know, in
3 the 1990s that essentially they deal with the same
4 subject matter as '224.

5 Q. So if you flip over to page 172 --

6 A. Okay.

7 Q. -- I believe page 172 starts to address some of your
8 presentations in 2014 and earlier timeframes. Do you
9 see that?

10 A. Yes.

11 Q. All right. Do any of these papers relate to the
12 technology that was at issue in the '224 patent?

13 THE WITNESS: Can you scroll further down?

14 A. Okay. I would say -- let me just --

15 THE WITNESS: Maybe go to the next --
16 whatever that -- 173, so we can sort of have the
17 timeline better.

18 A. This is May -- okay. So the time of '224 is May.
19 Okay.

20 THE WITNESS: Can you scroll further down?

21 A. Yeah. Okay. So number 69 talks about virtual
22 machine introspection, basically analyzing memory

1 content, so that's very relevant. Basically you grab
2 a memory of the operating system and you can, you
3 know, figure out all the learning processes and their
4 behaviors and so on. I mean, that's actually pretty
5 relevant even when you -- even when you don't use
6 virtual machine. I mean, it's more about what do you
7 do with the memory that you -- the memory map that
8 you can contain.

9 THE WITNESS: So you can go onto the next
10 page, 174.

11 BY MR. BLYTHE:

12 Q. Dr. Lee, do any of the presentations on page 174
13 relate to the technology of the '224 patent?

14 A. I mean, I -- so right now I am looking at 174.

15 Yeah. So 73 -- under 73 on --

16 THE WITNESS: Oh, you scrolled past it.

17 Yeah, 73 basically at the top of 174. Yeah, 73.

18 A. In fact, I think I reference this in the prior art.

19 Again, 78 talks about, again, some virtual
20 machine introspection work.

21 83, again, I reference this in the prior
22 art.

1 85, 86, so these are -- basically talks
2 about, actually, community-based knowledge in network
3 monitoring. So let me see. Do I reference here? I'm
4 looking at my declaration. Okay.

5 Yeah, I think I note which paper which is
6 the -- I think 86 is -- I actually reference in the
7 prior art as well. Let me see here.

8 THE WITNESS: Go further -- yeah, go
9 further down.

10 A. Okay. So definitely other papers such as 91, Botnet.
11 We talk about something that we -- Botnet, paper 91,
12 92. 93. Again, these are various system edge
13 monitoring work. 96, "Reverse Engineering of
14 Malware," that's a paper I wrote.

15 97, again, reverse system Edge kind of
16 monitoring work.

17 Let me see here. 100, malware analysis.

18 Yeah, again, 102, more malware analysis.

19 103, Botnet detection.

20 And 105, that's a -- that's system
21 monitoring. And I look at that paper -- okay.

22 108, again, Botnet detection. 109,

1 malware. 109, yeah. 110, 111.

2 Let me see. Okay. 114. So we talk about
3 challenging host base monitoring. And then 115,
4 BotHunter, again, that's a paper that I identify -- I
5 include in the prior art work.

6 BY MR. BLYTHE:

7 Q. Did you say 104 or 114?

8 A. 114. 114, yes. 114, 115.

9 115 would be the BotHunter paper that I
10 reference in the prior art section. Yeah, 118.
11 Yeah, 121. I would say, 125 also relevant. And then
12 129, 131. And then 136, 138, 140, 147.

13 THE WITNESS: Keep going.

14 A. Yeah, okay. I mean, the workshop we don't have to
15 care about but I'm sure there is some there as well,
16 but, yeah.

17 BY MR. BLYTHE:

18 Q. Okay. Thank you for doing that.

19 Let's look now at page 199. Page 199
20 includes a list of patents on which you are a named
21 inventor; is that correct?

22 A. Yep. That's correct.

1 Q. And that carries over to page 200; is that correct?

2 A. Yeah, I think so.

3 Q. Do any of the patents listed here on page 199 or 200
4 relate to the technology that's at issue in the '224
5 patent?

6 A. From a technology point of view, we've got -- there's
7 a couple. But I think, the timing, you have to do
8 case by case. Right?

9 So I would say -- I would say, number 2 is
10 about malware. Right? Number 3 is about compromised
11 computers. So these are relevant. Number 4 is
12 relevant. Paper number 5 is relevant, number 6
13 relevant. Number 7. Number 9, yeah. Number 10.
14 Number 11. Number 12. Number 13, 14, 15, 16.

15 Yeah. So I think, technology-wise, the
16 patent that I cited, they all deal with detecting
17 attacks and malware.

18 MR. BLYTHE: All right, Dr. Lee. We've
19 been going for a little over an hour, so why don't we
20 take a short break.

21 THE WITNESS: Okay.

22 MR. BLYTHE: We'll come back on the record.

1 THE WITNESS: Okay.

2 (Off the record at 11:07 a.m.)

3 (Back on the record at 11:16 a.m.)

4 BY MR. BLYTHE:

5 Q. Dr. Lee, let's look at page 157 of your CV.

6 A. Can you put it on the window? Because I only printed
7 my declaration up to page 155. I -- you know.

8 Q. Yeah, sure. We'll put it up so you can see it. It's
9 page 157 of Exhibit 1003 from the IPR.

10 This indicates that you worked at IBM T.J.
11 Watson Research Center, AT&T Research, and Intergraph
12 Corporation; is that right?

13 A. Yes. Yes.

14 Q. Have you held any jobs in the computer field that are
15 not listed in your CV?

16 A. I think other than my involvement with Damballa. But
17 like I said, I was a cofounder. You know, I never
18 kind of have -- I never, kind of, work full-time,
19 leave half-time [ph] there, so that's why it's not a,
20 generally speaking, appointment that I need to list.

21 Q. When did you cofound Damballa?

22 A. 2006.

1 Q. Did you ever hold any position within Damballa?

2 A. I don't recall officially. Maybe the first summer I
3 was helping run the thing but the CEO was there
4 already. So I don't recall any official position,
5 no.

6 Oh, I was maybe on the board like the first
7 two years, first couple of years, but I wouldn't
8 consider board as -- a board member as official
9 anything.

10 Q. What technologies was Damballa trying to
11 commercialize?

12 A. So Damballa was essentially a spinoff from my lab
13 based on our work in binary detection and DNS
14 monitoring and domain -- domain name reputation, and
15 so -- yeah. So the -- the main customers are
16 essentially big companies and big Internet service
17 providers.

18 Q. Is Damballa still around?

19 A. It was acquired by another company. I think it's
20 either called Core Security or something. I don't
21 remember.

22 Q. When was that?

1 A. I think 2016.

2 Q. Have you founded or cofounded any other companies
3 besides Damballa?

4 A. Yeah, I mean, a couple -- a couple of them in names
5 only. I mean, basically, you know, put a seed in the
6 ground. Nothing happen yet, so...

7 Q. Are those currently active companies? Is that what
8 you're referring to?

9 A. I wouldn't call them "active." But, you know, I
10 mean, I am still doing the, you know, background
11 research, and the idea has always been when our
12 research is ready we will spinoff from Georgia Tech.

13 Q. Have you served on the board of any companies other
14 than Damballa?

15 A. Not company but sometimes research institution. You
16 know, academic places, you know, for a couple of
17 years kind of thing. Yeah, advisory board.

18 Q. Like an advisory board to an academic institution?

19 A. Uh-huh.

20 Q. Is that what you mean?

21 A. Yes.

22 Q. Okay. Did any of your work at IBM or AT&T or

1 Intergraph involve host monitoring systems?

2 A. Not Damballa directly. AT&T maybe not. IBM,
3 possibly. So IBM I was doing agent-based system.
4 Tried to -- I think auction. Basically agent-based
5 auctioning system that was kind of, more or less, in
6 the, you know, early stage or in the midst of
7 Internet boom.

8 So agent, you know, auctioning was kind of
9 a real hot trend. So, again, talking about agents,
10 and so each agent works on a computer, of course, and
11 then they communicate, they form a committee, and
12 then they work on the rules for them to, you know,
13 prevent auctions. You want to prevent them from
14 cheating. All of those cool stuff.

15 Q. So did any of your work at IBM relate to network
16 security?

17 A. Not directly, but the -- but the supervisor, the
18 manager of that group, his name was Jeff Kephart. He
19 and this guy, name is Steve White, actually they were
20 the author of some famous paper in antivirus,
21 antimalware, and he, you know, show me a couple of
22 times, you know, the operations -- the secure

1 operations center. I think -- I forgot the name of
2 the technology. But pretty famous back then. I
3 think IBM actually commercialized their technology to
4 detect --

5 Q. So you -- sorry. Go ahead.

6 A. So meaning that -- so my -- my group manager when I
7 was at IBM that summer, he's actually -- he's an
8 expert in antimalware, antivirus, Jeff Kephart. I
9 think K-e-p-h-a-r-t, if I spell his name right. And
10 his boss, you know, which was also collaborator,
11 Steve White, W-h-i-t-e. If you Google around, you
12 will find them.

13 You know, authors of some early papers in
14 using AI to actually do better in terms of detecting
15 malware. And like I -- like I said, I believe -- I
16 believe that IBM -- IBM has a -- had a product at the
17 time which -- maybe to a lot of people's surprise.
18 And that product, I think, was based, to a logic
19 stand, based on some of the work that I did.

20 Q. But was your work at IBM focused on network security?

21 A. Well, so like I said, it's about auctioning,
22 agent-based auctioning system, and we do obviously

1 consider security, cheating, even some privacy thing.
2 Basically, simulating agents across the Internet.
3 Try to, you know, come to terms or bid something.
4 Yeah. So...

5 Q. Did any of your work at IBM or AT&T or Intergraph
6 involve dynamic malware analysis?

7 A. Not Intergraph. AT&T, we talk about -- AT&T, my work
8 was visualization, visualizing a ton of information,
9 so we did talk about actually, for example, how do
10 you visualize? And let's say if you attempt data of
11 a network of a system, how do you visualize it? When
12 you draw a graph, how do you don't make the nose
13 cutted together? All the edges cutted together? How
14 do you lay out beautifully and then people can zoom
15 in and all that.

16 So it's not from analysis point of view,
17 but more like displaying the information, you know,
18 based on some analysis tasks, so that -- like I said,
19 IBM, you know, the group actually have security
20 experts. So we do talk about what AI can be used,
21 you know, like I said, to analyze malware,
22 antiviruses all the time in group meetings.

1 The project that I did we did use a lot of
2 AIs. I think we used, actually, genetic algorithms,
3 to actually try to, you know, change some behaviors.
4 Also detect strange behaviors as well. So...

5 Q. And that was at IBM?

6 A. Yeah. Meaning that you don't assume the agent that
7 you are dealing with is automatically benign. You
8 know, you can try to imagine, you know, what if it's
9 malicious and it's a question how do you deal with --
10 how do you figure out are they malicious, right? And
11 also then, if you think it is, how do you deal with
12 it? How do you exclude it -- how do you, for
13 example, exclude a malicious agent from
14 participating? That kind of thing.

15 Q. Okay. I believe you said at the beginning of our
16 discussion today that you have served as an expert
17 witness before this case; is that correct? In other
18 cases.

19 A. That's correct, yes.

20 Q. All right. About how many times have you served as an
21 expert witness?

22 A. I counted about 16, 17 times.

1 Q. Are you aware of a court ever excluding your expert
2 testimony?

3 A. No.

4 Q. Are you aware of a court ever criticizing your
5 opinions?

6 A. No.

7 Q. Are you aware of a court ever finding your testimony
8 to be unreliable?

9 A. No.

10 Q. And when you have been retained as an expert witness
11 in each of those instances, was that in the computer
12 field, broadly speaking, or have you served as an
13 expert on anything other than computer-related
14 matters?

15 MR. HORTON: Object to form.

16 A. It's in computer field.

17 BY MR. BLYTHE:

18 Q. All right. And of the times you've been retained as
19 an expert, how many of them relate to malware?

20 A. Well, I would say that they all -- you know, I am
21 very -- so I think that most of them, if not all,
22 deal with security, some aspect of security, and

1 malware is always part of, you know, automatically
2 you talk about attacks. You talk about, okay,
3 what -- you know.

4 So malware -- what's malware? Malware is
5 the one actually runs the -- runs those malicious
6 activities. So my point is that, all these cases,
7 they deal with computer security and malware is -- is
8 almost always part of it or basically, in general,
9 when we talk about security, we talk about possible
10 malicious activities. Yeah.

11 Q. In this case, you have been retained by CrowdStrike;
12 is that correct?

13 A. That's correct.

14 Q. Outside of this case, do you have any other business
15 relationship with CrowdStrike?

16 MR. HORTON: Objection. Form. Outside the
17 scope.

18 A. Yeah, could you repeat your question again?

19 BY MR. BLYTHE:

20 Q. Sure. Outside of this case, do you have any other
21 business relationship with CrowdStrike?

22 MR. HORTON: Same objection.

1 A. So, again, like I said, I was obtained to help this
2 case by CrowdStrike. I don't have any other, you
3 know -- outside of this case, I don't have any
4 business relationships with CrowdStrike.

5 BY MR. BLYTHE:

6 Q. How did you first become aware of this case?

7 A. I was contacted by the counsel.

8 Q. Counsel for CrowdStrike?

9 A. Yes.

10 Q. And outside of this case, do you have any business
11 relationship with Open Text?

12 A. No, I don't.

13 Q. Do you recall when you were retained as an expert
14 witness in connection with this matter?

15 A. I -- you know, so maybe sometime last year. I mean,
16 I'm not certain. I mean, I can go back and look in
17 my record, but, yeah.

18 Q. So you think it was in the past year?

19 A. Yeah, I would say sometime last year. But any time
20 before that, I'm not sure. I think sometime last
21 year, I am more confident, yes.

22 Q. And you are being compensated for your time working on

1 this case; is that correct?

2 A. Yes.

3 Q. And are you being compensated by CrowdStrike?

4 A. I mean, I got my compensation from the -- from the
5 counsel -- from the law firm, from counsels.

6 Q. From counsel for CrowdStrike?

7 A. Yes.

8 Q. Are you being compensated from anyone other than
9 through counsel for CrowdStrike in connection with
10 your work in this case?

11 A. No.

12 Q. Is your compensation tied in any way to the outcome of
13 this inter partes review?

14 A. No.

15 Q. All right. On page 6 of your declaration,
16 Exhibit 1003, in the first paragraph, you say, at the
17 end, "I have no financial interest in Petitioner." Do
18 you see that?

19 A. Yes.

20 Q. And Petitioner, here, is CrowdStrike. Is that your
21 understanding?

22 A. Yes.

1 Q. Do you have any financial interest in any entity that,
2 to your knowledge, is affiliated with CrowdStrike?

3 A. Not that I know of, no.

4 Q. To your knowledge, has CrowdStrike ever funded any of
5 your research?

6 A. No. Not that I know of, no.

7 Q. In any of your roles at Georgia Tech, have you ever
8 attempted to retain funding from CrowdStrike for any
9 purpose?

10 A. No.

11 Q. Have you ever heard of the company AO Kaspersky Lab?

12 A. I don't know about AO, but I have heard of Kaspersky.
13 Yeah, I don't know the full name, the full company
14 name. No, I don't.

15 Q. And what is -- what does the company that you know as
16 Kaspersky do?

17 A. I believe Kaspersky --

18 Q. Actually, strike that. Let me ask that in a more
19 clear way.

20 What does the company that you know as
21 Kaspersky do?

22 MR. HORTON: Objection. Scope.

1 A. I think the Kaspersky company that I -- you know,
2 that I heard from news is -- on the news, we talk
3 about it's a -- I think like maybe a Russia-based
4 company. They do antimalware, antivirus service and
5 products, I think, yeah. But other than that, I
6 don't know. I don't know too much.

7 BY MR. BLYTHE:

8 Q. Do you have any financial interest in Kaspersky?

9 A. No.

10 Q. Have you ever heard of the company Trend Micro Inc?

11 MR. HORTON: Objection. Scope.

12 A. Trend Micro. Yeah. Again, like I said, I heard
13 about it, you know, read about it in the news, yeah.

14 BY MR. BLYTHE:

15 Q. Have you ever done any work with Trend Micro?

16 A. No. Not that I know of, no.

17 Q. Do you have any financial interest in Trend Micro?

18 A. No.

19 Q. Have you ever heard of the company Sophos?

20 MR. HORTON: Objection. Form.

21 A. Sophos, I think I see this name pop up every now and
22 then, yeah, sure. But what they do, I actually don't

1 have much insight.

2 BY MR. BLYTHE:

3 Q. Okay. Have you ever done any work with Sophos?

4 A. No.

5 Q. And do you have any financial interest in Sophos?

6 A. No.

7 Q. All right. We've looked at your declaration which is
8 Exhibit 1003 or Exhibit 2 in the deposition today.

9 That's your declaration. Correct?

10 A. Declaration -- you're talking about Exhibit 1003.

11 Right? Yep?

12 Q. Yeah.

13 A. Okay.

14 Q. That's your declaration.

15 A. Yes. Uh-huh.

16 Q. Did you speak with anyone about your declaration in
17 the course of it being prepared?

18 A. What do you mean by "anyone"?

19 Q. I mean, did you -- personally did you speak to anyone
20 at all about your declaration in the course of it
21 being prepared?

22 A. I did work with the counsel.

1 Q. And when you say "counsel," do you mean counsel for
2 CrowdStrike?

3 A. That's correct.

4 Q. Did you speak with anyone other than counsel for
5 CrowdStrike about your declaration in Exhibit 1003 as
6 it was being prepared?

7 A. No. Not that I know of, no.

8 Q. Are you familiar with the law firm Gibson, Dunn &
9 Crutcher, LLC?

10 MR. HORTON: Objection. Scope.

11 A. No. I mean, there are so many law firms. No. I'm
12 not familiar with the name, no.

13 BY MR. BLYTHE:

14 Q. Do you know if you talked with anyone from Gibson,
15 Dunn & Crutcher about your declaration in this case?

16 A. Not that I know of, no.

17 Q. Are you familiar with the law firm Paul Hastings?

18 MR. HORTON: Objection. Scope.

19 A. Again, I'm not familiar with this firm. I heard of
20 it, yeah.

21 BY MR. BLYTHE:

22 Q. To your knowledge, did you speak with anyone from Paul

1 Hasting about your declaration in this case?

2 A. No.

3 Q. Are you familiar with the law firm White & Case?

4 MR. HORTON: Objection. Scope.

5 A. No, I don't. No, I don't recall.

6 BY MR. BLYTHE:

7 Q. To your knowledge, did you speak with anyone from
8 White & Case about your declaration in this case?

9 A. No.

10 Q. Are you familiar with the law firm DeWitt LLP?

11 MR. HORTON: Objection. Scope.

12 A. No, I don't recall.

13 BY MR. BLYTHE:

14 Q. To your knowledge, did you ever speak to anyone from
15 the law firm DeWitt LLP in connection with your
16 declaration in this case?

17 A. No.

18 Q. Let's look at paragraph 53 of your declaration. It's
19 on page 39. Can you just read this to yourself,
20 Dr. Lee, paragraph 53, and then I have a question
21 about it.

22 A. Okay. So in -- in paragraph 53 of my declaration, I

1 said, "I have been informed by counsel that the" --

2 Q. Sorry, Dr. Lee, let me -- let me stop you. You don't
3 have to read it into the record.

4 A. Okay.

5 Q. If you'll just read paragraph 53 to yourself and let
6 us know when you've read it.

7 A. Yeah, yeah. Sorry. Yeah, I misunderstood. Okay.

8 Q. Okay. Have you had a chance to read paragraph 53?

9 A. Yes.

10 Q. All right. So, Dr. Lee, for your opinions in this
11 proceeding, did you apply the plain and ordinary
12 meaning to the claim terms that are at issue for the
13 '224 patent?

14 A. Yes, that's what I did.

15 Q. Okay. All right.

16 MR. BLYTHE: Ms. Pybas, if you would bring
17 up Exhibit 2021 and mark that as Exhibit 3 to the
18 deposition.

19 MARKED FOR IDENTIFICATION:

20 EXHIBIT 3

21 11:41 a.m.

22 BY MR. BLYTHE:

1 Q. All right, Dr. Lee, I'm showing you here what's been
2 marked as Exhibit 3 to this deposition which is
3 Exhibit 2021 in the IPR2023-00126. Do you recognize
4 this document?

5 A. Let me look at my exhibit list. I browsed through
6 all the documents that are listed in the exhibit
7 list, but -- what's this again?

8 Q. So Exhibit 3 is a copy of a claim construction order
9 issued by the United States District Court for the
10 Western District of Texas that relates, in part, to
11 the '224 patent. Have you reviewed this order, Dr. --
12 previous before today, Dr. Lee?

13 A. Again, like I said, I am looking through the list of
14 exhibits I -- that I was -- that I was using for my
15 declaration. I just -- at the moment, I don't see it
16 on the list. Yeah.

17 But like I said, you know, I looked at all
18 the exhibits but I cannot remember every single
19 detail. Right? So if you can point me to say, hey,
20 that's the -- that's exhibit number whatever in my
21 declaration then I can say, yeah, I can probably try
22 to recall I read it. But if it's not listed in the

1 list of exhibits in my declaration, then all I can
2 say is I was not given this to look at when I -- when
3 I wrote my declaration.

4 Q. Dr. Lee, my understanding is that this order did not
5 issue from the Court until after your declaration. So
6 my question is, have you reviewed this order at any
7 time including since you submitted your declaration?

8 MR. HORTON: Objection. Scope.

9 A. So like I said, my understanding here is that we are
10 discussing the declaration and my opinion that I
11 offer in the declaration. So thank you for reminding
12 that this was issued after the declaration was filed.
13 So, no, I have not looked at this because this is not
14 in the scope of my work.

15 BY MR. BLYTHE:

16 Q. Okay. So just to be clear, you have not considered
17 the Court's construction of certain claims in the '224
18 patent as part of your opinions in this case; is that
19 right?

20 MR. HORTON: Same objection.

21 A. So like I said, my understanding here is that we are
22 discussing our -- my opinions that I outlined in my

1 declaration. And like I said in paragraph 53 of my
2 declaration in terms of claim construction at the
3 time when I was writing my declaration, I was using
4 the plain and ordinary meaning of the terms, and
5 that's the scope of my work.

6 BY MR. BLYTHE:

7 Q. Since the time of your declaration, have you
8 considered the Court's claim construction that is in
9 Exhibit 3 to your deposition?

10 MR. HORTON: Objection. Scope.

11 A. So are you talking about Exhibit 3 that we are seeing
12 right now on the screen?

13 BY MR. BLYTHE:

14 Q. Yes.

15 A. Like I said, this is out of scope of my work. I was
16 not -- I was never -- I was never told this is within
17 the scope of my work.

18 Q. And just to be clear, my question is not --

19 A. So hold on. When I say scope of work, I mean my
20 declaration, the opinions I offer in my declaration.

21 Q. Okay. And just to be clear, Dr. Lee, my question
22 isn't about what the scope of your work is. My

1 question is --

2 A. Uh-huh.

3 Q. -- have you at any time considered the Court's claim
4 construction, that we're looking at as Exhibit 3 to
5 your deposition?

6 MR. HORTON: Objection. Scope.

7 A. So like I said, I was asked to work on this case and
8 then I delivered the declaration. And at the time I
9 was using the plain and ordinary meaning of all the
10 terms. So that's where my opinion stands.

11 BY MR. BLYTHE:

12 Q. Okay. So you have not considered the district court's
13 claim construction that are in Exhibit 3 to your
14 deposition as part of your opinions in this case; is
15 that correct?

16 MR. HORTON: Objection. Asked and
17 answered.

18 A. So like I said, my opinions are all written in the
19 declaration and they were all based on the plain and
20 ordinary meaning of the terms.

21 BY MR. BLYTHE:

22 Q. So have you considered the court's claim construction,

1 Dr. Lee?

2 MR. HORTON: Same objection.

3 A. But like I said, when I wrote the declaration there
4 was no claim construction given to me so I just used
5 the plain and ordinary meaning of the claim terms.

6 BY MR. BLYTHE:

7 Q. Yeah. And to be clear, I'm asking, have you at any
8 time considered the district court's claim
9 construction regarding the '224 patent.

10 MR. HORTON: Same objection.

11 A. Like I said, I was basically asked to offer opinion
12 on '224 case. I wrote a declaration. And so my
13 opinions, they are all expressed in the declaration.
14 And as paragraph 53 says, I was using the plain and
15 ordinary meaning to the claim terms because that's
16 what's available at the time.

17 BY MR. BLYTHE:

18 Q. And respectfully, Dr. Lee, I don't know if we're
19 missing each other here, but you're not answering my
20 question. So my question is not what did you put in
21 your declaration or what was the scope of your work.

22 My question is, have you at any time

1 considered the district court's claim construction
2 regarding the '224 patent that are set forth in
3 Exhibit 3 to your deposition?

4 MR. HORTON: Object to form. Scope. Asked
5 and answered.

6 A. So I think that anyone who actually writes the
7 declaration, including me, would basically have the
8 claim -- would have to consider claim construction.
9 Right? That's why paragraph 53 was there.

10 But like I said, when I was asked to write
11 that, you know, I was based on -- basing my opinions
12 on the plain and ordinary to the claim terms because
13 that's what's available. I mean, that's the opinions
14 that I have been basing, again, the plain and
15 ordinary meaning to the claim terms, and that's
16 really the scope of my work and that's what I feel
17 comfortable discussing actually.

18 BY MR. BLYTHE:

19 Q. Okay. And I just want to be clear in case we have to
20 come back to this, and my hope is we don't have to get
21 back together again after today. But I'm asking a
22 very clear and straightforward question and you're not

1 answering it, and so I can't tell if it's because we
2 don't understand each other or because you're refusing
3 to answer my question.

4 And so just to be clear, for the record, my
5 question is not what did you consider in connection
6 with your declaration or what was in the scope of your
7 work. My question to you is, have you at any time
8 considered the district court's claim construction for
9 the '224 patent that is in Exhibit 3 of your
10 deposition?

11 MR. HORTON: Same objection.

12 A. So like I said --

13 THE WITNESS: Yeah. Thank you.

14 A. Like I said, when I was writing the draft, whatever
15 was available, I would consider. Right? So, again,
16 I end up --

17 BY MR. BLYTHE:

18 Q. And just to be clear, my question is not limited to
19 the time you were writing your draft of the
20 declaration. At any time have you considered the
21 Court's claim construction, Dr. Lee?

22 MR. HORTON: Same objections.

1 A. Like I said, at any time when I was asked to do the
2 work, if there is a court document that I should
3 consider I would consider. But like I said, when I
4 was writing the draft, writing my declaration, that
5 wasn't given to me, so...

6 BY MR. BLYTHE:

7 Q. And I just want to be clear that you're changing my
8 question when you give your answer and that's not my
9 question. My question is, Dr. Lee, at any time,
10 including after you submitted your declaration in this
11 case, have you considered the district court's claim
12 construction for the '224 patent that's in Exhibit 3
13 to your deposition?

14 MR. HORTON: Same objections.

15 A. Like I said, I was never asked to look at anything
16 beyond what I been using and anything beyond my
17 declaration, so I don't understand why that question
18 would ever come up.

19 BY MR. BLYTHE:

20 Q. Well, frankly, you don't -- you don't have to. You
21 just have to answer the questions that I pose to you.
22 And it is my understanding that you are now refusing

1 to answer my question as to whether you have ever
2 considered the district court's claim construction.
3 Are you, in fact, refusing to answer my question?

4 A. Not really. I mean, the way I interpret your
5 question is to say, have I ever consider. I mean, to
6 me, as expert witness, when I was asked to write the
7 declaration of course I would consider if there's
8 something available. Right?

9 In fact, I will always ask, hey, where are
10 the claim constructions. Right? What can I rely on?
11 And the answer is the plain and ordinary meaning.
12 That means there's nothing I need to worry about.

13 So that's --

14 Q. My question --

15 A. -- so that's -- hold on. Hold on. That's why I say
16 I did consider, but it wasn't there for me to
17 consider. That's why the answer was no when I was
18 writing the declaration. Doesn't mean I didn't
19 intend to consider. I have every single intention to
20 consider everything that I should consider.

21 But the fact that I did not use means that
22 it was not available. Doesn't mean that I didn't

1 want to consider. You see what I'm saying? I don't
2 want to fall into some kind of a dispute of the term
3 here.

4 Q. Since the time that you signed your declaration -- you
5 signed your declaration in October -- on October 9th
6 [sic]; is that correct?

7 A. Let me take a look. Yes.

8 Q. Okay. So since October 29th, 2022, have you formed
9 any new opinions about this case in connection with
10 the district court's claim construction directed to
11 the '224 patent?

12 A. So obviously all the opinions have been expressed in
13 the declaration. I have no new opinions to offer at
14 this time.

15 Q. Okay. Okay.

16 MR. BLYTHE: All right. Let's pull up
17 Exhibit 1001 from IPR2023-00126 and we'll mark that as
18 Exhibit 4 to the deposition.

19 MARKED FOR IDENTIFICATION:

20 EXHIBIT 4

21 11:52 a.m.

22 BY MR. BLYTHE:

1 Q. All right. Do you recognize, Dr. Lee, the document
2 that has been marked as Exhibit 4 to your deposition
3 and Exhibit 1001 from IPR2023-00126?

4 A. Yes. So this is the '224 patent. Right? Yeah.
5 Okay. It's verified. You know, cross-referenced my
6 printout, yeah.

7 Q. In paragraph 24 of your declaration, you describe the
8 '224 patent as relating to "methods and systems for
9 providing forensic visibility into client systems
10 having full audit trails."

11 Do you see that?

12 A. Yes, I see that.

13 Q. Okay. What does -- what do you mean by "forensic
14 visibility"?

15 A. So -- let's see here. I think paragraph 24 in my
16 declaration goes on to explain what forensic means.
17 Right? So here it means that "[n]etwork forensics
18 generally relates to the capture, recording, and
19 analysis of network events in order to discover the
20 source of security attacks or other problem
21 incidents."

22 And then explain that, you know, the -- it

1 talk about the limitation of the network forensics.
2 It goes on and I think -- yeah. And then it goes on
3 and other -- it goes on, in paragraph 25, the further
4 details of the typical network forensic and its
5 analysis.

6 And then paragraph 26 talks about the
7 mention of '224. Right? The technology that '224
8 claims to be improving network forensics and talk
9 about basically -- so here it talks about, you know,
10 '224 provides "methods by which 'events occurring
11 within a computing device are captured and additional
12 context and a global perspective is provided for each
13 capture event," so...

14 Q. Dr. Lee, did you read the '224 patent as part of your
15 work in this case?

16 A. Yes, I did.

17 Q. The whole thing?

18 A. Yes.

19 Q. Okay. And do you have an understanding of what
20 forensic visibility means?

21 A. So I don't really recall whether they define a term,
22 say "forensic visibility," but like one -- what is

1 cited here, it talks about -- I really think that the
2 paragraph 26 and 27 talks about the kind of event and
3 relevant information that would be captured.

4 And in general -- I mean, again, the
5 information can be very broad -- broadly defined,
6 information relevant to event. So a POSITA would
7 agree that "forensic detection" means anything you
8 can capture relating to some event.

9 And "visibility" means that you are able
10 to capture them. You are able to analyze it.
11 That's -- maybe I take that back. Visibility means
12 that you can actually see or means that you can
13 capture it. You can see it. You can capture it. In
14 general.

15 Q. What is a full audit trail?

16 A. So again -- let me -- let me see whether the '224
17 patent actually.

18 Defines the term. And if not, I probably
19 would just say that any POSITA -- you know, person of
20 ordinary skill in the art -- would understand that --
21 let me see here. Audit trail...

22 I'll just say that in '224 patent if it

1 talks about -- you know, like I said in my
2 declaration, when I give the overview of '224 patent,
3 in particular I think I really -- paragraph 24, 25,
4 26, 27 talks about the kind of information that's
5 being captured and being analyzed. So you go back to
6 beginning of paragraph 24 -- let me see here -- 17
7 through 20. How do they describe that? Let me see.

8 Yeah, so I -- so like I said, I couldn't
9 find a precise definition of what they meant by audit
10 trails so I would just say that POSITA would
11 understand that when -- you know, at the beginning of
12 '224, when I said that the methods and "systems for
13 providing forensic visibility into client systems
14 having full audit trail."

15 Normally it's -- full audit trail just
16 means that you actually log in order everything that's
17 happened on your system.

18 So, you know, the scope, again, very
19 broadly depends on what you want, what you want to
20 accomplish. POSITA would understand that for security
21 you would make sure that certain things would be
22 audited or locked. And then forensic visibility would

1 be that you can actually analyze data from those logs,
2 maybe something in addition, you know, to make
3 determination of the security of the system.

4 Q. Okay. In paragraph 25 of your declaration, you refer
5 to a sniffer. Do you see that?

6 A. Yes.

7 Q. What is a sniffer?

8 A. I think a POSITA would explain to you -- I don't know
9 whether -- again, refer to '224 if it helps you, if
10 it's on the definition of sniffer -- and let me see
11 here.

12 Yeah, so in '224 patent it talks about --
13 so if you look at column 1, line, I think, 34, it
14 talks about network forensics generally relates to the
15 capture recording analysis of network events in order
16 to discover -- oh, no. Sorry -- strike that.

17 Let me talk about -- let me start with
18 paragraph -- line 36 of the '224 patent in column 1.
19 Say, "However, existing network forensic tools, such
20 as network sniffers and packet capturing tools,
21 passively collect information about network traffic."

22 So basically that's essentially a reference

1 to what network sniffer is doing. Essentially is a
2 kind of -- these are forensic tools and it captures
3 traffic. Captures -- you know, capture information
4 about network traffic.

5 And it goes on to say, "Such tools may be
6 able to detect and capture information associated with
7 communication sessions, such as hostnames, ports,
8 protocols, IP addresses, et cetera." Yeah. So
9 that's --

10 Q. Wait. Apart from reading to me the '224 patent, do
11 you, as a person who claims to have ordinary skill in
12 the art, have a knowledge of what a sniffer is?

13 A. Yeah. So, I mean, I was, you know, making sure that
14 we're talking in the context of '224 as well. POSITA
15 would tell you that sniffer essentially is a -- is
16 part of the forensic, you know, capabilities that you
17 would have. It involves capturing information about
18 the activities you want to monitor, basically. You
19 sniff --

20 Q. And the --

21 A. Yeah. You capture. Yeah.

22 Q. Is a sniffer an edge device?

1 A. I mean, to be honest, a POSITA would tell you that
2 depending on what you want to do you can place the
3 sniffer in many places.

4 Q. So is it your testimony that a sniffer is not just an
5 edge device?

6 MR. HORTON: Object to form.

7 A. Like I said, you can place anywhere you want
8 depending on what you want to do. I can place on my
9 laptop, too, to sniff.

10 BY MR. BLYTHE:

11 Q. Do sniffers have the ability to monitor what is
12 occurring within a computing device on a network?

13 A. So if we talk about network sniffer, you can actually
14 capture information about traffic or network packets
15 coming in and out of a computer, not just a network.

16 You can say, hey, I want to look at -- for
17 this particular computer, you can configure your
18 sniffer or your analyzer's data you capture by
19 sniffer more carefully to say specifically zoom into
20 traffic in and out of that computer. And from there
21 depends on the activity. Sometimes you can infer
22 what's going on on the host actually.

1 Q. Column 1, starting at line 45 of the '224 patent
2 starts with "Accordingly. Do you see that?

3 A. Sorry, which line again? Can you point me to it?

4 Q. Column 1, line 45.

5 A. Okay. Yeah.

6 Q. It says, "Accordingly, network edge devices have no
7 ability to establish any sort of context from within
8 the host or system that is generating the event."

9 Do you see that?

10 A. Yep, I see that. Yep.

11 Q. All right. So do you agree that a sniffer is a
12 network edge device?

13 A. So, again, you have to quantify sniffer. As a
14 network, sniffer plays at the edge, then, yes, that
15 would be edge device. But as I said, I could put a
16 network sniffer on my computer too if I want to.

17 Q. And do you agree that network edge devices have no
18 ability to establish any sort of contact from within
19 the host or system that is generating the event?

20 A. So, again, if you talk about this absolutely not,
21 that's a -- I think no POSITA would agree that.
22 Really depends on context to actually pick out -- and

1 also really depends on what do you mean by context?
2 For example, if I have a network edge device
3 monitoring traffic to a website, I can kind of, you
4 know, infer, you know, what the browser and
5 computer -- and computer is doing. So there's some
6 insight into what's happening on your computer.

7 Now, can I also infer other programs
8 running on your computer that's -- then don't do
9 network communication? Maybe not. Right? So really
10 depends on the context, so...

11 Q. Okay. The claims -- excuse me. I'll start over here.
12 The claims of the '224 patent refer to an event. Do
13 you see that? For example, in Claim 1.

14 A. Yes. I can see, yes, you mean the Claim 1. Yeah.
15 Okay. Yeah. "Gathering an event," yes.

16 Q. And an event also appears in Claim 10. Do you see
17 that?

18 A. Let me see here. Yeah. Uh-huh.

19 Q. And an event also appears in Claim 17. Do you see
20 that?

21 A. 17... yep.

22 Q. All right. What is your understanding of an "event"

1 in the context of the '224 patent?

2 A. So I would use the definition of the claim language.
3 Right? It's an event "defining an action of a first
4 object acting on a target." That's an event.

5 Q. An event is an action of a first object acting on a
6 target?

7 A. Well, according to the claim language here.
8 That's one example of an event.

9 Q. Go ahead.

10 A. That's an example -- at least one example of an
11 event.

12 Q. I believe you testified earlier today that you applied
13 the understanding of the claim terms that a person of
14 ordinary skill in the art would have; is that correct?

15 A. So maybe I misunderstood your question. You say, you
16 know, what does "event" mean here? I mean, that --
17 so that's why I'm using the claim language. The
18 language -- the definition what claim is referring to
19 in the claim, in Claim 1.

20 What I'm trying to say here is that
21 Claim 1, when you talk about an event, it talks about
22 an event. In this case, I think the Claim 1 referring

1 to an action of a first object acting on a target.

2 I'm not talking about generally what event
3 would mean. I'm talking about specific to this
4 Claim 1.

5 Q. Okay. Let's flip back to page 39 of your declaration,
6 paragraph 53. We talked earlier at some length about
7 claim construction in this case. Do you recall that?

8 A. Yes.

9 Q. And I believe you testified that you applied the plain
10 and ordinary meaning of the claim terms that are at
11 issue in the '224 patent; is that right?

12 A. Can you repeat your question again?

13 Q. I believe you testified that you applied the plain and
14 ordinary meaning of the claim terms that are at issue
15 in the '224 patent in your declaration; is that right?

16 A. That's right. Yep.

17 Q. Okay. And the plain and ordinary meaning is the
18 meaning that -- sorry. Let me strike that.

19 And the plain and ordinary meaning is the
20 ordinary and customary meaning as understood by a
21 person having ordinary skill in the art at the time of
22 the invention in light of the patent specification.

1 Is that your understanding?

2 A. Yes.

3 Q. Okay. So then, Dr. Lee, what is your understanding of
4 the plain and ordinary meaning of the term "event" as
5 it is used in the claims of the '224 patent?

6 A. So, again, when we -- I want you to ask me -- are you
7 asking me the contents of Claim 1 of '224, what
8 "event"? Versus, in general, the plain construction
9 meaning of "event"?

10 Q. What I'm asking you is what did you understand the
11 term "event" to mean in the context of your
12 declaration? So you -- and I can strike that and try
13 to clarify for you.

14 So we just agreed, I think, Dr. Lee, that
15 you applied the plain and ordinary of the claim terms;
16 is that correct?

17 A. That's correct. Yep.

18 Q. That's what you say in paragraph 53 of your
19 declaration. Right?

20 A. That's correct.

21 Q. Okay. So what is the plain and ordinary meaning of
22 "event" that you applied in your declaration in this

1 case?

2 A. So "event," plain and ordinary meaning is just an act
3 or activity. Something happen. So in the '224
4 patent, when something happen on your computer,
5 that's an event.

6 Q. Okay. The claims of the '224 patent also refer to
7 "contextual state information." Do you see that? For
8 example, in Claim 1.

9 A. Yes.

10 Q. Claim 10 also refers to "contextual state
11 information." Do you see that?

12 A. Yes.

13 Q. And Claim 17 refers to the "contextual state." Do you
14 see that? And "contextual state information." Do you
15 see that in Claim 17?

16 A. Let me see here...

17 Q. At the bottom of column 27.

18 A. Yep. Uh-huh.

19 Q. So is your understanding --

20 A. Yes. Sorry. Go ahead.

21 Q. What is your understanding of "contextual state
22 information" as it's used in the '224 patent?

1 A. Let me look at my declaration.

2 Sorry, I think my -- I think I kind of
3 screw up -- okay. All right. Let's see here.

4 So can you repeat your question again?

5 Q. What is your understanding of "contextual state
6 information" as it's used in the '224 patent?

7 A. Yeah, I think I talk about this in my declaration.
8 Let me see here. I need to jump to that.

9 Yeah, let me look at the patent. I think
10 it talks about some examples of contextual state
11 information. Let me see.

12 Yeah. So if you look at the patent '224,
13 it talks about, I think, column 8, line 50, it talks
14 about "Contextual state information may include, but
15 is not limited to, originating processes, devices, and
16 uses. Additionally, contextual state information may
17 include Genesisactor information and ancillary data."

18 So I really think that contextual state
19 information can be quite a number of things and, you
20 know, here in line 50 to 53, it gives some examples.

21 Q. So is it your testimony that a person of ordinary
22 skill in the art would understand contextual state

1 information means the package you just read from,
2 column 8, lines 50 through 53?

3 A. I -- you know, my opinion is that a person of
4 ordinary skill in the art would agree that, for
5 example, line 50, is a good example of what
6 contextual information could be. Like I said,
7 contextual information may include but is not limited
8 to originating processes, devices, and uses, and
9 that's pretty broad stroke of things.

10 Q. Okay. So you, Dr. Lee, testified that you read the
11 entire '224 patent. Correct?

12 A. Yes, I have read the patent. Yes.

13 Q. And you testified that you have applied the plain and
14 ordinary meaning of the claim terms in your
15 declaration. Correct?

16 A. Yes.

17 Q. So do you have an understanding of the plain and
18 ordinary meaning of contextual state information?

19 MR. HORTON: Objection. Asked and
20 answered.

21 A. So, as I said, if I read something in the patent
22 that's -- ah, a person of skill would agree that's a

1 plain and ordinary meaning. I would use that. So
2 the example I just gave, line 50, is an example of
3 plain and ordinary meaning of contextual state
4 information that a POSITA would agree in the context
5 of this subject matter.

6 BY MR. BLYTHE:

7 Q. All right. The '224 patent refers to objects
8 throughout the specification and claims. Correct?

9 A. Yes. It talks about objects, yes.

10 Q. Okay. What is your understanding of what an "object"
11 is in the computer security industry?

12 A. Let me see here. The '224 patent also uses a plain
13 and ordinary meaning that I would agree and I think
14 POSITA would agree as well. So let me try to find
15 that and refer to it. Previously, I saw it.

16 I'm a little bit messed up with all these
17 papers, so let me -- okay. So let me see here.

18 Q. Doctor, do you have an understanding of what the term
19 "object" means in the computer security industry
20 generally?

21 A. So I would say that a POSITA would agree that an
22 "object" can be -- an "object" is something that

1 you -- that the computer operates or stores. I mean,
2 that would be the, you know, most plain and ordinary
3 meaning. And, of course, depending on the context,
4 you may say, well, here "object" means this
5 particular kind of things.

6 But in general is something that basically
7 a computer "object" is something that the computer or
8 programs on the computer would operate on or
9 something that would be -- that you would be -- that
10 you would be storing on a computer or server. Yeah.
11 That's object.

12 Q. So in trying to understand what the "object" is, the
13 "object" is not the computer itself. Right?

14 A. No. Hold on. I mean, can be a computer too. I
15 mean, object is object.

16 Q. Well, in the context of computer security, is a
17 computer an object?

18 A. Well, I mean, you talk about network security or
19 internet security sometimes you think about a
20 computer as an object too. Yeah. So really
21 depending on the context.

22 Q. Okay. So how do you determine whether the computer

1 itself is an object or if it's just something to
2 operate on or restored on a computer?

3 A. So, again, "object," in the plain and ordinary
4 meaning, would be "object" is a thing. So computer
5 is a thing that in your scheme of -- you know, in
6 operations, you say, do you interact with a computer,
7 then the computer is the object.

8 Q. Okay. So in the context of the '224 patent, is the
9 computer an object?

10 A. Yeah, I mean, a POSITA would -- sometimes they would
11 think that way, yes.

12 Q. So it's your testimony that -- Dr. Lee, that a person
13 of ordinary skill in the art would understand. And in
14 the context of the '224 patent, when it refers to an
15 "object," that that "object" may be a computer.

16 A. So like I said, I think a POSITA, if asked them what
17 '224 is, they would read the patent and read the
18 claim language and say, hey, in this particular
19 sentence, what "event" means, what "object" means.
20 But, see, in general, the technology that the '224 is
21 dealing with, can object be a computer? Well, I
22 mean, depends. I guess it depends on -- depends on

1 the security context. It could be.

2 Q. But now I'm asking -- sorry. Go ahead.

3 A. Could be.

4 Q. So in the context of the '224 patent, is an "object" a
5 computer?

6 A. Like I say, in the context of detecting malicious
7 attacks, malware attacks from a global scale
8 perspective kind of thing, I mean, you know,
9 depending really -- depends on -- a POSITA would say
10 that depends on [audio distortion]. If they say I'm
11 trying to basically characterize, okay, now, service
12 attacks, I mean multiple computers participating in
13 attacks, in those case computers are objects too.
14 Target and the subject. Whatever. Yeah.

15 Q. Once again, we're having the problem of you not
16 answering my question, Dr. Lee. My question is, in
17 the context of the '224 patent, would an "object"
18 include a computer?

19 MR. HORTON: Objection. Asked and
20 answered.

21 A. So, again, really depending on, you know, which
22 paragraph, which claim language -- which claim terms

1 you can talk about, then we can actually, you know,
2 given a proper context, given a proper scope of work
3 in that particular paragraph what "event" means, what
4 "object" means. But in general, if you say --

5 [Simultaneous Speaking]

6 A. Hold on. Hold on. If you say '224 is about this
7 kind of subject, computer security, well, in computer
8 security, yes, like I said, computer can be object
9 too. Object can mean many different things depending
10 on the nature of the attack that you want to
11 characterize.

12 Q. Okay. Let's look at -- let's look at Claim 1.

13 A. Okay.

14 Q. Claim 1 -- Claim 1 refers to the "object." Right,
15 Dr. Lee?

16 A. Claim 1.

17 Yes. Okay. Are you talking -- hold on.
18 Are you talking about a first object?

19 Q. That's one place that refers to an object. Right? It
20 refers to a "first object" in Claim 1.

21 A. Okay.

22 Q. Do you see that?

1 A. Yep.

2 Q. So what is an "object" in the context of Claim 1 of
3 the '224 patent?

4 A. So they actually did not give a definition of -- of
5 "first object" here, but looking at the context, it
6 is something that executes. Being executed. 4.

7 So I would -- like I said, a POSITA, a
8 person of skill of ordinary -- in the art, would
9 agree that in this case object would be a program or
10 process. Whatever you want to call it. In this
11 particular claim term.

12 Q. So in Claim 1 of the '224 patent, would an "object" be
13 a computer?

14 A. Not in this particular Claim 1 sentence, no.

15 Q. So in the context of Claim 1, an object, I believe you
16 said, is a program or a process; is that right?

17 A. This is one example. Like I said, did not give a
18 definition of "object," but it's -- you know, talk
19 about, well, the first object is executed on a
20 device. So meaning that it's something that is
21 executed.

22 Q. Okay. And you, Dr. Lee, have testified several times

1 under oath that you applied the plain and ordinary
2 meaning of the claim terms in this case. Correct?

3 A. Yes.

4 Q. All right. And so what is the plain and ordinary
5 meaning of "object" that you applied in connection
6 with Claim 1?

7 A. Claim 1, I would say that this is something that --
8 something that's being executed. And like I said, a
9 program or process is one of them. Could be some
10 other things.

11 Q. And what else?

12 A. Really depends. Right? So let's say you browse --
13 you click on something that's causing something to
14 execute too. So is that browser being executed or
15 URL being sent? So really depends on verifying grain
16 details in terms of what you want the context to be.
17 So a POSITA will say exactly what scope, what context
18 you want to mean, but a peer would agree that it's
19 something that you're executing.

20 Q. Well, the context is Claim 1 of the '224 patent. So
21 in that context, what, other than something that is
22 being executed, is an "object," in your definition?

1 A. So like I said, in this -- in the -- in the -- in the
2 explanation that's offered. Right? Within the
3 context of this Claim 1, this particular sentence, it
4 talks about an action of a first object acting on a
5 target wherein the first object is executed.

6 So obviously it says very clearly in this
7 case, here, the first object refers to something
8 that's being executed.

9 Q. Like a program?

10 A. Program is one example, like I said, yes.

11 Q. Or a process?

12 A. Well, when you execute a program, they call this
13 thing is a process.

14 Q. All right. The claims of the '224 patent also refer
15 to an "originating object." Do you see that in
16 Claim 1?

17 A. Yeah, you mean the next sentence? Yeah. Uh-huh.

18 Q. And Claim 10 also refers to an originating object.
19 You see that?

20 A. Let me see claim terms. Yes. Yeah, I see it.

21 Q. Claim 17 also refers to an "originating object"?

22 A. Let me see here. Let me see. Where is it?

1 Q. Top of column 28.

2 A. Okay. Let's see. Okay. Yep. I see that.

3 Q. What is your understanding of an "originating object"
4 in the context of the claims of the '224 patent?

5 A. Okay. So I think we have discussion about this in my
6 declaration. Let me see here.

7 Q. Dr. Lee, several minutes have passed. Can I ask what
8 you're trying to find?

9 A. I want to find the reference of example of
10 originating processes in the patent. But, you know,
11 what was your question again?

12 Q. Yeah, my question is, what is your understanding of an
13 "originating object" in the context of the claims of
14 the '224 patent?

15 A. Let me see here. Okay. Let me see here. So, I'm
16 sorry, I apologize again. So can you repeat the
17 question again?

18 Q. Yes. For the third time now --

19 A. Okay.

20 Q. -- what is your understanding of an "originating
21 object" in the context of the claims of the '224
22 patent?

1 A. Yeah, so, again, we are applying -- I'm trying to
2 find the definition or reference from '224 patent
3 about an originating object, but I am sure I will
4 find something close to that.

5 Essentially, originating object would be --
6 an originating object would be one of those objects
7 that, if you look at a chain of parent/child
8 relationship or object, you know, operating --
9 operating, acting on another object kind of chain
10 of -- chain of events, this is one of those --
11 basically one of those.

12 An originating object would be, if you say,
13 here's the first object. What's an originating object
14 of the first object? They would be looking at the
15 chain of events or parent/child relationship leading
16 to the first object, and originating object would be
17 one of those. So basically a chain of events and
18 objects and there are normally multiple so-called
19 originating objects so -- and originating object is
20 one of them.

21 Q. Is looking at the chain of originating objects part of
22 an audit trail? In the context of the '224 patent.

1 A. I believe I looked at it. Let me see here.

2 Yeah, so I -- in my declaration,
3 paragraph 85, I talk about "The '224 Patent describes
4 this process of correlating an object to an
5 originating [process], device, or user as forming an
6 'audit trail' of an event."

7 By the way, this also gives an example of
8 an audit trail. That's in column 12, 61 to -- line 61
9 to 66. And I think I quoted here to say,
10 "Accordingly, the context analyzer 348 correlates
11 objects within system events to additional objects
12 known to exist. For example, the context analyzer 348
13 may correlate an actor, victim, and/or event type to
14 one or more originating processes, devices, and users.
15 Such a correlation creates an audit trail for each
16 individual event."

17 And by the way, just to supplement what I
18 said earlier, this is example of "audit trail" as
19 well.

20 Q. So there may be one -- more than one originating
21 object associated with an event; is that right?

22 A. Well, again, at the beginning of my paragraph 85 I

1 talk about correlating an object to an originating
2 process. So I would say that what this says is,
3 giving you a reference, an example, to having
4 multiple originating processes to this object too,
5 you know.

6 Q. All right. The claims of the '224 patent also refer
7 to a "global perspective." Do you see that? Claim 1,
8 for example.

9 A. Yes. Claim 1, a "global perspective," yes.

10 Q. Claim 10 also refers to a "global perspective."

11 A. Yes.

12 Q. And Claim 17 also refers to "global perspective." Do
13 you see that?

14 A. Yes.

15 Q. What is your understanding of a "global perspective"
16 in the context of the claims in the '224 patent?

17 A. Okay, let me refer to my discussion in the -- in my
18 declaration.

19 Q. Okay. Well, while you're pulling that up, Dr. Lee --

20 A. Uh-huh.

21 Q. -- would a person of ordinary skill in the art have an
22 understanding of a global perspective in the context

1 of the '224 patent?

2 A. I would say that a POSITA would say, you know,
3 "global" is actually -- we understand "global
4 perspective" related to -- relative to local
5 perspective, I would say.

6 So "local" means that you only have -- are
7 looking at one computer. That's -- you know,
8 anything happening only on this computer without
9 having any external inference or you don't inference
10 others. Local. Let's say you edit file, install
11 locally, that's basically local perspective.

12 Global perspective would involve, you know,
13 other computers, other events, other objects,
14 whatever, beyond your local computer. I mean, that's
15 my plain and ordinary meaning of "global perspective."

16 Q. And is that your understanding of what "global
17 perspective" means in the context of the claims of the
18 '224 patent?

19 A. So, again, that's why I try to pull up and see if
20 they give an example of what they want this to --
21 what they're referring to within the context of the
22 claim language. So let me see.

1 Give me just a moment.

2 A. Yeah. So, really, I mean, if you look at -- let me
3 look -- finish looking at the other references I
4 have. Let me see here.

5 Okay. So I think I talk about this in my
6 declaration, paragraph 87. So I said, in
7 paragraph 87, in my declaration, that "I note that the
8 '224 patent explains that 'obtaining a global
9 perspective for the at least one event' includes
10 'obtaining information associated with one or more of
11 the first object and the originating object' such as
12 'a determination as to whether the first object is
13 malware' as to whether the first object is malware'
14 and 'a determination as to whether the originating
15 object is malware.'"

16 And then I cited language in the '224
17 patent. Right? So I have to give you some example
18 that actually kind of help explain what '224 is
19 referring to when it talks about "global perspective."

20 So if you look at --

21 Q. So if I understand your testimony --

22 A. Yep.

1 Q. -- the excerpts from the '224 patent that you cite in
2 paragraph 87 of your declaration explain to a person
3 of ordinary skill in the art what a "global
4 perspective" means in the context of the '224 patent?

5 A. Like I said earlier, really, the plain -- POSITA
6 would agree that global perspective actually is
7 relative to local perspective. Local perspective is
8 where you -- you only use the local information.
9 There's no external inference, no external input
10 normally.

11 Global perspective is that you -- you gain
12 information or the perspective would tell you that,
13 you know, based on the information that you obtain,
14 then your local information, yeah, that's how you
15 derive a global perspective. I think that's what
16 a -- I mean, that -- I would say that a POSITA would
17 agree that's global perspective.

18 And then I tried to point you to, more
19 specifically, what '224 is referring to in the
20 context of this patent. You know, so some examples
21 of global perspective. That's what I'm trying to
22 say.

1 Q. In paragraph 87 of your declaration?

2 A. Yeah. So what I'm saying is, in 87 I point you to
3 examples in the patent, '224, that talks about, for
4 example, right, in the patent -- '224 patent, column
5 9 -- column 9, lines 26, 28, it talks about the
6 global perspective may -- information may include
7 information related to the age or plurality and
8 elimination of an object of the event, whether it is
9 known, good, bad, or unknown.

10 So the global perspective information may
11 be achieved or otherwise obtained for each object of
12 an event and any objects provided as part of the
13 contextual information state.

14 So it talks about global perspective will
15 be something that, hey, if you know that this is bad,
16 then you can form a global perspective because you
17 have this piece of information that's global
18 perspective information.

19 Then you say, hey --

20 Q. Okay.

21 A. For example, you say, now this malware -- this
22 malware is known to be -- known to be bad. How do

1 you know that? Well, that's been provided or you
2 retrieve the information. So that's how you
3 derive -- sorry. That's how you derive a global
4 perspective.

5 Q. Okay. Just one more and then we'll take a break.
6 This one is the event line. So, Dr. Lee, the claims
7 of the '224 patent refer to an "event line," for
8 example, in Claim 1. Do you see that?

9 A. Event line... yes, I see that. Yes.

10 Q. Claim 10 also refers to an "event line." Do you see
11 that?

12 A. Yes.

13 Q. And Claim 17 refers to an "event line." Do you see
14 that?

15 A. Yes.

16 Q. All right. What is your understanding of an event
17 line in the context of the '224 patent?

18 A. Yeah, again, I would refer to my declaration. So I
19 will see whether -- I'm going to find the definition
20 of "event line."

21 Q. While you're looking for that, Dr. Lee, who prepared
22 the draft of your declaration?

1 A. As I said, I worked with the counsel throughout the
2 writing of the -- of the draft.

3 Q. But did you write the draft declaration?

4 A. Like I said, we worked together and I am responsible
5 for everything that's said in the draft. Of course I
6 write as well.

7 Sorry, I was interrupted by some junk call.

8 Let me see here...

9 Yeah, so, really, I think a POSITA would
10 agree that an event line -- I mean, as the claim
11 language of '224 says, essentially it's comprising
12 information relating to the event.

13 Basically, you know, just information about
14 this event that's useful in particular normally for
15 your database that, later on, you can use to, for
16 example, provide, you know, price analysis and then
17 reach the global perspective information that you
18 can -- that you can provide in the future or even
19 currently.

20 Really, I mean, it talk -- it talks about,
21 you know, if you read the claim language, it talks
22 about event line essentially just contains information

1 about the event and then it actually -- the next
2 sentence in the -- well, if you look at the claim
3 language --

4 Q. Where are you reading?

5 A. The patent, the '224 patent, the Claim 1. It says
6 "generating an event line." The event line
7 essentially talk about event line -- explain event
8 line as comprising information relating to the event,
9 and therefore explain what information here means as
10 well as the information relates to at least one of
11 the first object, the action of the first object, the
12 target, and the originating object, so...

13 Q. Where are you reading now?

14 A. It's '224, Claim 1.

15 Q. What lines, though?

16 A. So when you talk about generating an event line --
17 right? You talking about event line. Yes?

18 Q. Yes.

19 A. That's the whole -- the whole paragraph there.

20 Q. At line 45?

21 A. Yes. What I'm trying to say is that this actually --
22 this limitation actually explains what it means, what

1 "event line" means.

2 Q. Okay.

3 MR. BLYTHE: We've been going for a while
4 so why don't we take a break and go off the record.

5 THE WITNESS: Okay.

6 (Off the record at 12:56 p.m.)

7 (Back on the record at 1:34 p.m.)

8 BY MR. BLYTHE:

9 Q. All right, Dr. Lee, on the break, did you discuss your
10 testimony today with anyone?

11 A. No.

12 Q. Have you discussed any of your testimony today with
13 anyone while we've been in the deposition?

14 A. No.

15 Q. I would like to direct you to page 12, paragraph 14 of
16 your declaration.

17 A. Okay.

18 Q. Does paragraph 14 lay out your understanding of the
19 analysis that goes into a determination of obviousness
20 that you applied in connection with your declaration?

21 A. Yeah, I think here I start to -- started -- I started
22 to talk about obviousness.

1 Q. Is this the understanding of "obviousness" that you
2 applied in your declaration?

3 A. Yeah, I applied the legal framework in the
4 declaration, so including obviousness.

5 Q. Okay. So let's flip to page 57 of your declaration.
6 You say, in Section "G, Opinions Regarding Ground 1:
7 Claims 1-2, 4, 8, 10-13, and 17 are rendered obvious
8 by Morris." Do you see that?

9 A. Yes. I see that, yes.

10 Q. And just to be clear for the record, is "Morris,"
11 there, a reference to U.S. Publication Number
12 2007/0016953?

13 A. Yes.

14 Q. So if we refer to "Morris" today, we'll be referring
15 to that publication unless otherwise noted; is that
16 fair?

17 A. Yes.

18 Q. Okay. Is it your opinion that Claims 1, 2, 4, 8,
19 10-13, and 17 of the '224 patent are rendered obvious
20 by Morris?

21 A. Yes, that's my opinion.

22 Q. Okay. Now, considering, again, paragraph 14 of your

1 declaration where you laid out your understanding of
2 the obviousness analysis, I would like to ask you
3 about a particular part of that.

4 You say, in paragraph 14, that one of the
5 factors that goes into an obviousness determination is
6 the differences between the prior art and the claim at
7 issue.

8 Do you see that in paragraph 12?

9 A. Yes.

10 Q. Okay. Did you consider the differences between
11 Claim 1 of the '224 patent and Morris as part of your
12 analysis in this case?

13 A. Yeah, I consider all these factors that lay out in
14 paragraph 14, yes.

15 Q. Okay. What are the differences that you identified
16 between Morris and Claim 1 of the '224 patent?

17 A. So I think in general, I mean, I would -- I would say
18 that in my declaration that's what's pointed out, so,
19 I mean, I cannot recall all these places.

20 Q. All right. Well, can you point me to where in your
21 declaration you talk about the differences between
22 Morris and Claim 1 of the '224 patent?

1 A. So I believe that all my analysis opinions -- or my
2 opinion here that I lay out in my declaration is more
3 on how Morris patent already talks about the
4 technologies that '224 is laying out. So to the
5 extent that the difference does not change my
6 opinion, then, of course, I don't have to mention
7 that. Right?

8 I mean, I think if you read the -- let me
9 see here. I did talk about, at some point -- let me
10 see here.

11 Yeah. So reading my -- what I'm trying to
12 say is that, if I don't need to point out differences,
13 I don't have to offer an opinion in my declaration
14 because my job is analyze how -- you know, that's my
15 opinion that the '224 patent, the technology has
16 been -- you know, has been basically describing
17 Morris.

18 So to the extent I don't have to describe
19 the differences I would not need to make that into the
20 declaration.

21 Q. So did you consider, Dr. Lee, whether there are
22 differences between Morris and the Claim 1 of the '224

1 patent as part of your analysis of obviousness in this
2 case?

3 A. Not do I -- not do I recall, no. I mean, like I
4 said, you know, my opinion is such that if the claim
5 is covered -- or basically has been, you know,
6 described in Morris are obvious, that the '224 patent
7 claim is become obvious, then I don't have to talk
8 about the differences.

9 Q. Okay. So in -- did you -- let me strike that.

10 Dr. Lee, did you consider the differences
11 between Morris and any of the claims of the '224
12 patent as part of your analysis in this case?

13 A. Any of the claims, meaning that, let's say, claim --
14 I don't know, you know, 2, 3, 4, you know, whatever,
15 5, 6, meaning all the -- all the claims? Is that
16 what we're talking about?

17 Q. All of the claims that you addressed in your opinions.
18 Let me just reset the table so I'm being clear. You
19 testified -- or let me strike that.

20 You stated in paragraph 14 of your
21 declaration that "obviousness is determined by
22 evaluating the following factors." Do you see that?

1 A. Yes.

2 Q. And factor 2 that you list there is "the differences
3 between the prior art and the claim at issue."

4 Do you see that?

5 A. Uh-huh.

6 Q. Okay. And then on page 57 of your declaration you
7 give an opinion that Claims 1, 2, 4, 8, 10-13, and 17
8 are rendered obvious by Morris. You saw that. Right?

9 A. Yes.

10 Q. Okay. So in connection with your analysis of any of
11 those claims that you list on page 57 --

12 A. Uh-huh.

13 Q. -- did you consider the differences between Morris and
14 those claims?

15 A. So like I said, my job is that I look at obviousness
16 in terms of, you know, according to my -- to my --
17 the factors that are listed in page 14. If it's
18 obvious, I will say obvious. If I need to point out
19 the differences, I will point out the differences.

20 Meaning that, if the differences doesn't
21 matter in the sense that because it already is
22 obvious, then I wouldn't focus on why it's obvious why

1 the Morris patent already talks about the technologies
2 described in '224.

3 Now, I -- you know, later in the
4 declaration I did talk about how, you know, Capalik
5 can be used to help some other claims, but that's a
6 different matter we're talking about. So meaning that
7 if I need to consider differences and that motivates
8 to combine, I will do that. But if the patent that I
9 am reading, let's say, Morris, with regard to the
10 patent claims that we talk about on page 57, if it's
11 obvious, then it's obvious. I would explain why it's
12 obvious instead of focusing on, oh, here are the
13 differences.

14 Q. On page 88 of your declaration, you state, "Opinions
15 regarding Ground 2: Claims 3 and 17, are rendered
16 obvious by Morris in combination with Van Oorschot."

17 Do you see that?

18 A. Yes.

19 Q. Is Van Oorschot, there, a reference to U.S. Patent
20 Number 8,087,087, the Van Oorschot, et al?

21 A. Yes.

22 Q. So if we refer to "Van Oorschot" today, we're

1 referring to that patent unless we otherwise note it;
2 is that fair?

3 A. That's fair, yes.

4 Q. And is it your opinion that Claims 3 and 17 of the
5 '224 patent are rendered obvious in combination with
6 Van Oorschot?

7 A. Yes.

8 Q. All right. Did you consider the differences between
9 claim -- between either of those claims, Claim 3 and
10 Claim 17 of the '224 patent, and Van Oorschot?

11 A. Like I said, you know, my focus is on -- in this
12 context of the -- of what I said. Page, is it, 88?
13 Right? Is the combination of Morris and Van Oorschot
14 make those claims as 3 and 17 obvious.

15 I focus on why it's obvious. I mean, of
16 course the reason that we would be motivated -- a
17 POSITA would be motivated to combine Morris and
18 Oorschot was, yeah, there was some difference between
19 Morris and '224. In particular, you know, in the
20 context of what we discuss here about Claim 3 and 17
21 to some extent.

22 I mean, that's -- my point is that you

1 don't need to consider because I would. But the
2 focus is on, you know, why these claims are obvious.

3 Q. So what differences did you identify between Morris
4 and Claim 3 of the '224 patent?

5 A. So let me see here. So, for example, I think on
6 page 88, right, I talk about Claim 3. The language
7 of Claim 3 is that "The method...comprising:
8 obtaining an event priority based on one or more of
9 the generated contextual state information and global
10 perspective, wherein the event line further includes
11 the event priority."

12 So that's the Claim 3 of the '224 patent.

13 And at paragraph 132 of my declaration I
14 talk about, you know, the -- I think the second
15 sentence of paragraph 132, I said that, "However,
16 Morris does not explain that its methods obtain an
17 event priority based on one or more of this
18 contextual information or global perspective."

19 And that's why, in 133, I started to talk
20 about Van Oorschot. And then I think, naturally, a
21 POSITA would be motivated to combine Morris and
22 Van Oorschot and the combination didn't make Claim 3

1 obvious.

2 Q. And did you consider the differences between Morris
3 and Claim 17 of the '224 patent?

4 A. Yeah. So for 17, Claim 17, I focus on one particular
5 sentence limitation there that maybe someone would
6 argue that Morris does not disclose, which is the --
7 at the bottom of page 99, I said, "wherein in the
8 contextual state comprises an indication of an
9 originating object of the first object and an
10 indication of at least one of a second device on
11 which the first object is executed and a user
12 associated with the first object."

13 So in paragraph 149, I said, "Should Patent
14 Owner or its expert suggest Morris does not disclose a
15 user associated with the first object," then I offer,
16 you know, Van Oorschot. And, of course, a POSITA
17 would combine Morris and Oorschot and then Claim 17,
18 as a whole, would be obvious.

19 Q. Okay. Let's turn to -- turn back to Morris more
20 particularly.

21 MR. BLYTHE: And, Ms. Pybas, if you would,
22 pull up Exhibit 1005 from IPR2023-30126. I'd like to

1 mark that as Exhibit 5.

2 MARKED FOR IDENTIFICATION:

3 EXHIBIT 5

4 1:52 p.m.

5 BY MR. BLYTHE:

6 Q. All right, Dr. Lee, do you see the document marked as
7 Exhibit 5 in the deposition, which is the Exhibit 1005
8 from the IPR?

9 A. Okay. So that's the Morris patent. Right?

10 Q. Okay. You understand that -- yeah. Do you understand
11 this to be the Morris patent?

12 A. Uh-huh.

13 Q. Okay. All right. Turning back to the '224 patent
14 briefly, which I think you had open in front of you.

15 A. Yes.

16 Q. Several claims that we talked about earlier including
17 Claim 1, for example, required "generating contextual
18 state information for the event by correlating the
19 event to an originating object of the first object."

20 Do you see that?

21 A. Yes, I see that.

22 Q. And that language appears in Claims 1 and 10.

1 Correct?

2 A. Yes. 1 and 10, yes.

3 Q. And Claim 17 has some similar language that says, "the
4 contextual state comprises an indication of an
5 originating object of the first object."

6 Do you see that?

7 A. Yeah, I see that. Yep.

8 Q. Okay. And then in paragraph 84 of your declaration --

9 A. Right.

10 Q. -- if you want to pull that up, page 63.

11 A. Paragraph 84. Right?

12 Q. Yes. You say that "Morris's process for gathering
13 'Genesisactor' data (i.e., data concerning the
14 ultimate parent of the event being performed) is
15 likewise consistent with the '224 Patent's described
16 process for generating contextual state information
17 for the event by correlating the event to an
18 originating object of the first object."

19 Do you see that?

20 A. Yes.

21 Q. All right. And so is it your opinion that the
22 Genesisactor in Morris is what teaches the originating

1 object of the first object in the claims of the '224
2 patent?

3 A. Can you repeat your question again? I could not --
4 yeah, can you, so that I can parse it better?

5 Q. Sure. Is it your opinion that the Genesisactor in
6 Morris is what teaches the originating object of the
7 first object in the claims of the '224 patent?

8 A. I think what Morris says here is that the Morris
9 disclosure of how you get event data, that that
10 includes the, you know, first object action and
11 target and also basically, you know, the metadata,
12 including genesis, that is in the data concerning the
13 ultimate appearance of the event being performed is
14 consistent with '224.

15 You know, in terms of how to look
16 for describes the process of generating contextual
17 state information, you know, for the event by
18 correlating the event to originating object -- of the
19 first object.

20 Q. Okay. Just as a threshold question, is it your
21 understanding that the '224 patent refers to
22 "originating object" and "originating processes"

1 interchangeably?

2 A. Let me see here.

3 So can you repeat your question again?

4 Q. Yeah. Is it your understanding that the '224 patent
5 refers to "originating object" and "originating
6 processes" interchangeably?

7 A. A POSITA would agree that a process is an object. So
8 when you say "originating processes," normally that
9 would include originating processes. But, you know,
10 if you say the originating processes is the only
11 possible originating objects, most POSITA would say,
12 what? Why? So anyway. Meaning the object is a
13 superset of processes.

14 Q. What is a Genesisactor?

15 A. So as I define here, as I describe here in -- on
16 page 63, which actually I already cited also from the
17 '224 patent, column 8, 50 to 59. Right? So talk
18 about Genesis -- let me see.

19 So "Genesisactor information may contain
20 the object that is not the direct Actor of an event
21 but which is the ultimate parent of the event being
22 performed."

1 And for the -- "For example in the case of
2 a software installation, the Genesisactor would be the
3 object that the user or system first executed and that
4 initiated the software installation process, e.g.,
5 Setup.exe."

6 Yeah. And that's from the '224 patent.

7 Q. Column 8? Is that what you're reading, column 8 of
8 the '224 patent?

9 A. Yeah, column 8, line 50 to 59, yeah.

10 Q. Is it your understanding that Genesisactor means the
11 same thing to a person of ordinary skill in the art in
12 the context of the '224 patent and Morris?

13 A. Let me double-check here. Yeah.

14 So I would say -- let me just double-check
15 the Morris patent. I think it's -- what did I say?
16 Paragraph 107 there. Let me see.

17 Yeah, for example, 107 says "Genesisactor
18 is the 'key of an object that is not the direct Actor
19 of an event but which is the ultimate parent of the
20 event being performed.'"

21 So cite the same example actually.

22 So, for example, in the case of a software

1 installation, this would be the key of "the object
2 that the user or system first executed and that
3 initiated the software installation process, e.g.,
4 Setup.exe."

5 So pretty much the same language, yeah, I
6 would say. Yeah, same definition.

7 Q. Can an originating object and a Genesisactor be
8 different objects?

9 A. So they could be different, right, meaning that a
10 Genesisactor is a -- first of all, a Genesisactor is
11 an originating object. So it really depends on what
12 do you mean by an originating object versus, you
13 know, in the context to compare with a Genesisactor.
14 Right? So Genesisactor is an originating object.

15 So when you say, is an originating object
16 different from Genesisactor, there's almost -- I
17 don't know -- is the -- is the apple different from
18 the green apple? They are both apples. Basically in
19 this case basically they are -- Genesisactor -- like
20 I said, the Genesisactor is an originating object.
21 So I don't know what difference you try to draw
22 there.

1 Q. Can the object that is the Genesis -- well, let me
2 strike that. Let me start over.

3 Is the Genesisactor an object, to your
4 understanding?

5 A. Yeah, I think consistent with the patent '224, like I
6 say, column 8, you know, line 50 to 59, also the
7 paragraph 107 of the Morris patent, they both talk
8 about Genesisactor is essentially referring the
9 object that's the ultimate parent of the event being
10 performed.

11 So, yeah, it's object and also is an
12 originating object.

13 Q. Okay. So is it possible to have an originating object
14 that is not the Genesisactor?

15 MR. HORTON: Object to form.

16 A. So I think we -- earlier we talk about the
17 originating processes. Right? Or, I guess,
18 originating objects. Basically looking at the, you
19 know, parent/child relationship and what execute --
20 and what kind of relationship -- you know, basically
21 the whole audit trail from this current event to all
22 the way back. There are multiple originating

1 objects. And according to definition, the
2 Genesisactor is the ultimate parent.

3 So basically the Genesisactor is one of the
4 originating objects. So there are other originating
5 objects in the chain, so... but they are all
6 originating processes.

7 Q. Okay. And the Genesisactor is the originating object
8 that's furthest away from the first object, for
9 example, in Claim 1. Right?

10 MR. HORTON: Object to form.

11 BY MR. BLYTHE:

12 Q. So let me -- yeah, let me strike that. Let me say
13 that again and try to be more clear.

14 So the Genesisactor is the originating
15 object that's the furthest away in the chain that you
16 referred to from the first object.

17 MR. HORTON: Same objection.

18 BY MR. BLYTHE:

19 Q. Is that correct?

20 A. Well, like I said, it's -- even in the definition it
21 says the ultimate -- you know, the Genesisactor is
22 the ultimate parent of the event being performed.

1 So, you know, the chain of originating object can be
2 pretty long and, you know, but it -- the furthest
3 away really depends on situations. Right?

4 But I think that, based on context, it
5 is -- you identify that, hey, that's the ultimate
6 parent, then that's the Genesisactor. It never says
7 it has to be the furthest in your chain of objects.
8 Never said anything like that.

9 Q. Can you think of a situation in which the Genesisactor
10 would not be the furthest object away in the chain
11 from the first object?

12 MR. HORTON: Object to form.

13 A. So like I said, really you -- I mean, a POSITA would
14 agree that when you say, you know, who's the ultimate
15 parent of this current event, you normally talk about
16 the nature of this event, right, and what's -- you
17 know, what's a parent of this event would be like.
18 What's the parent -- the parent would be like and so
19 on and so forth.

20 And so really depends on the context. And
21 there's some other parent/child relationship, you
22 know, so you may consider that as an originating

1 object, obviously, but whether that's also a -- an
2 ultimate parent or not, that's something that, like I
3 said, depending on the nature of the event analyzing.

4 But really the definition, like I said
5 multiple times, it talks about the ultimate parents.
6 It doesn't talk about, oh, you should check this
7 chain until you reach the furthest. That's not how
8 the '224 patent or the Morris patent talk about. But
9 they talk about the same thing though.

10 BY MR. BLYTHE:

11 Q. All right. But I'm asking for your understanding as a
12 person of ordinary skill in the art. Can you think of
13 a situation in which the Genesisactor would not be the
14 furthest object away in the chain from the first
15 object?

16 MR. HORTON: Object to form.

17 A. So, again, I think -- I think this is kind of a
18 tricky question in the sense that a POSITA would say,
19 it really depends on the context of what information
20 you are able to obtain. Right?

21 You know, how complete of a trail do you
22 have and whether, you know, you feel, you know, you

1 want to go further or maybe at some point, yeah,
2 that's good enough, I know -- this is good enough for
3 me to identify what is the Genesisactor. So really
4 depends on the situation. Seriously.

5 BY MR. BLYTHE:

6 Q. So is the Genesisactor whatever a person feels is good
7 enough?

8 A. Well, I wouldn't say "good enough." I think about in
9 the sense of, that's really in the context of this
10 patent, the '224, and also Morris, in the sense that
11 you want to have this information as part of
12 contextual information. So, really, that's why I
13 kept saying, it depends on the context of this event.

14 Q. Okay. Let me ask again because I don't think you've
15 answered my question.

16 A. So in a -- hold on.

17 [Simultaneous Speaking]

18 A. Yeah. Sorry. Yeah. Go ahead.

19 Q. Can you think of -- can you think of a situation in
20 which the Genesisactor would not be the furthest
21 object away in the chain from the first object?

22 MR. HORTON: Object to form.

1 A. Yeah, like I said, that really depends on the -- we
2 talk about contextual information of this current
3 event. Right? So when we say, this event, when we
4 install it, it performs bad things, and then say,
5 okay, what's the -- you know, what's the
6 Genesisactor. Right?

7 In the example that we gave here on
8 page 64 talks about, hey, that's the process that the
9 Genesisactor would use or the system that first
10 executed and initiated the software installation
11 process. Right?

12 But you say, hey, look, but maybe, you
13 know, the other process that enable the user to be
14 able to login and then so on and so forth. Or you
15 can also say something like, hey, the software, trace
16 all the way back, hey, it's coming from Microsoft.

17 I mean, just -- meaning that, you know, it
18 really depends on the context, you know, how you --
19 what's the useful information to this context.

20 I mean, you can trace to the original -- I
21 mean, to the beginning of the world kind of thing if
22 you want. So really so my point is, you don't say,

1 hey, I have to absolutely chase the furthest possible
2 chain and that's the ultimate.

3 Well, that ultimate would be, I don't
4 know, going back to maybe the '30s and '40s. Was
5 that the ultimate genesis -- was that the
6 Genesisactor for everything? Yeah, maybe. People
7 can argue this kind of back and forth in theosophical
8 terms.

9 My point is that, in the context of this
10 patent, '224 patent and Morris, you talk about
11 Genesisactor essentially is part of contextual
12 information, so obviously that's why I kept saying if
13 within the context of this event you want to say,
14 hey, whatever is the ultimate parent is the ultimate
15 parent.

16 Q. So how does a person of ordinary skill in the art,
17 according to your explanation there, figure out what
18 the Genesisactor is?

19 A. So I think that is -- let me see here.

20 Yeah. So, basically, I think the -- if you
21 refer to my declaration, paragraph 85, I essentially
22 describe the process of the '224 patent, describe the

1 process of correlating an object to an originating
2 object device or user as forming audit trail for the
3 event. By the way, like I said earlier, this is the
4 example definition of audit trail, the question that
5 you asked early in the morning.

6 So, really, a POSITA would say, yeah, okay,
7 I'm going to essentially call it, A, the object's in
8 audit trail, and then, you know, I mean, identify, of
9 course, all the originating objects that's relevant in
10 this context of this event and also which one is
11 ultimate parent that actually is relevant to this
12 event.

13 I mean, this -- again, a POSITA would know,
14 based on the nature of the event, you may apply
15 different heuristics, different analysis, algorithms,
16 and so on and so forth. Yeah.

17 Q. So what do you mean by the -- you just used the phrase
18 "ultimate parent." So what do you mean by "ultimate
19 parent"?

20 A. Again, going back to the definition of Genesisactor
21 at the beginning of this -- beginning of page 64,
22 right, "the ultimate parent of the event being

1 performed."

2 Q. Yes. What do you mean by the word "ultimate parent"?

3 A. So, again, it depend on context. So you look at
4 audit trail. Say, you know, what object creates
5 another object or what object, you know, acts,
6 meaning that creates -- essentially acts an event.
7 Right? Event is an action. But you look at audit
8 trail and then figure out, hey, which one is the one
9 actually kind of call it the ultimate parent. I mean
10 like the example that I gave that we started at the
11 top of 64. That's example.

12 Q. Does the Genesisactor have to be on the same computer
13 as the first object?

14 A. Let me look at the claim language.

15 So, in principle, I mean, a POSITA would
16 agree that you don't have to say the ultimate
17 object -- sorry, the ultimate parent. Mean in this
18 case, if you talk about the ultimate parent of this
19 declaration, the ultimate parent of the event being
20 performed. In other words, the Genesisactor. I
21 don't believe that the '224 talks about Genesisactor
22 has to be on the same computer as the first object.

1 Now, on the other hand, you may have that
2 information or maybe some other information may be
3 help you to go further. Meaning the further back to
4 say, hey, you know, what's the -- what's the ultimate
5 parent beyond this -- beyond the view of this
6 computer, yeah.

7 Q. Okay. Let's look at column 8 in a little more detail.
8 Column 8 of the '224 patent. Do you have that up?

9 A. Okay. I have that on paper, yes.

10 Q. Okay. So column 8, line 50, states, "Contextual state
11 information may include, but is not limited to,
12 originating processes, devices, and users."

13 Do you see that?

14 A. Yes.

15 Q. And then it says, starting at column 8, line 51,
16 "Additionally, contextual state information may
17 include Genesisactor information and ancillary data."

18 Do you see that?

19 A. Yes.

20 Q. All right. Does this not suggest that Genesisactor
21 information is additional information that is separate
22 from an originating object in the context of the '224

1 patent?

2 A. That's not how I read it. I think a POSITA would,
3 you know, like I said, based on the definition of
4 Genesisactor that we went over multiple times, you
5 know, Genesisactor is the ultimate parent of the
6 event that's being performed. So by definition,
7 Genesisactor is an originating processes.

8 And the way I read these two sentences is
9 essentially saying that definitions tells you, hey,
10 "Contextual state information may include, but is not
11 limited to, originating processes, devices, and
12 users," is a very general way of describing
13 contextual state information.

14 Example, does it include all of the
15 originating processes or some? It doesn't say.
16 Right? And there's additional -- additionally
17 contextual state information may include Genesisactor
18 information and ancillary data.

19 Like I said, Genesisactor is an
20 originating process. It's not exclusive in -- the
21 definition of originating process and Genesisactor
22 don't mean that these two are exclusive. And the way

1 that I read, and I think a POSITA would agree, is
2 that, okay, you want to maybe highlight some
3 information, highlight some particular originating
4 process.

5 In this case, this originating process you
6 want to highlight, you know, can be Genesisactor.
7 It's like, hey, you want to tell people you have
8 apples. And by the way, you may want to highlight,
9 hey, here's a green apple. Okay. But green apple is
10 still apple. That's how a POSITA would understand.

11 Q. Okay. But it doesn't describe -- let me strike that.

12 The '224 patent doesn't state that the
13 Genesisactor is an example of contextual state
14 information that includes an originating process, does
15 it?

16 A. So a POSITA would read this. Right? The first
17 sentence says, "Contextual state information may
18 include, but is not limited to, originating
19 processes."

20 And then the definition of Genesisactor
21 basically tells you that a Genesisactor -- the
22 Genesisactor is an originating process. So by

1 definition, it's in the contextual state information.

2 Q. Where does the '224 patent state that the Genesisactor
3 information is an originating process? Where does it
4 state that?

5 A. Can you repeat the question again?

6 Q. Yes. Where -- strike that. Let me start over.

7 Where does the '224 patent state that
8 Genesisactor information is an originating process?

9 A. So like I said, I think -- on which page? We talk
10 about, maybe, page 64. Let me see. Yeah.

11 On page 64 of my declaration actually is
12 also the definition here. Actually further down of
13 the column 8 of the '224 patent. Right? We talk
14 about "Genesisactor information may contain object
15 that is not the direct Actor of an event but which is
16 the ultimate parent of the event being performed."

17 So that's the definition of originating
18 object or process of an event. So my point is that,
19 you know, any POSITA would agree that a Genesisactor
20 is an originating process or originating object.
21 These two are not exclusive.

22 And the fact that, you know, sentence 50

1 talks about "Contextual state information may include,
2 but is not limited to originating processes," that
3 would mean that it could include Genesisactor.

4 In fact, that's why I kept saying
5 additionally you may want to include Genesisactor
6 information. That's exactly why I say, hey, maybe you
7 highlight one of these originating process and name
8 them, hey, this is the -- this is the ultimate parent.

9 This is like, hey, I -- you are supposed to
10 list apples. Oh, by the way, you could highlight the
11 red apple or green apple. Why? Because it's useful.
12 Does it mean that the green apple --

13 [Simultaneous Speaking]

14 A. -- the red apple is not apple? They are still
15 apples.

16 Q. In your example of the apple, the green apple is an
17 example -- you're using it to say, a green apple is an
18 example of an apple. Right?

19 A. Green apple is an apple, yes.

20 Q. An example of a type of apple. Right?

21 A. No. I mean -- okay. So maybe that may be a little
22 bit bad example. Suppose there's only one green

1 apple with apples that you have. And you say, hey,
2 look, you're supposed to display apples. By the way,
3 you may say, hey -- put that green apple aside and
4 say, hey, you know what, here's the green apple that
5 you are looking for.

6 Q. But let's take your --

7 A. It doesn't exclude each other. Yeah.

8 Q. Let's take your example. If what's required is a red
9 apple and, additionally, a green apple, if all you
10 have is a green apple and not a red apple, then you
11 don't meet the requirement of having a red apple.
12 Right?

13 MR. HORTON: Object to form.

14 A. But, again, that's not what the patent is talking
15 about. The patent is --

16 BY MR. BLYTHE:

17 Q. I think that's --

18 A. Hold on.

19 Q. That's actually what --

20 A. Hold on. Hold on. The patent is talking about --

21 [Simultaneous Speaking]

22 A. Hold on, hold on.

1 Q. Let me get out my question so the record is clear so
2 we're not talking over each other.

3 A. Yeah.

4 Q. The patent, in column 8, refers to "Contextual state
5 information may include, but is not limited to
6 originating processes."

7 A. Uh-huh.

8 Q. "Additionally, contextual state information may
9 include Genesisactor information."

10 A. Uh-huh.

11 Q. Dr. Lee, is it not true that the Genesisactor
12 information, according to column 8, must be additional
13 to the originating process that is described?

14 A. No. Because like I said, the analogy would be, the
15 first sentence would say, hey, you should display
16 apples. And additionally you might want to highlight
17 one of them is the green apple.

18 Doesn't mean, the first sentence say, hey,
19 you should only display red apples. And if you have
20 green apples, you display that too. No, that's not
21 how a POSITA would agree.

22 Like I said, fundamentally, the point

1 that's very so obvious to a POSITA is that a
2 Genesisactor is an originating process. The first
3 sentence talks about you -- the contextual
4 information is the information may include
5 originating processes. That, by definition, would
6 include Genesisactor.

7 And the second sentence, it tells you,
8 hey, you might want to highlight it as a separate
9 line or whatever, but that doesn't mean that --
10 doesn't mean that Genesisactor and originating
11 process, they are -- they are exclusive. They are
12 mutually exclusive. They're not.

13 Q. Let's look at another section of the '224 patent,
14 column 17, starting at line 36.

15 So, again, this section is talking about an
16 origination process and a Genesisactor. Do you see
17 that section?

18 A. Yeah.

19 Q. Okay. So column 17, line 36, of the '224 patent
20 begins, "Accordingly, a context 520B comprising an
21 origination process, Device, User, and in some
22 instances, a Genesisactor may further supplement or

1 enhance the Event ID, Event Type, Actor, and Victim."

2 Do you see that?

3 A. Yes. I see that, yes.

4 Q. Okay. And I believe you talked about this before, but
5 in that sentence, origination process is the same
6 thing as an originating object; is that right?

7 A. Well, I mean, yeah. I mean, it could -- it could be,
8 in this context, you know, let's assume that it
9 assumes -- we can assume that it is referring, let's
10 say, to an originating object, but didn't say which
11 one, though.

12 So like I said, you know, in this context,
13 when you think about origination process as the same
14 as an originating process, meaning that we equate an
15 origination process as an originating process. Then
16 I'm going to go back to our discussion that you have
17 a chain, meaning you have a set of originating
18 processes.

19 And you may want to read this case. The
20 way I read it is that, 520B comprising one of them.
21 Which one, didn't say. And then it says, okay, now I
22 also highlight another one, another originating

1 process, meaning the Genesisactor.

2 So, again, these are not exclusive. Just
3 because they display an ordinary apple doesn't mean
4 that then they are going to display green apple these
5 are not apples. They are both apples.

6 Q. But it's possible that the originating process and the
7 Genesisactor would be two different objects. Right?

8 A. So, again, really depends on originating process. I
9 think the difficulty here is that when you say an
10 "originating process," that's one of them in this
11 chain of originating processes. Which are you
12 referring to? So -- and Genesisactor is more -- the
13 definition is more clear. You know, you say, that's
14 the ultimate parent of the event that's being
15 performed.

16 So it's -- you know, if you tell me, hey,
17 the Genesisactor is here, position number 3, and by an
18 originating process in some context I'm referring to
19 position number 2, yeah, in that case they are in two
20 different positions. But what you try to accomplish,
21 I don't know.

22 Q. Well, what you could be trying to accomplish is to get

1 more information about the audit trail. Right? And
2 more complete audit trail. Isn't that what you would
3 be accomplishing?

4 MR. HORTON: Object to the form.

5 A. Yeah, so, like I said, you know, the -- I think if
6 you read the -- you know, even here at paragraph 17
7 talks about, you know, you -- basically say,
8 comprising an origination process. It didn't say
9 which one.

10 You know, let's say that we agree that an
11 origination process is an originating -- a
12 originating process, which one did I say? And then I
13 say, okay, in some instance you also include the
14 Genesisactor, which is another originating process,
15 which we know by definition is the ultimate parent of
16 the event being performed.

17 So, yes, I mean, having more information
18 the better, yeah. In general, that, a POSITA would
19 agree. But if the argument is, well, in that case,
20 you know, an originating actor is not an originating
21 process, I disagree. Like I said, a Genesisactor is
22 an originating process.

1 BY MR. BLYTHE:

2 Q. If you look at Figure 5B of the '224 patent. All
3 right? Figure 5B, it identifies -- do you have that
4 up?

5 A. Yep, yep.

6 Q. All right. Dr. Lee, so Figure 5B of the '224 patent
7 identifies an originating process and a Genesisactor
8 separately. Correct?

9 A. Yes.

10 Q. Okay. And is it true that by identifying the
11 originating process and the Genesisactor separately,
12 that may provide more information about the audit
13 trail?

14 A. So, again, depends on the context. All right?
15 Depends on the context of -- meaning what information
16 is available or the nature of the, kind of,
17 parent/child relationship or the object/event
18 relationship. Really depends on the data and
19 basically the nature of the event. Right?

20 So in this case, 5B, I mean, first of all,
21 those originating processes and Genesisactor, they
22 both point to object 1, that really is another

1 confirmation that really they are looking at the same
2 chain of originating processes and Genesisactor is
3 one of those originating process.

4 Q. But why then list originating process and Genesisactor
5 separately in 5B? Why not just say, originating
6 process?

7 A. So like I said, really depends on the context. So in
8 this context, that example that they gave, you know,
9 they happen -- it happen to be that object 1, and the
10 Genesisactor, they happen to be the same object. But
11 doesn't have to be always the case.

12 To me, 5B just give you an example of how
13 information is being -- what information is being
14 included in the contextual information, contextual
15 state information. It doesn't mean that, you know,
16 Genesisactor is useless. Otherwise, why would they
17 even describe an example?

18 My point is really it depends on context.
19 In some cases you may see that whatever they choose
20 to display as originating object -- originating
21 process and whatever they figure out the Genesisactor
22 is, they are different.

1 Again, you know, that depends on data which
2 is the actual nature of the event.

3 Q. And in that situation, providing the Genesisactor
4 information would give you additional information that
5 providing the origination process alone would not
6 include. Correct?

7 A. So, again, I kept saying that, you know, we -- you
8 know, I kept pointing out that a Genesisactor is an
9 originating process.

10 And really depends on, you know, the
11 context of the event that sometimes you say, hey,
12 here is an originating process, you may want to
13 quantify what that duty is. But then you say here is
14 a Genesisactor.

15 I mean, generally, the more information
16 the better. A POSITA would agree to that. But,
17 again, a Genesisactor is an originating process.
18 There is no such thing as the originating process.
19 There's no such thing. There's no such definition.

20 Meaning that -- so that's why I kept
21 saying that the term an "originating process" and the
22 term "the Genesisactor," they are not mutually

1 exclusive unless you give -- say, hey, there's only
2 one, indeed only one originating process. Okay.
3 Show me that.

4 Q. Is there any specific language in the '224 patent that
5 would inform a person of ordinary skill in the art
6 that a Genesisactor could be substituted for the
7 originating object? Or let me rephrase that.

8 Is there any specific language in the '224
9 patent that would inform a person of ordinary skill in
10 the art that the Genesisactor could be the originating
11 object that's described in the claims in the '224
12 patent?

13 A. So, I mean -- let me see. Can you repeat your
14 question again?

15 Q. Sure. Is there any specific language in the '224
16 patent that would inform a person of ordinary skill in
17 the art that a Genesisactor would be the originating
18 process in the claims of the '224 patent?

19 A. Let me see here.

20 Q. And let me just say the question one more time while
21 you're looking at it because I think I still didn't
22 get it right.

1 Is there any specific language in the '224
2 patent that would inform a person of a ordinary skill
3 in the art that a Genesisactor would be the
4 originating object in the claims of the '224 patent?

5 A. So I don't know, I mean, that's a very long sentence,
6 I mean, exactly what you want to ask. I mean, like I
7 said, by definition of the Genesisactor, which both
8 '224 patent and Morris essentially uses same
9 definition, a Genesisactor is an originating process.
10 And the claim language, Claim 1, talks about an
11 originating process. So that's why, you know, a
12 Genesisactor meets that limitation, if that's what
13 you're asking.

14 Q. But in the context of the '224 patent that we just
15 looked at, for example, in Figure 5B, while the
16 Genesisactor and originating process may be the same
17 object -- I mean, you would agree that's the case.
18 Right? That the Genesisactor and the originating
19 process can be the same object?

20 A. Again, based on the context. So in the example that
21 they gave, they point to the same object, yes.

22 Q. Okay. Or the Genesisactor in the originating process

1 could be different objects. Right?

2 A. Yes, that's possible. Yes.

3 Q. Okay. But in the context of the '224 patent, the '224
4 patent describes the Genesisactor and the originating
5 process or the originating object as separate pieces
6 of information that would be provided. Right? I
7 mean, that's shown as -- that's shown in Figure B.
8 Correct?

9 A. So I would say Figure 5B is the example. Right? But
10 if you want to go back to the spec of the '224, I
11 would go back to column 8, line 50 to 59. Right?
12 Talks about, you know, "include, but is not limited
13 to, originating processes." Additionally, you could
14 also essentially highlight the Genesisactor."

15 So basically it really -- basically it's
16 up to the context, up to the task you have.

17 And, I mean, you know, my scope of work is
18 I would look at the claim language. You know, it
19 talks about an originating process. And by
20 definition, a Genesisactor is an originating process,
21 so that's why it meets that limitation.

22 Q. Okay. But the specification, including Figure 5B,

1 refers to an originating process specifically. Right?

2 The first line in box 524 in 5B is "originating

3 process." You see that. Right?

4 A. Yes.

5 Q. And then box 524 in Figure 5B includes a separate line

6 that is Genesisactor. Right?

7 A. Yes.

8 Q. And the claims refer to an originating object or

9 originating process. Right?

10 A. That's what Claim 1, yes.

11 Q. Yes. And Claim 10. Right?

12 A. Uh-huh.

13 Q. Is that yes?

14 A. Yes. Claim 10 has the language of an originating

15 process, yes.

16 Q. And Claim 17. Right?

17 A. Yes.

18 Q. Okay. And none of those claims, Claim 1 or 10 or 17,

19 refer to a Genesisactor. Right?

20 A. They don't. But like I said multiple times, a

21 Genesisactor is an originating process. It's part of

22 the definition of Genesisactor given in the '224

1 patent and the Morris patent. So it is an
2 originating process. That's why it meets the
3 limitation.

4 Q. Are there times, Dr. Lee, when identifying an
5 originating object more closely related to the first
6 object than the Genesisactor would be helpful to
7 identifying malware?

8 A. I think it's possible. I mean, like I said, it
9 really depends on the nature of the malware. I mean,
10 a lot of things. That's why security is pretty hard.
11 I mean, just -- you know, I mean, really, I cannot
12 give you a statement this is always true or always
13 not true. It really depends on what event you are
14 talking about.

15 Q. Is it possible that the Genesisactor or ultimate
16 parent would be so far removed from the first object
17 that it wouldn't provide helpful contextual
18 information?

19 A. Again, it is the example to render my opinion, but,
20 you know, obviously, like I said at the beginning, it
21 depends on the context. Right? In the context, when
22 we talk about what's the language in the -- in the --

1 what's the language of the -- column 8 talks about --
2 I mean, I don't think they use this exact term.
3 Right?

4 It talks about -- okay. So it talks about
5 contextual state information. So that, really,
6 context is important. That really talks about, hey,
7 you know, the contextual state information really
8 talks about the contextual information related to
9 this event.

10 So really depends on the event. You know,
11 sometimes makes sense to look close enough.
12 Sometimes you trace further. It's really, really
13 hard to make a general statement of one versus the
14 other. Seriously.

15 Q. Is it possible that if a system or method only
16 provided information on the Genesisactor, it would
17 skip over originating objects that could be threats?

18 A. No. Because like I said, the Genesisactor is an
19 originating object. One of them. And you can use
20 that to go back and forth on the chain to get as much
21 information as available actually. It doesn't really
22 take away any information that you could have or you

1 already have. And also it doesn't take away any
2 analysis that you could perform. So really there's
3 no downside of, you know, naming a Genesisactor,
4 yeah.

5 Q. Okay. To be clear, the Genesisactor is not every
6 originating process in the chain. Right?

7 A. It's one of the originating process -- processes.

8 Q. Okay.

9 A. Yeah.

10 Q. But it's not -- it's not all of the originating
11 processes. Right? I mean, that's not the definition
12 of a Genesisactor.

13 A. That's correct. The Genesisactor's definition is the
14 ultimate parent of the event being performed, yes.
15 In the context of data that you have. Yeah. Let's
16 put it that way, yeah.

17 Q. Okay. Let's look a little closer at Claim 17 of the
18 '224 patent.

19 A. Okay.

20 Q. All right. Claim 17 states that "the contextual state
21 comprises an indication of an originating object of
22 the first object and an indication of at least one of

1 a second device on which the first object is executed
2 and a user associated with the first object."

3 Do you see that?

4 A. Yes.

5 Q. All right. Now, looking at paragraph 127 of your
6 declaration.

7 A. I'm sorry, what? 127?

8 Q. 127, page 85.

9 A. Okay. Okay.

10 Q. Okay.

11 A. Okay. My understanding is that you refer to the
12 Genesisactor as being -- sorry, let me strike that.

13 My understanding is that you refer to the
14 Genesisactor in Morris as teaching an indication of an
15 originating object of the first object in Claim 17.
16 Is that your view?

17 A. That's what I said, yes.

18 Q. Okay. And then you go on to say, in paragraph 127,
19 that "Morris further discloses that multiple remote
20 computers run an object and send this data to the base
21 computer 3/database 7 to determine whether that object
22 is malware."

1 You have a citation.

2 A. Uh-huh.

3 Q. You say, "Therefore, in my opinion, Morris discloses
4 obtaining contextual data concerning a second device
5 on which the first object is executed."

6 Do you see that?

7 A. Yes.

8 Q. All right. So are you saying here that Morris
9 mentions the possibility of multiple computers running
10 the object?

11 A. Yes, as I talk about here. Right? So it talks
12 about, you know, multiple remote computers when the
13 object -- we send the data to the base computer.
14 Yeah.

15 So that's why, you know, the base computer
16 contains contextual information in sending more than
17 one device, meaning the second device, which the
18 first object is executed.

19 Q. Okay. So the object may be running on multiple
20 computers in Morris. Right?

21 A. Yeah. We're talking about the first object, yes.

22 Q. Okay. But where does Morris say that the contextual

1 state information specifically includes information
2 about a second device?

3 A. I believe that the Morris -- Morris talks about what
4 would the metadata that would be sent from the remote
5 computer, meaning that one of those computers to the
6 base computer, and what data that they would be able
7 to use to analyze in database 7.

8 So, again, what's your question again?

9 Q. Yeah. Where does Morris say that the contextual state
10 information specifically includes information about a
11 second device?

12 A. Oh, I see where you're getting. So let me try to
13 point you to -- I mean, I think, first of all, you
14 should refer to Figure 1. Right? Of the Morris
15 patent that talks about multiple instances of the
16 computer 2. Which means multiple computers, more
17 than one computers. So -- and the assumption is
18 that, you know, these multiple computers would send
19 information to the base computer 3.

20 So -- and then that information -- he then
21 further, I think, in the spec, talks about what
22 information the database 7 would have and what kind of

1 analysis computer 3 would be able to perform, you
2 know, using database 7. And the point is that the
3 information that it talks about, because the spec,
4 already at the beginning, talks about Morris patents
5 is about having multiple computers sending information
6 to the base computer.

7 So that's like a POSITA would agree that,
8 yes, of course the thing has to be securely on second
9 computer. Otherwise your figure here, you talk about
10 data that you analyze. Yeah. So...

11 Q. So I see where you're saying that Morris refers to
12 there being multiple computers in Figure 1. I see
13 that.

14 A. Uh-huh.

15 Q. But where in Morris -- and I'd like you to point me to
16 the specific place -- where in Morris does it say that
17 the contextual state information specifically includes
18 information about a second device on which the object
19 was executed?

20 A. Okay. Hold on.

21 Let me take a look in my previous
22 discussion. So can you repeat your question again?

1 Q. Where in Morris does it state that the contextual
2 state information includes information about a second
3 device in which the object was executed?

4 A. Okay. So let me see.

5 Let me see. So as I said in paragraph 127.
6 Right? So, you know, I think I explain throughout
7 the -- some of the previous paragraphs that -- so as I
8 said here in paragraph 127, Morris describes "the
9 contextual data it generates" which "includes
10 'Genesisactor,' which is indication" that -- you know,
11 which is "indication of an originating object of the
12 first object."

13 That's actually the -- that's in the -- in
14 the claim language here, we talk about 17.

15 Q. But that's not -- that's not the limitation I'm asking
16 you.

17 A. Okay. Yeah. And then it further discloses that
18 multiple remote computers run the object and sends
19 this data to the base computer.

20 I think that's the -- if I read the -- let
21 me see. If you read the claim of the -- of Morris.
22 Okay.

1 So in the -- in the claim with Morris it
2 talks about "A method of classifying computer object
3 as malware, the method comprising: at a base computer
4 receiving data about a computer object from each of
5 the plural remote computers on which the object or
6 similar objects are stored; comparing in the computer
7 data" --

8 Q. Where are you reading?

9 A. I'm reading the Claim 1. The claim language, Claim 1
10 of Morris.

11 Q. Claim 1 of Morris.

12 A. Yeah.

13 Q. Okay.

14 A. So it talks about -- let's start from the beginning.
15 So "A method of classifying a computer object as
16 malware, the method comprising: at a base computer,
17 receiving data about a computer object from each of
18 plural remote computers on which the object or
19 similar objects are stored; comparing in the base
20 computer the data about the computer object received
21 from the plural computers; and, classifying the
22 computer object as malware on the basis of said

1 comparison."

2 So obviously it talks about receiving
3 things from multiple computers, including second
4 computer. Otherwise, what is talking about
5 comparison?

6 So and also look at the figure -- Figure 1,
7 it talks about plural computers. Like I said, whole
8 assumption -- I mean, the whole teaching of Morris,
9 one of the key teachings is that the base computer
10 receive information about the same objects, similar
11 object from multiple. Multiple. Basically from each
12 of the plural remote computers. So I would imagine it
13 is computer 1 and 2.

14 And if that is the indication then you
15 basically just figure out, hey, to compare, oh, that's
16 the malware. That is what Claim 1 is how I -- how a
17 POSITA would interpret.

18 Q. So is the only place you identify Morris stating that
19 contextual state information specifically includes
20 information about a second device, Claim 1 of Morris?

21 A. Well, I mean, this is one example that is very
22 clearly indicating that all the comparison, all the

1 analysis, is based on data that you receive from
2 the -- it is based on data received about a computer
3 object from each of the plural remote computers on
4 which the object or similar objects are stored.

5 So, I mean, of course the spec talks about
6 what data you're analyzing and, you know, draw
7 conclusions of malware or not, and so on and so forth,
8 but, really, the teaching is that the information you
9 receive is from multiple computers according to
10 Claim 1.

11 And further talks about classifying --
12 well, I mean, comparing and then classifying. So
13 obviously you're to compare data you receive from
14 multiple computers. That's how you classify.

15 So I think it's very clear a POSITA would
16 agree, okay, yeah, that's teaching you from -- you
17 know, getting indication from multiple computers
18 including originating computer. That's pretty
19 obvious. 1 and 2, right, at least. First and second
20 computers.

21 Q. Okay. Let's look at paragraph 128.

22 A. Of -- you talk about Morris?

1 Q. Of your -- of your declaration.

2 A. Okay. 128. Okay.

3 Q. You say, "A skilled artisan would have understood that
4 when generating information concerning a file's
5 'path,' Morris's disclosed methods would include
6 generating a user associated with the first object."

7 Do you see that?

8 A. Okay. Yes.

9 Q. All right. So where specifically in Morris does it
10 say that the contextual state information includes an
11 indication of a user of the first object?

12 A. Let me look a bit further. Okay.

13 So, I mean, first of all, go back to 106.
14 I -- basically, I mean, you know, the beginning of 128
15 says "Morris also describes that other contextual
16 information can be generated from an event, including
17 'Identities' which serve to 'define the attributes of
18 an object,' such as 'its logical location on a disk
19 within the file system (its path)."

20 That's 106. Paragraph 106 from the Morris
21 patent. So I -- I think I basically -- yeah. So the
22 path would be -- you know, I think it further talks

1 about the original name. It says it's -- okay.

2 And then -- and then I go on to say, "A
3 skilled artisan would have understood" what a file
4 path is.

5 And normally -- so that's why I gave the
6 example of, you know, the paragraph, I think, 120 --
7 no, that's a continuation of 128, give example that I
8 cited from one of the prior art to talk about example
9 of a file path that tells you that gives away -- well,
10 that indicates what the user is associated with this
11 file path.

12 So that's -- so that's why a skilled
13 artisan would have understood that, hey, because of
14 your file path, that actually disclose, you know, the
15 use associated with the first object because the file
16 path normally give -- the full path will have the user
17 name there. For example, in example on page 87, you
18 know, give example C:\home\sally. Sally is the user.
19 Right?

20 And, you know, if do a -- you know, you can
21 do -- got a Mac or whatever, normally when you login
22 you have a home directory. Then you do a pwd, that's

1 full path, which tells you user name.

2 So by looking at the full path, normally we
3 know the user name, the user associated with that
4 object. I mean, this is --

5 Q. Okay. But a file path -- a file path doesn't have to
6 identify a user name. Right, Dr. Lee?

7 A. So the absolute path of a file name, normally we tell
8 you that is a system file, meaning that it belongs to
9 the whole operating system or belongs to a particular
10 login user. Right?

11 You can even say, hey, well, what is a
12 system? Well, a POSITA would tell you that if the
13 file name, file path, let's say, Sally, let's say,
14 slash, I don't know, slash library, that means, hey,
15 it belongs to the administrator or the super user.
16 It's always some user. I mean --

17 Q. But it's your testimony that a file path always
18 identifies the user. Is that your testimony, Dr. Lee?

19 MR. HORTON: Objection.

20 A. Like I said, a file path, you know, if it includes a
21 normal -- how do I put it? If the file path is
22 obtained from your -- how do I put it?

1 If the file path contains your home
2 directory, that normally indicates a user name. But
3 if it's not, let's say you go into the system file,
4 something, something, normally people say, well -- by
5 looking at the file path, we normally figure out
6 whether it's a -- it's a software download that would
7 belong -- you can say, hey, it belong -- you know,
8 this file path was created from download software.
9 You can say, hey, that was the user, you could say
10 the originator. Whatever is the vendor who install
11 it normally is the administrator.

12 Could be -- if the user is the only
13 administrator, that's a giveaway. If there are other
14 administrators, yeah, you can figure out what that
15 administrator is. But the point is, anything happens
16 on a computer has a user behind it. It doesn't sort
17 of -- I mean, even if you say, hey, can we install
18 something else, that means the vendor install things
19 for you. It's always the user behind it so...

20 BY MR. BLYTHE:

21 Q. Okay. But your testimony in your declaration is that
22 the file path will disclose the user. Right?

1 A. So, again, it's basically -- yeah, I mean, the --
2 yeah. I mean, like I said, it's the user of the file
3 system, yes.

4 Q. So is it your testimony --

5 A. Uh-huh.

6 Q. -- as a person of ordinary skill in the art, that the
7 file path will necessarily disclose the user?

8 A. So as I said the example here, if the file path
9 includes the login name, login home directory as the
10 C:/home/statusReport, yeah, that tells you the user,
11 yes.

12 Q. But if the file path doesn't list the user -- like,
13 for example, in your example in paragraph 128,
14 C:/home/statusReport would be a file path. Right?

15 A. I wouldn't put a non-home user on the home, no.

16 Q. So is it your testimony that C:/home/statusReport
17 would not be a file path?

18 A. It would be a file path, but normally that's how that
19 operating system -- I mean -- okay. Let's step back.
20 Step back.

21 Q. If C:/home/statusReport is a file path, how does that
22 identify a user?

1 A. Well, so, again, there's some contextual information
2 here that you would know. Let's say, who owns the
3 computer? Who's the super user? I mean, that's --

4 Q. How is that -- can you tell that from the file path?

5 A. That's actually -- that's almost -- a POSITA would
6 say, hey, that's actually -- how do I put it?

7 You don't need the context of this event
8 to know. Let's say if you are monitoring security
9 for the computer software network, don't you know the
10 user of each computer? Of course you know.

11 Q. But that's not your testimony in paragraph 128. Your
12 testimony in 128 is that the file path will tell you
13 the user name. And so if the file path doesn't have
14 the user name in it, how does the file path tell you
15 the user?

16 A. That's what I'm trying to explain to you.

17 MR. HORTON: Form.

18 A. The file path home directory has user name that's
19 printed on it. Okay? Do we agree? Yes? Let's say
20 C:/home/sally. Okay. We know the user is Sally.
21 Right? You say suppose --

22 [Simultaneous Speaking]

1 BY MR. BLYTHE:

2 Q. -- the user necessarily Sally in that context? I
3 mean, couldn't Sally mean anything? I mean, it could
4 be Sally -- it could be Bob's computer and the file
5 directory says Sally. So how do you know the word
6 "Sally" means that that's the user?

7 A. Again, that's the contextual information that's
8 actually not even have to be specific to this event.
9 Meaning that, if you are doing -- I mean, a POSITA,
10 you ask a POSITA, how would you know? POSITA would
11 say, really? A POSITA would have all the information
12 normally about who used which computers in which the
13 file system is organized. So that by looking at the
14 file path --

15 Q. Okay. But you say --

16 A. The file path --

17 Q. You're saying here in 128 that that information is
18 coming from the file path.

19 A. Yes.

20 Q. Not just that a POSITA would say, really I would know.
21 Your testimony in paragraph 128 is that the user
22 information would come from the file path. Correct?

1 A. The file path for this event.

2 Q. Okay.

3 A. It's a context here. File path for this event.

4 Right? But my point is that you coordinate that with
5 your -- with a POSITA knowledge of your -- if a -- of
6 a skilled artisan. We're talking about skilled
7 artisan, meaning people that practice security.

8 So let's say, for example, let's say King
9 Spalding. For God's sake, I hope that you know who
10 used which computer and how file systems are being
11 organized. So that for this particular event, if
12 that's the file path, they know who is responsible
13 for that path and who actually may have created that
14 file. That's really a basic 101 for security.

15 You say, I don't know who did it. Wow.
16 Someone needs to be fired. I don't know.

17 So my point here is what I am trying to say
18 in 128 is that the file path is a point of reference.
19 Sometimes gives you directly who the user should be.
20 Sometimes tells you, hey, by looking up all the
21 contextual information of the network or system, you
22 should know.

1 Q. But you agree that a file path doesn't necessarily
2 include the identity of the user as part of the file
3 path. Right?

4 A. It may not directly include, but would lead to the
5 identity of the user if -- if ask a POSITA.

6 Q. Okay.

7 MR. BLYTHE: Okay. Let's take a break.

8 THE WITNESS: Okay.

9 (Off the record at 3:05 p.m.)

10 (Back on the record at 3:14 p.m.)

11 BY MR. BLYTHE:

12 Q. All right, Dr. Lee, I'd like to direct your attention
13 now to Claim 10 and 17 of the '224 patent, if you want
14 to take a look at those.

15 A. Okay.

16 Q. Claim 10 and 17 are directed to systems; is that
17 correct?

18 A. 10 is directed to systems. 17, yes, systems. So,
19 yes.

20 Q. Okay. Next I'd like to get -- or discuss your
21 understanding of where different elements of the
22 system were disclosed in Morris. So let's start by

1 looking at Claim 10, which refers to a device. Do you
2 see that?

3 A. Let me refer to the claim language of the '224.
4 Claim 10, yes.

5 Q. Claim 10 of the '224 recites a device. Correct?

6 A. Uh-huh. Yes.

7 Q. And Claim 17 also recites a device; is that right?

8 A. Yes. Uh-huh.

9 Q. Okay. So what part of the system disclosed in Morris
10 do you contend contains the device as claimed in the
11 '224 patent? And if it's helpful, I can direct you to
12 page 78, paragraph 113, to address this.

13 A. Yeah, so I think in terms of "device," I mean, talk
14 about in paragraph 113, that Morris talks about
15 apparatus for dealing with malware, so -- and the
16 apparatus, of course, is a device.

17 Q. And is it your opinion that the device is the remote
18 computer, in Morris?

19 A. I would say a remote computer is a device.

20 Q. Okay. But what is it -- this is not a trick question,
21 Dr. Lee. What is it in Morris that you contend
22 discloses the device? Is it the remote computer?

1 A. Well, analyzing and comparing, I mean, according to
2 Claim 1, you know, order comparison and classifying,
3 that's on remote -- no, no. Sorry. I take it back.
4 I strike it.

5 So basically I talk about remote computer
6 here is the figure that I show on 113. I red boxed
7 it. The operating remote computer to, you know,
8 multiple of them. Computer 2. Those are the device,
9 yes.

10 Q. Okay. So is it your opinion that the device in the
11 claims of the '224 patent is taught by the remote
12 computer in Morris?

13 A. Let me take a closer look here. Yep. I think for
14 the device in Claim 10, you know, the remote computer
15 here, as I said, computer 2 is one of the examples of
16 devices, yeah.

17 Q. Is it your opinion that the device in the claims of
18 the '224 patent is taught by the remote computer in
19 Morris?

20 A. Let me see here.

21 Q. And I'll tell you, it's the same question I just
22 asked. I'm just not clear on your answer. It seems

1 like the answer is, yes, but you keep saying other
2 stuff so I'm not sure I understand your answer. So
3 let me ask it one more time and see if we can get a
4 clear record.

5 Is it your opinion that the device in the
6 claims of the '224 patent is taught by the remote
7 computer in Morris?

8 A. Let me see here. I would say that the remote
9 computer in Morris meets the limitation of the
10 Claim 10 device. Of course, other computers can also
11 be a device too, so...

12 Q. What else in Morris, besides the remote computer, do
13 you contend teaches a device? And where is that
14 stated in your declaration, Dr. Lee?

15 A. Not in --

16 MR. HORTON: Objection. Form.

17 A. So what I'm trying to say is that not in this
18 particular limitation, but what I am trying to say in
19 general, a computer is a device. So any computer is
20 a device.

21 BY MR. BLYTHE:

22 Q. Okay. My question is specific to the claims including

1 Claim 10 and Claim 17.

2 A. Uh-huh.

3 Q. Let me ask one more time and see if we can get a clear
4 record. Is it your opinion that the device in the
5 claims of the '224 patent is taught by the remote
6 computer in Morris?

7 A. I'm trying to see a difference between 17 and 10.
8 Let me take a look at how I -- let me see here. Let
9 me look for the -- down my declaration here. Oh, let
10 me see.

11 Let me look at the Morris claim more
12 closely here. Let me see. Hmm. Interesting. Let me
13 take a little closer look at the -- how we --

14 MR. BLYTHE: Counsel, let me just take the
15 opportunity, while Dr. Lee is doing that, to note on
16 the record that we object to Dr. Lee's delay during
17 the deposition, taking an extensive amount of time to
18 answer very simple and direct questions.

19 He's refused to answer questions directly
20 throughout the course of the deposition today and
21 we're gonna -- I'm happy to let him take as much time
22 as he wants to review his declaration and all this in

1 response to these very simple, straightforward
2 questions, but to the extent that we go over the
3 time -- and I'm happy to sit here all afternoon and
4 have him answer these simple questions and spend time
5 looking at his declaration -- but we're gonna reserve
6 the right to come back and spend however much time it
7 takes with Dr. Lee to do this because clearly he's
8 either not prepared or doesn't know the material or
9 he's just trying to run out the clock.

10 And so we object to that, reserve the right
11 to come back for additional time if that ends up being
12 necessary.

13 MR. HORTON: Petitioner of course disagrees
14 with your characterization on prep and wait time on
15 this. There's likely some simple language barriers
16 that are leading to some of this delay. We'll, of
17 course, note your objection. We'll address that when
18 the time comes.

19 A. So I think I have looked at Morris patent. The
20 operators, I think they are -- I think it's -- if you
21 look at --

22 BY MR. BLYTHE:

1 Q. Let me just -- before you give whatever answer you are
2 going to give, let me ask the question yet again so
3 that we can try to get a clear record.

4 Is it your opinion that the device in the
5 claims of the '224 patent is taught by the remote
6 computer in Morris?

7 A. I would -- I would say that both the remote and the
8 base computer would meet the limitations.

9 Q. All right. Where in your declaration do you say that
10 the base computer meets the device limitations,
11 Dr. Lee?

12 A. I may not, not in the -- not in paragraph 113, for
13 sure, but I don't see how paragraph 113 exclude the
14 participation of, let's say, computer 3 as a device.
15 That's what I'm trying to say. Because --

16 Q. But your declaration has to state your opinions,
17 Dr. Lee. And so what I want to know is, where in your
18 declaration does it state the opinion that the base
19 computer is a device?

20 A. Well, I did not say that. Right? Basically, you
21 know, I mean, for this particular language, a device,
22 I am saying that clearly a remote computer is a

1 device. A base computer is also a device. That's
2 all.

3 Q. Okay. What is it that you contend, Dr. Lee, is
4 disclosing the device in Morris?

5 A. What do you mean? Can you repeat the question again?

6 Q. Is it your opinion that the device in the claims of
7 the '224 patent is taught by the remote computer in
8 Morris?

9 A. So like I said here in 113, I gave the remote
10 computer as a device. If you ask me what device is,
11 according to device comprising whatever, I mean, the
12 remote computer -- I mean, the base computer is also
13 a device.

14 Q. Okay. Where in your declaration do you state that it
15 is your opinion that the base computer in Morris is
16 the device in the claims of the '224 patent? And I'd
17 like to know the paragraph number.

18 A. I don't believe I explicitly say that, but I don't
19 need -- again, I don't think I need to say that. So,
20 again, if you read paragraph 113, again, say
21 "Morris's 'apparatus for dealing with malware' is
22 depicted below in Figure 1 and includes a device,

1 such as 'remote computer' box in red."

2 Doesn't mean that only the boxed in red is
3 a device.

4 Q. Okay. So is it your understanding that you can come
5 up with anything else that you don't say in your
6 declaration and use that as your opinion in this case?

7 MR. HORTON: Object to form.

8 A. So what I'm trying to say is that I did not -- if I
9 did not say that, let's say, base computer 3 is a
10 device, it doesn't mean that it is not.

11 BY MR. BLYTHE:

12 Q. Okay. But the only thing you actually identified as a
13 device, in Morris, is a remote computer; is that
14 right?

15 A. As I said in the declaration, I include the device,
16 such as -- such as a remote computer. Boxed in red.

17 Q. Okay. So is it correct that the only element in
18 Morris that you identified as disclosing a device is
19 the remote computer? Correct?

20 A. Well, the -- so, again, you are taking my answer out
21 of context. I'm just reciting paragraph 113 to say
22 that, you know, this figure includes a device, remote

1 computer. Doesn't mean that that's the only device.

2 Q. But you haven't identified any device other than the
3 remote computer in Morris in your declaration.

4 Correct?

5 A. Well, I mean -- I think in the spec of Morris, for
6 example, you know, paragraph 14 through 16, talks
7 about a base computer being used, meaning that the
8 remote computer sends data to the base computer. So
9 base computer is also device.

10 Q. So it's your testimony that the base computer is a
11 device in the claims of the '224 patent.

12 A. So really depends on -- you know, if we go down
13 further in the claim language where we're talking
14 about. But what I'm trying to say is that --

15 Q. No. I'm just asking about what your contention is.
16 What is it -- let me strike that and start over.

17 What is it, in Morris, that you contend
18 meets the limitation of a device in the claims of the
19 '224 patent?

20 A. Yeah, I mean, definitely the remote computers meets
21 that limitation.

22 Q. Okay. Anything else?

1 A. So we talk about remote computers. Some of the work
2 involves base computers, so base computer is a
3 device, you know. So does it meet all the limitation
4 of, let's say, Claim 10? You know, we can discuss
5 that in more detail, I guess.

6 Q. I'm trying to understand what your opinion is,
7 Dr. Lee. You have offered an opinion that Morris
8 renders Claim 10 obvious. Right?

9 A. Uh-huh. Yep.

10 Q. And in order to do that, you've got to identify where,
11 in Morris, each of the elements of Claim 10 is
12 disclosed. Right?

13 A. Okay. So like I said, I gave remote computer as an
14 example.

15 Q. Answer my question. You have to identify where, in
16 Morris, each of the elements of Claim 10 is disclosed.
17 Correct?

18 A. That's correct.

19 Q. Okay. And so what I'm asking is -- we're starting
20 with the first element of Claim 10, the device. My
21 question to you is, where, in Morris, does it disclose
22 a device as claimed in the '224 patent?

1 A. So you talk -- if you talk about Claim 10 as a whole
2 or Claim 17 as a whole, then remote computer, as I
3 outline here, meets the -- meets the limitations.

4 But what I -- what I -- what I'm trying to
5 say is that, if you only have focus on that one
6 particular sentence, "a device," well then a remote
7 computer is also -- or the base computer is also a
8 device. That's what I'm trying to say.

9 Q. I'm asking you about a device in the context of the
10 claim, Dr. Lee, which I said probably ten times now.

11 A. So it's Claim 10 in totality.

12 Q. Yeah.

13 A. Okay. Then remote computer.

14 Q. Just a remote computer.

15 A. That's one of the examples.

16 Q. Okay. What else?

17 A. It suffice. It suffice my opinions. Because I say
18 the remote computer -- if remote computer satisfy --
19 meets the -- meets the limitation, that's good
20 enough. Anything else --

21 Q. Okay. Let me try one more time.

22 Dr. Lee, what is it, in Morris, that you

1 contend discloses the device in the claims of the '224
2 patent?

3 A. Again, I don't have to offer that opinion. I offer
4 opinion that the remote computer meets the
5 limitation. That's good enough for this declaration.

6 Q. Okay. Do you contend that anything other than the
7 remote computer meets the limitation of a device in
8 the claims of the '224 patent?

9 A. That's not what I was talking about. I'm talking
10 about if you only talk about what is a device. I'm
11 trying to make sure that we include that -- the fact
12 that the remote computer talks to the base computer,
13 and so base computer is in the whole, kind of, chain
14 or workflow. I mean, that's what I'm intending to
15 do, so...

16 MR. BLYTHE: At this point, again, Counsel,
17 I want to be clear that we have a record here showing
18 that Dr. Lee is not answering my questions. I think
19 that's abundantly clear based on how the deposition
20 has gone today. He is clearly filibustering and not
21 answering simple questions.

22 But I'm going to ask this one more time and

1 move on. If he continues to not answer it, we're
2 going to proceed on the basis that he's refusing to
3 answer questions.

4 BY MR. BLYTHE:

5 Q. So, one more time, Dr. Lee, do you contend that
6 anything other than the remote computer meets the
7 limitation of a device in the claims of the '224
8 patent?

9 A. So as I said before. Right? So you talk about
10 Claim 10, the remote computer meets the -- meets the
11 limitations.

12 MR. BLYTHE: We're going to move on and
13 reserve the right to challenge that with the Board.

14 BY MR. BLYTHE:

15 Q. All right. Let's move on to the communication
16 interface. The Claim 10 recites a communication
17 interface.

18 A. Yes.

19 Q. All right. And do you see Claim 17 recites a
20 communication interface? Do you see that, Dr. Lee?

21 A. Yes.

22 Q. All right. Now I would refer you to page 78 and

1 paragraph 114 of your declaration, ask you to take a
2 look at that.

3 A. Yes. All right.

4 Q. Dr. Lee, what is it, in Morris, that you contend
5 discloses a communication interface as that term is
6 used in the claims of the '224 patent?

7 A. Well, I mean, as I said in 114, right, explains that
8 the remote computer is -- which is a device, is a
9 little bit debate about -- "are connected to the
10 'Internet [1]' or other type of network," for
11 example, "(LAN) to enable communication with base
12 computer."

13 So obviously you need communication
14 interface to communicate, connect to remote
15 computers. That's a -- a POSITA would -- yeah.

16 Q. This is the communication interface on the remote
17 computer in Morris?

18 A. That's what I talk about is that a POSITA would have
19 understood Morris computer -- Morris's remote
20 computer would include a communication interface to
21 facilitate communication across network to base
22 computer 3.

1 Q. Move on to the next term. Claim 10 refers to a
2 "processor." Do you see that, Dr. Lee?

3 A. Yes.

4 Q. And Claim 17 also refers to a "processor." Do you see
5 that?

6 A. Yes.

7 Q. All right. I will now refer you to page 79,
8 paragraph 115 of your declaration. Do you see that?

9 A. Yes, I see that.

10 Q. Dr. Lee, in your opinion, where, in Morris, is the
11 processor disclosed as being located as the term
12 "processor" is used in the context of the claims of
13 the '224 patent?

14 A. Yeah. So, basically, I mean, as I said in 115,
15 right, "Morris further explains that its remote
16 computer 2 -- which optionally [can] be a personal
17 computer -- is configured to run 'local 'agent'
18 software' for performing the functions described in
19 its disclosure."

20 So everybody would understand that. A
21 POSITA would understand. I mean, like I said further
22 down, POSITA would -- "A skilled artisan would have

1 understood remote computer 2 would" have include
2 processor to execute these functions and -- such as
3 the local agent software.

4 I mean, that's a -- yeah.

5 Q. Okay. So it's your testimony, Dr. Lee, that the
6 processor described in the claims of the '224 patent
7 is located on the remote computer in Morris; is that
8 right?

9 A. As I said here, a POSITA -- I mean, "A skilled
10 artisan would have understood remote computer 2,"
11 which is a device, "would include a processor" in
12 order to execute functions such as the local agent
13 software.

14 Q. Okay. Move on to the next one, "data storage."
15 Dr. Lee, do you see Claim 10 requires data storage?

16 A. Yes.

17 Q. And Claim 17 also requires "device comprising data
18 storage." Do you see that?

19 A. Yes.

20 Q. Okay. Dr. Lee, where is it that you contend -- well,
21 actually, sorry, let me strike that.

22 Let me first direct you to pages 79 and 80

1 of your declaration, paragraph 116.

2 A. Uh-huh.

3 Q. Dr. Lee, where is it that you contend that the data
4 storage is located in Morris as the term "data
5 storage" is used in the context of the '224 patent?

6 A. So at the bottom of page 79 I talk about "computer
7 2," which is device, "may have agent software
8 installed." So then one of the -- you know, one of
9 skill in the art would have understood remote
10 computer 2 that's include data storage. Because,
11 otherwise, how we install software? Yeah.

12 Q. So it is your opinion, Dr. Lee, that it is remote
13 computer 2 -- well, let me strike that.

14 It is your opinion, Dr. Lee, that it is the
15 remote computer, in Morris, that meets the data
16 storage requirement of the claims of the '224 patent?

17 A. Yeah. I mean, as I say in paragraph 116, a skilled
18 artisan would know that remote computer includes data
19 storage.

20 Q. All right. Let's look at the next term, "sensor
21 agent." Do you see the term "sensor agent" in
22 Claim 10 of the '224 patent?

1 A. Yes.

2 Q. All right. And Claim 17 also refers to a "sensor
3 agent." Do you see that?

4 A. Yes.

5 Q. All right. Let me direct you to page 80,
6 paragraph 117. Have you had a chance to review that?

7 A. Yes.

8 Q. All right. Dr. Lee, where is it in your opinion that
9 Morris discloses a sensor agent as the term "sensor
10 agent" is used in the claims of the '224 patent?

11 A. Let me look at the paragraph I cited. 115 of my --
12 so you're talking about the sensor agent. Right?

13 Q. Yes. Actually, I already directed you to page 80 in
14 paragraph 117 of your declaration.

15 A. Yeah.

16 Q. Which I think you reviewed. Right?

17 A. Right, right. So basically in paragraph 117 I refer
18 back to 115 to basically say that, you know, the
19 remote computer 2 is configured with the local agent
20 software for effectuating the described methods and a
21 processor for executing function of the local agent
22 software.

1 So that agent, essentially, is the sensor
2 agent.

3 Q. Okay. So is it your opinion, Dr. Lee, that the sensor
4 agent is located on the remote computer in Morris?

5 A. So what I'm saying is that the local agent software
6 on the remote computer is a sensor agent.

7 Q. Let's move on to the next term, "gather an event,"
8 Claim 10. Claim 10 includes the language "gather an
9 event." Do you see that?

10 A. Yes.

11 Q. Well, let me -- let me strike that. Let me just
12 clarify.

13 Claim 10 refers to a sensor agent that is
14 operable to gather an event. Do you see that?

15 A. Okay. A sensor agent is the one -- the local storage
16 that is executable by processor server and the sensor
17 agent used to operate -- operable to current event.

18 Okay. Yep. I see that.

19 Q. Claim 17 also refers to a sensor agent that "is
20 operable to: gather an event." Do you see that?

21 A. Yes.

22 Q. And let me refer you to page 80, paragraph 118. And

1 then I think refers back to page 58, paragraph 77.

2 A. Yes, I'm here.

3 Q. Have you had a chance to review that? All right.

4 A. Uh-huh.

5 Q. So, Dr. Lee, what is it in Morris that you claim
6 discloses gathering an event as used in the claims of
7 the '224 patent?

8 A. So I'm referring to -- I think in paragraph 77 I was
9 reciting paragraph 18 in the Morris patent,
10 essentially talks about the -- if I read the --
11 paragraph 18, you know, basically what that says is
12 that the data -- oh, shoot. Sorry.

13 "The data about the computer object that is
14 sent from the plural remote computers to the base
15 computer and that is used in the comparison includes
16 one or more of," and then it gives a list of things
17 like "executable instructions contained within or
18 constituted by the object," and so on and so forth,
19 and also includes "events initiated by or involving
20 the object when the object is created, configured or
21 runs on the respective remote computers."

22 So what it is saying here is that -- sorry.

1 Go ahead.

2 Q. What are you reading from there?

3 A. Paragraph 18 of Morris.

4 Q. Okay.

5 A. So this --

6 Q. Dr. Lee, is it your --

7 A. Go ahead.

8 Q. -- opinion that the event referred to in the claims of
9 the '224 patent is on the remote computer in Morris?

10 A. Let me see here. Yes, that's where the data being
11 sent, from the remote to the base computer and
12 include an event.

13 Q. So the event that is being gathered in the claims of
14 the '224 patent is on the remote computer. Correct?
15 In Morris. Sorry, let me strike that. That didn't
16 come out completely.

17 So is the event that is being gathered in
18 the claims of the '224 patent on the remote computer
19 in Morris?

20 A. I would say that, here, the event really -- you know,
21 so here the language "events initiated by or
22 involving the object when the object is created,

1 configured or runs on the respective remote
2 computers."

3 That really meets the limitation of the
4 claim saying gathering an event, defining an action of
5 a first object acting on a target. So that's what I'm
6 trying to say.

7 Q. So is the event -- so is the event that is being
8 gathered in the claims of the '224 patent on the
9 remote computer in Morris?

10 MR. HORTON: Objection. Asked and
11 answered.

12 A. So like I said, the event -- I mentioned that the
13 event -- the data that's being sent from the remote
14 computer to base computer including these things
15 happening, that's the thing that happen on a remote
16 computer as the remote computer must have gathered
17 that to send over, and that includes events initiated
18 by or involving the object when the object is
19 created, configured, or runs on the respective remote
20 computers.

21 And like I said, that meets the definition
22 of the limitation of carrying an event, defining an

1 action of a first object acting on a target.

2 Q. Okay. Claim 10 refers to "generate contextual state
3 information." Do you see that?

4 A. Okay. Yes. I see that. Yeah.

5 Q. Claim 17 refers to "contextual state information." Do
6 you see that?

7 A. Yep. I see that.

8 Q. And then I would refer you to page 80,
9 paragraph 118 --

10 A. Uh-huh.

11 Q. -- and then page 62, paragraph 83.

12 A. Paragraph 83. Let me see. Interesting.
13 Paragraph 83. Okay.

14 I am starting to get confused by all these
15 numbers. Okay. Paragraph -- I'm sorry, I'm a little
16 confused on all the numbers. Which page of the --

17 Q. Yeah, I'm just trying to follow what you cited in your
18 declaration. You --

19 A. Okay.

20 Q. -- appear to address this element at page 80,
21 paragraph 118. Do you see that?

22 A. Yes.

1 Q. But then that refers back to page 62, paragraph 83.
2 Correct?

3 A. Page 62. Okay. Yep. Page 62. Okay. 83. Okay.
4 Uh-huh.

5 Q. Paragraph 83. So where in Morris is it that you
6 contend the contextual state information is generated
7 stated in the claims of the '224 patent?

8 A. Okay. Let me see. So -- okay. So here on page --
9 on paragraph 83 I basically say, "On top of the event
10 metadata associated with running an object at one or
11 more remote computers, Morris describes additional
12 types of context generated from an event that is sent
13 to the base computer to further inform analytical
14 processing techniques."

15 And then, for example, Morris's -- Morris
16 discloses, among other types, the type of metadata
17 captured by paragraph 104 of Morris. I guess -- yeah.
18 Yeah. So --

19 Q. Dr. Lee -- go ahead.

20 A. Yeah. So, basically, you know, from paragraph 104
21 on, I list a bunch of contextual information,
22 basically. And then I go on to use -- to actually,

1 you know, mention that -- mention Genesisactor
2 because the claim limitation talks about an
3 originating object, yeah, so...

4 Q. So, in Morris, is the contextual state information
5 generated at the remote computer, the base computer,
6 or somewhere else?

7 A. So as I said here -- yeah. I talk about Morris
8 describes additional type of contact generated from
9 an event that is sent to the base computer. So some
10 of this information, obviously you get it from the
11 base computer.

12 Q. Okay. Let me ask the question one more time to try to
13 get a clear record. In Morris, is the contextual
14 state information generated at the remote computer,
15 the base computer, or somewhere else?

16 A. I -- let me see here. So the -- the base -- the
17 remote computer sends contextual information to the
18 remote -- to the base computer, that's for sure. So
19 meaning that the remote computer, whatever it does,
20 as we describe here in the declaration, meets the
21 limitation. It gathers contextual information,
22 metadata, and so on, and sends the remote -- and

1 sends to the base computer.

2 Q. Claim 10 refers to -- says -- Claim 10 says, "generate
3 contextual state information." Do you see that?

4 A. Yes.

5 Q. So where in Morris is contextual state information
6 generated?

7 MR. HORTON: Objection. Asked and
8 answered.

9 A. So I think -- for example, I think I have early
10 example of the kind of data being sent over. Right?
11 Let me see. So it just tells you that it's the
12 contextual information that's being gathered and
13 generated before sending over.

14 Escape me. Let me see. Where is it?

15 BY MR. BLYTHE:

16 Q. And to be clear, I'm not asking about the kind of data
17 being sent over. My question is, where in Morris is
18 contextual state information generated?

19 MR. HORTON: Same objection.

20 A. So, as I said, the remote computer does that and
21 sends it over. I mean, it's the only one that does
22 any contextual analysis? I'm not saying that. I'm

1 saying that, hey, the remote computer does gather
2 information including contextual information and
3 sends it over.

4 I think that's -- we discuss that earlier,
5 I think. Oh, I think actually in paragraph -- yeah.
6 So I think when I cite paragraph 108, it talks
7 about -- of Morris -- no. Sorry. No, that's right,
8 paragraph 18. Sorry. It's getting late in the day
9 and I am reading here wrong.

10 Yeah. So you -- I mean, paragraph 18 talks
11 about a lot of these are basic contextual information.
12 A POSITA would agree that this is contextual
13 information and it's being sent over from the remote
14 computer to base computer.

15 Q. Okay. Let's look at the next term. Claim 10 refers
16 to "obtain a global perspective." Do you see that?

17 A. Yes.

18 Q. Claim 17 refers to "determine the global perspective."
19 Do you see that?

20 A. Let me see here. I'm talking about "determining"
21 global perspective. Is that the same as "obtaining"?
22 17 talks about --

1 Q. I'm just -- I'm referring you to the -- to the claim.
2 So Claim 10 refers to "obtain a global perspective."
3 Correct?

4 A. Yep. Yes.

5 Q. Claim 17 refers to determining "a global perspective."

6 A. Yep. Yep.

7 Q. Correct?

8 A. Yes. I try to -- I try to point out that 17 use
9 "determine." You said "obtain." But okay. Yeah.

10 Q. Okay. So let's look at paragraph 94 of your
11 declaration.

12 A. Okay. Interesting.

13 Sorry, which paragraph -- which paragraph?
14 94, you said?

15 Q. Paragraph 94, page 69.

16 A. Okay. Right. Yep.

17 Q. All right. So it's your opinion that Morris
18 "discloses obtaining a global perspective by
19 determining whether a first or originating object is
20 malware based on familial relationships (i.e., based
21 on the contextual state information) in the same way
22 as the '224 Patent; is that right?

1 A. Let me look at the context of that paragraph. Let's
2 see... okay. So, yeah. So, I'm sorry, can you
3 repeat the question again? Can you repeat the
4 question again with regard to paragraph 94? Yeah.

5 Q. So in paragraph 94 -- well, let me strike that.

6 It's your opinion, is it not, that Morris
7 "discloses obtaining a global perspective by
8 determining whether a first or originating object is
9 malware based on familial relationships (i.e., based
10 on the contextual state information) in the same way
11 as the '224 patent."

12 A. Yes. That's my opinion here, yes.

13 Q. Okay. And then if you turn to paragraph 122, I think
14 it addresses this also.

15 A. 122. Okay.

16 Q. So it's your opinion that Morris discloses a malware
17 determination is obtained by base computer 3
18 performing an analysis on the data stored in database
19 7. Right?

20 A. Hold on. Let me see the context here. So here, I
21 mean, I think the context is we talk about a global
22 perspective information server, so that's -- yeah.

1 So what's your question again?

2 Q. Is it your opinion that Morris discloses a malware
3 determination is obtained by base computer 3
4 performing an analysis on the data stored in
5 database 7?

6 A. I think that's one of the methods that it is
7 describing, again, in the context of the global
8 perspective information server, yeah.

9 Q. All right. Well, it's your opinion, right, based on
10 paragraph 94, that Morris discloses obtaining a global
11 perspective by determining whether a first or
12 originating object is malware. Right? At
13 paragraph 94.

14 A. Yeah. Yes.

15 Q. All right. And it's also your opinion that Morris
16 discloses that the malware determination is obtained
17 by the base computer performing an analysis on the
18 data recorded in database 7. Right?

19 A. Again, that's in the context of talking about the
20 global perspective information server.

21 Q. Okay.

22 A. Okay. And if you --

1 Q. And that means that Morris discloses a malware
2 determination is obtained by base computer 3
3 performing an analysis on the data stored in
4 database 7?

5 MR. HORTON: Objection. Asked and
6 answered.

7 A. So, again, the paragraph I'm referring to that this
8 refers to really is in the context of the Claim 12,
9 global perspective communication server. And that's
10 paragraph 112 talking about that one, meaning that
11 what the global perspective information server in
12 this case, base computer 3, in conjunction with
13 database 7, what would they do.

14 But if you read the Morris patent,
15 Figure 2 talks about what the remote computer could
16 do, to get the same perspective, is search the local
17 database.

18 Q. Well, earlier today you testified that the global
19 perspective is something that's not local. That's, in
20 fact, global and not local. Right? So --

21 A. Hold on, hold on, hold on. You misquoted me.

22 I was saying that the global perspective

1 would be only considering information has no external
2 input. Okay? And if you read further of the Morris
3 spec, it talks about how the local database get
4 updated by the global perspective information server.

5 So basically your local server has the
6 information from the global perspective server, so we
7 have external input. So if you use that information
8 to draw a conclusion, that's global perspective.
9 It's not local.

10 You know, if you go back to the
11 transcript, I said very clearly, the local
12 perspective is that you only -- in anything that
13 include has been only local, no -- emphasize, no
14 external input. Okay? So don't --

15 [Simultaneous Speaking]

16 Q. So is it your testimony, Dr. Lee, that Morris
17 discloses obtaining a global perspective at the
18 local -- at the remote computer?

19 A. So what I am trying to say is that remote computer
20 could obtain global perspective. It is a -- there is
21 a match in the global database. Why? Global
22 database, the signatures and whatnot, the familial

1 tree, all that, they are supplied and updated by the
2 global information perspective server.

3 So you also -- by analyzing locally, you
4 could only draw conclusion up. That's not in malware
5 according to my -- to information from the global
6 perspective. It's actually globally spreading
7 malware. You can get that information locally.

8 Q. Looking just at the local computer.

9 A. In some cases, yes.

10 Q. All right. Let me ask one more time because I want to
11 be clear. Is it your testimony, Dr. Lee, that the
12 global perspective is obtained by the base computer or
13 by the remote computer?

14 MR. HORTON: Objection. Asked and
15 answered.

16 A. So I think as I answer, right, 122 talks about how --
17 again, you know, 122 is in the context of Claim 12,
18 meaning that what would a -- what would a -- well, I
19 mean, why don't we just read the Claim 12? It says
20 very clearly actually.

21 You know, it says that, Claim 12, "claim
22 10, further comprising: a global perspective

1 information server; and a end recipient device,
2 wherein the information associated with the one or
3 more of the first object and the originating object
4 is obtained from the global perspective information
5 server and the sensor agent transmits the event line
6 to the end recipient device."

7 So really it should be clear that, you
8 know, in 112 we talk about what the local
9 information -- what the global information perspective
10 server would perform, what kind of database it has and
11 what kind of determination analysis it could do, but
12 then you would actually send the event line to the end
13 recipient device which would include the remote
14 computer.

15 So my point is that remote computer would
16 be updated with global perspective information. So if
17 there's a match, as the Figure 2 of the Morris patent
18 teaches, then you gain the global perspective.

19 But you -- but in regards you do send, you
20 know, when -- when, you know, ideally, you still send
21 data to the base computer 3 to further, you know,
22 enrich global perspective and then get updates. I

1 mean, that's how it works. And a POSITA would agree
2 that, in general, that's how it works.

3 Q. Okay. So you testified, in paragraph 94, that
4 obtaining a global -- Morris discloses obtaining a
5 global perspective by determining whether the first or
6 originating object is malware. Right?

7 A. I said that Morris is therefore disclosing "obtaining
8 a global perspective by determining whether a first
9 or originating object is malware based on familial
10 relationships...in the same way as '224 patent."

11 Yeah, that's what I said. Yeah.

12 Q. Okay. So then in paragraph 88, you refer to the base
13 computer comparing "data about the computer object
14 received from the plural computers; and, classifying
15 the computer object as malware on the basis of said
16 comparison."

17 Do you see that?

18 A. Yes.

19 Q. All right. So in paragraph 88, are you saying that
20 it's the base computer that's determining the global
21 perspective?

22 MR. HORTON: Object to form.

1 A. You have to talk about how the -- in paragraph 88
2 when I talk about explicitly -- specifically how the
3 base computer, based on the information received from
4 the remote computer, you know, as highlighted text
5 says "classifying the computer object as malware on
6 the basis of said comparison" and also determining
7 whether a particular object should be classified as
8 malware.

9 So, basically, this here lists what kind of
10 comparison analysis you would do on the base computer.
11 So...

12 BY MR. BLYTHE:

13 Q. Okay.

14 A. But again, like I said, you know, at the end, you
15 know, the local computer get updated with all this
16 information, and my Figure 2 shows -- it teaches --
17 he actually does, you know, try to obtain that, try
18 to draw a conclusion based on the local search.
19 Again, based on global information. So that's why
20 it's gaining a global perspective. It doesn't mean
21 that global computer -- I mean, the remote computer
22 performs data with everybody else, no. That's base

1 computer does that. But -- yeah.

2 Q. Okay. Let's look at the next term, "generate an event
3 line." Claim 10 of the '224 patent refers to
4 "generate an event line." Do you see that?

5 A. Yes.

6 Q. And Claim 17 refers to "generate an event line." Do
7 you see that?

8 A. Yes.

9 Q. Okay. Dr. Lee, what is it, in Morris, that you
10 contend generates an event line; the remote computer,
11 the base computer, or something else?

12 A. Okay. So let me see. Let me go to that paragraph.
13 Where is it?

14 Q. Page 72, paragraph 99.

15 A. Oh, that's 72. Okay.

16 Yeah, so I think on page 99 I do talk about
17 Morris on the -- on the -- let me see here. Let me
18 see paragraph 78.

19 So let me just look at the language where
20 the signature is being sent. Yeah.

21 So if you look at the paragraph 86, it
22 basically -- the event -- example event line that

1 Morris uses essentially is "signature or 'key'" in
2 order to keep the information down, you know, in
3 particular for matching or searching purposes.

4 And then, in paragraph 86 of Morris, it
5 talks about "the key may be formed by," you know,
6 "hashing function operating on the object at the
7 remote computer 2."

8 And then -- so I think that's how they
9 communicate, I guess, the -- yeah. That's how they
10 generate information, and I think that -- let me see
11 paragraph 78.

12 Q. Dr. Lee, respectfully, you seem to just be reading
13 excerpts from your declaration that are, sort of,
14 non sequiturs to my question. My question is, what is
15 it in Morris that you contend generates the event
16 line: the remote computer, the base computer, or
17 something else?

18 MR. HORTON: Object to form.

19 A. Like I said, if you look at paragraph 78, it talks
20 about the base computer generating event line, which
21 is signature. And then 86 also talks about the
22 remote computer also does something similar as well.

1 So they basically talk about generating event lines
2 comprising information to the event.

3 BY MR. BLYTHE:

4 Q. Okay. So it's your testimony that both the remote
5 computer and the base computer generate an event line
6 as that term is used in the claims of the '224 patent?

7 A. They include event line information, yeah. They send
8 out the information as well, yeah.

9 Q. Okay. Let's look at the next term in Claim 10 refers
10 to "transmit the generated event line."

11 A. Okay.

12 Q. Do you see that? And Claim 17 also refers to
13 "transmit the generated event line." Do you see that?

14 A. Yes. Yes.

15 Q. Okay. And I would refer you to page 74,
16 paragraph 103.

17 A. Uh-huh.

18 Q. What is it in Morris, Dr. Lee, that you contend
19 discloses transmitting the generated event line?

20 A. So, here, let me -- I think, as I said here -- let me
21 look at paragraph 123.

22 Hold on. Let me see here.

1 Okay. Just bear with me. I am going to
2 read the paragraph.

3 So I think I -- as I said in paragraph 103,
4 right, I talk about, you know, I think paragraph --
5 let me see. Let me read this.

6 You know, basically sending data in the
7 form as a key to keep down the volume of data that
8 needs to be transmitted. And also to the base
9 computer, really, I think is the most efficient way to
10 search and do matching.

11 And then the key transmitted to the main
12 database, for example, that's paragraph 123, I
13 believe. Yeah. And then, you know, the key is copied
14 to the local database I guess that -- I guess when it
15 gets the update.

16 So, basically, that's really -- what it
17 says is that, yeah, the information -- the event line
18 information in the form of key really being
19 transmitted in both directions and it's being used to
20 update the local database.

21 Q. So is it your testimony that the -- both the remote
22 computer and the base computer transmit -- let me

1 strike that.

2 Is it your testimony that both the remote
3 computer and the base computer transmit the generated
4 event line using the communication interface?

5 A. Yeah. They transmit event lines, yes.

6 Q. Okay. Let's look at Claim 12. Claim 12 refers to a
7 "global perspective information server." Do you see
8 that?

9 A. Okay. Is it -- is it Claim 12?

10 Q. Correct.

11 A. Okay. Yep.

12 Q. All right. And then I would direct you to page 82,
13 paragraph 120. Page 81, 82, paragraph 120.

14 A. 120.

15 Q. Take a minute to review that.

16 A. Okay. Okay. I have reviewed paragraph 120, yes.

17 Q. Okay. What is it, in Morris, that you contend is the
18 "global perspective information server" as that term
19 is used in the claims of the '224 patent?

20 A. So as I illustrated in this figure in paragraph 120,
21 right, so I basically box database server 7 and the
22 base computer 3 together, and in paragraph 120 I said

1 "A skilled artisan would have understood that base
2 computer [7] and database 7" -- I'm sorry, "base
3 computer 3 and database 7 together function
4 consistently as the claimed global perspective
5 information server." Yeah.

6 Q. Okay. And then let's look at the term "end
7 recipient." Claim 12 refers to an "end recipient."
8 Do you see that?

9 A. Let me see. "End recipient," yes.

10 Q. Okay. And I believe that's also addressed on page 82,
11 paragraph 120. Do you see that?

12 A. Yes.

13 Q. All right. So what is it that you -- sorry, let me
14 strike that.

15 What is it, in Morris, that you contend is
16 the end recipient as that term is used in the claims
17 of the '224 patent?

18 A. Let me take a look at this.

19 So, really, an end recipient is -- end
20 recipient device is any device that receive the
21 transmission, basically.

22 Q. You say, in paragraph 120, "A skilled artisan would

1 have understood that base computer 3 is an end
2 recipient, boxed in green."

3 Do you see that?

4 A. Yes. It is an end recipient when, for example, if
5 the remote computer sends the event line over there.
6 Yeah. I mean, it's -- like I said, an end recipient
7 is a recipient that gets the information.

8 If you say, the end recipient really has
9 to be specifically, in this limitation, talks about
10 getting information from the global perspective
11 information server, then these remote computers 2s,
12 they are the remote recipients, which, as we just
13 discussed, they do receive the event lines.

14 So a POSITA would not be confused. They
15 would agree that base computer 3 is a end recipient
16 device.

17 Q. Okay. Is anything other than base computer 3 an end
18 recipient device in Morris?

19 MR. HORTON: Objection. Asked and
20 answered.

21 A. Like I said, an end recipient device is a device that
22 receive information. Basically, that's the other end

1 of the communication, basically.

2 In the context of the remote computer
3 sending event line to the global perspective
4 information server, then, you know, we would say that
5 base computer 3 is the end recipient device.

6 If you talk about the context, you know,
7 that we're speaking, it's strictly end recipient that
8 receive information from the global perspective
9 information server, then the remote computers 2s,
10 those are the end recipients, and which we have
11 discussed, you know, the remote computer and base
12 computer they send event lines to each other,
13 basically, so that means they're both end recipient
14 devices.

15 Q. Okay. So is it your testimony, Dr. Lee, that if the
16 base computer sends an event line back to the local --
17 sorry. Let me strike that.

18 Is it your testimony that if the base
19 computer sends an event line back to the remote
20 computer, in Morris, that the remote computer is an
21 end recipient as that term is used in the '226 patent?

22 A. Yeah. In this case, the remote computer is a end

1 recipient device. But what I'm trying to say here is
2 that in the Figure I marked, base computer 3 is an
3 end recipient device is not wrong because end --
4 because the base computer 3 also receive information,
5 for example, event line from the remote computer. So
6 it is an end recipient device.

7 Q. Okay. Does Morris teach sending an event line from
8 one remote computer to another remote computer?

9 A. Not that I recall, no. Not that I recall. But I'm
10 not excluding that either.

11 Q. Well, I need to know your opinion, Dr. Lee. That's
12 what we're here to find out.

13 A. Well, I mean, computer -- okay.

14 Q. So is it your testimony that Morris teaches sending an
15 event line from one remote computer to another remote
16 computer?

17 A. In the context of event line, meaning the keys or
18 signatures of the malicious events, yeah. I mean,
19 the context of Morris talks about communicating
20 between one -- multiple remote computers to a -- to
21 the base computer. Okay? That's the context.

22 Meaning that they send the information

1 relating to the event. Right? You know, the object
2 being, you know, executed on the targets, so on and
3 so forth, and all contextual informations.

4 But if you're talking about, hey, do two
5 remote computers communicate with each other? Yeah,
6 they could. In this case, in the context that they
7 are communicating for whatever reasons, yeah, they
8 are end recipients of each other. So a POSITA would
9 agree that.

10 Q. Does Morris teach sending a event line from one remote
11 computer to another remote computer?

12 A. Again, I don't recall seeing that. It doesn't mean
13 it's not there. You know, you can point it out to me
14 if you see it.

15 Q. So are you familiar with anything in your declaration
16 that would suggest that your opinion that Morris
17 teaches sending an event line from one remote computer
18 to another remote computer?

19 A. Again, I don't recall saying that. But, again, I
20 don't want to exclude things that I may have, you
21 know, remembered wrong. But if you see it, point it
22 out to me, so...

1 Q. Okay.

2 MR. BLYTHE: Let's take a break.

3 THE WITNESS: Okay.

4 (Off the record at 4:28 p.m.)

5 (Back on the record at 4:37 p.m.)

6 BY MR. BLYTHE:

7 Q. Dr. Lee, are you familiar with a Dr. Richard Newman
8 from the University of Florida?

9 MR. HORTON: Objection. Scope.

10 A. I mean, in what context? I mean, the -- I mean, my
11 declaration refers to, you know, the references that
12 I cite, so that's the -- if I am not -- I don't
13 remember that name from any of the references that I
14 use.

15 BY MR. BLYTHE:

16 Q. Do you -- apart from -- apart from what's in your
17 declaration, do you know Dr. Richard Newman, who is a
18 computer and information science professor at the
19 University of Florida?

20 MR. HORTON: Same objection.

21 A. So, again, like I said, you know, I focused my
22 work -- my work is focused on the references -- I

1 mean, the scope of my work or the basis of my
2 opinions is formed based on, of course, the knowledge
3 of the prior art and the particular references that I
4 cited.

5 But within the context, I don't remember
6 running across publication from this professor. I
7 mean, I could miss the name, but otherwise, you ask
8 me, out of this context, do I know this person, I
9 don't recall, to be honest.

10 Q. I want to be clear. My question is not specific to
11 your declaration or any references you've considered.

12 A. Uh-huh.

13 Q. My question is, in any context, do you know a
14 Dr. Richard Newman who is a professor at the
15 University of Florida?

16 MR. HORTON: Same objection.

17 A. Again, that's -- not that I know of. I know why it's
18 related to this case, but anyway.

19 BY MR. BLYTHE:

20 Q. But that doesn't matter, Doctor. You just have to
21 answer my question. Unless your counsel is going to
22 instruct you not to answer the question, you cannot

1 decide that you don't think it's important and refuse
2 to answer. And I'm happy to have your counsel talk to
3 you about that or he can instruct you not to answer
4 the question, but you're not deciding what's relevant
5 and not. So let me be clear. I'm going to ask the
6 question and I expect an answer because you're under
7 oath. Is that clear?

8 A. Okay.

9 Q. My question is, are you familiar with a Dr. Richard
10 Newman, in any context, with Dr. Newman being a
11 professor at the University of Florida?

12 MR. HORTON: Same objection. Asked and
13 answered.

14 A. Not that I recall, no.

15 BY MR. BLYTHE:

16 Q. Okay. Are you familiar with a Dr. Gene Tsudik, who is
17 a professor at U of C Irvine?

18 MR. HORTON: Objection. Scope.

19 A. Yeah. Yeah, I mean, I know Gene. Yeah.

20 BY MR. BLYTHE:

21 Q. Okay. Have you ever spoken with Dr. Tsudik in
22 connection with this case?

1 MR. HORTON: Same objection.

2 A. No. No.

3 BY MR. BLYTHE:

4 Q. Have you ever spoken with Dr. Tsudik about any
5 Open Text patent?

6 MR. HORTON: Same objection.

7 A. No.

8 BY MR. BLYTHE:

9 Q. Have you ever spoken with Dr. Tsudik about Open Text
10 lawsuits?

11 MR. HORTON: Same objection.

12 A. No.

13 BY MR. BLYTHE:

14 Q. Okay. Are you familiar with Dr. Seth Nielson from the
15 University of Texas at Austin?

16 MR. HORTON: Objection. Scope.

17 A. Again, I have no recollection of this guy, no.

18 BY MR. BLYTHE:

19 Q. Are you familiar with Dr. Henry Houh, H-o-u-h, from
20 Massachusetts --

21 MR. HORTON: Objection. Scope. I'm sorry.

22 A. I'm sorry, from where?

1 BY MR. BLYTHE:

2 Q. From Massachusetts, Dr. Henry Houh. Are you familiar
3 with a Dr. Henry Houh from Massachusetts?

4 A. Not that I know of. By the way, Massachusetts is a
5 huge state, so -- relatively.

6 Q. Are you familiar with a Dr. Michael Goodrich from
7 UC Irvine?

8 MR. HORTON: Objection. Form.

9 A. I think I know of this name, but I'm not sure I
10 actually have any personal interaction before, no.

11 BY MR. BLYTHE:

12 Q. Okay. Have you ever spoken with Dr. Goodrich before,
13 to your recollection?

14 MR. HORTON: Same objection.

15 A. No, not that I know of.

16 BY MR. BLYTHE:

17 Q. Are you familiar with Dr. Subrahmanian-- sorry, let
18 me say that again. Are you familiar with
19 Dr. Subrahmanian, computer science professor at
20 Northwestern University?

21 MR. HORTON: Objection. Scope.

22 A. Not -- I don't know. I don't recall that name, no.

1 BY MR. BLYTHE:

2 Q. Are you familiar with Dr. Markus Jakobsson, former
3 professor at Indiana University?

4 MR. HORTON: Same objection.

5 A. Yeah. I know this guy, yeah, sure.

6 BY MR. BLYTHE:

7 Q. Okay. Have you ever spoken with Dr. Jakobsson about
8 your opinions in this case?

9 A. No.

10 MR. HORTON: Same objection.

11 BY MR. BLYTHE:

12 Q. Have you ever spoken to Dr. Jakobsson about any
13 Open Text patent?

14 MR. HORTON: Same objection.

15 A. No.

16 BY MR. BLYTHE:

17 Q. Have you ever spoken with Dr. Jakobsson about any of
18 Open Text's lawsuits?

19 MR. HORTON: Same objection.

20 A. No.

21 BY MR. BLYTHE:

22 Q. All right. We're -- I'm going to wrap it up there for

1 today.

2 MR. BLYTHE: Counsel, I will say I will --
3 as I have noted on the record -- review the
4 transcript. We reserve the right to pursue having
5 Dr. Lee come back and provide direct answers to our
6 questions. We will review the transcript, like I
7 said, and follow up with you if we intend to pursue
8 that further. Otherwise, nothing else for today.

9 MR. HORTON: And I'd just like to note on
10 the record Petitioner, of course, objects, again, to
11 the characterization of Dr. Lee's testimony here and
12 we'll address whatever issues need be in the future.

13 Can we take a five-minute break?

14 MR. BLYTHE: Sure.

15 (Off the record at 4:44 p.m.)

16 (Back on the record at 4:50 p.m.)

17 MR. HORTON: I'd like the witness to have
18 the opportunity to review and sign the transcript and
19 no further questions on behalf of Petitioner.

20 MR. BLYTHE: All right. I think we're done
21 for today.

22 (Proceedings concluded at 4:50 p.m.)

1 CERTIFICATE OF CERTIFIED SHORTHAND REPORTER

2
3 I, ALISON WEBSTER, Certified Court
4 Reporter and Notary Public within and for the State
5 of Michigan, do hereby certify:

6 That WENKE LEE, PH.D., the witness whose
7 deposition is hereinbefore set forth, was duly sworn
8 by me before the commencement of such deposition, and
9 that such deposition was taken remotely before me and
10 is a true record of the testimony given by such
11 witness.

12 I further certify that the adverse party,
13 CROWDSTRIKE, INC., was represented by counsel at the
14 deposition.

15 I further certify that the deposition of
16 WENKE LEE, PH.D., occurred remotely, on Monday, July
17 17, 2023, commencing at 10:04 a.m. to 4:50 p.m.

18 I further certify that I am not related to
19 any of the parties to this action by blood or
20 marriage, I am not employed by or an attorney to any
21 of the parties to this action, and that I am in no
22 way interested, financially or otherwise, in the

1 outcome of this matter.

2 IN WITNESS WHEREOF, I have hereunto set my
3 hand this 19th day of July 2023.

4
5
6 
7

8 ALISON C. WEBSTER, CSR-6266, RPR, RMR, CRR, RDR
9 Notary Public, Oakland County, Michigan
10 My commission expires: May 1, 2029
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ACKNOWLEDGMENT OF DEPONENT

I, WENKE LEE, Ph.D., do hereby acknowledge
that I have read and examined the foregoing testimony
and the same is a true, correct, and complete
transcription of the testimony given by me and any
corrections appear on the attached errata sheet signed
by me.

(SIGNATURE)

(DATE)

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