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UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

- - - - - x
TREND MICRO, INC. and :
AO KASPERSKY LAB, : Case No. IPR2023-00556
Petitioners, : U.S. Patent No.
v. : 8,726,389
OPEN TEXT INC., :
Patent Owner. :
- - - - - X

Deposition of WENKE LEE, Ph.D.,
Conducted Virtually
Friday, March 15, 2024
9:06 a.m. EDT

Job No.: 529315
Pages 1 - 194
Reported by: Debra A. Whitehead

1 Deposition of WENKE LEE, Ph.D., conducted
2 virtually.

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4
5 Pursuant to notice, before Debra Ann Whitehead,
6 E-Notary Public in and for the State of Maryland.

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

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C O N T E N T S		
EXAMINATION OF WENKE LEE, Ph.D.		PAGE
By Mr. Weinberg		5
EXHIBITS MARKED IN TODAY'S SESSION		
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1 P R O C E E D I N G S

2 WENKE LEE, Ph.D.,

3 having been duly sworn, testified as follows:

4 EXAMINATION BY COUNSEL FOR PATENT OWNER

5 BY MR. WEINBERG:

6 Q All right. Good morning, Dr. Lee. My
7 name is Jonathan Weinberg. I'm an attorney with
8 King & Spalding, Washington, DC. I represent Open
9 Text in the IPR 2023-00556 and related
10 proceedings.

11 Would you please state your name, for the
12 record.

13 A Hi, good morning. My name is Wenke Lee.

14 Q Thank you. And would you state your
15 address?

16 A Yes. I reside in 4545 Powers Ferry Road,
17 Northwest, Atlanta, Georgia, 30327.

18 Q Have you been deposed before?

19 A Yes, I have.

20 Q Do you know approximately how many times?

21 A Maybe 20 times.

22 Q Twenty times?

1 A Yeah.

2 Q All right. So you're familiar with this
3 drill. Before I go further, have you ever had any
4 of your opinions struck in a case?

5 A No.

6 Q No. All right. So you know the drill.
7 I'll ask you questions. Just wait for me to
8 finish so we don't talk over each other. If you
9 have any uncertainty about what it is that I ask,
10 obviously always feel free to ask me to repeat.
11 Make sure you answer in full words and not in
12 grunts and nods that are probably not going to be
13 recorded by Debbie. And if you need any break for
14 any time, just let me know. We'll take a break
15 whenever you need it. All right?

16 A Okay.

17 Q And is there any reason you can't testify
18 to the best of your abilities this morning?

19 A No.

20 Q Not on any medications or other drugs
21 that might impact your ability to testify?

22 A No.

1 Q Great. Is there anyone else in the room
2 with you?

3 A No.

4 Q And where are you taking this deposition
5 from?

6 A In my home office.

7 Q And that's in Atlanta?

8 A Yes.

9 Q And what materials do you have with you?

10 A So I have printed, you know, clean copy
11 of my declaration and the patents, '389, Kester,
12 Kennedy, Honig, and also the petition and also
13 patent owner's response and sort of the other
14 expert's declaration, yeah.

15 Q Great. Have you marked any of those up?

16 A No. Completely clean copy.

17 Q All right. No problem.

18 So this morning I'd like to talk to you
19 about the declaration that you submitted in
20 support of the petitioner. And you have that with
21 you, as you said. And I'll just refer to those
22 as -- to each one of those documents that you

1 named by the number provided by the PTAB, such as
2 Exhibit 1001 and whatnot.

3 Are you being paid to provide your
4 testimony this morning?

5 A Yeah, I have been retained by DeWitt.
6 Yes.

7 Q Who is paying you?

8 A DeWitt.

9 Q DeWitt?

10 A Yeah, DeWitt. Yeah.

11 MS. BLOCK: He's been retained by our
12 office, DeWitt, LLP, but has been retained by AO
13 Kaspersky Lab.

14 Q So you're ultimately being paid by
15 Kaspersky for this testimony?

16 MS. BLOCK: No. DeWitt pays him
17 directly.

18 MR. WEINBERG: I see.

19 MS. BLOCK: We reimburse his invoices.

20 MR. WEINBERG: Okay.

21 Q Were you paid for the expert declaration?

22 A You mean the declaration that we are

1 referring to right now?

2 Q Yes. I'm talking about Exhibit 1003,
3 which I'll refer to as your declaration that you
4 submitted in support of the petitioner.

5 (Exhibit 1003, previously marked, not
6 attached.)

7 A Yeah. So that declaration was produced
8 when I was retained by IS IP on behalf of
9 CrossStrike. So that was already -- so in this
10 current engagement I did not produce any new
11 declaration. I was, you know, reimbursed for work
12 that was done previously.

13 Q So just to make sure I understand, the
14 declaration Exhibit 1003 that you submitted in
15 this proceeding, who is it that paid you to
16 produce that?

17 A I think the law firm is US IP on behalf
18 of CrossStrike.

19 Q Do you remember about how many hours you
20 spent on that declaration?

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

22 Q Do you recall about how much you were

1 paid altogether for producing the declaration?

2 A No, I don't recall.

3 Q And do you have an hourly rate that you
4 charge?

5 A Yes, I do.

6 Q What is that?

7 A 750.

8 Q All right. Thank you. On Paragraph 2 of
9 your opinion -- and when I say your opinion or
10 your declaration, I'm referring each time to
11 Exhibit 1003.

12 A Okay.

13 Q You listed the materials that you
14 considered in rendering the opinion.

15 Is that correct?

16 A That's correct.

17 Q It says one of the items is the '389
18 patent, that's Patent 8,726,389.

19 Is that right?

20 A Let me see here. Yes.

21 Q I just wanted to confirm, when you say
22 you considered that, you read the entire patent?

1 A Yes.

2 Q Did you understand the full disclosure?

3 A What do you mean by "full disclosure"?

4 Q You read the patent. Were there parts
5 that you didn't understand?

6 A No; I understand it.

7 Q And did you understand the claims?

8 A Yes, I do.

9 Q Same questions for Kester and Kennedy.

10 It says that you considered Kester, that's Exhibit
11 1004. Did you read that whole patent?

12 (Exhibit 1004, previously marked, not
13 attached.)

14 A Yes, I did.

15 Q And were there any aspects of that that
16 you didn't understand?

17 A No.

18 Q One more. Kennedy. That's the '272
19 patent, Exhibit 1005. Did you read that whole
20 patent?

21 (Exhibit 1005, previously marked, not
22 attached.)

1 A Yes, I did.

2 Q And were there any parts that you didn't
3 understand?

4 A No.

5 Q On Paragraph 14 of your opinion, if you
6 just take a look at that quickly, you list the
7 various factors or facts that underlie an
8 obviousness determination, such as the content of
9 the prior art, the differences between the prior
10 art and the material claimed, the level of
11 ordinary skill, and secondary considerations.

12 Do you see that?

13 A Yes.

14 Q You didn't look at any secondary
15 considerations for the purposes of this opinion.

16 Is that correct?

17 A Yeah, in my -- in my declaration I did
18 not include any discussion of the second
19 consideration, secondary considerations.

20 Q Also I didn't see in the statement of
21 your understanding of the law an acknowledgment
22 that obviousness -- that the question of

1 obviousness is ultimately a question of law.

2 Do you know what that means?

3 A I mean, let me see here.

4 I think Section 2, starting Paragraph 11,
5 I list all the sort of, you know, legal
6 consideration that I need to include in the
7 declaration. If I did not list, that means I did
8 not need to use that, so ...

9 Q And so I'll take that to mean you were
10 not informed that the determination of whether
11 something is obvious is a legal question for the
12 court?

13 A Well, I mean, hold on. But let's say
14 Paragraph 16 I did talk about, you know, in order
15 to establish the claim construction was obvious
16 based on combination of prior art. So we did talk
17 about obviousness in -- you know, in the context
18 of, you know, my assignment for this declaration.
19 Right? So ...

20 Q I guess I'm not clear as to what your
21 answer is.

22 A So what was your original question?

1 Q My question was just whether you were
2 informed that the issue of whether something is
3 obvious is a question of law for a court to
4 decide, not for an expert to opine on?

5 A So I -- you know, like I said I think in
6 my declaration, you know, I think at the beginning
7 of, let's say -- so I say Paragraph 11, I said I
8 am a technical expert. I do not offer any legal
9 opinions. And the counsel informed me, you know,
10 certain principle, legal principles and so on.

11 And then at Paragraph 16, you know,
12 essentially I was informed to establish that a
13 claimed invention was obvious based on a
14 combination of prior art elements, a clear
15 articulation of the reasons why a claim
16 construction -- a claimed invention would have
17 been obvious must be provided.

18 That was -- that was a task I was doing
19 with my declaration. So that's the extent I need
20 to know about obviousness for this declaration.

21 Q Okay. Well, let me clarify, then.

22 So in Paragraph 11 you say that you do

1 not offer any legal opinions.

2 Is that correct?

3 A Paragraph 11? Yeah, I am a technical
4 expert. So, you know, all my opinions are, you
5 know, based on my technical analysis, of course,
6 like I said, the counsel informed me as, you know,
7 as to certain principle, legal principles
8 regarding patentability and routine matters under
9 the U.S. patent law, so ...

10 Q It says, the first sentence of Paragraph
11 11 says, "I am a technical expert and do not offer
12 any legal opinions."

13 Right?

14 A But then the second sentence it says,
15 "However, counsel has informed me as to certain
16 legal principles regarding patentability and
17 related matters under U.S. patent law, which I
18 have applied in performing my analysis and
19 arriving at my technical opinions in this matter."

20 So really what it says, that the counsel
21 informed me the legal principles to use. And
22 that's what I -- that's what I -- how I did my

1 analysis and offer my -- you know, offer my draft
2 report.

3 Q Did you offer any legal opinions?

4 A I mean, as to -- I mean, what's your
5 definition of "legal opinion," as to what
6 specifically?

7 Q I'm sorry. Paragraph 11 says, "I am a
8 technical expert and do not offer any legal
9 opinions."

10 Did you offer any legal opinions?

11 A Well, so it depends on what you mean by
12 legal versus technical. Right? So report is
13 about, you know, whether the -- you know, so
14 the -- so this report is about the patent. Right?
15 Patent '389.

16 And like I said, you know, in my
17 technical work in analyzing the patent and related
18 art, whether it's patentable or not, right -- so
19 this is the matter, I was -- the counsel informed
20 me the legal principles regarding patentability
21 that I would take into account in my analysis.

22 And so at the end the opinion of course

1 based on technical opinions, but also must conform
2 to the legal principles. I mean, that's pretty
3 obvious the first paragraph.

4 Q I guess I'm having a difficult time
5 getting a straight answer. I'll ask it again.

6 Paragraph 11 says, "I do not offer any
7 legal opinions." What did you think legal
8 opinions meant?

9 A So again, I am asking you, you know, what
10 do you mean by legal opinion. You are lawyer, you
11 should be able to define what legal opinions
12 means. Right?

13 Q This is your declaration.

14 A So in my declaration I just said here, I
15 say I'm a technical expert. I do not offer any
16 legal opinions. However, counsel informed me as
17 to certain legal principles regarding
18 patentability and related matters under United
19 States patent law, which I have applied in
20 performing my analysis, in arriving at my
21 technical opinions in this matter.

22 So I have arrived at technical opinions

1 with consideration of these legal principles that
2 the counsel had asked me to follow. That's all I
3 can say. That's all I say in the -- in the
4 declaration.

5 Q So, yeah, I can read the paragraph. And
6 I have heard you three times. I am just looking
7 for a yes-or-no answer.

8 It says here that you did not offer any
9 legal opinions. Did you offer any legal opinions?

10 A So again, you know, like I said, I arrive
11 at my technical opinions --

12 Q Yes or no?

13 MS. BLOCK: Objection to form.

14 A I already said I have consider -- I mean,
15 read the whole paragraph in context. I want to
16 answer the question in the context.

17 I already said I am technical expert. I
18 don't offer any legal opinions. And if that's not
19 clear, I say, However, counsel informed me as to
20 certain legal principles I have to use, and I used
21 those to arrive at my technical opinions in this
22 matter.

1 I mean, that's all in the first
2 paragraph, like Paragraph 11 of my declaration.
3 That's my full answer.

4 Q Applying legal principles, is that the
5 same thing as providing a legal opinion? I'm just
6 confused about what your answer is. I guess we're
7 not going to get an answer. Maybe the answer is
8 that you don't know?

9 A So like I said very clear in my -- in
10 Paragraph 11, that I have -- I basically have to
11 follow the legal principles that the counsel
12 informed me to arrive at my technical opinions.
13 So my technical opinions cannot be only based on
14 technical things, but also I followed the legal
15 principles regarding patentability.

16 Q Your technical opinions can't be based on
17 only technical things?

18 A No. I mean based on technical things,
19 but also follow the certain legal principles.
20 Because I also say which I have applied in
21 performing analysis. Right?

22 And the following paragraph, like,

1 Paragraph 16 I just throughout this whole Section
2 2, I talk about the legal principles that I have
3 applied in my technical analysis, so ...

4 Q You applied your legal principles to
5 reach what kind of conclusion, a fact conclusion
6 or a legal conclusion?

7 A Okay. So again, the last sentence of
8 Paragraph 11 is very clear. Arriving at my
9 technical opinions. But these technical opinions
10 I arrive at them based on technical analysis, and
11 I have applied the legal principles regarding
12 patentability and related matters on the U.S. --
13 United States patent law.

14 Q Just so we have a clear record, I will
15 say it a fourth time, and then we'll move on as
16 basically being unresponsive.

17 Is it correct -- is the statement correct
18 in Paragraph 11 that you do not offer any legal
19 opinions in this declaration?

20 A Like I said, you need to read the
21 paragraph, whole paragraph, so that give you
22 proper context.

1 The first sentence says, I am technical
2 expert. I do not offer any legal opinions.
3 However, then, you know, then go on to say the
4 counsel informed me as to the certain legal
5 principles regarding patentability and related
6 matters under United States patent law, which I
7 have applied in performing my analysis and
8 arriving at my technical opinions in this matter.

9 Q Are your technical opinions opinions of
10 fact or opinions of law?

11 A So again, it is also very clear in the
12 last sentence of Paragraph 11, which I applied in
13 performing analysis and arriving at my technical
14 opinions. Right? So the analysis obviously
15 include both technical and also following the
16 legal principles. I mean, that's what the
17 sentence says.

18 Q Okay. Did you provide an opinion that
19 the '389 patent was obvious?

20 A Let me look at my index, table of
21 contents.

22 Okay. So if you -- I mean, if you -- I

1 mean, all my paragraphs -- I mean, so how to put
2 it? The whole Section 2 about legal framework, we
3 talk about -- I think starting from Paragraph 15,
4 talk about, you know, how I was informed to
5 establish that the claimed invention was obvious
6 and what kind of analysis I need to do.

7 I mean, so that's the analysis I did in
8 this report by essentially comparing the '389 with
9 prior art and other -- other patents at the same
10 time to -- you know, so the conclusion is -- is in
11 the -- all the conclusion were basically in the --
12 in my report, technical -- I mean my declaration,
13 claim by claim, so ...

14 Q Is it your opinion that the '389 patent
15 would have been obvious?

16 A So like I said, you know, this -- this
17 whole section talks about how I analyze -- how I
18 analyze this patent, you know. So to basically
19 define it to be obvious, I did the following
20 analysis. And my conclusion of this patent is
21 basically claim by claim. You can go to say, Hey,
22 this claim, why is obvious? It is pretty -- it is

1 in the declaration.

2 Q Is it your opinion that the '389 patent
3 was obvious, yes or no?

4 A I will go to, you know, all my -- I will
5 go through my declaration. Let's say, let's pick
6 a particular claim, and then tell you how actually
7 did analysis by following, you know, the
8 guidelines laid out in Section 2 to decide, you
9 know, why this patent is obvious.

10 Q And what did you conclude about Claim 1?

11 A Claim 1? Let's go to Claim 1.

12 So I'm sure I talk about this in the --
13 let me look at the --

14 Q My question is -- I'm sorry, this is just
15 a high-level question. My question is whether or
16 not your declaration includes any opinion that
17 Claim 1 of the '389 patent is obvious?

18 A I want to use the language -- I want to
19 use the language that I actually wrote down in the
20 declaration. That's why I'm looking for how we
21 say it.

22 Q These aren't supposed to be difficult

1 questions.

2 Was there an opinion in your declaration
3 that the '389 -- Claim 1 of the '389 patent was
4 obvious?

5 A So I think we have been through this
6 multiple times, that I said that I applied the
7 legal principles, they are in Section 2, which
8 talk about what I need to do to analyze
9 obviousness of the patent.

10 So I just wanted to use the language that
11 I said in my declaration how to characterize each
12 claim. So that's what I'm doing.

13 Yeah, so let's say -- first of all, I
14 mean, the way I print it out, the -- you can see
15 the bottom of the page kind of got cut off, so I
16 do not know the exact page number. But if you
17 read the page that has Paragraph 75, I clearly say
18 that Ground 1, Claim 1 to 13, 15 to 27, 29 to 30,
19 are obvious over Kessler in view of Kennedy,
20 so ...

21 Q What paragraph is that?

22 A Paragraph -- after Paragraph 75, the

1 Section F. The title is Ground 1, Claims 1
2 through 13, 15 through 27, 29 through 30, are
3 obvious over Kessler in view of Kennedy. So
4 that's the answer I am going to give to you.

5 And I can go through, you know, other
6 places and -- in my declaration the language that
7 I use for other claims. Do we want to go there or
8 not?

9 Q No. I was just asking you for your
10 conclusion.

11 A Okay. So that's my conclusion that's
12 offered to you.

13 Q Okay. And you're aware that that's a
14 legal conclusion?

15 A Like I said, I am technical expert
16 performing analysis with the guidance of the legal
17 principles that my counsel had informed me to
18 follow.

19 Q In Paragraph 12 of your opinion you say
20 that the claims have the meaning that they would
21 have to -- would have had to a POSITA at the time
22 of invention in view of the patent. I'm hoping to

1 discuss with you what you think some of these
2 patent terms mean in the '389 patent.

3 So I'd like to start with the correlate
4 language.

5 A Okay.

6 Q So please turn to Claim 1 of the '389
7 patent. And let me know when you have that.

8 A Okay. Yeah.

9 Q So one of the limitations in Claim 1
10 says, "Correlating by the base computer at least a
11 portion of the data about the computer object
12 received from the first remote computer to at
13 least a portion of the data about the computer
14 object received from the second remote computer."

15 What does that mean to you in the context
16 of the patent?

17 A Okay. So correlation can mean many
18 things. First of all, I do not see a -- I don't
19 see the term defined by looking at the filing
20 history and all that. I also don't recall
21 explicitly, you know -- you know, the patent
22 complain all different kinds of correlation.

1 "Correlation" is a very broad term, can mean many
2 things.

3 Q Can I clarify it there? You said that
4 you don't recall that the patent explained or -- I
5 didn't quite understand what you said about the
6 patent --

7 A Yeah, sorry. So first of all, I do not
8 see a claim construction, meaning that, hey, all
9 the term -- to define the term of correlation with
10 respect to this patent, unless you point me to
11 some documents, or by correlating both sides agree
12 to this definition. I haven't seen that.

13 The second thing I said was that in the
14 patent I did not recall seeing the patent defining
15 exactly what correlation means. Okay, has to do
16 X, Y, and Z, and nothing else. I haven't seen
17 that either. You can point me to it, if I missed
18 that. Okay?

19 So the way I interpret this is, as a
20 technical expert, correlation can mean many
21 things. Basically find out whether, let's say,
22 Item A and B are related in any way, and can be in

1 many ways, that's what correlation means.
2 Correlation means, of course, more than one thing,
3 and how they correlate, mean how they relate to
4 each other.

5 Q Are there portions of the specification
6 that provide examples of correlating?

7 A I don't recall specific things, but you
8 can point me to it.

9 Q I did ask if you read the patent and
10 understood all of it, so I was just wondering if
11 anything in the specification informed your
12 understanding of the word "correlating" in this
13 context of the claims?

14 A I will say that, like I said, you know,
15 if I have enough time and can go back and try to
16 refresh my memory. But I would just say that by
17 reading the patent spec, they did talk about, of
18 course, considering information from multiple
19 remote computers so on and so forth.

20 And I will say that whatever they
21 describe to me is no surprise in terms of the
22 general understanding or general definition of

1 correlating. Meaning that, you know, information
2 from one computer versus the other, how are they
3 related. I mean, that's just very common
4 understanding of correlation.

5 What I'm saying is that I did not see
6 anything that sticks out from the patents, Ah,
7 there is something unique here. No, I didn't see
8 anything like that.

9 Q So I think to summarize your testimony on
10 this, the meaning that you applied in your
11 analysis is that correlated means related in any
12 way, and that you didn't see anything in the
13 specification that led you to deviate from that
14 ordinary meaning?

15 A I will say that there is no -- there is
16 no kind of -- so this term is not defined,
17 constructed specifically for this patent. So I
18 just applied a general understanding of
19 correlation, which can mean many things.

20 And my reading from the patent is that it
21 does not say anything so unique that I need to
22 deviate from the general understanding or general

1 definition of correlation, which means there's
2 many ways to look for relationship between Item A
3 and B. There's many different kind of
4 relationship that you can actually look into using
5 correlation. So that's my general understanding.

6 And I applied that because there is no
7 specific definition and specifically unique.

8 Q Understood. So just one more time. Are
9 there any examples in the specification of the
10 patent describing the step of correlating that's
11 being claimed in step -- in Claim 1?

12 Sitting here, are you aware of any
13 examples of correlating in the patent
14 specification?

15 A Like I said, when I read the patent, the
16 specification does talk about getting information
17 from, you know, multiple remote computers, and
18 then sort of compare and see how they related to
19 each other. That's my understanding also that
20 falls into -- falls into correlation. Right?

21 But correlation can mean many things.
22 Can be say, Hey, how is A related to B. Or is A

1 the same as B, is it duplicate. You know, can you
2 put them in some order so that I can have some,
3 you know, some correlation, arrive at some, you
4 know, ordering of something, a priority.

5 Like I said, "correlation" is very
6 general term. The spec of the patent did not talk
7 about anything that's so specific -- so specific
8 to this patent. So that's why I just applied a
9 general understanding or general meaning of
10 correlation.

11 Q Yeah. I think I understood your answer
12 on that, what the meaning of correlation that you
13 applied was. And I accept that. And we are
14 moving to, the next question was just simply were
15 there examples that you could point to in the
16 specification where the inventors disclosed
17 something that you would characterize as
18 correlating portions of data as claimed? Just
19 examples of that.

20 So I understand your definition of
21 correlating being the plain meaning. But just
22 which parts of the specification describe this

1 step of correlating as recited in Claim 1?

2 A I mean -- I mean, I can flip through the
3 patent to see what I can remember where I -- I
4 don't recall the word "specific correlation." I
5 mean, that may have escaped my memory. But I do
6 remember reading stuff -- reading in the spec
7 about information from, you know, multiple --
8 multiple remote computers and so on. Let me see.

9 Q Just so we have a clean record, the
10 question is whether you can point to any examples
11 in the specification of functionality that
12 corresponds to this correlating limitation in Step
13 1, in Claim 1?

14 A Oh, you know what? Let me read my
15 declaration, maybe I talk about that. Let me see.
16 This is -- I'm still reading the patent, you know,
17 because my declaration probably talk about that
18 already. Let me see. Okay.

19 Okay, let me read -- let me see here.
20 Because I'm now using my declaration to help me
21 recall some of the places I cited in the patent
22 '389. Okay? So --

1 Q No problem. Take your time, Dr. Lee.

2 A Okay. So let me see here. So in my
3 declaration, Paragraph 103, I basically refer to
4 '389 in the context of examples of correlation
5 analysis.

6 So, for example, I cited Column 10 of the
7 '389 patent and Lines 37 through 40 that talks
8 about, essentially, if I read, The data stored in
9 the community database 7 provides an extensive
10 corollary of an object's creation, configuration,
11 execution, behaviors, identities, and
12 relationships to other objects that either act
13 upon it or are acted upon by it.

14 So that's the kind of information that
15 can be used in correlation.

16 And in terms of correlation analysis, you
17 know, did not talk about specifically what
18 algorithm or what technique is being used. But
19 you can read from the -- from Column 10, 37 to 40,
20 to kind of infer that correlation, for example,
21 would how you -- what basically led you to find
22 relationships of one object to the other, for

1 example.

2 That's a kind of thing I talk about early
3 on to say correlation will tell you, let's say,
4 Object A and B was a relationship. You know, how
5 did you find that correlation. So that's the
6 example they were referring to.

7 But again, like I said, if you even read
8 the context of Column 10, do not talk about
9 explicitly what technique they talking about.
10 They basically very broad. They say, Oh,
11 correlation. You know, I don't think they use the
12 word "correlation." They just say, Oh, have this
13 information, and you can infer that some of the
14 information either just provided or store or you
15 can -- you can derive using correlation such as
16 relationship between two different objects, like I
17 said.

18 Q So just to read into the record here
19 what's in Column 10, Line 37, which is what you
20 just cited --

21 A Yeah. Column 10, Line 37 to 40, yes.

22 Q It says, "The data stored in the

1 community database provides an extensive corollary
2 of an object creation, configuration, execution,
3 behavior, identities, and relationships to other
4 objects that either act upon it or are acted upon
5 by it."

6 A Uh-huh.

7 Q Is this an example of what the patent
8 specification -- the patent claim refers to in its
9 correlating step?

10 A Let me refresh myself what they say.

11 Yeah, I will say that's one example of
12 the information that's being stored, in
13 particular, you know, 37 talks about the data
14 stored in community database 7, which by spec of
15 the patent gets data from multiple remote
16 computers.

17 And then talks about how this data
18 being -- essentially what kind of information you
19 can -- you can derive from the -- from the -- from
20 the information about this object. Right?
21 Including relationship to other objects.

22 So that to me, it's example of what

1 correlation can give you by relationship. We talk
2 about this earlier to say one example of
3 correlation find out relationship between two
4 objects. So this is example.

5 Q Okay.

6 A From the spec.

7 Q So just to put a bow on that. The step
8 in Claim 1 of it says, Correlating at least a
9 portion of the data about the computer object
10 received from the first remote computer to at
11 least a portion of the data about computer object
12 received from the second remote computer refers
13 to, for example, keeping a database that notes the
14 relationships between two objects. Or at least
15 that correlating step is inherent in maintaining a
16 database.

17 A No.

18 MS. BLOCK: Object to form.

19 A No, that's not what I said. I said this
20 is example of what correlation means, finding
21 the -- I think I emphasize in my answers, previous
22 answers, also answer couple minutes or minutes

1 earlier, I think I emphasize that correlation, one
2 of the technique of correlation is find the
3 relationship of two objects. That's what I
4 emphasize here when I read Sentence 37 to 40 in
5 Column 10.

6 The reason I bring up database is that,
7 okay, you correlate let's say Object A and B.
8 Where are the objects? I use example there, for
9 example, Object A and B information may be in
10 database or may be -- may be somewhere else.
11 That's completely orthogonal, may be agnostic to
12 that -- for the correlations algorithm or
13 techniques they're using. Right?

14 But in terms of -- in order for you to
15 correlate, you have to have the objects available
16 to you. And this, you know, spec here that talks
17 about, Hey, in a database we have the data. That
18 doesn't mean that in order for you to perform
19 correlation, you have to first store data in
20 database and you can only do it in database.
21 That's completely, no. That's not what I said.
22 And that's defies common sense, too. So --

1 understand?

2 So basically I am saying --

3 Q Yeah, I understand what you are saying.

4 A So the spec is -- you know, the spec is
5 examples that data is there. And the keyword is,
6 you know, from data you can -- you can derive
7 relationship. And that's what I meant repeatedly.
8 That's one of the examples, utilities of
9 correlation.

10 Q I understand. Just once again the
11 question was whether you could point to anything
12 in the specification that shows an example of the
13 correlating step recited in Claim 1. And I
14 believe that your answer was that at Column 10,
15 Lines 37 to 40, one example of the recited
16 correlating is correlating an object with its --
17 to have a relationship to other objects?

18 A So again I want to clarify. I think I
19 said multiple times that I do not see the word --
20 or do not recall seeing the word "correlation" or
21 "correlation step" or "correlation analysis" in
22 the spec. I mean, of course, the claim language

1 using correlating.

2 I said that Column 10, Lines 37 to 40,
3 implies the correlation may have been used to find
4 relationship.

5 Because, like I said, if you follow --
6 you know, follow the common understanding or the
7 common definition or general definition of
8 correlation, a POSITA will agree that one of
9 utility of correlation is find the relationship of
10 objects. So that's why we cited 37 to 40. That
11 could be example in the patent spec that talks
12 about, yeah, you have data and then you find
13 relationship. How? Well, you know, you can say
14 that must imply that there's something, some
15 correlation going on there. But exactly what
16 correlation algorithm, what's definition of
17 correlation, I don't recall seeing that from the
18 patent.

19 Q Understood.

20 A I use that only as example that if you
21 say, Hey, where is the patent that implies doing
22 correlation. I will say that's the sentences that

1 I just read, you know, Sentences 37 -- Lines 37 to
2 40 in Column 10 can implies that.

3 Q Understood. And again, the question was
4 whether the patent discloses any examples of
5 correlating. And you said that the Column 10,
6 Lines 37 to 40, implies that a correlation was
7 performed in order to ascertain the relationship
8 of one object to another?

9 A Yeah, that's imply, yeah. Because like I
10 said, I do not recall an explicitly -- an explicit
11 or specific examples of correlation that the
12 patent, Oh, here is the steps of correlation or
13 here are the algorithms that makes correlation. I
14 just don't recall seeing that. You can correct me
15 and point me to it.

16 Q Let's talk about the compare step, which
17 is the other step that's kind of important here.

18 A Okay.

19 Q You see in Claim 1 it says, "Comparing by
20 the base computer the correlated data about the
21 computer object received from the first and second
22 remote computers to other objects or entities to

1 identify relationships between the correlated data
2 and the other objects or entities."

3 Do you see that?

4 A Yes.

5 Q What does "comparing" in the context of
6 this claim mean to you?

7 A So again, again I do not see a -- kind of
8 a construction of the term "comparing." So I just
9 apply the general understanding of comparing. You
10 know, comparing can mean many things, depending on
11 what data, what context you are talking about.

12 Right?

13 Comparing can be say, you know, which one
14 is better, which one is faster, shorter, are they
15 the same. Or, you know, what characteristics, are
16 they similar or not. So basically I applied the
17 general definition of comparing. Yeah. So that's
18 that.

19 And in the context of this patent, very
20 similar to our discussion of correlating, there
21 are examples in the spec, you know, imply, the
22 example that imply, you know, Oh, you're looking

1 at information from multiple remote computers at a
2 base computer to correlate and compare and sort of
3 arrive some conclusion, yeah.

4 Q Thank you. Can you identify in the
5 specification any examples where the invention is
6 performing the comparing step in Claim 1?

7 A Okay. So let me -- using my patent --
8 declaration as the guideline here, let me see.

9 I try to find us examples in the patent
10 spec. I haven't been able to locate yet. Let me
11 see.

12 MS. BLOCK: And after this question,
13 perhaps we could take a break. I've potentially
14 overhydrated this morning.

15 THE WITNESS: Yeah, okay. Yeah, sure.

16 MR. WEINBERG: Yeah, we're hitting one
17 hour exactly, so perfect time for a break.

18 And if you want, we can break now and you
19 can take some time.

20 THE WITNESS: Yeah, sure. I take a
21 break. How about like ten minutes?

22 MR. WEINBERG: Yeah. Come back at 10:10

1 this morning.

2 THE WITNESS: Thank you.

3 MS. BLOCK: Thank you.

4 (A recess was taken.)

5 BY MR. WEINBERG:

6 Q All right. So I think that the question
7 on the table still was, for Claim 1's comparing
8 step, are you able to identify any examples in the
9 specification of the invention performing a
10 comparing step to identify relationships between
11 correlating data and other objects or entities?

12 A Okay. So, yeah. For this particular
13 claim, comparing, by the base computer, the
14 correlated data about the computer object received
15 from the first and second remote computers to
16 other objects or entities to identify
17 relationships between the correlated data and the
18 other objects or entities.

19 Like I said before, there is no specific
20 definition of "comparing." And so I am just
21 applying the general definition of "comparing"
22 when I -- when I wrote my declaration and I did my

1 analysis on the patent.

2 Like I said, I do not find explicit or
3 specific reference to the patent regarding
4 comparison. Of course my declaration talks about,
5 you know, our understanding of comparison, and why
6 this claim is obvious.

7 When I read the patent, I do not recall,
8 like I said, very similar to correlating, any
9 specific algorithms or definition -- or definition
10 or algorithms of comparing. I do recall seeing
11 references here and there's a, let's say, you
12 know, comparing to whether objects are the same,
13 you know, what kind of -- what kind of -- are they
14 similar or the same kind of comparison in passing
15 whatever in that patent.

16 I mean, I can spend more time picking
17 them up, or if you can point me to it that's
18 relevant to the declaration, I mean, I can -- I
19 will be happy to read that as well.

20 Q Earlier you pointed to Column 10, Lines
21 37 to 40, and said that because there are
22 relationships between objects, you could infer

1 that there was a step of correlating objects.

2 A Well, let me -- let me clarify to say
3 that, let's say -- I was saying that -- I think I
4 said this multiple times. That when you teach --
5 when teach your comparing -- of correlating, you
6 know, final relationship between A and B, and you
7 can say same thing about comparing.

8 So like I said, these terms are pretty
9 broad, you know. Actual techniques, techniques of
10 both correlating and comparing can overlap, to be
11 honest, you know, unless you have a very precise
12 definition.

13 When I read Column 10, Lines 37 to 40,
14 what I'm saying is that correlation could be one
15 way to arrive at a relationship. But that doesn't
16 exclude the fact that, Hey, maybe the relationship
17 was reported as well. You know, maybe by some
18 other means, you know, the relationship is
19 reported to the database so that it's already
20 there.

21 So I was really saying that in case the
22 relationship was not there, was not obvious, you

1 know, a POSITA would be able to imagine, Yeah, you
2 can use correlation to find that, possibly. So
3 that's what I'm trying to say.

4 Is that, you know, for the lack of
5 specific examples, that may be example that point
6 to the possibility that you can use correlation to
7 find the relationship between two objects. That
8 doesn't mean that that's only way that
9 relationship can be found. Like I said, can be by
10 other means, could have been reported, so on and
11 so forth.

12 Q I understand. I suppose what I'm trying
13 to get at is to understand in your mind what is
14 the difference between the recited correlating
15 step and the recited comparing step, and whether
16 you could -- that difference is informed by
17 anything you see in the patent?

18 MS. BLOCK: Object to form.

19 A So the -- like I said, you know, I mean,
20 I wish the patent -- or I mean in this -- in the
21 context -- I wish the patent spec had give more
22 precise or specific definition of, you know,

1 correlation, comparing, and talks about the actual
2 techniques. Without that, I apply the general
3 understanding of correlation and comparing.

4 So the way I read the claim is that you
5 correlate. So you find that, Hey, let's say the
6 relationship between these two objects. Then you
7 use that relationship, for example, that's a
8 correlated data. Because now you have the
9 relationship, you know, that you find out through
10 correlation.

11 So in that case you can think of the
12 relationship between Object A and B is the
13 correlated data. And then use that to compare
14 with other information that you have. Right? So
15 basically, yeah, you sort of identify the
16 relationship between the correlated data and other
17 objects.

18 For example, Object A and B are related.
19 You basically through correlation you find it out.
20 Then you compare the relationship maybe with some
21 other kind of relationship that you previously
22 identify. So that's how I can -- that's one way

1 of interpreting it.

2 But like I said, there is no clear
3 definition of correlating and comparing. And so
4 in the context of this patent, I have used this,
5 you know -- applying a expert POSITA's opinion or
6 understanding of these general concepts.

7 Q I'll just reiterate a point of
8 distinction that I keep returning to.

9 The definition of correlating or
10 comparing is a question of claim scope, that means
11 what does the entire claim capture. And I think
12 that you've made clear that you're applying the
13 plain meaning, a dictionary-type meaning to those
14 words.

15 My followup question was -- is more aimed
16 at figuring out if there are any examples that
17 fall within that scope? So once you have the
18 correlating scope, are there any data points
19 inside of that that could help me understand what
20 an example of correlating is versus an example of
21 comparing.

22 And so most of the questions so far have

1 just been can you point to an example of the step
2 being performed in the specification. I think the
3 answer is no. But maybe you can provide me a
4 hypothetical example?

5 MS. BLOCK: Object to form.

6 A No. Like I said, you know, for
7 correlation, we went through this. Right? So,
8 you know, in my declaration I pointed to, you
9 know, Column 10, Lines 37 to 40, that, you know,
10 talks about the kind of information that you can
11 obtain.

12 And from there you can infer that
13 correlation would be a possibility, a possible
14 ways of, let's say, deriving the relationship
15 between objects.

16 It's the only way, that's not what we
17 meant. We meant that, you know, correlation, you
18 know -- if you don't know the objects relationship
19 a priori, you may be able to use correlation to
20 find that out.

21 And, of course, nothing is guaranteed.
22 So we really use that to, say, example to say

1 maybe that's, you know, one possible way of
2 utility of correlation from the spec of the
3 patent.

4 Like I said, you know, I wish the patent
5 spec would have been -- would have given more
6 examples. And the way I read comparing is that,
7 you know, basically correlation and then
8 comparing, if you read the claim language, it's
9 basically you comparing the correlated data.

10 I mean, so, really, the input to the --
11 so to me that's the -- that's one -- maybe one --
12 that's one kind of consideration of if you're
13 asking me the difference between comparing and
14 correlation.

15 But like I said, I wish the patent has --
16 you know, could have been more explicit in terms
17 of what they mean, yeah.

18 Q You have mentioned a few times that when
19 you're comparing, you're comparing the
20 correlation?

21 A No. I'm just reading the claim language.
22 Say comparing by the base computer, the correlated

1 data about the computer object received from the
2 first and second remote computers to other objects
3 or entities to identify relationships between the
4 correlated data and the other objects or entities.

5 So I'm --

6 Q My question is that, it seemed in some of
7 your examples that you were saying that the
8 correlated data being recited here is the
9 connection between the two correlated items.

10 Is that what the correlated data is here?

11 A No. I think the way I read the claim is
12 that, you know, basically prior to this comparing
13 step, you do the correlating step. Right?

14 And then after correlating, you do
15 comparing. So you're comparing the correlated
16 data.

17 So the way I read it is that one of the
18 input of comparing is the output of the previous
19 step, which is correlating. So that's why you're
20 comparing by the base computer the correlated
21 data. That where is the correlated data coming
22 from? Well, to me, it's coming from correlating

1 step.

2 But this particular limitation also talks
3 about comparing and find -- so that you can find
4 the relationship between the correlated data.

5 Again, that's the output of the correlating step,
6 and the other objects or entities.

7 It didn't say that you're comparing, you
8 know, correlated Data A with correlated Data B.
9 That's not what I meant, and that's not what the
10 limitation says, either.

11 Q Maybe you could help illustrate. Can you
12 provide a hypothetical scenario that --

13 MS. BLOCK: Object to form.

14 Q -- an example of a method that implements
15 Claim 1?

16 MS. BLOCK: Object to form.

17 A The whole Claim 1 --

18 Q Well, for example --

19 A -- you mean?

20 Q Would you just provide an example of some
21 process that falls within the scope of Claim 1?

22 MS. BLOCK: Object to form.

1 A Well, I mean, in the case I were to read
2 the whole, you know, declaration, when it cover
3 Claim 1. There are many pages. I mean, I gave my
4 analysis of Claim 1 in my declaration.

5 Q Well, let me point you to part of the
6 petition.

7 A Okay. The petition of -- okay.

8 Q Page 29 of the petition.

9 A Okay. Let me see here. The petition.
10 Okay. Twenty-nine you say? Page 29?

11 Q Yes.

12 A Okay.

13 Q Just start and read the paragraph that
14 starts with "For example," and take a look through
15 that.

16 A Okay. So that's -- ask me to only read
17 one paragraph. Right? Yes. Okay.

18 Q That's just an example of something that
19 the petitioner says embodies Claim 1.

20 A Hold on. Let me read the context.

21 MS. BLOCK: Object to form.

22 A I mean, I need to -- I need to read the

1 context of how this examples are being used.

2 Q Sure. You know what, notwithstanding
3 context, can you take a look at this example and
4 let me know if you think that this example
5 embodies Claim 1?

6 MS. BLOCK: Object to form.

7 A Hold on. So, I mean --

8 Q But does this method in this example on
9 Page 29, does it infringe Claim 1?

10 A So first of all, I would need to spend
11 more time reading this. But just looking at the
12 petition, this paragraph on Page 29 I believe is
13 in the context of talking about Claim -- we'll use
14 the label 1.5, which is comparing -- the comparing
15 step. So that's in the context. And, also, I
16 mean, I don't know how you say that's an example
17 of the whole Claim 1. The context is, this is one
18 example in the discussion of the comparing step.
19 And, you know, there are many pages of discussion
20 of this comparing step.

21 I mean, I don't know why one paragraph --

22 Q I understand. What I'm ultimately trying

1 to get you to do is to just provide an example
2 with names of hypothetical files and how they
3 interrelate with one another that would infringe
4 Claim 1.

5 I just want you to illustrate what is
6 Claim 1 --

7 MS. BLOCK: Object to form.

8 A So as I said, I think -- I think the --
9 in my declaration, when we talk about comparing
10 step, we also describe examples of to illustrate
11 the teachings of Kennedy. And again, this in
12 context of --

13 Q I mean in the context of the patent.

14 A Yeah, in the context of the patent we
15 talk about, like I say, in my declaration we talk
16 about, you know, I think probably similar example
17 of, you know, these two executable files, you
18 know, as example of the technologies which are
19 explained Kennedy. And then -- and then argue why
20 Kennedy can be combined with Kester to render this
21 claim obvious.

22 Q Let's set aside the prior art. Just

1 reading the '389 patent and reading Claim 1, can
2 you come up with a scenario that would infringe
3 Claim 1?

4 MS. BLOCK: Object to form.

5 A Like I said in my declaration -- hold on.
6 In my declaration we analyze, you know, limitation
7 by limitation Claim 1. We gave the -- all the
8 appropriate examples, analysis of every
9 limitation. If you say do an example, I can go
10 through the whole declaration for you.

11 And the example that you gave is, you
12 asked me to read just now, was also -- you know,
13 was included in the context of our analysis of
14 Limitation 1.5, being the comparing step. So --

15 Q I'm not interested -- in this question
16 I'm not interested in figuring out whether Kester
17 teaches any aspect of Claim 1 or whether Kennedy
18 teaches any aspects of Claim 1.

19 I'm just asking, what would be a method
20 that infringes Claim 1?

21 MS. BLOCK: Objection to form.

22 A Can you repeat the last question? Sorry.

1 The last sentence of question.

2 Q My question is just, what would be a
3 scenario that infringes Claim 1?

4 MS. BLOCK: Same objection.

5 A What do you mean by "a scenario"?

6 Q I will give you an example.

7 The base computer receives data from the
8 first computer about a file called A, and then it
9 receives data about a file called B. And then it
10 correlates that by noticing that A and B have the
11 same name. And then it compares it by playing a
12 song. And then it classifies. So that's an
13 example of something that somebody could say
14 infringes. I don't -- obviously it's just a
15 hypothetical example.

16 I want to know an example like that that
17 it would infringe Claim 1. Just walk me through
18 Claim 1, give me an example of a method that would
19 infringe.

20 MS. BLOCK: Object to form.

21 A So, again, like I said in my declaration,
22 we talk about, you know, we analyze Claim 1

1 limitation by limitation. There is no -- you
2 know, I have not heard that you had to use a
3 single example throughout all the limitation.

4 I mean, we talk about, we provide
5 analysis, technical analysis, and refer to Kester
6 and Kennedy when appropriate to render the opinion
7 that Claim 1 is obvious.

8 So, I mean, if you want to look for
9 examples, I mean, we can go back to the -- to my
10 declaration and say, For this limitation, here is
11 example, here is analysis. I mean, that's what my
12 declaration is about.

13 Q So I'll take that as no, you can't come
14 up with an example of a method that would
15 infringe.

16 A That's not true.

17 MS. BLOCK: Object to form.

18 A That's not what I said. I said all my
19 analysis is in the declaration. If you want to
20 look for the methodology that we use or the
21 example that we use, is only declaration. We can
22 go into any limitation you want to talk about. If

1 you want to talk about whole claim -- and go to
2 the specific section. If you want to talk about
3 whole Claim 1, it's all there. We can go through
4 all the limitations you want.

5 Q So I take that to mean you refuse, not
6 that you can't, but you refuse to provide an
7 example of a method that infringes?

8 MS. BLOCK: Object to form.

9 A No. That's not what I meant. I meant
10 all the examples, analysis were already capture in
11 the declaration. And you can ask specific ones
12 for me to explain my declaration. It's all in my
13 declaration.

14 Q All right. Let's move on to the prior
15 art references and the combination. I want to
16 make sure that I understand the combination that's
17 being proposed.

18 A Okay.

19 Q So let's turn to Kester.

20 A Okay.

21 Q Kester, that's Exhibit 1004, the primary
22 reference used.

1 A All right.

2 Q Figure 1 of Kester shows three
3 components, workstation management module, and
4 then the application server module, and then the
5 application database factory.

6 Do you see that?

7 A Yes.

8 Q What function is performed by the
9 workstation management module?

10 MS. BLOCK: Object to form.

11 A Okay. So let me go to my declaration. I
12 think I summarize that.

13 So as I say in my declaration, Paragraph
14 56. I'm sorry, actually Paragraph 57. You know,
15 of course I refer to Figure 1 in Kester.

16 Then I say, you know, Workstations 101
17 may be personal computers and comprise a
18 workstation management module configured to detect
19 the launch of the application or a network access
20 request to an application.

21 Q And what does it do with that data?

22 MS. BLOCK: Object to form.

1 A So it goes on in Paragraph 58. "During
2 either launch or when requesting access to the
3 network (i.e., ongoing activity of the
4 application) collection data is collected during
5 these processes and sent to an application server
6 module 102 for processing."

7 Q What processing does the application
8 server module perform?

9 MS. BLOCK: Object to form.

10 A Yeah. In the same Paragraph 58 it goes
11 on to say, "This processing includes 'merging and
12 sorting the collection data from multiple
13 workstation management modules.'"

14 Q What does it mean to merge and sort the
15 data?

16 MS. BLOCK: Object to form.

17 A That's one way of doing analysis. That's
18 one way of doing correlation analysis, in my
19 opinion.

20 Q Yeah. What does it mean?

21 A Correlation. You basically sort and
22 merge and say what are the relationship between

1 the different information. Are they the same, are
2 they related. You know, you can do a lot.

3 Q Can you illustrate that with an example?

4 MS. BLOCK: Object to form.

5 A Yeah. For example, you can merge and
6 sort them and say, Hey, you know, Object A and B
7 either merge -- they actually came from, let's
8 say, you know, maybe named differently; but, you
9 know, their checksum are the same, then they are
10 the same. That's one way of correlating. And
11 that's where merger and sorting will tells you the
12 relationship between two objects.

13 Remember I said multiple times that one
14 of the common utilities -- well, one of the sort
15 of most well-known utilities of correlation to
16 find out the relationship between two objects.
17 These object can be -- the relationship can be the
18 same; you know, can be, I don't know, same object
19 at different time stamps, you know, meaning
20 different version, and so on and so forth. Those
21 things you can do using merging and sorting.

22 For example, you use sort by time stamp.

1 Even though they come in with the same name, you
2 say, Ah, that must be different version. That's
3 correlation.

4 Q You mentioned that the workstation
5 management modules capture each time an
6 application is launched and each time it accesses
7 the network.

8 Is that the data that gets sent to the
9 application server module?

10 MS. BLOCK: Object to form.

11 A As I said in my declaration, Paragraph
12 58, it talks about during the launch, either
13 launch or when requesting access, the collection
14 data collected, you know, during these process and
15 sent to the application server module for
16 processing.

17 Q Can you provide me an example of merging
18 data about an application accessing the network?

19 MS. BLOCK: Object to form.

20 A Okay. So I believe I discuss that when I
21 talk about the correlation step in my declaration.

22 You want me to go there?

1 Q Sure.

2 A Okay. Yeah. Sorry it took me some time,
3 because obviously my declaration somehow when
4 flipping through the patents included some pages
5 from patent that confuse me.

6 Anyway, okay. So going to my
7 declaration. Basically Paragraphs 99 to 104,
8 right, I provided analysis of Kester performing
9 the merging and sorting that essentially doing
10 correlation. So I provided, you know, Figure 16
11 and Figure 19.

12 So essentially talks about both Figure 16
13 and 19 talks about how the application server
14 module gets data from the workstation monitoring
15 module, or management module. And receive data.
16 And then decrypt and, you know, process whatever,
17 doing all kind of processing, and then merging and
18 sort and merge.

19 And, likewise, the database factory would
20 do something similar, so ...

21 Q Yeah, I'm just trying to figure out what
22 it would mean to merge and sort network access

1 data?

2 MS. BLOCK: Object to form.

3 A Okay. So as I said in my declaration,
4 you know, merge and sort, again, these are very
5 well-known -- well-known concepts. Very similar
6 to what you say correlation, which is comparing,
7 these are well-known, they are well-known
8 techniques apply according to the data format that
9 you are dealing with. So that's what it means;
10 you basically get data.

11 Like I said -- let me see here in the
12 declaration. I talk about -- yeah, at the top
13 of -- sorry. At Paragraph 103, the last sentence,
14 I say, "Similar to the '389 patent disclosures,
15 Kester's process merges and sorts collection data
16 into centralized database from the multiplicity of
17 workstations, as explained above, and therefore
18 correlates this data in the same way as the '389
19 patent."

20 Q I think you just answered my question
21 with the same question I just asked you.

22 I asked, what was -- what's an example of

1 merging? What does it mean to merge? And then
2 you said, it says right here it merges the data.
3 I said, I see that it says it merges the data.
4 I'm asking you what it means to merge the data.

5 A Okay. So if you recall early discussion,
6 in Paragraph 103 I cited one example. In '389,
7 Column 10, Lines 37 to 40, talks about data
8 being -- let me go back there to talk about,
9 that's example that imply correlation can be used
10 to -- let's say Column 10, right, Line -- Lines 37
11 to 40 --

12 Q You're referring --

13 A -- talks about the data in the computer
14 database provides an extensive corollary of an
15 object's creation, configuration, execution,
16 behavior, identities, and relationships to other
17 objects that either act upon it or are acted upon
18 by it.

19 So we say that, for example, the
20 identities and the relationships to other objects,
21 that piece of information when you get from
22 multiple, let's say, remote computers, you could

1 use correlation in the -- whatever the language
2 that the '389 wants to use to find the
3 relationship.

4 And in Paragraph 103 of my declaration I
5 talk about, you know, the merge and sort, the
6 merge and sort in Kester, essentially we achieve
7 the same thing.

8 Like I said, if you want to emphasize the
9 example of correlation, finding relationship. As
10 I explained earlier, merge and sort can also find
11 a relationship of those objects. So, really, it's
12 basically saying, Look, that's how we render this
13 claim, this limitation to be obvious. Because --

14 Q So the question for you -- because you're
15 the fact expert. Right? You're here to opine on
16 what it is that Kester says. Right? And so I
17 want to know what Kester says. And I'm hoping you
18 can tell me what it would tell to a person of
19 ordinary skill in the art.

20 Kester says, as you've noted many times,
21 that you merge data.

22 I am not an expert, so I am asking you,

1 what does merging mean? What would Kester have
2 implied to a person of ordinary skill encompassed
3 in the concept of merging Kester's data?

4 A Okay. So like I said, merging and
5 sorting are so obvious any computer scientist
6 would tell you. And actually, these two finding a
7 relationship is the same thing what correlation is
8 trying to do.

9 For example, say, Hey, Object A and B, I
10 decide to merge them into same. Same thing. Why?
11 Because by merge -- sorting and merging some
12 information, I realize that they are the same,
13 same executable. Maybe just different version. I
14 call it a version, I mean to either the same
15 category or same something.

16 That's exactly the example that I gave
17 from '389. Talks about objects --

18 Q You say that --

19 A -- objects and their relationships.

20 Q So you're saying that when Kester says
21 "merge," what he means is draw any kind of
22 correlation between two pieces of data?

1 A I am talking --

2 MS. BLOCK: Object to form.

3 THE WITNESS: Sorry.

4 A I'm talking about without a real precise
5 definition of correlating --

6 Q I'm talking about merging. I'm not
7 talking about the '389 patent.

8 A Okay. Let me finish. Without a
9 definition, clear definition or limitation of what
10 correlating means in '389, I'm telling you as an
11 expert merge and sort can also give you, you know,
12 some utility -- utilities of correlation.

13 For example, like I said, correlation I
14 applied original meaning. You know, the example
15 that I can only -- the example I cited from '389
16 was relationship. Yeah, you can -- you can find
17 relationship using merge and sort.

18 So I will say as an expert, sorting and
19 merging is one step, or one techniques that people
20 would use when trying to correlate. Okay?

21 Q Okay.

22 A So it's also what I'm saying --

1 Q I'm not talking about correlating --

2 A I'm saying that sorting and merging is
3 one kind of correlation.

4 Q Okay. Great.

5 A Yes.

6 Q What I want to know is, what is it that
7 Kester teaches is merging and sorting? What falls
8 within the scope of merging taught by Kester?

9 MS. BLOCK: Object to form.

10 Q Let me provide you an example.

11 I can merge the word "Bob" with the word
12 "Dan" by having B-D-O-A-B-N because I interleave
13 the letters. That's merging.

14 Is that the kind of merging that Kessler
15 is talking about?

16 MS. BLOCK: Object to form.

17 A So again --

18 Q Does that fall within the scope of
19 merging in Kester?

20 MS. BLOCK: Object to form.

21 A Again, I said without clear definition,
22 you apply the general meaning of merging or

1 correlating in context. Okay? The example you
2 gave, no meaning. And I say tell me why is it
3 meaningful to this -- to this particular patent or
4 patents. Okay? So as expert we use the general
5 algorithm apply to the domain. They don't do this
6 blindly.

7 Q That's what you're here for. Right?

8 That's what I'm asking you?

9 A Exactly. I am talking about object
10 relationship, that's very specific. They say
11 Object A. I give example. Right? Object A and
12 B. They correlated. Why? They could be, even
13 though the same name, different time stamp. Okay.
14 By way you sort them you say, Ah, they are right
15 next to the other, they were close to each other.
16 Okay. I can figure out, okay, maybe they
17 different version. I decide to merge them.

18 There is a lot of context that makes
19 sense to POSITA in a domain. That's what I meant.

20 Q Right. And so there is context in
21 Kester. Right? Kester says that the two kinds of
22 information that it sends is events about launch

1 and events about network access.

2 And I want to know what it means to merge
3 information about launches and information about
4 network access?

5 MS. BLOCK: Object to form.

6 A Okay. So --

7 Q Give me an example.

8 A Very easy.

9 MS. BLOCK: Object to form.

10 A Application A or B. They both are
11 launch. Okay? Are you being sent over to, let's
12 say, the workstation manager. They say, Yeah, A
13 and B actually the same thing, even though they
14 may not, you know, have the exact time stamp, but
15 they're the same. Same checksum. Same, from the
16 same vendor, created by the same previous object,
17 whatever. I mean, there are a lot of context that
18 you can have.

19 You do not say, Oh, I launch A, what is
20 A? All the information that you can use to merge
21 and sort essentially performing correlation.
22 That's what Kester -- like I said, a POSITA

1 reading it, yes, makes sense, will completely
2 agree with my -- with my conclusion here.

3 Q So the example of merging launch data is
4 that the same application was launched?

5 A It doesn't have to be. I just use
6 example.

7 Q As an example.

8 A An example that you may say, Hey,
9 application from two workstation, let's say 101,
10 102, they actually the same application. Could be
11 different version. Right? That's one example.
12 There could be other examples.

13 Q Does Kester provide any limitations on
14 the kinds of examples that would constitute
15 merging?

16 MS. BLOCK: Object to form.

17 A I can go back to the Kester patent and
18 talks about -- I mean, and -- yeah. But like I
19 said, is POSITA, you know, will read the
20 declaration and find it obvious. Because it says
21 in 103, or actually beginning of -- the last
22 sentence of 103 talks about merge and sort

1 collection data. And this data is from
2 multiplicity of workstations. What does
3 collection data means? It means a lot of data, a
4 lot of process. And a POSITA would tell me that a
5 lot of information, a lot of data you can collect
6 when some -- you know, when application launch,
7 being launch or when a network request being made.
8 A ton of information you can collect. Kester
9 didn't say you could only collect this. And like
10 I said, POSITA would say, Okay, yes, you can
11 collect this. You can also collect other things.

12 The key is that the workstation module
13 that collects. You can collect as many things as
14 is useful for the purpose.

15 Q But Kester only collects certain data.
16 Right? It collects --

17 A Again, those are examples.

18 MS. BLOCK: Object to form.

19 A If you want to apply the same reasoning,
20 I would say, Okay, then '389 correlation only
21 means relationship between two objects? I didn't
22 say that. I said that's example. If you say an

1 example means a whole definition, that's not how
2 POSITA would see it.

3 Q I have been very clear that when I ask
4 for examples, I'm not asking you -- for the
5 examples to define the full scope of a term.

6 A Okay.

7 Q Drawing a line between those two things.

8 A Okay.

9 Q For example, merging network access data,
10 you can imagine that Kester receives a bunch of
11 network accesses, and then it merges it by
12 destination IP address.

13 Is that an example?

14 A That's one example.

15 MS. BLOCK: Object to form.

16 A It doesn't have to be only example.

17 Q No. I didn't say it is only. Is it an
18 example?

19 A Yeah, it can be domain name, you know, IP
20 can change. Yeah, a POSITA would say, Yeah, you
21 know. I mean, a POSITA would just, like I said,
22 read in my declaration and find it so obvious that

1 they would just agree. Because all these examples
2 that you -- that we try -- that we discussing
3 here, just, okay, they are examples.

4 Q They are examples. I am trying to
5 understand --

6 A Okay.

7 Q -- your examples.

8 A Yeah, those are examples. Sure.

9 Q And if you receive -- instead of merging
10 by IP address, it could merge by origin IP
11 address, the sender?

12 MS. BLOCK: Object to form.

13 A Yeah. I mean, I wouldn't exclude
14 anything. As I say, any example is -- you know,
15 it's appropriate. Like I said, depending on the
16 context.

17 Q So I don't want to overstate what you're
18 saying because I know you're sensitive to that.
19 But the -- Kester doesn't provide any limitation
20 on what merging -- what data can be merged?

21 MS. BLOCK: Object to form.

22 A So like I said, the -- you know, I mean,

1 I think I repeat myself.

2 Q You have said many times that merging
3 could really mean any kind of correlation drawing.

4 A But I also earlier I say that when you --
5 when you ask me to explain what workstation
6 management module does, I say collects data.
7 Right? When the application launch or when a
8 network request is being made.

9 So there is no limitation to exactly only
10 certain information can be collected. Like I
11 said, POSITA reading this would -- will agree
12 that, yeah, you can collect any information
13 related to the application or the network access.
14 Even more. And so that's the key, that's the main
15 takeaway from Kester, is that the workstation
16 management module collects data sent to the --
17 sent to the application server, and the server
18 does merge and sorts. And essentially performing
19 correlation.

20 Q Right.

21 A I mean, that's all in my declaration.
22 That's all --

1 Q What's the purpose of the merging and
2 sorting step in Kester?

3 A I mean, there are many purposes. I mean,
4 besides, you know -- almost you can ask the
5 impression what's the point of doing correlation
6 in '389.

7 So, you know, you basically want to say
8 it's important to draw some useful, you know,
9 information from data. Right? So correlation is
10 one -- you know, one of those steps, just drawing
11 some useful information for -- to allow you to do
12 further analysis. That's all.

13 Q What does Kester do with that
14 information?

15 MS. BLOCK: Object to form.

16 A I think we talk about this in the -- in
17 the context of the declaration. Did talk about,
18 you know, how this information being used to -- to
19 help analysis, let's put it that way.

20 Q Let me ask you about Kennedy for a
21 second.

22 A Uh-huh.

1 Q To the extent it's not clear for the
2 record, Kennedy is Exhibit 1005.

3 It has a malicious software detection
4 module. Correct?

5 A Yes.

6 Q And Kennedy teaches a method that
7 operates on one computer, not on -- not a
8 community-based approach to malicious software
9 identification?

10 A I mean, the abstract talks about a
11 computer system, but it doesn't mean that, you
12 know, this kind of technology can be applied to a
13 community. But, yeah.

14 Q Kennedy doesn't describe a
15 community-based approach. Right? I think that's
16 uncontroversial?

17 A Well, I mean, it talks about executes on
18 a computer system connected to a network. So
19 there is a sense of -- I mean, it talks about also
20 monitors the storage device of the computer system
21 from the arrival of software from a suspicious
22 portal.

1 So it does talk about, you know,
2 connection to the outside world, not just
3 everything has to be originated or only stays
4 within this computer.

5 It actually talks about further that -- I
6 recall seeing that, you know, how the -- how
7 the -- how the file is being replicated and
8 propagated. So there is a sense of, you know,
9 network and community.

10 Q The Kennedy's MSDM includes a file set
11 tracking module.

12 Is that correct?

13 MS. BLOCK: Object to form.

14 A I think I talk about this. Let me just
15 refer to my declaration.

16 Q Let me just refer you to Column 4 of the
17 patent, Line 19, where it discusses file set
18 tracking module 312.

19 A Okay, yeah, I see that.

20 Q It says it maintains a set of files for
21 each suspicious software.

22 How does it maintain that set of files?

1 MS. BLOCK: Object to form.

2 A You basically have a log that just, you
3 know, report the files you're tracking in the log.

4 Q What information does the file set
5 tracking module maintain or obtain?

6 A Well, it talks about in -- you know, go
7 on from Lines -- Line 20 in Column 4. Talks
8 about, In one embodiment, the tracking module 312
9 creates a separate set of each software designated
10 as suspicious. The set includes each file that
11 constitutes the suspicious software. In addition,
12 the tracking module 312 tracks the behavior of --
13 behavior of -- behaviors of the files in the set
14 and records each time a file in the set touches
15 another file on the storage device or elsewhere in
16 the computer system.

17 You know, and further explain touch can
18 mean create, modify, read, and so on, you know.
19 So on and so forth.

20 Yeah. So basically tracks all kind of
21 behaviors of the file. And then I think go on in
22 the following paragraph talks about, you know, how

1 to add more files that's affected, you know,
2 meaning that also as suspicious, into the -- into
3 the file set database.

4 Q You mentioned the file set database.
5 What is stored in the file set database?

6 MS. BLOCK: Object to form.

7 A So as I explain here, I think this is
8 Line 48 of Column 4, it says, A file set database
9 314 persistently stores the file set identified by
10 the file set tracking module.

11 Meaning that is in a -- it's actually --
12 it stores in permanent -- permanent storage,
13 meaning that in your hard drive kind of thing.

14 Q Does Kennedy indicate that the file set
15 database stores anything else?

16 MS. BLOCK: Object to form.

17 A Let's see. So, I mean, if you referred
18 in the same paragraph, it's not just the file name
19 per se. For example, I think the Lines 52 -- 53
20 talks about the file set monitoring module updates
21 the data within the file set database to reflect
22 any activity by the suspicious software being

1 monitored. Right?

2 So --

3 Q What does that mean?

4 A Activity, as I talk about earlier, that's
5 a -- starting from Lines 20, talks about all kind
6 of behaviors, activities, a file would do. So
7 then 53 tells you that the activity information
8 will be also stored in a database.

9 Q So the database stores relationships
10 between the files in these file sets. Right?

11 MS. BLOCK: Object to form.

12 A So what it says, it says stores
13 information of the -- of the files, including
14 activities.

15 Q It says on Line 48, "File set database
16 314 persistently stores the file sets identified
17 by the file set tracking module."

18 A Yes.

19 Q So that necessarily implies that it
20 stores the associations between those files.

21 Right?

22 A Well, I mean, a POSITA would tell you

1 that all it talks about here is storing of data.
2 What analysis or additional information you want
3 to get from data, that's subject to your analysis.

4 Q I'm sorry, could you clarify that or
5 expound?

6 A For example, you say, Hey, which file is
7 the -- you know, whatever the larger size. You
8 don't have to have a database actually to say yes
9 or no, large or not. You just look at data and
10 analyze, and then just say, Okay, which file is
11 larger size. I mean, that kind of information is
12 something you can get from the data. So the spec,
13 he didn't talk about any of those specific
14 examples relationship. It talks about storing
15 the, you know, file set identified by the file set
16 checking module and also including the activity,
17 you know, information. And like I say, you want
18 additional information, do analysis.

19 Q The fact that the file set database
20 stores the file sets, that necessarily means that
21 it stores that there's relationship between these
22 files in the same set. No?

1 MS. BLOCK: Object to form.

2 A Like I said, depending on what
3 relationship specifically you're looking for.
4 That's what the analysis, correlation, comparing
5 comes into play. You can always compare or
6 correlate data in a database and find out certain
7 relationship. If you ask me if those relationship
8 already explicitly store, nobody say you cannot.
9 But nobody say you must.

10 Q Understood.

11 A Say if you ask did it include all
12 relationship or all relationship can be derived,
13 depending on what relationship you're talking
14 about. A POSITA would just, you know, would agree
15 with me on that.

16 Q All right. Well, then, how about the
17 line on Line 52 that says that "The file set
18 monitoring module updates the data within the file
19 set database to reflect any activity for the
20 suspicious software being monitored"; that
21 necessarily means that the database is storing
22 data about what it is that these files are doing.

1 Right?

2 MS. BLOCK: Object to form.

3 A Let me see here. Yeah. I mean, so you
4 refer to, I mean, this whole paragraph I think in
5 the line I think 58. No, 50 -- 58, yes. "In one
6 embodiment, all or some of the data of the file
7 set database are stored in attributes associated
8 with the files being monitored. For example, a
9 file's attribute can indicate that it is a member
10 of a particular file set and/or associated with
11 particular suspicious software." Excuse me. "In
12 such an embodiment, there need not be a
13 centralized database of file sets."

14 So yeah, I mean, there are some examples
15 where some, you could call it, you know,
16 relationship or association being -- being stored
17 in database. But, like, again, these are the
18 examples, not the -- not the explicit limitation
19 of the patent.

20 Q Okay. But that goes to the file set
21 question that we were asking earlier.

22 My question now is about this information

1 that's being kept to reflect any activity by a
2 suspicious software being monitored. So that
3 necessarily means that it's tracking things like a
4 file performing some action in another file, and
5 what kind of action that was, and that.

6 MS. BLOCK: Object to form.

7 Q Wouldn't it suggest that?

8 A I mean, according to the spec here,
9 right, I mean, it talks about can indicate that
10 it's a member of particular file set or associated
11 with particular suspicious software. Yeah. So
12 one example could be, Oh, it's -- it's created by
13 another suspicious file, and that's why, you know,
14 it's associated with that particular suspicious
15 file set. Okay. And that's example. Right?

16 So again, these are examples of
17 information about a files that you can store in
18 database. It doesn't mean that you cannot gain
19 additional information by analyzing the data.
20 That's what I'm trying to say.

21 Q Well, you could certainly analyze the
22 data in the file set database. But most of my

1 questions now are just to figure out what's in the
2 file set database, what it would imply to you is
3 being kept in that database.

4 And I see here --

5 MS. BLOCK: Object to form.

6 MR. WEINBERG: I didn't actually ask a
7 question yet.

8 MS. BLOCK: That was my objection.

9 MR. WEINBERG: Just taking a breath.

10 A Okay. So you -- what's your question?

11 Q So I was just trying to orient you to say
12 what I'm trying to figure out is what's stored in
13 this file set database. And it looks as though
14 there's two things that we've talked about.
15 Number 1 is something indicating these file sets.
16 And what I'm unclear about is what this line here
17 means about that the file set monitoring module
18 updates the data within the file set database to
19 reflect any activity by the suspicious software
20 being monitored.

21 What does that mean, to reflect? What
22 data reflects the activity by the suspicious

1 software being monitored?

2 A I mean, I think the reflect -- the word
3 "reflect" is general meaning of reflect. Any
4 information that's relevant to, you know --
5 basically any information that's relevant to the
6 fact that you want to capture. Right? I mean,
7 that's my general understanding of the word
8 "reflect."

9 Again, these terms are never, you know,
10 clearly defined or being limited. Like I said,
11 you know, if you read Column 4, you know, Lines
12 20, it talks about what a tracking module is doing
13 by essentially, you know, tracks the behaviors of
14 the files, including touches, you know, creating,
15 and so on. Those are examples of activities.
16 Cannot be -- I mean, I am not saying that's the
17 only ones; those examples of the activities.

18 And then if you -- then if you say, that
19 actually should how you understand, or a POSITA
20 would agree, that in -- in the sentence -- what's
21 the line number? Yeah. Line Number 58 talks
22 about the file set monitoring modules 312 updates

1 the data within the file set database 314 to
2 reflect any activity by the suspicious software
3 being monitored.

4 I will say a POSITA would just say, yeah.
5 Early on they give some examples. Those examples
6 are activities that would be captured -- you know,
7 the information reflecting those activity would be
8 captured in the database.

9 So I don't know what's -- what's not so
10 clear.

11 Q So in Line 23 that you pointed to
12 earlier, it does say that this file set tracking
13 module records each time a file in the set touches
14 another file on the storage device, and does so in
15 order to figure out that these two files are in
16 the same set.

17 Is that correct?

18 A Yeah, that's -- yeah, that's what it
19 says, yeah. That's what it says here, yeah.

20 Q This recording, where does this record
21 this data, does it say?

22 MS. BLOCK: Object to form.

1 A Okay. So if you read further, I
2 believe --

3 Q Does it have to be persistently stored,
4 for example, this recording?

5 A So if you refer to in this paragraph,
6 right, so at the last sentence -- well, the last
7 sentence talks about the file tracking module 312
8 adds the touched file to the set, the file that
9 touched it.

10 But then, you know, starting Line 35 it
11 talks about, you know, situations where, you know,
12 you through indirect kind of touches. For
13 example, it talk about if -- if, let's say,
14 sus-a.exe, which is a suspicious program -- I'm
15 reading, sorry, Line 39, talks about, for example,
16 if a suspicious program, sus-a.exe runs a
17 nonsuspicious program, let's say, command, you
18 know, cmd.exe, and cdm.exe creates a new file
19 sus-b.exe, then cmd.exe is not added to the set of
20 suspicious files, but sus-b.exe is added to the
21 set.

22 So it basically talks about, you know,

1 the conditions, you know -- essentially why
2 listing. I mean, that's another, you know, POSITA
3 would understand that there is some -- you know,
4 you don't add the nonsuspicious program into the
5 set that you tracking. You only add, you know,
6 the suspicious one, including the one that created
7 by the suspicious ones either directly or
8 indirectly into the set. So that's -- that's
9 that.

10 And then -- and then basically Paragraph
11 48 talks about a file set database persistently
12 stores the file sets identified by the file set
13 tracking module. So --

14 Q So it records the file set and attributes
15 about those files?

16 A That's what it says, that the file set
17 database persistently stores a file set identified
18 by the file set tracking module.

19 Q And that includes how the file was
20 created?

21 MS. BLOCK: Object to form.

22 A But like I said, it basically sets the

1 file -- for the files being tracked by the file
2 tracking -- file set tracking module, those files
3 are stored, persistently stored in the file set
4 database.

5 And also go on to say -- Paragraph 49 it
6 say, The number of sets in a database can vary
7 depending on the embodiments and/or the amount of
8 software added to the particular computer system.

9 Anyway, so -- yeah.

10 Q So let me provide an example again.
11 Let's suppose that A creates B, and B modifies C.

12 A Uh-huh.

13 Q And they're all suspicious, and so they
14 all get added based on those touches. Right?
15 Based on the sequence of touches A, B, and C are
16 recorded in the file set databases being sets of
17 associated suspicious files. Is that an
18 example --

19 A So in your example --

20 MS. BLOCK: Object to form.

21 A In your example, like I apply -- I have
22 applied the description of Lines 20 through, I

1 don't know, 34, to say that the example you gave A
2 touch B, B touch C or B modifies C or whatever, if
3 they are all suspicious, then they would be --
4 they would be added to the set of files being
5 tracked by the file set tracking module.

6 And then according to Line 48, a file set
7 database persistently stored the file set
8 identified by the set, by the file set tracking
9 module.

10 Q Must the data in the file set database
11 include an indication that A touched B?

12 MS. BLOCK: Object to form.

13 Q Or is it just that it's sufficient to
14 record that A and B are in the same file set?

15 A Like I said earlier, if you read Lines 53
16 talks about the file set monitoring module 312
17 updates the data within the file set database to
18 reflect any activity by the suspicious software
19 being monitored. So basically this is no
20 limitation -- no limitation there any activity.
21 Basically it is I think it would be decided by the
22 embodiment, you know. You can record anything you

1 want.

2 Q All right. Starting in Line 64, there is
3 a third component, the file set behavior
4 monitoring module.

5 Do you see that?

6 A Okay. Yeah, I see that sentence.

7 Q That module, what is its function?

8 MS. BLOCK: Object to form.

9 Q All right. I'll withdraw the question
10 and modify it.

11 A Okay.

12 Q I'll suggest to you that the file set
13 behavior monitoring module performs two functions:
14 It monitors the behaviors of the files, and then
15 it applies heuristics to those behaviors in order
16 to classify them, as reflected in Column 4, Line
17 64 through Column 5, Line 22.

18 A Twenty-two?

19 Q Would you agree with that
20 characterization of the functions of this module?

21 A So in Line 4 Column 5 it talks about the
22 file set behavior monitoring module 316 employs

1 one or more heuristics to determine whether the
2 suspicious software represented by each set is
3 malicious. Each heuristic describes one or more
4 conditions that, if satisfied, indicate that the
5 software is malicious. The heuristic is satisfied
6 if any file in the software's set fulfills the
7 conditions of the heuristic, and/or the collective
8 actions of the files in the set fulfill the
9 conditions of the heuristic. And then it talks --
10 go ahead.

11 Q Let me start with the first function, the
12 monitoring that's discussed at Column 4, Line 64.
13 Monitors the behaviors of the files within the set
14 associated with each suspicious software.

15 A Okay.

16 Q I want to understand how that monitoring
17 works.

18 A Okay.

19 Q Where does it obtain this data that it's
20 monitoring?

21 MS. BLOCK: Object to form.

22 A Okay. So again, I -- you know, if the

1 beginning of the -- well, I mean, first of all, we
2 talk about in the context of a malicious software
3 detection module. Okay? MSDM. That's what this
4 patent Kennedy is about in the abstract. The
5 first line is, A malicious software detection
6 module detects worms and other malicious software.
7 So, obviously, there is a lot of detection and
8 tracking going on. A POSITA would just -- you
9 know, that's pretty obvious to a POSITA.

10 And then I also refer you to Figure 3.
11 It talks about components of the -- of MSDM, you
12 know, the suspicious software arrival, file set
13 tracking, file set database, file set behavior
14 monitoring, software response module.

15 So I don't want to talk about file set
16 tracking analysis or behavior monitoring in
17 isolation. It's all in the context of MSDM.

18 So a POSITA would say, Okay, you are
19 monitoring malicious software. Yeah, then, of
20 course, you can actually figure out all these
21 heuristics are being applied, and which -- which,
22 you know -- how the software has arrive and what

1 does the software -- you know, what kind of
2 activity, does it touch anything. I mean, those
3 kind of things, a POSITA would find it pretty
4 obvious.

5 Q Well, my question is how would the file
6 set behavior monitoring module learn about the
7 behaviors of those files? For example, would it
8 learn it by receiving the information from the
9 file set tracking module?

10 MS. BLOCK: Object to form.

11 A So again, I can go back and reread the
12 patent spec to -- yeah. So, I mean, you can read
13 the -- you know, I mean, let's say paragraph --
14 sorry, Figure 4 of Kennedy. Okay? It basically
15 talks about a flow, the work flow. It's talking
16 monitoring activity, meaning monitoring anything;
17 can be software arriving, can be whatever.

18 Then you say, Okay, software arrives from
19 suspicious portal. Okay? Yes? Then you
20 essentially -- you could imagine putting the file,
21 you know -- basically thinking of the tracking.
22 Okay, say this file is from a suspicious portal.

1 Let's track what it is doing. Okay? So that's
2 the files -- file set tracking going on there.

3 Like, I would have discussed extensively,
4 it also tracks what other files it touches and so
5 on and so forth. Right?

6 Yeah. Basically so there it -- it also
7 talks about whether it's engaging suspicious
8 behavior. Actually -- you know, I mean, I was
9 about to read further. In the Column 5 it talks
10 about some of the heuristics they use to say,
11 Yeah, it only touches the file and some additional
12 thing that it does that meets that -- that
13 actually metes out heuristic. And that's what
14 this decision box is talking about. Like 416 talk
15 about does the set engage in suspicious behavior.
16 If yes, then declare it is suspicious.

17 Q I guess I am trying to figure out the
18 relationship between 416 and 410 in Figure 4. 410
19 says, monitor activity. 416 asks whether the set
20 engages in suspicious behavior.

21 So I am just trying to figure out, is
22 this monitoring activity in 410, is that the input

1 into 412 or is that the input into 416? Is it
2 both?

3 What's the relationship between this
4 monitoring activity 410?

5 A Well, I mean, I can go --

6 MS. BLOCK: Object to form.

7 A I can go to the patent spec to see
8 whether they talk about -- you know, is any
9 limitation of 410.

10 But I would tell you that a POSITA would
11 say monitoring activity, again, we can monitor
12 many things. And Figure 4 could just be a example
13 what's being monitored. Let me see here. Let me
14 see here.

15 Q So --

16 A Yeah. Hold on. Hold on. If you read
17 Column 5, Paragraph 43, it talks about, you know,
18 Figure 4, and emphasize, second sentence, "It
19 should be understood these steps are illustrative
20 only, and that other embodiments" of the
21 present -- "of the present invention may perform
22 different or additional steps." Right? But

1 illustrate the steps. Right?

2 So you would say, Can I use the
3 monitoring activity to give, you know, input to
4 416? A POSITA would say, Yes, of course. But the
5 definition of monitoring activity means more to
6 anything that's going on in your system, including
7 arrival of a software from a suspicious portal or
8 the suspicious software then goes on to create
9 some other files.

10 And that's -- a POSITA would find it so
11 obvious. I mean, that's what we do in monitoring.

12 Q But you can imagine a scenario where the
13 file set tracking module, whose job it is to
14 create file sets, might be interested in different
15 kind of inputs than the file set behavior
16 monitoring module, whose job it is to observe
17 behavior and heuristics. You can imagine they
18 would just be interested in different information.

19 Isn't that right?

20 MS. BLOCK: Object to form.

21 A So I would say that a POSITA would tell
22 you that -- you know, so again, monitoring and

1 behavior monitoring, or monitoring activity, all
2 these are very well-understood concepts.

3 You can have, you know, one module do
4 everything, or you can have multiple modules do
5 anything's and just passing information around. I
6 mean, those things are, you know, information --
7 implementation details or specific to the
8 embodiment.

9 But, you know, if you read Column 5 --
10 actually, it goes on to talk about what a behavior
11 monitoring is doing. You know, it talks about
12 heuristics being used. And it will give specific
13 examples of a heuristic that's being used.

14 You know, so, yeah.

15 Q Those are not limited examples. Right?

16 A Those -- okay. Those are examples. Like
17 I said, you know in Paragraph 43 talks about, you
18 know, even Figure 4 is illustrative steps. It
19 doesn't mean that, for example, you say, hey, you
20 know -- if your question -- I recall questions, is
21 monitoring activity only monitoring the arrival of
22 the software. It doesn't have to be.

1 POSITA would say, yeah, I can extend it
2 to do anything I want to monitor and give the
3 input to the file set behavior monitoring or give
4 the input to the file set tracking module. Those
5 are -- like I said, POSITA would agree you can
6 implement in many different ways.

7 But the principles, the concept has been
8 laid out by the -- by the spec of Kennedy. It
9 doesn't mean that every single thing has to be
10 limited to the example that it gave.

11 Like, for example, you know --

12 Q So, for example, the file set behavior
13 monitoring module, does it have to keep track of
14 how each file is related?

15 MS. BLOCK: Object to form.

16 A So again, if you read the -- if you read
17 the lines starting Line 4, it talks about the file
18 set behavior monitoring module using heuristics.
19 Okay? Yeah, I mean, obviously using heuristic to
20 analyze. Right?

21 If you say, Where is data coming from?
22 You know, can be coming from -- you know, can be

1 coming from file tracking module, can be coming
2 from monitoring activity module, can be both, or
3 can be doing its own monitoring and perform some
4 additional analysis.

5 I mean, all these things are not -- how
6 to put it? A POSITA would not -- will not find it
7 so limiting, meaning that these are very common
8 techniques being used. The exact implementation
9 really just -- just implementation details. Yeah.

10 So, for example, it talks about activity
11 by the heuristics that, if you say -- if you read
12 Line 15, talks about, according to this heuristic,
13 software is malicious if it attempts to copy
14 itself to another computer program via a technique
15 such as e-mail and/or an open drive share.

16 So that's basically one heuristic that,
17 you know, the file set behavior monitoring module
18 is using.

19 Q All right. I see two examples here of --
20 two examples of heuristics here in Column 5, Lines
21 4 through, I guess it's 42.

22 Those are the only two heuristics

1 disclosed in Kennedy.

2 Is that right?

3 MS. BLOCK: Object to form.

4 A Yeah, so those examples that illustrate,
5 you know, the -- you know, essentially the
6 functions of the files that behavior monitoring.
7 Like I said, these examples a POSITA would easy
8 understand, you know, these techniques. And a
9 POSITA will also be able to give other examples
10 that, you know, that could be implemented as well.

11 Q So I'd like to talk about the
12 combination --

13 A Okay.

14 Q -- that's being suggested.

15 A Okay.

16 Q Without reading the entire report back to
17 me into the record.

18 A Okay.

19 Q Just describe for me the proposed
20 combination of Kennedy and Kester.

21 A Okay. In what context? In which
22 limitation?

1 Q All of them. My question is, how would
2 you -- how would one modify Kester using the
3 teachings of Kennedy to arrive at the claimed
4 subject matter?

5 A I -- let me see here.

6 So again, I talk about this -- I mean, I
7 would rather talk about this in the context of
8 which limitation, then I can actually go and refer
9 to my declaration. Yeah.

10 MR. WEINBERG: All right. We've been
11 going for an hour and a half. I know that we
12 should be continuing until about lunchtime or
13 should we take an early lunch.

14 THE WITNESS: Yeah, we can take a break.
15 Yeah, sure.

16 MR. WEINBERG: What do you guys think,
17 Erin?

18 MS. BLOCK: Yeah, a break is fine.

19 (A recess was taken.)

20 BY MR. WEINBERG:

21 Q So when we left off we were talking about
22 the combination that you were proposing for Kester

1 and Kennedy. And I think that you laid out most
2 clearly in Section -- well, Paragraphs 109 through
3 113 of your clarification. And specific in
4 Paragraph 112.

5 A Paragraph 112. Okay.

6 Q And 112 says that, It would have been
7 obvious to a skilled artisan to configure Kester's
8 system and methods for monitoring application
9 files, such that each remote workstation
10 additionally includes a file set tracking module
11 as disclosed by Kennedy.

12 Is that right?

13 A Yeah. I see that, yes.

14 Q And then it says that, Here the
15 workstations would include a file set tracking
16 module to log the set of files for each
17 application in the logging database and would log
18 each time of file and the set touches, e.g.,
19 creates, modifies, or reads another file.

20 So in your proposed combination you're
21 proposing that each of Kester's workstations
22 includes one of Kennedy's file set tracking

1 modules.

2 Is that correct?

3 A Let me see here.

4 Yeah, I said that the first sentence of
5 112 says additionally, yes, each remote mobile
6 station additionally including a file set tracking
7 module as disclosed in Kennedy. Yeah.

8 Q And we talked about earlier about the
9 sorts of information that the file set tracking
10 module records.

11 Do you recall that?

12 A Yeah. Again, when we read the Kennedy
13 patent spec, those are examples, yeah. Example
14 behaviors and activities.

15 Q Okay. And in your proposed combination
16 here, could you be more specific about what
17 information this file set tracking module records?

18 A See, let me -- yeah. So, again, like I
19 said, Kennedy patent we talked about -- sorry. I
20 don't really hear the same thing from one of my --
21 sorry if that's a distraction. But not -- okay.

22 So those examples of file set behaviors,

1 let me refer back to the patent. I'm sorry, I got
2 distracted. Can you repeat your question again?
3 I really apologize. Yeah.

4 Q I'm trying to figure out what information
5 Kennedy's file set tracking module would be
6 recording on Kester's remote workstation in your
7 combination.

8 A Okay. So again, like I said, the POSITA
9 would understand that you can implement or you can
10 add this additional module in each workstation
11 that performs file set tracking.

12 Exactly what are you tracking, there can
13 be many things as, you know, as you see fit for
14 your domain. And then I gave some examples.
15 Right? In the second sentence I say, Here the
16 workstation would include files that tracking
17 module to log the set of files for each
18 application in the logging database and would log
19 each time a file in the set touches another file.
20 For example, touch means create, modifies, and
21 reads. Again, which is basically a POSITA would
22 be able to do that pretty easily.

1 But I would say that shouldn't be a
2 limitation, meaning that you could -- you could
3 potentially track other stuff as well.

4 Q Does it necessarily include the type of
5 touch between the files? By type of touches, for
6 example, I mean, created, modified, or other kinds
7 of actions that would qualify as a touch?

8 MS. BLOCK: Object to form.

9 A Well, I mean, like I said, these examples
10 aren't limitation. Right? So, yeah, I mean,
11 anything else can be there.

12 I mean, for example, even the
13 installation or downloading from somewhere you
14 could actually track from the file system
15 operation to notice a file is being downloaded
16 from somewhere and put in the file system.

17 So meaning that a POSITA would read --
18 would read this, you know, and say, Okay, file
19 tracking. File set tracking, yeah, that can
20 mean -- essentially means that you're looking at
21 how the files interact with each other. Or can
22 also mean that other files being stored, and where

1 they come from, all that kind of things. Yeah.

2 So again, what we listed here and also
3 what was being listed in Kennedy's patent
4 basically examples.

5 Q Okay. Nonlimiting examples?

6 A No; nonlimiting. Right, nonlimiting.

7 Q Continuing in Paragraph 112 of your
8 report, you then propose that, It also would have
9 been obvious to configure Kester's application
10 server module and/or database factory to implement
11 Kennedy's behavior monitoring module which employs
12 automated heuristics to automatically determine
13 whether received data indicates an application is
14 malware based on an identified relationship
15 between the application files and different but
16 related files as taught by Kennedy.

17 Do you see that line?

18 A Yes.

19 Q And just to confirm, so what you're
20 proposing here is you take Kennedy's behavior
21 monitoring module and you place it on Kester's
22 server side components, which is either the

1 application server module or the behavior
2 monitoring module?

3 MS. BLOCK: Object to form.

4 A Yes, so what I said here is that the
5 application server module or the database factory
6 can -- you know, a POSITA would know how to
7 configure, you know, the application server module
8 and/or the database factory to implement Kennedy's
9 behavior monitoring module.

10 Q And so given your proposed combination,
11 there's some sort of data that's being passed
12 between the Kennedy's file set tracking module and
13 the remote workstation and Kennedy's behavior
14 monitoring module on Kester's application server.

15 Right?

16 A Yeah. So as I say in the -- in Paragraph
17 112 of my declaration, I said, In the combined
18 method/system, the application's file set behavior
19 is application-related data that is sent to the
20 server module and/or database factory such that
21 when the comparison of this collection data to
22 other objects indicates the application is related

1 to known malware, Kennedy's automated heuristics
2 can classify the application appropriately as
3 malware. And I say, I provide example below.

4 Q So in your combination, there's really no
5 limit on what kind of information is being passed
6 between the file set tracking module and the
7 behavior monitoring module?

8 MS. BLOCK: Object to form.

9 A So as I said in this declaration, right,
10 I did talk about, for example, you know, in second
11 paragraph, Paragraph 112, I did talk about some,
12 you know, nonlimiting examples that create,
13 modifies, and/or reads. Right?

14 But then, you know, the sentence -- the
15 last sentence I talk about more broadly what's
16 being sent over from the workstation to the
17 application server is the -- is the
18 application-related data. You know, so again, I
19 tried not to limit to the example. Meaning any
20 data that's, you know, useful for analysis to the
21 application, that data can be sent to the server,
22 server module, and/or database factory.

1 Q So the application -- sorry. The file
2 set tracking module sends any data that's useful
3 for the behavior monitoring module to perform
4 heuristics?

5 A No.

6 MS. BLOCK: Objection. Form.

7 THE WITNESS: Sorry.

8 A That's not what I said. You know, so at
9 the beginning of --

10 Q Let me --

11 A Hold on. Hold on. So Paragraph 112 I
12 say, Workstation implement file set tracking
13 module. Right? And remember very early on, early
14 on in the discussion in the morning, we talk about
15 what workstation monitoring module is doing. The
16 module -- the workstation monitoring module is
17 responsible for sending data over to the
18 applications server.

19 So a POSITA would say, Yeah, doesn't mean
20 that every module in the workstation is
21 responsible for sending its own data. I mean, the
22 file tracking -- file set tracking module is about

1 tracking the system, file set application related
2 data, but that data doesn't have to be sent by it,
3 meaning the file set tracking module. It could be
4 sent by the workstation management module. I
5 mean, that's -- should be obvious to POSITA.

6 So if you tell me, Oh, just because it
7 implement a file set tracking module, that means
8 that module is itself is responsible for sending
9 its own data, where did -- where in my declaration
10 I said that? I didn't said that.

11 Q Well, you are introducing the file set
12 tracking module into the workstation. Right?

13 A Yes. Yes.

14 Q You're doing that for a purpose. And
15 that purpose is to collect some data that was not
16 being collected by Kester's original workstation.

17 Isn't that right?

18 MS. BLOCK: Object to form.

19 A So as I said first paragraph -- first
20 sentence say additional, can implement its
21 additional module. But like I said, when you --
22 when you include additional module, it doesn't

1 mean that your existing module cannot take the
2 additional data. So that when the additional
3 module sends data over, you also send additional
4 data. I mean, that's like, a POSITA would --
5 yeah, would agree with me. That's super obvious
6 to any POSITA.

7 Q What additional information does a file
8 set tracking module record and send that the
9 original Kester module didn't?

10 MS. BLOCK: Object to form.

11 A So first of all, I never said in my
12 declaration that the file set tracking module
13 itself is sending data. Okay? Like I said here
14 in the second sentence, I said it will log -- you
15 know, it will basically -- in the logging database
16 it will log each time the file set touches another
17 file.

18 And that information can be sent -- you
19 know, a POSITA would agree -- can be sent the
20 workstation monitoring module over to the server,
21 because that communication has been set up
22 already.

1 So again, obviously it sends additional
2 data. I mean, whatever data already has been
3 sending, you don't have to send additional
4 duplicate. So whatever is sending by definition
5 is additional because you have additional module.
6 But it doesn't mean that you have additional
7 separate new communication channel. A POSITA
8 would not agree with that.

9 Q Okay. I wasn't trying to suggest that
10 there was -- well, scratch that.

11 You introduced the file set tracking
12 module in order to capture certain data that would
13 then be passed to the server side components
14 through some channel, same channel, different
15 channel.

16 What data is it that this file set
17 tracking module is being introduced to capture
18 that will ultimately be sent to the server side?
19 The reason --

20 A Go ahead. Sorry.

21 Q Please go ahead.

22 MS. BLOCK: Object to form.

1 MR. WEINBERG: Erin, if I ask another
2 question and add more compound questions.

3 A So again -- so again, my objection to the
4 characteristic is that it is very obvious to a
5 POSITA that there is a existing module, namely the
6 workstation management module, that is responsible
7 for collecting the data during the process of
8 application launching or network request being
9 made; you know, capture the data that is sent
10 over.

11 And Paragraph 112 essentially says, Okay,
12 you can -- each workstation can implement
13 additional module to that tracking the file, you
14 know, doing file set tracking as disclosed in
15 Kennedy. And gave some nonlimiting examples, such
16 as, you know, create -- every time it touches, you
17 know, a file, meaning it creates, modify, and
18 reads another file, that information is being
19 captured.

20 And then a POSITA would agree, Yeah, then
21 how is it sent over? There is already existing
22 process and channel to send, to send along. I

1 mean, that a POSITA -- any POSITA would just say,
2 Of course, that would be the way you do it.

3 Q I'm not --

4 A Okay. Okay. Okay. And -- and you say,
5 What data?

6 Like I say, Paragraph 112, second
7 sentence talk about some nonlimiting example,
8 information about what file this application
9 touches. Right?

10 And then the last sentence I talk
11 about -- you know, because those are nonlimiting
12 examples, the last sentence talk about
13 application-related data to be more broadly -- you
14 know, allows data that's useful to be sent over.

15 Q What was that second category?

16 A So the first is nonlimiting examples,
17 create, modifies, and reads. The second one talks
18 about application-related data. That means really
19 emphasizing that the example I gave in second
20 sentence of Paragraph 112, they are nonlimiting
21 examples. Could be other examples.

22 Q The reason why the data that's being

1 captured that's sent is important is because
2 you're introducing a new component before Kester's
3 workstations were sending application launch data
4 and network access data, as you mentioned earlier.

5 Right?

6 MS. BLOCK: Object to form.

7 A Yes, that's -- that's Kester talks
8 about --

9 Q Those two --

10 A Hold on. Talks about -- I mean, I can go
11 back to a description of the Kester.

12 Again, the Kester spec did not talk about
13 limiting, say, Oh, you can only, for example, have
14 this piece of information. In fact, I would say
15 Kester also very broadly, you know, talks about
16 data being sent over unlimited by the language I
17 have in my declaration. So that would be on the
18 same -- talk about same thing.

19 So in Paragraph 58 in my declaration I
20 say, "During either launch or when requesting
21 access to the network (i.e. ongoing activity of
22 the application) collection data is collected

1 during these processes and sent to the application
2 server module."

3 So it didn't -- didn't provide any --
4 didn't have some specific example to say, Oh, you
5 could only include or collect or include only such
6 information. It talks about, you know,
7 essentially collection of data. So it can be, it
8 can mean really the collection of a lot of data.

9 Okay?

10 And Paragraph 112 to say, Okay,
11 specifically we could also be including some of
12 the file operation in the file system, that's all.
13 It's not limiting. Again, nonlimiting to what I
14 said here, creates, modifies, and reads. Those
15 are examples. Nonlimiting examples.

16 Q Your position is that Kester is able to
17 send any data, and so I'm trying to figure out why
18 you're adding Kennedy. If Kester is already
19 sending any data, why are you adding Kennedy?

20 MS. BLOCK: Object to form.

21 A So as I -- as I say further down in the
22 Paragraph 112, I talk about, you know, how the

1 file set data as examples that could enable
2 further analysis, you know, for example, using
3 the -- using the -- what's the term here -- the
4 behavior monitoring module which we're going to
5 introduce basically as additional module in the
6 server or database to perform analysis based on
7 the -- this kind of new additional data. I mean,
8 that's -- you know, these are collected for
9 purpose. And the purpose is for analysis.

10 Q So your position is that the combination
11 collects data and sends it to a server for
12 analysis, which therefore infringes the claims.

13 Is that the -- is that about the opinion?

14 MS. BLOCK: Object to form.

15 A So hold on. I want to read the whole --

16 Q No. I've read it.

17 A No. Hold on. So if you talk about 1.5,
18 the comparing, we started by saying Kester also
19 performs some comparing of those manually. And
20 then we talk about you could use Kennedy to make
21 this process even -- even more complete. I mean,
22 that's also. And then I think the conclusion is

1 that, you know, the limitations are obvious by
2 Kester and/or combination of Kester and Kennedy.
3 I think that's -- that was our conclusion.

4 So if you read the paragraph, yeah, I
5 think that's the -- let me see what the paragraph
6 is.

7 Yeah, so basically I say in Paragraph 119
8 that Kester in view of Kennedy renders obvious,
9 you know, this claim, the limitation of comparing.

10 Q If I understand correctly, your position
11 on Kester is that Kester's workstation is already
12 able to send any kind of data about what's going
13 on in the workstation, and that you're using
14 Kennedy -- we'll stop there.

15 Is that correct?

16 A Yeah, a POSITA would say, Yes, you
17 already have a module collect data and sends data
18 over. Of course anything you want, and send
19 anything you want, in principle. I mean, any
20 POSITA would agree with that. You already, like I
21 said, have a data collect module, you have a
22 module sending data. So what you cannot collect?

1 There is no limitation there.

2 Q And so using Kennedy to say, Look, since
3 Kester is already collecting all kinds of data,
4 Kennedy would suggest that it might want to
5 collect file sets data as well, or what you called
6 file set data?

7 A So hold on. Let me see here.

8 Q In other words, you're saying that Kester
9 could have been collecting file set data to begin
10 with, but it wasn't explicitly suggested, whereas
11 Kennedy explicitly suggested?

12 A So let's -- you know, if we go back to my
13 declaration. Right? So in Paragraph 109 of my
14 declaration, I said, In Kester's disclosure,
15 however, Kester does not describe with detail that
16 identifying an application's relationship to
17 another application is part of the process of
18 determining whether received collection data
19 indicates that an application is malware.

20 So again, we're in the context of --

21 Q What does that mean?

22 A It mean that -- meaning that it doesn't

1 use information that application's already a
2 malware, and that using relationship to determine
3 whether the receive -- so basically, if read
4 again. Right? So again, we're in the context of
5 the limitation comparing.

6 I say that, you know -- in Paragraph 109
7 of my declaration I say Kester does not describe
8 the details of identifying an application's
9 relationship to another application in part of the
10 process of determining whether received collection
11 data indicates that an application is malware.

12 Q Does Kennedy do that?

13 A Yes.

14 Q What component in Kennedy does that?

15 MS. BLOCK: Object to form.

16 A So again, we can go back to Kennedy, talk
17 about the behavior monitoring heuristic --

18 Q Is that the file set tracking module or
19 the behavior monitoring module?

20 A The behavior monitoring module.

21 I mean, of course, it uses information
22 from file tracking module as well. Okay? Do you

1 want me to go there?

2 So it talks about, let's say,
3 Paragraph -- Column 5. Sorry. Column 5, Lines --
4 yeah, lines I think 47, say, the heuristic --
5 well, hold on. Maybe -- maybe it should -- Line
6 15 of Column 5 of Kennedy. Right? Talks about,
7 According to this heuristic, software is malicious
8 if it attempts to copy itself to another computer
9 via a technique such as e-mail and/or an open
10 drive share. Okay.

11 So the heuristic is satisfy if a file in
12 a set attempts to send a copy of itself and/or
13 another of -- and/or any other file in the same
14 set to the other computer system.

15 So, and it says, The heuristic detects if
16 a worm attempts to spread by copying itself and/or
17 a file created or modified by the worm to another
18 computer system.

19 So again, these kind of heuristic can be
20 used when you sort of compare, you know, the file
21 that -- from this machine to that machine.
22 Because, you can be, Ah, actually it's a copy of

1 that other file.

2 Q You mentioned earlier that Kennedy was
3 being introduced for the idea of capturing file
4 set data at the workstation and then transmitting
5 it to the server side components.

6 What is that file set data?

7 MS. BLOCK: Object to form.

8 A So again, I think Paragraph 112 talk
9 about, you know, the -- each workstation, the
10 mobile station in Kester's spec, can include this
11 additional module, file tracking module. And they
12 go on to give some nonlimiting examples of what
13 information being a log, right, by this file set
14 tracking module.

15 And that information is being sent over
16 by -- in general, because these -- these are
17 nonlimiting examples. We talk about essentially
18 any application-related data, meaning the file
19 set -- you know, basic behavior of the application
20 file set is being sent over.

21 Q So here in Paragraph 112 you just pointed
22 us to, you would say that the workstation is

1 capturing two kinds of data; the file -- I'm
2 sorry, the set of files for each application,
3 Number 1, and Number 2, log each time a file in
4 the set touches another file.

5 That's two pieces of information, right;
6 Number 1 the sets of files; Number 2, some
7 information about how these files touch other
8 files?

9 Is that the data that gets captured and
10 sent?

11 MS. BLOCK: Object to form.

12 Q Just reading from your report.

13 A So the report says, The workstation would
14 include a file set tracking module to log the set
15 of files for each application in the logging
16 database, and would log each file each time a file
17 in the set touches another file. Yeah, like I
18 said, you know, and then give example of touch,
19 what does touch mean.

20 Again, these are essentially
21 nonlimiting -- nonlimiting examples of touches.
22 But also I will say that, again, a POSITA would

1 read this to say, Yeah, these are useful
2 information. But nowhere in my declaration do I
3 say that's only thing, only thing you are logging
4 or sending over. Okay?

5 So -- because further in the -- in the
6 last sentence of -- well, second-to-last sentence
7 of Paragraph 112 I say, In the combined
8 method/system, the application's file set behavior
9 is application-related data. Essentially, you
10 know, defining what application-related data means
11 here. That -- and that data is being sent over to
12 the server and/or database factory.

13 Q The second sentence in Paragraph 112
14 says, "Here, the workstations would include a file
15 set tracking module" -- that's Kennedy's -- "to
16 log the set of files for each application in the
17 logging database and would log each time a file in
18 the set touches (e.g., creates, modified, and/or
19 reads) another file."

20 So if I read this correctly, you're
21 saying that the file set tracking module on
22 Kester's workstations will log the set of files

1 for each application.

2 A That's what it said. But, also, the
3 sentence didn't say only logs or logs only. So my
4 point is that this sentence is not limiting. A
5 POSITA would say, Yeah, you're logging it. The
6 other thing you can log, too. Depending on your
7 security domain or your embodiment.

8 For example, you can log, Hey, when a
9 file, when the application file is created, where
10 did it come from? A POSITA would say that is
11 obvious thing you could include. But again, the
12 key point I want to make is in my declaration the
13 second sentence of Paragraph 112, nowhere I say
14 that's the only thing you can log, or you're not
15 only do things. Again, these are basically
16 illustrating what you can do by combining Kester
17 and Kennedy. Again, these are nonlimiting
18 examples. And the sentence is nonlimiting to
19 that's not the only thing you can do.

20 Am I clear?

21 Q Yeah. I think that maybe it's worth
22 clarifying what we're discussing here.

1 Kennedy, you're using it to say, make a
2 suggestion. Your position is that a person of
3 ordinary skill, reading Kennedy, would understand
4 Kennedy suggests to them that there are certain
5 kinds of additional data that needs to be captured
6 and sent over to Kester's system.

7 A Uh-huh.

8 Q And so I'm just trying to understand the
9 contours of that suggestion. What -- I'm not
10 saying, it doesn't have to be limited, it doesn't
11 have to be the only thing.

12 A Uh-huh.

13 Q A person is reading this and they read
14 Kennedy, or you are introducing Kennedy for a
15 reason, for some kind of suggestion.

16 A Uh-huh.

17 Q I want to know what is Kennedy suggesting
18 to capture.

19 A Okay.

20 Q And I think it is this second sentence.
21 But I'm just trying to get some more color as to
22 what -- what the breadth of the suggestion that

1 Kennedy is making.

2 A Okay. That's fair. But again, we are
3 going through Kennedy. Right? I will refer you
4 back to Kennedy's, the patent.

5 Figure 3 -- so first of all, Kennedy is
6 talking about MSDM, define as malicious software
7 detection module. Any POSITA reading that would
8 say, Yeah, there are a lot of thing you would do
9 to detect malicious software on a computer.

10 So if you look, read -- if you look at
11 Figure 3, talks about multiple modules, and
12 suspicious software arrival is one of them.
13 Right? And then, of course, it sort of, you know,
14 highlight what -- what it does in file set
15 tracking.

16 But it doesn't mean that, you know, file
17 set tracking could not also catch how the software
18 other application had arrived or install.

19 So, in fact, if also read, I refer to
20 Figure 4 again. You know, the language in
21 Kennedy, I think talk about -- which sentence?
22 Yeah. Line 43 in Column 5 talks about Figure 3 --

1 well, actually, Line 45 -- Line 45, Column 5,
2 talks about, It should be understood these steps
3 are illustrative only.

4 But, regardless. In Figure 4 talks about
5 monitoring activity, you know, where the software
6 coming from, is it from suspicious portal, and
7 then you track. Okay? And then you do
8 behavior -- suspicious behavior monitoring.

9 I would say the POSITA reading this would
10 basically understand, Okay, all this information
11 useful. So when a POSITA would combine -- find it
12 obvious to combine Kester with Kennedy, why would
13 they say I'm only going to say to track only the
14 touches creates, and modifies, and reads? No.

15 A POSITA -- like I said, a POSITA by my
16 definition knows the field, knows computer
17 science, knows security. Says, yeah, I can also
18 include information about where the software is
19 coming from. This is obvious. Any POSITA would
20 agree with me, that's so obvious.

21 You don't limit yourself to the
22 nonlimiting example that I gave in the second

1 sentence of my Paragraph 112. And like I said, I
2 want to emphasize again that in this sentence or
3 this paragraph, and I think in whole declaration,
4 nowhere I say that's the only thing you can track
5 and that's the only information specific to the
6 example that you can send. No. I never said
7 that. Okay?

8 Q I think we're going around in circles
9 again.

10 A No, it's not. I am offering you --

11 Q I understand that you --

12 A I'm offering opinion as an expert POSITA.
13 Like I said, a POSITA reading Kennedy. You ask
14 why do I introduce Kennedy. Kennedy useful. But
15 the thing is, a POSITA would read the patent and
16 say, Oh, I understand, yes, the malicious software
17 detection module include these -- you know, these
18 components, why they're there, of course they're
19 useful. Okay? In paragraph, okay, Figure 4,
20 that's your work flow. Awesome. That confirms
21 that this information is useful.

22 Then you say, Okay, what information

1 would it collect and send over. It can send --

2 Q What information --

3 A It can collect and send the useful
4 information. But like I say, you say the question
5 is, what information it is sending? Well, I will
6 say not just file touches, but you could also
7 include where the software coming from.

8 That's available -- that's available from
9 teaching of Kennedy. Why would POSITA not -- I
10 mean, why would POSITA not to use it, that's
11 really a very strange question. Like I said,
12 POSITA by definition would say, Yeah, I mean, you
13 know, the information that -- the techniques that
14 Kennedy teaching are so obvious. Of course you
15 would include it.

16 Q Include what?

17 A Include -- like I said --

18 Q You identified --

19 A Hold on.

20 Q Sorry. You've identified, Number 1,
21 where the software was downloaded from. You've
22 identified that Kennedy also suggests recording

1 file sets?

2 A Yes. All of that. Like I said, none of
3 the example I gave is nonlimiting. For example,
4 you say where the software is coming from, when
5 was it installed, and so on. Was it updated, you
6 know. Meaning that it doesn't have to limit to
7 touches of other files. It can say, Hey, where
8 you coming from? Do you get updates, from where?
9 That kind of information any POSITA would tell
10 you, POSITA would tell you is useful. And again,
11 again, Kennedy teaches to do this anyway.

12 Q You're not going to limit the types of
13 information that Kennedy evidently suggests needs
14 to get captured and would be useful?

15 A Hold on. Can you repeat that question
16 again, the statement?

17 Q You don't see any limitations on what
18 kind of data Kennedy is suggesting would be
19 useful?

20 A I'm not limiting to that. But like I
21 said, you know, you're talking about file set
22 tracking, in particular the second-to-last

1 sentence in my declaration talk about file set
2 behaviors, meaning application-related data. I
3 would say you don't have to limit to only touches.
4 I mean, a POSITA would tell you that's so
5 self-limiting. And nowhere -- I mean, if you read
6 the spec again, I mean -- again, I think we went
7 over this. Right? When we talk about, you know,
8 Column 4 describes logging some of the activities,
9 including touches. It didn't say that's only
10 thing you could -- you could log, you could track.

11 I mean, like I said, POSITA reading
12 Figure 3 and Figure 4 will say, Yeah, I mean, of
13 course you could also start with, you know,
14 bootstrapping the file set by saying, Hey, this
15 file is suspicious. Why? Why including in the
16 file set in the first place? Well, because it
17 came from a suspicious place. And then from there
18 anything touches that's also suspicious you put it
19 there. You bootstrap it by knowing this file
20 coming from a suspicious places.

21 Like I said, POSITA would read this and
22 find it so obvious. So we are arguing something

1 that's too obvious.

2 Q I don't think we're arguing about
3 anything.

4 A No. Well, like I said, you know, you
5 keep trying to say that file set tracking only
6 limits to touches. I disagree. Because first of
7 all, Kennedy does not say that. The example that
8 Kennedy gives are nonlimiting examples. And a
9 POSITA would say, Okay, file set tracking, awesome
10 idea. Where is the first file coming from? Well,
11 read Kennedy. Figure 3 and 4 tells you you start
12 with is this file coming from suspicious place.
13 If yes, of course it is going to put it, include
14 it in a set to begin with. And then from there
15 anything that touches that's also suspicious
16 modular, the wireless applications. That's so
17 obvious. Any POSITA would know that. Okay?

18 So by that definition, the file set
19 tracking, the set would include where the file
20 coming from, when, are they updated. Why? I --
21 you know, like I said, that should be included.
22 It should be obvious in Kennedy.

1 Q I think what you're saying is that what
2 Kennedy says to a person of ordinary --

3 (Discussion off the record; technical
4 difficulty.)

5 A So I think you --

6 MS. BLOCK: Hold on. Jonathan, you cut
7 out.

8 MR. WEINBERG: Okay.

9 MS. BLOCK: You were having technical
10 difficulties.

11 MR. WEINBERG: Apologize.

12 Q My question was, what I hear you saying
13 is that what Kennedy brings to the table is the
14 suggestion to track file set data. And in your
15 opinion, file set data is a broad category that
16 can include many things. And I was just trying to
17 get a sense of the contours of what file set data
18 includes.

19 You don't have to limit it. I just want
20 to know what you're proposing this includes.

21 A Yeah. So what I -- what I saying is that
22 file set data can essentially includes anything

1 relates to this file. Okay? And so that, of
2 course, included touches, meaning what other files
3 this file touches. But also can include where the
4 file is coming from, you know, when -- where and
5 when was it updated, and how many times, so on and
6 so forth. That information is pretty obvious and
7 actually available in the system. If you already
8 tracking the file system operation to determine
9 the touches, you know, these additional -- I mean,
10 these additional examples such as where and when
11 the file is coming from, those things actually
12 available.

13 Like I said, a POSITA would agree that
14 that would be already included when you bootstrap
15 the file set tracking module. Right? You say,
16 Hey, you start with A. Why A? Well, because it
17 came from a suspicious portal. I mean, this is
18 obvious. And then you go from there to include
19 the set if A touches other files. So again, I
20 want to emphasize that these are the nonlimiting
21 examples.

22 Q Could you walk me through the example in

1 Paragraph 113 in method of the claims for me?

2 A Okay.

3 Q This is Paragraph 113 of your
4 declaration.

5 A Okay. Yeah.

6 Yeah, so this example talks about, you
7 know, example of, like, say, two suspicious
8 executable files. One is -- well, actually, you
9 start with sus-a.exe. Okay?

10 Q Let's just call the files A and B just
11 for --

12 A Okay. Okay. So you start with A. And
13 like, for example, you say, Okay, you have A. I
14 mean, A could have been recorded as coming from
15 some, you know, unknown or suspicious portal. But
16 you don't know for sure yet. But, okay, so you
17 say, Okay. And then you watch what A does.

18 And you say, Okay, A creates B, and also
19 sends B to another computer system. Okay? So
20 then basically the file tracking would noted that
21 A created B. Okay? And it being sent over. And
22 then -- and then subsequently, if A sends B to

1 another system, that event can also be recorded.

2 Recorded why? Because that's a network
3 access request that's already been logged, you
4 know, already. So that's also being logged and
5 sent over. Okay?

6 So then -- and so when the -- when the
7 Kester application server module and/or database
8 factory try to classify A, it use a heuristic that
9 we went over in Kennedy, I think Column 5. It
10 talks about, okay, the fact that A creates a B,
11 and also attempts to send B over to another
12 computer. That actually, according to heuristic
13 that I -- that I can recite in Column 5 -- yeah.

14 Basically I'm saying starting Lines 13,
15 right, Column 5 talks about the heuristic that --
16 that's how a worm, computer worm infection
17 typically takes place. You copy yourself to
18 another -- you create another file that you copy
19 of yourself and you send it over.

20 So the point is that the behavior
21 monitoring module that Kester will include will
22 basically conclude that A is -- A is, let's say,

1 worm or malware because it creates B and try to
2 attempt to send B to another computer. And
3 because A creates B, then B is also malicious. So
4 that's example.

5 Q In this example the -- it's the file set
6 tracking module that first detects that A created
7 B?

8 MS. BLOCK: Object to form.

9 Q I think that's what you said.

10 A Yeah, I mean, if when A creates B, I
11 mean, that's a file set tracking module would
12 capture that, yes.

13 Q And then the workstation would send that
14 event to Kester's server side components?

15 A Yeah. So that data is part of the
16 application behavior data that's being sent over.

17 Q And Kester's server side component you
18 said was using Kennedy's heuristics?

19 MS. BLOCK: Object to form.

20 A So as I said, the last sentence of the
21 Paragraph 113 say Kester's application server
22 module and/or database factory classified A using

1 the file set behavior monitoring of Kennedy.

2 Yeah, it basically using teaching from Kennedy to
3 include a file set behavior monitoring module on
4 the server.

5 Q So just for a more succinct answer, in
6 your combination Kester ultimately classifies the
7 executable using Kennedy's heuristics?

8 A That's one example.

9 MS. BLOCK: Object to form.

10 THE WITNESS: Sorry.

11 A For this example, like I said, you know,
12 in Kester could use the example heuristics
13 described by Kennedy, you know, the heuristics is
14 about, you know -- the heuristics is about
15 software is malicious if it attempts to copy
16 itself to another computer system. Okay? So
17 that's Line 16 of Column 5.

18 Again, these are examples, nonlimiting
19 examples of the kind of heuristic that you can
20 use, that a POSITA can use to classify not only A,
21 but also B malicious.

22 Q Going through your example in Paragraph

1 113, can you please identify the steps that
2 correspond to correlate in Claim 1?

3 MS. BLOCK: Object to form.

4 A Hold on. I think -- I think this example
5 is in the context of comparing. We're talking
6 about the limitation of comparing.

7 Q So this example does not include any
8 correlating?

9 A Again, this example I'm talking about is
10 specific example in the context of comparing.

11 Q Does the example include a correlating
12 step?

13 MS. BLOCK: Object to form.

14 A So again, depending on the definition for
15 correlating. So again, I already said that
16 there's no clear definition or limitation for
17 correlating and comparing. A POSITA would say
18 that, Yeah, some of the techniques that he used
19 can overlap. So I'm not going to, you know,
20 arguing is that comparing with is correlating.
21 I'm just saying that example offer here in my
22 declaration is in the context of analyzing

1 Limitation 1.5, which is about comparing.

2 Q So Paragraph 113 describes an example --
3 scratch that. Let me start over.

4 So it's not your opinion that the
5 paragraph -- that the example in Paragraph 113 is
6 an infringing example with respect to Claim 1 of
7 the '389 patent?

8 MS. BLOCK: Object to form.

9 A Well, like I said, I offer this example
10 in the context of analyzing 1.5 comparing step.
11 And then Paragraph 119 I say that, Thus, in my
12 opinion, Kester in view of Kennedy renders obvious
13 this particular limitation, the comparing. That's
14 in my declaration, Paragraph 119.

15 Q Does the example in Paragraph 113
16 infringe Claim 1 --

17 MS. BLOCK: Object to form.

18 Q -- yes or no?

19 MS. BLOCK: Object to form.

20 A Like I said, this example in 113 is in
21 the context analyzing --

22 Q You're going to refuse to answer --

1 A -- Claim 1.5 -- I'm reciting my
2 clarification. I mean, everything is in my
3 declaration.

4 Q I'm asking you a yes-or-no question.

5 A No. So which part of my declaration you
6 don't understand, then you can point that and then
7 we can -- you can ask me a question regarding that
8 particular language in my declaration.

9 Q So you can --

10 A I answer your question. I said that in
11 Paragraph 119, I said that, you know, Kester in
12 view of Kennedy renders this claim -- or this
13 limitation to be obvious.

14 My understanding of, you know, legal
15 limitation is that, you know, for Claim 1 to be --
16 to stand, you know, all we need to -- well, to how
17 to put it? Let me think about it. To say that if
18 I can say any limitation is obvious, then Claim 1
19 is gone. I mean, that's my limitation. I could
20 be wrong. I'm not a legal expert.

21 Q So I will give you --

22 A So like I said, I am not going to offer

1 any new opinion other than all my opinions that
2 are already clearly stated in my declaration.

3 Which I said in Paragraph 119, that this
4 particular limitation is obvious.

5 Q So I'll ask the question again. I'll
6 give you three choices, and I think maybe one of
7 them is the correct answer for you.

8 Is the example in Paragraph 113, does it
9 infringe Claim 1 of the '389 patent? Your answer
10 is either yes, no, or I have no opinion about
11 that.

12 A I have opinion --

13 MS. BLOCK: Objection to form.

14 A -- stated in my declaration.

15 I'm here to discuss my declaration.

16 Like I say, if you have any question
17 regarding my specific language or conclusion,
18 opinion in the declaration, let's go there. I
19 offer you my -- to recite my opinion in my
20 declaration I say 1.5, the comparing step, is
21 obvious.

22 And then you are the legal expert. You

1 can say, Okay, from there what does it mean to
2 Claim 1? To me it is pretty obvious, but I'm not
3 legal expert. I am not going to offer that.

4 Q Right. And so the answer that you could
5 provide is, I don't have an opinion on whether --

6 A That's not true. I offer opinion in my
7 declaration, specifically each claim. And also
8 going back, how about going back to this. Going
9 back to I think --

10 Q Let me finish my sentence.

11 A Hold on. Paragraph to when we talk
12 about -- I think it somewhere. Okay. Yeah. Back
13 to Paragraph 75. I have essentially the heading
14 of Section F talks about Ground 1, Claims 1 to 13,
15 15 to 27, 29 to 30 are obvious over Kester in view
16 of Kennedy. Okay?

17 And you asked the role of specific
18 example I gave. Well, the role that they play is
19 specific to the limitation that we -- that we were
20 analyzing. But the conclusion opinions is
21 obvious. It say Claim 1 to 13, 15 to 27, 29 to
22 30, they are all obvious over Kester in view of

1 Kennedy, the answer to your question.

2 Q No.

3 A Well, I mean, that's not --

4 Q Please. Please.

5 A Hold on. That's not fair representation
6 of my declaration. Because --

7 Q I didn't ask you --

8 A You want to say the Section F title says
9 Claim 1 is obvious. The analysis includes this
10 example. So obvious -- obviously, the example
11 that I gave, 113, contribute to the -- to the
12 opinion. That's all. What else do you need to
13 know?

14 Q I want you to listen to my question very
15 carefully.

16 A Okay.

17 Q All right? In Section -- Paragraph 113
18 you provide an example of something that you say
19 illustrates that at least one limitation of the
20 comparing step is obvious.

21 Did I characterize that correctly?

22 A Okay. Like I said, any example or

1 anything in my declaration is part of the overall
2 analysis. Like I said, the example in Paragraph
3 113 is analysis of Claim 1.5. And we concluded in
4 Paragraph 119 that Kester 309 -- sorry. '389
5 Claim 1.5 is obvious in view of Kester -- Kester
6 in view of Kennedy.

7 And you say, Okay, why is relevant to the
8 overall Claim 1? Like I said, Claim F -- Section
9 F, the heading, all it talks about Claim 1 being
10 obvious. And whatever I say here in 113 and 109
11 is part of that analysis.

12 Q I recognize that everything in your
13 opinion is part of your analysis.

14 A Okay.

15 Q Kind of self-explanatory.

16 A So exactly. So all my analysis
17 contribute to the conclusion. I already repeated
18 multiple times. Which is Claim 1 is obvious in
19 view of -- you know, Kester in view of Kennedy.

20 Q I will just say it again.

21 You have no opinion about whether or not
22 the example provided in Paragraph 113 infringes

1 Claim 1. You have no opinion about that. And you
2 have made that abundantly clear. I don't want to
3 hear any more about that.

4 Is that the case, do you have an opinion
5 on that or not?

6 MS. BLOCK: Object to form.

7 A I said the opinions were obvious already
8 stated in the declaration. If you disagree or you
9 have question with the declaration, ask me the
10 specific questions. I already said --

11 Q The specific question is what --

12 A -- Section 4 talks about Claim 1 is
13 obvious, and then all the -- all the sections and
14 paragraphs, examples, contribute to that
15 conclusion, including Paragraph 113, including the
16 example.

17 Q I understand that.

18 A Okay.

19 Q I am asking about the purpose of this
20 example in Paragraph 113 is to illustrate what?

21 A Paragraph 113 is basically support my
22 analysis that 1.5 --

1 Q You say --

2 A 1.5 comparing is obvious. And you say,
3 Why do you talk about 1.5? That's part of Claim
4 1. Again, we already, we concluded, we offered
5 the conclusion that Claim 1 is obvious. That's
6 the heading of Section F talks about. And then
7 all the subsections and paragraphs provide the
8 analysis to support that conclusion. That's how
9 the -- how declaration is being laid out.

10 Q I understand you have a heading in this
11 report that says that a claim is obvious. I have
12 read it. You have mentioned it many times.

13 A Uh-huh.

14 Q What I'm trying to figure out is your
15 combination, I want to know how this combination
16 works and how it meets the claim limitations of
17 Claim 1.

18 You've never answered that. And I
19 thought to myself, maybe looking at Paragraph 113,
20 that's an example. Do you think that that
21 infringes Claim 1? You could just say no or I
22 don't know or I have no opinion about that and we

1 can move on. But I can't get any kind of answer.

2 A Hold on. That's very unfair
3 characterization of my conversation.

4 MS. BLOCK: Object to form.

5 A Because 113, like I said, is in the
6 middle of my analysis of 1.5. If you say, How is
7 that related to limitations Claim 1, well, 1.5 is
8 part of 1, Claim 1. Yes, we analyze 1.5 here
9 specifically. And that contribute to my
10 conclusion in Claim 1. You want to go to details.
11 Hey, you are combining, why does that render, you
12 know, 1.5 obvious. Let's talk about it. It's all
13 in my declaration. Do you have any specific
14 question regarding my -- the points or opinions I
15 offer in my declaration, go there. I mean, you
16 keep asking some overarching question that I
17 already have clear, you know, statements and
18 opinions in the declaration. So I don't know, you
19 know, what's going on here, to be honest. Okay?
20 Any question regarding my declaration you want to
21 go over, let's go over.

22 Q The question is --

1 (Discussion off the record; technical
2 difficulty.)

3 MS. BLOCK: I think we had technical
4 difficulties again, Jonathan. I'm sorry. You cut
5 out. You are perhaps still cut out.

6 THE WITNESS: Yeah.

7 MS. BLOCK: You cut out, Jonathan.

8 THE WITNESS: Yeah, you're back. You're
9 back, yeah.

10 Q Yes, your opinion is based on a
11 combination of two references. And you have
12 proposed in Paragraph 112 a particular way to use
13 the teachings of Kennedy to modify the teachings
14 of Kester to arrive at Claim 1 of the '389 patent.

15 Is that correct or incorrect?

16 A So again, I was basically go back to
17 Paragraph 109 to talk about, excuse me, the
18 context why we introduce Kennedy. Right?

19 Basically say, you know, Kennedy, you
20 know, essentially talks about, you know -- you
21 know, in my Paragraph 109 talks about, In my
22 opinion, Kennedy teaches this concept and for the

1 reasons below, a skilled artisan would have been
2 motivated to implement Kester pursuant to
3 Kennedy's teachings such that when a familial -- I
4 don't know how to say the word -- relationship to
5 known malware is discovered by comparing
6 correlated collection data to data from other
7 objects, the modified system automatically
8 classifies the application as malware.

9 So that's what the motivation. So that
10 puts 112 in the context of addressing this
11 particular limitation 1.5 which is about, you
12 know, comparing.

13 Q In the combination of Kester and Kennedy,
14 could you tell me how the recited correlated step
15 is performed?

16 MS. BLOCK: Object to form.

17 A So again, the correlated step was in a
18 previous limitation. So again, like I said
19 multiple times, you know, I wish the '389 patent
20 talks about, you know, defining -- defining
21 correlation or giving specific limitation
22 correlation. But without that, I would just use

1 the general understanding of correlation.

2 In this case, you know, the relationship,
3 familial relationship, will be one of them, will
4 be one example of what you can correlate using
5 objects. So I saw, again, if you say -- I mean,
6 so if you read the limitation 1.5, it talks
7 about -- let me see here -- comparing by base
8 computer the correlated data about object.

9 So if your question is where is the
10 correlated data in Kennedy. Well --

11 Q No. My question is, in your proposed
12 combination, what corresponds to the correlating
13 limitation in Claim 1?

14 A First of all, correlating, the process,
15 that was addressed in the previous limitation.
16 Okay? So but if you say -- if you talk about --
17 are you talking about -- are you asking for
18 Paragraph 112, where is the correlating step
19 coming from? What are you talking about?

20 Q In your proposed combination altogether,
21 what meets the correlating limitation of Claim 1?

22 A So I'm going back to my --

1 MS. BLOCK: Object to form.

2 THE WITNESS: Yeah, sorry.

3 A I'm going back to my proposal -- sorry,
4 declaration. You know, I talk about, you know, I
5 think, for example, Paragraph 99 I talk about
6 merging and sorting the collection data from
7 multiple workstation management modules, and
8 merging and sorting is one kind of correlation you
9 can do. Okay? And that's -- that's correlating
10 that we analyze in the 1.4. And the conclusion is
11 that 1.4 is obvious just based on Kester. Because
12 merging and sorting is one kind of correlation.

13 Okay?

14 Q In your combination --

15 A Okay. So -- go ahead. Sorry.

16 Q You're mapping the correlating to
17 Kester's merging and sorting.

18 Is that correct?

19 A What I'm trying to say is that in my --
20 in my declaration, I say Kester does merging and
21 sorting. That actually meets the limitation of
22 1.4 of correlating. Because merging and sorting

1 is a kind of correlating. Okay? Yeah. So
2 that's --

3 Q You said that Kennedy --

4 A Yeah.

5 Q -- Kennedy suggests further to send file
6 set data over to the --

7 A Uh-huh.

8 Q -- server.

9 A Uh-huh.

10 Q Are you suggesting that -- is that
11 correct?

12 A So in 112 I say the file set data will be
13 sent over to the server.

14 Yes, what's your question?

15 Q So in your combination, will the
16 correlating step be met by merging and sorting the
17 file set data?

18 A Of course. You can sort by names. You
19 can merge. You can sort by time stamps. You can
20 merge if they say that they are in the same
21 family. All thing you can do. I mean, that's
22 correlating, according to my previous -- analysis

1 of previous limitation.

2 The reason I didn't have -- specifically
3 talk about merging, sorting, correlating, is that
4 that was already taken care of by the previous
5 paragraphs. Here I'm only talk about comparing.
6 Okay? My point is that the correlating step is
7 already performed by Kester. For that --
8 basically for correlating, Kester alone is
9 sufficient. I don't have to be doing this
10 combining Kennedy. Okay?

11 Because like I said, merging and sorting
12 itself, these are very general techniques that are
13 used -- that's a form of correlating. And you can
14 definitely merge and sort file system -- file set
15 data. Pretty obvious.

16 Q And then the comparing step of Claim 1,
17 how would that be met in your combination?

18 A Okay. So let me see where I have
19 specific examples here. Okay. So I think I give
20 some examples throughout this particular
21 subsection.

22 So, I mean, I can start with Example 113.

1 Right? So we talk about, you know, A creates B
2 and sends B over. And, I mean, you could -- you
3 know, a POSITA would agree that, Okay, you know,
4 that's -- let's say A creates B and sends B to
5 another computer. That action necessarily happens
6 in the remote Computer 1. Okay?

7 And then how about remote Computer 2 say,
8 yeah, I got, you know, Program B, Program B from
9 somewhere. I run it. Okay. So that's -- that
10 information -- you know, both pieces of
11 information will be sent over to the server, the
12 application server, to basically compare and say,
13 Ah, they are basically the same name, you know,
14 or, you know, different name but same checksum,
15 whatever. They can compare what they are seeing
16 from one computer to another. Right? Yeah.

17 And so that's the -- in fact, in
18 Paragraph 117 I further provide further evidence
19 that Kester also talks about monitoring and
20 controlling application, including when you see
21 that employees is downloading stuff, so --
22 downloading, executing, you know, programs.

1 So everything basically is so obvious to
2 a POSITA that, you know, would -- would put them
3 together. Meaning that you monitor not just how
4 the application is being launched. You know, what
5 files this application -- you know, where it's
6 coming from, you know, including the user download
7 it from somewhere. And also the application file,
8 what other things it touches, what other places it
9 send to.

10 So all these things are there and being
11 sent over to the server to correlate and compare.
12 That's all in my declaration.

13 Q In your example, Computer 1 had an event
14 on it where A created B.

15 A Uh-huh.

16 Q And Computer 2 had some event on it, I
17 wasn't quite clear. Was it maybe, let's say B
18 created C. Is that ...

19 A It's possible. I mean, like I said,
20 Computer 1 you can say A creates B, sends B over.
21 And then Computer 2, like Paragraph 117 is talking
22 about, that you already -- you know, Kester

1 already talks about tracking data employee
2 download something. Supposedly that's being
3 captured. Say, Hey, download B. Okay.

4 Then even though maybe download B and
5 stored in C, whatever, change your name. It
6 doesn't matter. But that's what comparing would
7 do. To say, Hey, comparing, say, Ah, the address,
8 checksum. They actually check something similar.

9 Q Who would check their checksums?

10 MS. BLOCK: Object to form.

11 A So again, a POSITA would know, a checksum
12 basically compare hash over the executable. And
13 then you can -- you can say that even these two
14 executable may have different names, but have the
15 same checksum, that mean the same -- that exact
16 same executable. That's something that people,
17 POSITA would know how to do it.

18 Q I am just trying to follow through the
19 claim language with your example.

20 So in your example we have on Computer 1
21 A created B. On Computer 2 we have B arrives and
22 B creates C.

1 Is that clear so far? Just an example.

2 A Yeah. Okay. That's your example. Yeah.
3 I didn't offer example B creating C. Okay. But
4 go on.

5 Q And if we continue on in your
6 combination, these two events on these two
7 different computers would be sent up to Kester's
8 server side components. Right?

9 A So I will say --

10 MS. BLOCK: Object to form.

11 A I would say both Computer 1 and 2 send
12 the data over to server so server knows that A, on
13 Computer 1, A creates B or maybe already knows
14 that A coming from somewhere suspicious. Computer
15 2 same thing, you know. User downloaded B, you
16 know, some -- somewhat suspicious, and B creates
17 C. And by searching and merging, you already know
18 that A and B -- A and B and B and C, you know, A
19 and B are related, B and C are related. Then you
20 can do compares even though, for example, they run
21 different times or touch a bunch of different
22 files, but very similar, similar behaviors. So

1 you can basically -- from there you can draw
2 conclusion in terms of analyzing, you know, which
3 or all of them are malicious.

4 Q I think I understood you. Let me just
5 take it step by step there.

6 So those two events arrive at the server.
7 And I think it's your position that there would be
8 some correlation that would happen through
9 Kester's merging and sorting. Right?

10 A Like I said, merging and sorting is one
11 kind of correlation techniques. And just by
12 Kester specifying that it covers Claim 1.4
13 correlating. It does correlation.

14 Q Okay. And so Kester's merging would --
15 of these two events, remember the events were A
16 created B on one computer and B created C on
17 another computer. If Kester were to run its
18 merging and sorting on that, what would the --
19 what would that process look like, and what would
20 the results be?

21 MS. BLOCK: Object to form.

22 A So it depends on the situation. Right?

1 So, for example -- so the example that we
2 gave here would be that, you know, let's say you
3 merge and sort them and then you conclude that
4 they're all the same files, that's one aspect.
5 But you say what we're comparing. You know, you
6 can imagine in Computer 2, maybe B doesn't -- not
7 only creates C, but also downloads other stuff
8 from the internet. Let's say D. Right?

9 So when you make technical comparison you
10 say, Well, you know, it's basically some behavior
11 that, you know, should be tracked. And then, you
12 know, should be compared to say, Hey, that's --
13 that's -- that's malicious.

14 Or, I mean, whole point of comparing is
15 that, if you read the paragraph -- this thing, 1.5
16 limitation, it talks about comparing -- comparing
17 basically any different relationship between the
18 correlated data and the other objects or entities.

19 Right?

20 So really comparing this thing that, how
21 are these things -- you know, are they the same,
22 are they the same malware family, and so on. So

1 that's example that I'm trying to say that, let's
2 say even on Computer 2 B not only creates C,
3 which, ah, you know, that's -- let's say when it
4 creates C, it adds some modification, some local
5 modification, so that it's not exactly like the B
6 that it came from.

7 But again you say, Okay, but I can
8 compare to say, you know, looking at that and say,
9 you know, that must be within same malware family.
10 Or if you download something from the internet,
11 yes, that's the malware family. So it doesn't
12 have to be the exact same file.

13 So the point is that some of the
14 correlation, you know, some merging and sorting
15 can meet the correlating limitation. But there
16 are other information, other analysis that you can
17 do by comparing. That's what we trying to say
18 here.

19 Q Yeah, I'm trying to figure out the
20 difference here.

21 So I'm talking about Limitation 1.4,
22 correlating step.

1 A Yes.

2 Q Which maps to Kester's merging.

3 A Yeah.

4 Q My question is just, if those are your
5 two events, A created B, and on Computer 2 B
6 created C, describe for me Kester's merging of
7 that, of those two events.

8 MS. BLOCK: Object to form.

9 A Okay. So if A creates B and B creates C,
10 they are all, let's say, same, or same family, you
11 can by sort and merging to draw the conclusion.
12 Like I said, that's why -- that's why merging and
13 sorting really meets the correlating --
14 correlating limitation.

15 With regard to comparing, if you read the
16 limitation 1.5, it's comparing, identifying
17 relationship between the correlated data.

18 Q Hold on. We're talking about correlating
19 so far.

20 A Okay. Fine.

21 Q Just so we take it in little chunks so we
22 don't --

1 A Okay. Yeah.

2 Q So in your opinion, Kester's merging of
3 those two events would simply be that they both
4 involve object B?

5 A Okay. So again --

6 MS. BLOCK: Object to form.

7 A -- that is example.

8 I mean, none of these are limiting. They
9 are nonlimiting example.

10 I saying you focus on example A created
11 B, and then later on B create C. If the A created
12 the same copy of B, meaning the same checksum.
13 And then when it send B over, B created C, the
14 same checksum. By sorting and merging, I would
15 say A, B, C, they are all same files. And that's
16 why -- you know, that's correlating.

17 That's really -- you know, that's why
18 sorting and merging, I'm giving example that meets
19 the limitation of correlating. Again, that's not
20 the only example that -- we can go on with
21 different examples if you want. But --

22 Q In your example --

1 A Yeah. Go ahead.

2 Q In your example you said A, B, and C are
3 the same file?

4 A Same malware, yeah, if the checksum is
5 same. I can merge the checksum. I can basically
6 merge and sort by checksum, they are the same
7 file.

8 Q Oh, I didn't think if they were -- that
9 wasn't part of the hypothetical, that it's the
10 same file.

11 A Okay. Like I said, the POSITA would get
12 a file and compare checksum.

13 Q But I'm just talking about --

14 A Just compare hash over the file they
15 receive, easy. Anyway...

16 Q Assume that A and B and C are different
17 files for purposes of our hypothetical.

18 A Okay.

19 Q The data -- the two events, Computer 1
20 and C --

21 (Discussion off the record; technical
22 difficulty.)

1 Q So in a --

2 A I think froze.

3 (Discussion off the record; technical
4 difficulty.)

5 Q All right. So one more time.

6 In our hypothetical on Computer
7 Workstation 1, A creates B. On Workstation 2 B
8 creates C. A, B, and C are all different files.

9 A Uh-huh.

10 Q Workstation 1 reports the event to
11 Kester's server side module. Computer Workstation
12 2 reports the event to the server side module.
13 Now, according to your combination, Kester merges
14 this data. And I'm trying to get a sense as to
15 what are the examples of -- what does it mean for
16 Kester to merge and sort this data.

17 MS. BLOCK: Object to form.

18 A Yeah.

19 Q Is it simply that Kester might say both
20 of these creation involve Object B and that's my
21 correlation, draw a line from B to B?

22 A That's one example. I mean, you know,

1 merging two different pair of relationship because
2 B is common, then you can draw a basic line
3 between A, B, and C, I mean, that's one way.
4 There are other things you can do, depending on
5 what attribute you're talking about. Because
6 these kind of relationship A create B and B create
7 C and then the other side whatever, it's all about
8 graph merging, which is a well-known technique,
9 any computer scientist would tell you, a POSITA
10 would know, Okay, yeah I can merge -- merge two
11 graph or two sub graph is any enough relationship
12 between the two. So again, depending on
13 attribute. Can be time stamp, can be where they
14 coming from. Really, you can just pick attribute
15 or set of attributes and say, Yeah, these are
16 common attributes that kind of link them together
17 so I can merge them. Obvious.

18 So the example you gave, the commonality
19 is B, the file B. But could be you say, Hey, they
20 all came from the same website, the website is
21 known to be that. Okay, I can still merge them,
22 based on the fact that they came from the same

1 place.

2 Q Okay.

3 A Many, many possibilities. So that's why
4 I kept saying sorting and merging really performs
5 correlation, correlating.

6 Q Okay. So the merging you're saying is a
7 kind of -- what did you call it, combining graphs
8 or --

9 A I was saying merging --

10 MS. BLOCK: Object to form.

11 THE WITNESS: Sorry.

12 A I was saying merging graphs. But the
13 thing is, before you do that you have to correlate
14 them first, before you merge. You have to decide
15 why do you merge them? Either they are the same
16 or they related. But isn't that what correlation
17 is about? Yes. By the broad definition. Like I
18 said, unless '389 has a specific definition of
19 correlating that we don't know.

20 Q Okay. So you have merged the graph and
21 you've done what you say is correlating according
22 to step -- to Limitation 1.4.

1 A Uh-huh.

2 Q Could you go on and provide an example of
3 what happens next to meet Limitation 1.5, the
4 comparing step?

5 MS. BLOCK: Object to form.

6 A So we discussed this kind of thing. So
7 to be more specific, if you read the limitation
8 1.5, it talks about identifying -- identify
9 relationships between the correlated data. Let's
10 say this merge graph. Okay? Or correlated graph.
11 To -- and the other objects or entities.

12 So the other objects or entities could
13 already be -- can be information that's already
14 stored in the database or already stored in the
15 application server from some previous reporting.
16 So we can say, Hey, this is one graph. Ah, I can
17 actually compare that with another graph that I
18 already -- I already stored. Okay. That's
19 comparing talking about here. Okay.

20 Meaning that suppose here is a graph that
21 you recently created, okay, from this website
22 that's known to be bad. Here is another graph

1 that you -- that you previous created, stored,
2 from another site, but both of them are bad. You
3 say, Okay, Ah, obvious, probably they are related.
4 There could be some information about how these
5 two bad web -- bad website are related.

6 So that's what I'm talking about
7 comparing. Right? Because you look at the
8 limitation language. It talk about comparing is
9 for identifying relationship between the
10 correlated data which you can say that's the
11 output for the correlating step, and the other
12 objects or entities.

13 The other objects and entities, they
14 could be information stored previously in the
15 database. That's how I read it.

16 Q Okay.

17 A Okay? So that's example, that you
18 comparing this graph with some other graph stored
19 in the database. That's comparing.

20 Q So I guess I'm not a hundred percent
21 clear on what that other graph is and what the
22 comparison looks like.

1 So the merged data that we talked about
2 so far from these two events --

3 A No, I wouldn't say merge. I said,
4 correlated. Correlated data, that's the language.
5 That's the term. That's the limitation language
6 that we're using.

7 Q All right. But you did map merging to
8 correlating?

9 A I did map. I did map. I just mapped
10 that merging is part of correlation.

11 I say sorting and merging in Kester meets
12 the limitation correlation. So when you say merge
13 data, I would like you to use correlated data.
14 Okay? Merge graph is a piece of correlated data,
15 according to my analysis.

16 Q Okay. Well, then I can talk about the
17 merged data because you said --

18 A Again, I will insist using correlated
19 data in my answer, okay, just so that we
20 understand each other. Okay?

21 Q So correlated data is not merged,
22 necessarily?

1 MS. BLOCK: Object to form.

2 A Again, I kept saying merging and sorting
3 performs correlating in Kester. And merged data
4 is a form of correlated data. So I would like to
5 use correlated data.

6 Q But in our example, the data was merged
7 because --

8 A But it is correlated. It is correlated.
9 Like I said --

10 Q In your combination, Kester is merging
11 the events. Right?

12 A Hold on. I kept saying that the way you
13 perform merging is you find the correlation first.
14 And the merged data is the output of that process.

15 But again, the process, actually, you
16 kept calling it merging. But I kept saying that
17 sorting and merging, they are understood by POSITA
18 as also doing -- basically they are a form of
19 correlating.

20 So merging two graph actually correlate,
21 and then put them together into a graph. So I
22 will say, what are the outcome you -- the result

1 is correlated data. That's what I'm trying to
2 say.

3 That's the language I have been using in
4 the -- in my declaration. I'm going to stick with
5 it. Unless you have a problem with my analysis,
6 then we can go over that again. But anyway ...

7 Q So it sounded like you were saying that
8 when Kester merges that -- teaches correlating,
9 because correlating has to happen before you
10 merge.

11 Is that right?

12 A I will --

13 MS. BLOCK: Object to form.

14 A I will say "correlating" is very, you
15 know, broadly defined term. And sorting and
16 merging are understood by any POSITA as also, you
17 know, the kind of techniques -- also -- how to put
18 it? They are examples of correlating techniques.

19 Searching -- sorting and merging, they
20 are examples correlating techniques. That's why
21 Kester's teaching meets the limitation of 1.4
22 correlating.

1 Q Merging and sorting are examples of
2 correlating techniques. Those verbatim --

3 A No. Those are -- hold on. Those are --
4 I kept saying that -- we talked definition of
5 correlating. Like I said, correlating means X, Y
6 and Z you have a specific algorithm. I would say
7 sorting and merging, they are correlating. Can
8 other things be correlating too? Yes. What I'm
9 trying to say is that sorting and merging doesn't
10 have to be that's the only way to do correlating.
11 That's not what I meant. I want to say
12 correlating, sorting and merging, they are
13 correlating, they achieve correlation.

14 Q Okay. I'm not going to ask you to repeat
15 it. It's on record. Okay.

16 A It's already said in the declaration, you
17 know. Sorting and merging, they are correlating.
18 I mean, that's correlating. Okay?

19 Q And in your proposed combination, because
20 you say that the combination merges, therefore it
21 meets the correlating technique, the correlating
22 step. That's correct?

1 A No. What I'm trying to say, sorting and
2 merging, they achieve correlating. I gave the
3 example of, you know -- I give plenty -- plenty of
4 examples of that and also talk about in my
5 declaration. That's my analysis.

6 Q Kester teaches merging, merging is an
7 example of correlating, and therefore Kester
8 teaches correlating.

9 Are we on the same page?

10 A So again, like I said, I need you to
11 point me to a definition of correlating. But if
12 we don't, so meaning that I take correlating as
13 essentially finding the relationship between data
14 items. And sorting and merging accomplish that.
15 Those are well-known techniques in correlating.
16 That's all. Are there other examples? I am sure
17 there are. But nobody can deny that sorting and
18 merging, they are not doing correlating. Because
19 you find the relationship among the data.

20 Q They are not doing correlating?

21 A Nobody can say they are not doing it.
22 Meaning everybody we will agree, a POSITA will

1 agree that sorting and merging, they are
2 accomplishing correlating. Why? Because they're
3 finding relationship among the data. Unless there
4 is specific definition of correlating in '389 that
5 disputes what I just said, which I couldn't find.

6 Q So after Kester performs its merging and
7 sorting, and thereby according to you meets the
8 correlating technique -- correlating step, sorry,
9 we then have a comparing step in --

10 A Yes.

11 Q -- Claim 1.

12 And I was hoping you could just explain
13 to me what your proposed combination would be
14 doing to meet that comparing step in a concrete
15 example.

16 MS. BLOCK: Object to form.

17 A So --

18 Q It doesn't have to be a limiting example;
19 just an example.

20 A So I think early sentence, right, in --
21 okay. So 1.5 talks about comparing the correlated
22 data -- let's say in this case the graph, right --

1 and the other objects or entities.

2 So the point -- I mean, I want to say
3 that the way I read the claim language, the
4 limitation, you know, unless you point it out
5 otherwise, that the other objects or entities,
6 they could be information that's already stored in
7 the database, the factual database or the server
8 that had come from some previous reporting.

9 And so comparing would mean that you
10 compare the correlated data, could be with the
11 information, can be freshly reported, can also be
12 already -- and also be information, you know,
13 that's stored in database. It's almost like some
14 previous incidence that -- you know, that you can
15 compare to. And that's -- again, that's a very
16 obvious to POSITA that you would do it.

17 Q Would you provide me an example of
18 comparing this correlated graph to another object?

19 MS. BLOCK: Object to form.

20 A We're not talking about correlating.
21 We're talking about comparing. Yes?

22 Q Yes, comparing the correlated graph to

1 another object.

2 A Yeah. So, for example, you could have
3 some other object stored in your database that
4 tells you a similar-looking graph, then you
5 compare them.

6 Q So I guess you're saying that the
7 correlated data is a graph, and then you see
8 another graph and they look similar, you
9 compare --

10 A Yeah, that's one example. That's one
11 example. You could be some other bits of
12 information in the graph that you can compare with
13 some other information that's stored in the
14 database. For example, you don't have a graph but
15 you -- but some other -- some other data that you
16 stored that only tells you this website is bad.
17 You know, I mean, there are many, many
18 possibilities you can compare. There are so many
19 attributes and compare. That's the key here, is
20 that POSITA would say, Yeah, I mean, all the
21 example you gave is a nonlimiting example because
22 so many -- so much information about malicious or

1 files that you can compare with.

2 Q Well, there are a lot of possibilities.

3 I'm just looking for one, one example.

4 A So I just offer you one example could be
5 graph --

6 Q You said comparing graphs --

7 A Can be -- can be graph, can be familial,
8 you know, family relationship. Can be, yeah.

9 Q So how would you -- you said it could be
10 a family relationship. Could you describe what
11 the comparing step would look like for this family
12 relationship scenario you just raised?

13 A I mean, there are many possibilities.

14 MS. BLOCK: Object to form.

15 A Yeah, again, none of the example I gave
16 would be -- would be limiting example.

17 So you can compare, you know, where
18 they're coming from, the file size, what kind of
19 executable, you know, how they're going to run,
20 you know, on what kind of machines, meaning what
21 kind of operating systems; you know, are they
22 coming from e-mail, a website download. And so on

1 and so forth. There are a lot of things you can
2 compare. If you ask any POSITA in the field, they
3 would say, Yeah, so many attributes you can
4 compare, so many examples in this case.

5 Q So in one set of the comparison you've
6 described a graph A to B, B to C. And you're
7 going to compare it to some object. So what
8 object are you comparing it to, and how are you
9 doing this comparison?

10 A So, first of all, I use graph as one
11 example of the attributes or information of the
12 data, of the correlated data. How do you compare.
13 Like I said, any POSITA would say -- you can say,
14 Hey, how would you compare two -- how you compare
15 two graph? You would say, Okay, here is a
16 textbook algorithms. Just implement this. It's
17 very obvious. You can just compare two graph if
18 you want, or you can compare the attributes of
19 this data and that attribute of data. That's all
20 well understood by POSITA. So --

21 Q What is the second graph that you're
22 comparing the first graph to? What does it

1 represent?

2 A So depending what a first graph is.

3 Q The first graph is A created B and B
4 created C.

5 A Then you can compare to say, Is there any
6 other similar relationship that you have
7 identified or stored previously? You can compare
8 that.

9 Q And that would be an object, a similar
10 relationship is a comparison to an object?

11 A Could be object, could be something that
12 you analyze -- like I said, so these are
13 implementation details that are completely obvious
14 to the POSITA. You can say, Okay, I see this
15 object. Do I see similar -- I see this
16 relationship in the object. Can I find something
17 similar that already stored? Yeah, you can
18 perform an analysis over the data that you have,
19 and you can probably figure this out. You know,
20 there are many possibilities. It could also be
21 that you choose to store this kind of relationship
22 or graph in your database. I mean, you can do

1 that, too.

2 Why -- to me there's no power of
3 limitation of either '389, Kester, Kennedy. Like
4 I said, POSITA would consider those implementation
5 details that they could just go ahead and do it
6 however they want to do it.

7 Q What is your understanding of the object
8 or entity being recited in Limitation 1.5?

9 MS. BLOCK: Object to form.

10 A Well, I mean -- I mean, I can go back to
11 the patent and find and just see how they talk
12 about it.

13 Well, I mean, I would imagine -- well, I
14 mean, let me see. Let me see. I am going to take
15 it back. Well, I will say the object, if you read
16 Claim 1, the first limitation talks about at a
17 base computer receiving data about computer object
18 from a first remote computer -- computer. I'm
19 sure we could go back and see how -- see how it
20 defines object. But object, for example, can be a
21 file. Okay?

22 And wherein said data includes

1 information about events initiated or involving
2 the computer object when the computer object is
3 created, configured to run, so on and so forth.
4 Yeah, and identity of an object or other entity on
5 which the event is being performed.

6 So there you go. I mean, when you say
7 comparing what -- are you talking about objects or
8 entities, that's defined in Limitation Number 1.

9 Q I'm pointing you to Paragraph 113 of your
10 declaration, where you provide the example which
11 you've made clear is meant to illustrate the
12 comparing step.

13 Could you tell me what in this example
14 shows the comparing?

15 A 113?

16 MS. BLOCK: Object to form.

17 A Let me see the context here.

18 Okay. So 113, you know, give the example
19 of the information being sent over to the
20 application server module and/or database factory.
21 Right? You know, and then using heuristics of the
22 file set behavior monitoring. I will say the file

1 set behavior monitoring heuristics actually, you
2 know, if you look the examples, nonlimiting
3 examples given by Kennedy, actually already talks
4 about comparing. Because heuristic is that -- let
5 me see here. Column 5. You know the software is
6 malicious if it attempts to copy itself to another
7 computer. And then I think go on to say another
8 heuristics in the paragraph -- sorry, in Lines 23
9 in Column 5 talks about it sends more than a
10 certain number of e-mails and so on.

11 So these are heuristics that essentially
12 involves, you know, not just correlating but also
13 comparing. Comparing what? You can comparing
14 with some threshold that you already define or
15 some examples, previous examples that you already
16 stored in the database regarding some of the
17 objects that you previously recorded.

18 For example, say, Hey, this object was
19 copied and sent a hundred times. We can conclude
20 that that's a -- that's malicious. And then you
21 say, Okay, now here is another example of
22 similarly suspicious-looking kind of behavior, and

1 you try to send over, I don't know, 80 times.
2 That's close enough that you can declare it is
3 malicious. Those are examples. Right?

4 So in this, basically what we're saying
5 in Paragraph 113 is that the file set behavior
6 monitoring, you know, according to the teaching of
7 Kennedy, actually doesn't involve comparing.
8 You're comparing what you're seeing with the
9 heuristic that tells you what to look for,
10 basically.

11 So here we're looking for comparing the
12 fact that, you know, this A creates B, and then A
13 attempts to send B over. That behavior compare
14 with what heuristic talks about. Right?

15 And like I said, the database may already
16 recorded some previous example. Say, Ah, here is
17 example of previously recorded data that tells you
18 with this behavior we concluded it is malware. So
19 a POSITA would read it pretty -- you know, find it
20 pretty obvious.

21 MR. WEINBERG: So why don't we take a
22 little break, let me go over my notes and see if

1 there's anything else I wanted to ask you. And
2 then we'll come back and see if there are any
3 cleanup questions, and then we can call it a day.

4 THE WITNESS: All right. Thank you.

5 MS. BLOCK: All right.

6 (A recess was taken.)

7 MR. WEINBERG: I don't have anything
8 else. I've looked over my notes. And so thanks a
9 lot for your time this morning. And I'm not sure,
10 Erin, if you wanted to have any questions for
11 Dr. Lee or not.

12 MS. BLOCK: No, I don't have anything.

13 MR. WEINBERG: Great. I appreciate your
14 time.

15 COURT REPORTER: Ms. Block, do you need a
16 copy?

17 MS. BLOCK: Yes, please.

18 COURT REPORTER: Do you need a rough
19 draft?

20 MS. BLOCK: No, we shouldn't need a rough
21 draft.

22 (Off the record at 1:59 p.m. EDT.)

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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.

(DATE)

(SIGNATURE)

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C E R T I F I C A T E

I, Debra Ann Whitehead, E-Notary Public in and for
the State of Maryland, do hereby certify:

That WENKE LEE, Ph.D., the witness whose
deposition is hereinbefore set forth, was duly sworn
by me before the commencement of such deposition and
that such deposition was taken virtually and is a
true record of the testimony given by such witness.

I further certify that the adverse party,
AO KASPERSKY LAB, was represented by counsel at the
deposition.

I further certify that the deposition of
WENKE LEE, Ph.D., occurred virtually, on Friday,
March 15, 2024, from 9:06 a.m. to 1:59 p.m. EDT.

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

7

8 IN WITNESS WHEREOF, I have hereunto set my
9 hand this 19th day of March, 2024.

10

11 My commission expires:

12 April 30th, 2027

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E-NOTARY PUBLIC IN AND FOR THE

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STATE OF MARYLAND

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