

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS

PROXENSE, LLC,
Plaintiff,
vs. Civil Action No.
6:23-cv-320
GOOGLE LLC and GOOGLE
PAYMENT CORP.
Defendants.

Zoom Videotaped deposition of Aviel Rubin,
Volume I, taken on behalf of DEFENDANTS, at Key West,
Florida, beginning at 8:03 a.m. and ending at 9:44
a.m. on Monday, December 18, 2023, before LORI M.
BARKLEY, Certified Shorthand Reporter No. 6426.

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I N D E X

WITNESS
AVIEL RUBIN

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EXHIBITS

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1 Key West, Florida, Monday, December 18, 2023

2 8:03 a.m.

3
4 VIDEO OPERATOR: Good morning. We are on
5 the record at 8:03 a.m. on December 18th, 2023.

6 Please note that this deposition is being
7 conducted virtually. Quality of the recording
8 depends on the quality of camera and Internet
9 connection of participants.

10 What is seen from the witness and heard on
11 screen is what will be recorded. Audio and video
12 recording will continue to take place unless all
13 parties agree to go off the record.

14 This is media number one of the recorded
15 deposition of Aviel Rubin in the matter of Proxense
16 LLC versus Google LLC and Google Payment Corporation,
17 filed in the United States District Court for the
18 Western District of Texas.

19 This deposition is being conducted remotely
20 using virtual technology.

21 My name is JoAnn Yager representing Veritext
22 Legal Solutions, and I am the videographer. The
23 court reporter is Lori Barkley from the firm Veritext
24 Legal Solutions.

25 May we please have introductions beginning

1 with the --

2 MR. MCKEE: Yep, this is John McKee with
3 Quinn Emanuel, on behalf of Google.

4 MR. BARCELO: And Bryce Barcelo on behalf of
5 plaintiff Proxense.

6
7 AVIEL RUBIN,
8 having been administered an oath, was examined and
9 testified as follows:

10

11 EXAMINATION

12

13 BY MR. MCKEE:

14 Q. Dr. Rubin, just to get a few of the
15 formalities out of the way. You've been deposed
16 before, correct?

17 A. Yes.

18 Q. A number of times?

19 A. Yes.

20 Q. So you know the rules?

21 A. Yes.

22 Q. The only thing I'll reiterate is if you
23 could please make sure to provide verbal answers to
24 questions as opposed to umm-hmms, all right?

25 A. Yes.

1 Q. Okay, so I'm going to try to be efficient
2 because I understand you have a hard stop in a few
3 hours.

4 So let's just jump right in. So this is not
5 your first case representing or working on behalf of
6 Proxense involving these patents; is that right?

7 A. That's correct.

8 Q. And in fact you were Proxense's expert in
9 the Samsung case; is that right?

10 A. Yes.

11 Q. And you authored a report that involved
12 among other things the same '730 patent that you're
13 offering claim construction opinions about today?

14 A. Yes. I didn't know if you were asking a
15 question so...

16 Q. All good.

17 A. Yes.

18 Q. In that case, you opined on both
19 infringement and validity, correct?

20 A. I think so. I'd have to look back to
21 refresh my recollection on that.

22 Q. Do you recall -- did you provide a claim
23 construction declaration in that case?

24 A. I don't remember.

25 Q. All right. You just don't remember one way

1 or the other?

2 A. Right.

3 Q. Okay, so before the deposition started, in
4 the interest of expediency, I premarked a number of
5 exhibits and I'm just going to read those for the
6 record now.

7 You should see them on the Egnyte Exhibit
8 Share platform exhibits 1 through 7.

9 Exhibit 1 is the declaration of Aviel B.
10 Rubin in response to declaration of John Black
11 concerning construction of certain terms in US patent
12 number 8352730.

13 (Exhibit 1 was marked for identification by
14 the court reporter and is attached hereto.)

15 MR. MCGEE: Exhibit 2 is US Patent Number
16 8352730.

17 (Exhibit 2 was marked for identification by
18 the court reporter and is attached hereto.)

19 MR. MCGEE: Exhibit 3 is US Patent Number
20 8886954.

21 (Exhibit 3 was marked for identification by
22 the court reporter and is attached hereto.)

23 MR. MCGEE: Exhibit 4 is US Patent Number
24 9298905.

25 (Exhibit 4 was marked for identification by

1 the court reporter and is attached hereto.)

2 ///

3 MR. MCGEE: And then Exhibits 5, 6, and 7
4 are exhibits 1, 2 and 3 to your declaration,
5 respectively.

6 (Exhibit 5 was marked for identification by
7 the court reporter and is attached hereto.)

8 (Exhibit 6 was marked for identification by
9 the court reporter and is attached hereto.)

10 (Exhibit 7 was marked for identification by
11 the court reporter and is attached hereto.)

12 BY MR. MCGEE:

13 Q. Do you see those exhibits?

14 A. Yes.

15 Q. Okay, so let's start by pulling up Exhibit
16 2, the '730 patent. The '730 patent is the first
17 patent in this patent family, correct?

18 MR. BARCELO: Objection, form.

19 THE WITNESS: You're asking if it's the
20 parent patent?

21 BY MR. MCKEE:

22 Q. Yeah, the '730 patent issued from the first
23 non-provisional application filed in its family,
24 right?

25 A. I don't recall that detail. I could see if

1 it's my declaration.

2 Q. Well, if you look at the Exhibit 2, the '730
3 patent, it doesn't say it's a continuation or a
4 continuation in part of a divisional from some other
5 application, right?

6 A. I don't see it say that anywhere on the
7 cover page.

8 Q. And if you were to turn to Exhibit 3 or
9 Exhibit 4, you would see under -- on the cover page,
10 under related US application data that they are a
11 continuation of the application that became the '730
12 patent, right?

13 MR. BARCELO: Objection, form.

14 THE WITNESS: So I'm looking at the covers
15 of those two, and it does say that they're
16 continuations.

17 BY MR. MCKEE:

18 Q. Great. So keep one of those open -- let's
19 keep the '905 opened. And if you could turn to
20 column 4 for me.

21 Let me know when you're there.

22 A. And just to be clear, you're talking about
23 the '905, not the '730.

24 Q. Right, the '905 patent, Exhibit 4.

25 A. Okay.

1 Q. You see the paragraph that in column 4 that
2 begins at line 1 and ends at line 16?

3 A. Yes.

4 Q. You're familiar with that paragraph?

5 A. I've seen it before but I -- yes, I'm
6 familiar with it.

7 Q. And in particular, I'd like to focus on the
8 language beginning about halfway through line 8 that
9 begins at the end of the line.

10 It says, "in one embodiment the biometric
11 100 is integrated into another object or device."

12 Do you see that?

13 A. I do.

14 Q. And continues, "a device having an
15 integrated biometric key 100 is occasionally referred
16 to herein as an integrated device."

17 Do you see that as well?

18 A. I do not.

19 Q. That language -- is that consistent with
20 your opinion as to the plain meaning of integrated
21 device?

22 MR. BARCELO: Objection, form, vague.

23 THE WITNESS: So it's the sentence, "a
24 device having an integrated biometric key 100 is
25 occasionally referred to herein as an integrated

1 device."

2 And your question is if that's consistent
3 with my understanding of the plain and ordinary
4 meaning?

5 BY MR. MCKEE:

6 Q. Yes.

7 A. Yes.

8 Q. And it continues, for example, "in one
9 embodiment the biometric key 100 is integrated into a
10 mobile phone."

11 And then it gives a laundry list of other
12 devices it could be integrated into.

13 Do you see that?

14 A. I see that.

15 Q. That's also consistent with your
16 understanding or opinions regarding the plain meaning
17 of integrated device, correct?

18 MR. BARCELO: Objection, form, vague.

19 THE WITNESS: Are you asking -- 'cause the
20 word integrated device does not appear in the
21 sentence that you just read.

22 So when you say that is consistent with the
23 plain and ordinary meaning, what are you referring
24 to?

25 ///

1 BY MR. MCKEE:

2 Q. Well, it's your opinion, isn't it, that if
3 the biometric key is integrated into a mobile phone,
4 a tablet, a laptop, an MP3 player or mobile gaming
5 device, that device then becomes an integrated
6 device?

7 MR. BARCELO: Objection, form.

8 THE WITNESS: Well, it may have already been
9 an integrated device. But it is still an integrated
10 device -- I don't know that that transforms it from a
11 nonintegrated device to an integrated device.

12 BY MR. MCKEE:

13 Q. And just to be clear, the integrated device
14 is the -- let me ask this differently.

15 Is the integrated device in your opinion
16 that the larger device that multiple components are
17 integrated into? Or is it the individual components
18 that are integrated?

19 MR. BARCELO: Objection, form, vague,
20 compound.

21 THE WITNESS: So can we talk about one of
22 these items specifically?

23 BY MR. MCKEE:

24 Q. Sure. So if we can just take that last
25 sentence and it says, "the biometric key 100 is

1 integrated into a mobile phone."

2 What is the integrated device then? Is it
3 the biometric key or the mobile phone?

4 A. It would be the mobile phone.

5 Q. Because the biometric key is integrated into
6 the mobile phone?

7 MR. BARCELO: Objection, form.

8 THE WITNESS: I'm not sure I understand your
9 question. Are you asking me is a mobile phone an
10 integrated device because it has a biometric key?

11 BY MR. MCKEE:

12 Q. It's alright, we can move on from this. I
13 think you answered my question already.

14 So I want you to look -- we started here at
15 line 8 where it begins, "in one embodiment," and I'd
16 like you to look at the sentence before that that
17 says, "biometric key 100 has a small form factor such
18 that it can be unobtrusively carried by user."

19 Do you see that?

20 MR. BARCELO: Objection, form, misstates
21 evidence.

22 THE WITNESS: Yes.

23 BY MR. MCKEE:

24 Q. All right, if you could turn to Exhibit 2,
25 the '730 patent for me. Just hold that in your mind.

1 And turn to column 3. Let me know you're
2 there.

3 A. Okay.

4 Q. And do you see that there is a -- line
5 numbers are a little off.

6 But do you so that there is a paragraph
7 beginning with the language, "figure 1 is a
8 schematic" on approximately line 12. And it
9 continues down to about line 20, ending with the same
10 language we just looked at: "Such that it can be
11 unobtrusively carried by a user."

12 MR. BARCELO: Objection, form.

13 THE WITNESS: I see that.

14 BY MR. MCKEE:

15 Q. All right. So the following sentence that
16 we just looked at that reads, "in one embodiment, the
17 biometric key 100 is integrated into another object
18 or device."

19 That's not in the '730 patent, right?

20 MR. BARCELO: Objection, form.

21 THE WITNESS: Just to be clear so I know if
22 I'm searching the whole '730 patent, are you just
23 saying that the sentence that would come after
24 "unobtrusively carried by user in '730" is not the
25 one that's in the other patent that we looked at?

1 BY MR. MCKEE:

2 Q. Yeah, the sentence that follows
3 "unobtrusively carried by user" in the '905 patent is
4 not there in the '730 patent?

5 A. Anywhere or right after --

6 Q. Anywhere but certainly not right after that
7 sentence.

8 MR. BARCELO: Objection, form.

9 THE WITNESS: Let me, I need to download
10 these. Because I have no way of looking at both of
11 them at the same time.

12 MR. MCKEE: That's fine, download them and
13 put them on the screen next to each other. I think
14 that could be helpful.

15 Q. So, that's column 3 of the '730 patent and
16 column 4 of the '905 patent.

17 Paragraph beginning with, "figure one is a
18 schematic diagram."

19 A. Okay, I've downloaded them on my computer
20 now. Open them.

21 All right. So on the '730, we were in
22 column 4?

23 Q. '730 on column 3 around line 12, '905 you're
24 in column 4 at line one.

25 A. I'm sorry what column in '905. I was in the

1 other one --

2 Q. Column 4, line 1, right at the top.

3 A. Okay, and which sentence am I looking to see
4 if it's not in the '730?

5 Q. The first sentence after "unobtrusively
6 carried by a user?"

7 And in the '905 patent that sentence reads,
8 "in one embodiment, the biometric key 100 is
9 integrated into another object or device."

10 That's not in the '730 patent, right?

11 A. It's not in the paragraph that we're looking
12 at, column 3. But I'm going to have to do a search
13 to see that it's not anywhere in the patent.

14 Q. Please go ahead and confirm that it's not in
15 the patent.

16 A. Okay, I don't see that it is. I did a
17 search.

18 Q. All right. Following the sentence that
19 reads, "a device having an integrated biometric key
20 100 is occasionally referred to herein as an
21 integrated device" is also not in the '730 patent,
22 correct?

23 A. I did a word search in the version you gave
24 me. And I don't see that.

25 Q. And the following sentence that reads (as

1 read):

2
3 For example, in one embodiment
4 the biometric key 100 is integrated
5 into a mobile phone, e.g., a
6 cellular phone or smart phone,
7 tablet, laptop, MP3 player, mobile
8 gaming device, watch, key fob or
9 other mobile device, thereby making
10 the biometric key 100 unobtrusive to
11 carry."

12
13 Is also not in the '703 patent?

14 A. So I did a search on the word "unobtrusive"
15 and it wasn't there. So I take it that sentence
16 couldn't be in there.

17 Q. Can you take a look at figure 1 for me?

18 A. Which patent?

19 Q. It's the same figure either way.

20 A. Okay.

21 Q. Does that show an integrated device?

22 A. I see that in the text that describes figure
23 1, it says "it comprises a frame, a scan pad and an
24 LED."

25 So it is made up of other components. And

1 so I would say that's an integrated device.

2 Q. Let's talk for a minute about components:
3 How do you understand that term? What is a
4 component?

5 A. I'm just going to download my report.

6 Q. And I can point you -- just to speed us up,
7 I can point you to -- and you're free to take a look
8 at your whole report.

9 I can point you to paragraph 35 you say (as
10 read):

11

12 In summary, when the '730 patent
13 was filed, the term integrated
14 device was on commonly used and
15 indicates the integration of
16 components into a larger whole.

17

18 So I see that opinion. I'm trying to
19 understand what components means here.

20 MR. BARCELO: Objection, form.

21 THE WITNESS: So I am not using the word
22 "component" in any way other than its plain English
23 meaning.

24 BY MR. MCKEE:

25 Q. Can it be software?

1 MR. BARCELO: Objection, form.

2 THE WITNESS: In the discussion that I have
3 in my declaration and in the patent, it's referring
4 to a piece of hardware.

5 BY MR. MCKEE:

6 Q. In the context of the patent, your opinion
7 is that an integrated device is a collection of
8 hardware components?

9 MR. BARCELO: Objection, form.

10 THE WITNESS: It's an integration of
11 hardware components.

12 BY MR. MCKEE:

13 Q. And how small can a component be in order
14 for it to still qualify as a component of an
15 integrated device?

16 Does the single capacitor qualify?

17 MR. BARCELO: Objection, vague, compound,
18 calls for speculation.

19 THE WITNESS: I haven't analyzed or
20 previously given thought to that question. It's not
21 something in my declaration.

22 BY MR. MCKEE:

23 Q. What about a collection of circuit elements
24 like a low-pass or high-pass filter?

25 MR. BARCELO: Objection, form, compound,

1 vague. Calls for speculation.

2 THE WITNESS: I haven't looked at that
3 either.

4 BY MR. MCKEE:

5 Q. If I were to stick a low-pass or high-pass
6 filter into a radio, is that radio now an integrated
7 device?

8 MR. BARCELO: Objection, form. Calls for
9 speculation. Vague.

10 THE WITNESS: I haven't studied that
11 question.

12 BY MR. MCKEE:

13 Q. Well, you studied the question of what an
14 integrated device is, and you say it has a plain
15 meaning, right?

16 A. Yes.

17 Q. So to a person of skill at the time of this
18 patent, understanding the plain meaning of integrated
19 device, if I stuck a low-pass filter into a radio,
20 would that person of skill consider that to be an
21 integrated device?

22 MR. BARCELO: Objection, form. Vague.
23 Calls for speculation.

24 THE WITNESS: I would want to take a look at
25 the radio, take a look at the high-pass filter and

1 perform an analysis.

2 You're asking me to comment on something
3 that I haven't analyzed.

4 BY MR. MCKEE:

5 Q. What would you need to see in the high-pass
6 filter we're talking about here in order to determine
7 whether it is or is not a component that can be part
8 of an integrated device?

9 MR. BARCELO: Objection, vague. Calls for
10 speculation.

11 THE WITNESS: I haven't thought about that
12 either.

13 BY MR. MCKEE:

14 Q. Have you thought about any question
15 vis-a-vis integrated device other than biometric
16 keys?

17 MR. BARCELO: Objection, form, vague.

18 THE WITNESS: So I previously mentioned that
19 a frame, a scan pad, an LED, can be components.

20 BY MR. MCKEE:

21 Q. You understand that in order to ascertain
22 whether a claim term is definite, that a person of
23 skill in the art has to be able to ascertain its
24 scope with reasonable certainty, right?

25 MR. BARCELO: Objection, calls for a legal

1 conclusion.

2 MR. MCKEE: Not a legal conclusion?

3 THE WITNESS: I'm not a lawyer --

4 MR. BARCELO: Sorry, what was that, counsel?

5 MR. MCKEE: I'm asking for his legal
6 understanding, not a legal conclusion.

7 MR. BARCELO: Okay, well, that wasn't clear
8 in your question. So my objection stands. If you'd
9 like to re-ask, the question go ahead.

10 MR. MCKEE: If you had the Real Time up I
11 said: "Dr. Rubin, do you understand that a person of
12 skill in the art, that definiteness is evaluated from
13 the perspective of a person of skill in the art
14 seeking to ascertain the scope of a claim term."

15 MR. BARCELO: Objection, calls for a legal
16 conclusion.

17 THE WITNESS: So I'm not a lawyer. But my
18 understanding is that -- I would add to that that
19 it's at the time of the invention and that is
20 correct.

21 BY MR. MCKEE:

22 Q. If a person of ordinary skill in the art
23 cannot ascertain the scope of a claim term,
24 "reasonable certainty," the claim term is not
25 definite, correct?

1 MR. BARCELO: Objection, calls for a legal
2 conclusion.

3 THE WITNESS: Again, I'm not a lawyer. But
4 that sounds like the legal standard.

5 BY MR. MCKEE:

6 Q. So we've said that a biometric key in your
7 opinion integrated into a phone is an integrated
8 device, right?

9 A. Are you asking me if the biometric key or
10 the phone is an integrated device?

11 Q. The phone.

12 A. Yes.

13 Q. And a device that comprises a frame, scan
14 pad, and LED is an integrated device, right?

15 MR. BARCELO: Objection, form, compound.

16 THE WITNESS: I would say that a device that
17 is composed of those components is an integrated
18 device.

19 BY MR. MCKEE:

20 Q. What else is an integrated device?

21 MR. BARCELO: Objection, vague, calls for
22 speculation.

23 THE WITNESS: There are many things that are
24 integrated devices. I don't know --

25 ///

1 BY MR. MCKEE:

2 Q. -- list --

3 A. Phone, biometric key, a smart TV, a tablet.

4 Q. What about on the other side of the coin:

5 What are some things that in your opinion are not
6 integrated devices?

7 A. A book.

8 Q. In the electronics context, are there any
9 examples you can provide me of devices that are not
10 integrated?

11 MR. BARCELO: Objection, vague.

12 THE WITNESS: I would say like a -- a memory
13 chip that is not connected to anything.

14 BY MR. MCKEE:

15 Q. Okay. Just before I move on -- I'm going to
16 talk about the exhibit to your declaration in just a
17 minute.

18 First, I'd just like to confirm it's your
19 opinion that integrated device has the same meaning
20 across the '730, '905, and '954 patents that are
21 marked as Exhibits 2 through 4 to this deposition,
22 correct?

23 MR. BARCELO: Objection, compound.

24 THE WITNESS: So I do address that in
25 paragraph 32. I say that, "furthermore I expect a

1 POSITA to interpret the term integrated device
2 consistently across patents that are derived from the
3 same parent application, which these are."

4 BY MR. MCKEE:

5 Q. And then at the end of that paragraph, you
6 say, "I believe a person of skill in the art would
7 have understood the term integrated device the same
8 way across all three patents," right?

9 A. Right.

10 MR. BARCELO: Objection, misstates the
11 evidence.

12 BY MR. MCKEE:

13 Q. Just trying to establish here, we are saying
14 that -- or you're saying that integrated device,
15 means the same thing across all three patents?

16 A. Yes.

17 Q. All right, can you pull up Exhibit 5 to your
18 deposition for me, please, which is exhibit 1 to your
19 declaration.

20 And let me know when you have that opened.

21 A. Okay.

22 Q. All right, do you recognize this paper?

23 A. Yes.

24 Q. All right. What is it?

25 A. It's a publication in the 1999 IEEE called,

1 A New Circuit Breaker Integrated Device for
2 Protection Applications.

3 Q. What is the integrated device here?

4 MR. BARCELO: Objection, vague.

5 THE WITNESS: At a high level, it's a
6 circuit breaker device.

7 BY MR. MCKEE:

8 Q. So can you turn to figure 2 on page -- well,
9 its IEEE page number is page 316.

10 A. Yes.

11 Q. Is that the integrated device shown there in
12 figure 2, A and B?

13 MR. BARCELO: Objection, compound.

14 THE WITNESS: So that is an illustration
15 from a particular perspective, a cross-section of the
16 integrated device.

17 BY MR. MCKEE:

18 Q. And what's shown on the left in figure 2(a),
19 is that the equivalent electrical circuit for the
20 integrated device, right?

21 A. That's what it says.

22 Q. And shown on the right in figure 2B, that's
23 a schematic cross-section of the integrated device,
24 right?

25 A. Yes.

1 Q. And what figure 2B is showing -- correct me
2 if I'm wrong -- is four different transistors.

3 I'm sorry, three different transistors and a
4 logic gate DZ?

5 A. So I'm looking at the text on page 315, it
6 says "figure 2B shows a four-layered technology
7 design."

8 And then it gives information about some of
9 the components there, like the IGBT1 section, and
10 then and you look for the figure you see an MP
11 section, a DZ section, and an IGBT2 section.

12 Q. If you look at the equivalent electrical
13 circuit figure 2A for IGBT1 -- and it's outlined in
14 dashed box.

15 What is shown there?

16 A. I believe -- and I'm not an electrical
17 engineer so this isn't really in my field.

18 But the way I understood this when I read
19 it, is that it's showing the logic that this device
20 performs, what is like another circuit that could
21 perform the same logic.

22 Q. And the thing that's shown on the left of
23 IGBT1, has the arrow pointing into it, that's a
24 schematic representation of a transistor, isn't it?

25 A. I'm sorry -- oh, in A?

1 Q. In A.

2 A. It's been I think 35 years since I had a
3 hardware course. But I think that's right.

4 Q. So the integrated device in this paper,
5 Exhibit 5, is a collection of circuit elements,
6 correct?

7 A. What I see in figure 2B is a -- several
8 components. I don't know enough of electrical
9 engineering to say whether they're transistors or
10 what the particular hardware pieces look like.

11 But it is four pieces of hardware that are
12 put together into a whole system.

13 Q. I suppose that's fine, that's helpful to
14 understand.

15 Figure 2B in your opinion shows a collection
16 of components that are integrated together; is that
17 fair?

18 A. Yes.

19 Q. We might come back to this but let's move to
20 Exhibit 6 to the deposition, which is exhibit 2 to
21 your declaration.

22 And please let me know when you have that
23 opened.

24 A. Okay.

25 Q. All right. What is this paper?

1 A. This is a publication of the IEEE from 1988.
2 And it's titled, "Seminet Further Advances an
3 Integrated Device/Circuit Simulation For Power
4 Electronics."

5 Q. In the title there, it says, "integrated
6 device/circuit."

7 Do you see that?

8 A. Yes.

9 Q. And it's your understanding that when
10 someone were to -- in common parlance when you're
11 writing if you say something like device/circuit,
12 you're saying those two things are interchangeable,
13 right?

14 A. I don't know that is a hard-and-fast rule.

15 Q. Okay, in this paper what is the integrated
16 device?

17 A. So this paper is not focused on a particular
18 integrated device. It's talking about a simulator
19 that can simulate integrated devices.

20 Q. All right, so you look on the very first
21 page the section called Seminet overview, Seminet.

22 A. Yes.

23 Q. And it says that it's a (as read):
24

25 Circuit simulation package which

1 incorporates an integral device
2 simulator (IVCALC1) to provide DC
3 operating point and time domain
4 transient analysis of circuits
5 containing up to 50 components.

6
7 Do you see that?

8 A. Yes.

9 Q. What is your understanding of what
10 "components" refers to in this paper?

11 A. So again this paper's a bit far afield from
12 my area of expertise.

13 But I would say that this simulator -- this
14 publication is a result that shows how to simulate
15 something that is made up of multiple components.

16 Q. Is the '730 patent far away from your field
17 of expertise?

18 A. No.

19 Q. Then why are you relying on papers that are?

20 MR. BARCELO: Objection, compound, form.

21 THE WITNESS: I was showing that in the
22 IEEE, which is one of the two largest publication
23 venues for scientists and engineers, there are many
24 different papers in different subfields that use the
25 term integrated device to show that when something is

1 a whole composed of multiple components, that it's an
2 integrated device.

3 BY MR. MCKEE:

4 Q. Are any of the exhibits 1 through 3 to your
5 declaration in your opinion in the same field of
6 invention as the '730 patent?

7 MR. BARCELO: Objection, form.

8 THE WITNESS: So in the sense that they are
9 in the field of engineering and technology, they can
10 use commonly understood terms the same way.

11 But they are in a different subfield from
12 the '730 patent.

13 BY MR. MCKEE:

14 Q. So they're in the same field only in the
15 broad sense that they all relate to engineering?

16 MR. BARCELO: Objection, misstates
17 testimony. Vague.

18 THE WITNESS: They're -- yeah, they broadly
19 relate to technology and engineering.

20 BY MR. MCKEE:

21 Q. All right if you could turn to the next page
22 of Exhibit 6. Page numbered 70 in whatever
23 publication this is from.

24 And find the section titled "Dynamic IGT
25 Modeling."

1 A. Yes.

2 Q. Do you see the second sentence there that
3 says "traditional circuit simulators cannot
4 accurately reflect the large signal dynamic
5 performance of this device using standard circuit
6 components."

7 And then it continues.

8 A. Yes.

9 Q. Are those the types of components, standard
10 circuit components, that this paper is discussing?

11 A. I think it's explaining why this invention
12 that's being described as needed is to be able to
13 deal with integrated devices, and not ones there have
14 a single standard circuit component.

15 Q. Is it your opinion that a person of skill
16 would have understood that integrating standard
17 circuit components into a larger whole would comprise
18 an integrated device?

19 MR. BARCELO: Objection, vague.

20 THE WITNESS: I think in a field where the
21 building blocks are circuits, then integrating
22 circuits into a whole would be an integrated device.

23 BY MR. MCKEE:

24 Q. Aren't all electronics -- isn't the building
25 blocks of all electronic circuits?

1 MR. BARCELO: Objection, vague.

2 THE WITNESS: Circuits do make up a part of
3 modern electronics.

4 BY MR. MCKEE:

5 Q. And building blocks of a biometric key is
6 circuits, right?

7 MR. BARCELO: Objection, misstates
8 testimony. Vague.

9 THE WITNESS: A biometric key would consist
10 of circuits.

11 BY MR. MCKEE:

12 Q. Let's talk about the last paper, Exhibit 7
13 to your deposition, exhibit 3 to your declaration.

14 Let me know when you have that up.

15 A. Okay.

16 Q. What does -- what is this paper? Excuse me.

17 A. So this is an IEEE paper from 2001, and the
18 title is, "A Novel Integrated Device -- A Simulated
19 Inductor With Voltage Control Characteristics
20 Inversely Proportional to the Square of Control
21 Voltage U_c ."

22 Q. What is the integrated device in this paper,
23 Exhibit 7 to your deposition?

24 A. It's a voltage variable simulated inductor.

25 Q. Are you referring to figure 1?

1 A. I was just reading from the abstract.

2 Q. Does figure 1 show the integrated device of
3 Exhibit 7 to your deposition?

4 A. Yes, it's a diagram of it.

5 Q. And if you could turn to the page numbered
6 1130, and take a look at figure 3 for me.

7 A. Okay.

8 Q. That's also an integrated device, correct?

9 A. So within the realm of circuits, this is
10 showing the layout of the figure 1 on a chip, it
11 looks like.

12 Q. This could also be -- strike that.

13 Figure 3 could also be described as an
14 integrated circuit, right?

15 A. Yes.

16 Q. You mentioned that these are from -- these
17 papers that you included as exhibits to your
18 declaration are from a different subfield than the
19 invention of the '730 patent.

20 Do I have that right?

21 MR. BARCELO: Objection, misstates
22 testimony.

23 THE WITNESS: So they're all within the
24 realm of technology and engineering. But the
25 specific subfields of these three papers is different

1 from the specific subfield of the '730 patent.

2 BY MR. MCKEE:

3 Q. And in your declaration, in fact, you
4 mentioned that you searched through ACM publications
5 and other databases looking for the term integrated
6 device; is that right?

7 I'm referring to paragraph 26, if that
8 helps.

9 A. Right, I just got there.

10 That's right, I also looked for the term
11 integrated device in titles of ACM papers.

12 Q. You did not cite any papers from the same
13 subfield as the '730 patent in your declaration,
14 correct?

15 A. The only specific examples that I gave are
16 from three of the IEEE papers. But my point of
17 mentioning the ACM is that there are 35 publications
18 that came up in a quick search up to 2004 that had
19 integrated device in the title.

20 Q. Just for the record, we mentioned IEEE.
21 What's ACM?

22 A. The Association of Computing Machinery.
23 Together with the IEEE, those are the two largest
24 venues that I know of for scientists that publish
25 their results.

1 Q. And if you were looking for papers that were
2 relevant for the '730 patent, would you look in IEEE
3 publications, ACM publications or both?

4 A. If I was doing that for what purpose?

5 Q. If you were trying to find papers that
6 informed you about the meaning of integrated device
7 to someone working in the same subfield as the '730
8 patent, where would you look?

9 A. The ACM and IEEE are two places that I did
10 look.

11 Q. Did you find any papers in either the ACM or
12 IEEE database searches that you did in the same
13 subfield as the '730 patent using the term integrated
14 device?

15 A. I wasn't looking for that. I was simply
16 counting appearances of the term integrated device.

17 Q. To the best of your recollection sitting
18 here today, did you see any papers in the same
19 subfield as the '730 patent that informed your
20 understanding of what integrated device meant to a
21 person of skill in the art at the time of the alleged
22 invention of the '730 patent?

23 MR. BARCELO: Objection, form.

24 THE WITNESS: I was not performing a search
25 looking for that. I was not looking at the content

1 of all these papers.

2 I was counting how many times the term
3 integrated device appeared to show that this a term
4 of art that is often used.

5 BY MR. MCKEE:

6 Q. When you ran those searches on the ACM and
7 IEEE databases, how many hits did you get?

8 A. I have that answer in my declaration: 218
9 for IEEE and 35 for ACM.

10 Q. How many papers ballpark are in the combined
11 ACM and IEEE databases?

12 MR. BARCELO: Objection, calls for
13 speculation.

14 THE WITNESS: I have no idea.

15 BY MR. MCKEE:

16 Q. Less than a thousand?

17 MR. BARCELO: Objection, form.

18 BY MR. MCKEE:

19 Q. Would you say less than a thousand papers in
20 those databases?

21 A. No.

22 Q. Would you say there's less than 10,000
23 papers in those databases?

24 A. No.

25 Q. Less than a 100,000 papers in those

1 databases?

2 A. Probably not.

3 Q. So we're talking a small fraction of the
4 papers in those databases that use the phrase
5 integrated device, right?

6 MR. BARCELO: Objection, form.

7 THE WITNESS: Yes.

8 BY MR. MCKEE:

9 Q. All right. Let me shift gears slightly.
10 And I'll come right back to integrated device.

11 If you could turn to paragraph 21 of your
12 declaration.

13 A. Okay.

14 Q. All right, you have -- paragraph 21 talks
15 about the different possible priority dates of the
16 '730 patent.

17 Do you see that?

18 MR. BARCELO: Objection, misstates the
19 evidence.

20 THE WITNESS: Basically saying that my
21 opinions are the same regardless of which of the
22 dates is used.

23 BY MR. MCKEE:

24 Q. Why was it necessary for you to state that
25 your opinion remains the same if the '730 patent is

1 deemed not entitled to the filing date of the
2 provisional application?

3 A. Nothing happened between December 20th, 2004
4 to December 20th, 2005, to change the way that one of
5 ordinary skill in the art would have understood the
6 term integrated device.

7 Q. But why even mention it? Is there a risk
8 that the '730 patent is not entitled to its
9 provisional filing date?

10 MR. BARCELO: Objection, form, vague.

11 THE WITNESS: In the event that there's a
12 dispute about the priority date, I was mentioning
13 that it wouldn't matter which side of the dispute it
14 was resolved to.

15 BY MR. MCKEE:

16 Q. Just being thorough, okay.

17 Let me ask you this -- in paragraph 22, you
18 provide your definition of a person of ordinary skill
19 in the art; is that right?

20 A. Yes.

21 Q. And in there you say, "the field of
22 encryption and security or an equivalent."

23 Do you see that?

24 A. Yes.

25 Q. What is in your opinion an equivalent to the

1 field of an encryption and security?

2 A. Well, I think there are many different ways
3 people use to describe encryption and security.

4 Some people say information security. Some
5 people say computer security.

6 So I just wanted to make sure I covered
7 other ways that people might express those terms.

8 Q. Is there any dispute that Dr. Black is a
9 person of skill in the art under your definition?

10 A. No.

11 MR. BARCELO: Objection, vague. Calls for
12 legal conclusion.

13 BY MR. MCKEE:

14 Q. Have you worked with Dr. Black before?

15 A. I don't believe I've worked with him on any
16 research.

17 Q. Just curious.

18 Now, if you could pull up the '730 patent
19 for me that is Exhibit 2.

20 And I'd like it to turn your attention to
21 the claims. So column 9. I'm going to ask some
22 questions about claim 1.

23 So let me know when you're there.

24 A. I'm there.

25 Q. All right. On line 17, do you see the term

1 "secret decryption value"?

2 A. Yes.

3 Q. You've analyzed these claims before, right?

4 A. I have.

5 Q. So you have an understanding of what the
6 different elements of the claims mean?

7 A. I do.

8 Q. Kind of high level to a person of skill in
9 the art, what is a secret decryption value?

10 A. So I am prepared to talk about the
11 integrated device term. I have not looked at that in
12 quite awhile and so I'm going to wait to offer
13 opinions on that until later parts of the case.

14 Q. All right, but I'm asking you about now.
15 And I'm taking your deposition now, and you've
16 offered opinions for it before and you understand the
17 claims.

18 So I'm just asking -- and I can ask more
19 nuanced questions here, what is a secret decryption
20 value?

21 MR. BARCELO: Objection, outside the scope.

22 THE WITNESS: I have not looked at that in
23 awhile. I don't remember what I did previously in
24 this case.

25 And I only prepared to talk to you about the

1 term integrated device. So I do not want to
2 speculate.

3 BY MR. MCKEE:

4 Q. Well, a person of skill, that's someone in
5 the field of security and encryption, right?

6 MR. BARCELO: Objection, misstates evidence
7 --

8 BY MR. MCKEE:

9 Q. That's what we just looked at, right?

10 MR. BARCELO: Objection, misstates evidence
11 and testimony.

12 THE WITNESS: There was a little more to it
13 than that but that is the field.

14 BY MR. MCKEE:

15 Q. All right, and you're a person of ordinary
16 skill, correct?

17 A. Yes.

18 Q. So let me ask it this way then. What is a
19 decryption value, take secret out of the equation.

20 What is a decryption value? What does it
21 mean to decrypt something?

22 MR. BARCELO: Objection, compound. Outside
23 the scope.

24 THE WITNESS: Again, that's a claim term.
25 It's not one that I prepared my declaration about,

1 and I'm not prepared to talk about it today.

2 BY MR. MCKEE:

3 Q. Taken out of the claims, what is decryption?

4 A. Outside of the claims, decryption is the
5 inverse of encryption.

6 Q. And what is encryption?

7 A. Giving an off the top of my head kind of
8 loose non-precise definition, I would say it's the
9 transformation -- an irreversible transformation of
10 data unless you have a secret key.

11 Q. And that secret key that's referred to in
12 common parlance as an encryption value, correct?

13 MR. BARCELO: Objection, vague, form.

14 THE WITNESS: I think in common parlance, it
15 can be called that. It can also be called an
16 encryption key.

17 BY MR. MCKEE:

18 Q. And you have to decrypt something using the
19 same key that was used to encrypt it, right?

20 MR. BARCELO: Objection, vague, calls for
21 speculation.

22 THE WITNESS: So that's a certain class of
23 cyphers called symmetric cyphers. Symmetric cyphers
24 are ones where you use the same key to encrypt and
25 decrypt.

1 BY MR. MCKEE:

2 Q. All right. So there are some cyphers in
3 which you use the same key to encrypt and decrypt,
4 and other cyphers in which you use different keys to
5 encrypt and decrypt; is that accurate?

6 A. Yes.

7 Q. Now, so then a decryption value is a value
8 that's used to decrypt encrypted information?

9 MR. BARCELO: Objection, outside the scope.
10 Calls for speculation. Vague.

11 THE WITNESS: Outside of the patent, you
12 could refer to a decryption value or decryption key
13 as something that could be used to decrypt something
14 that's encrypted.

15 BY MR. MCKEE:

16 Q. And to a person of skill, what does it mean
17 for something to be secret in this field?

18 MR. BARCELO: Objection, outside the scope.

19 THE WITNESS: So just speaking as an expert
20 in security and not relating to the '730 patent,
21 something that is secret is typically referred to as
22 something that's not known to the adversary.

23 BY MR. MCKEE:

24 Q. In a security context, what is an adversary
25 just so I get the terminology right.

1 A. We have a very fancy term for that in a lot
2 of literature called a bad guy.

3 Q. So something is secret if it's not available
4 to whoever is trying to do something malicious,
5 right?

6 MR. BARCELO: Objection, misstates
7 testimony. Outside the scope.

8 THE WITNESS: So I didn't consider that
9 specific question before. But I think it's a little
10 more than that.

11 Something is secret if -- so, for example, I
12 did a lot of work on the logic of authentication.
13 And you had certain values that were labeled in your
14 logic as secret and others that are labeled as
15 public.

16 And so the secret ones are not available to
17 anyone who hasn't been explicitly given the secret
18 value whereas a public value is available to anyone.

19 BY MR. MCKEE:

20 Q. So in a cryptographic transaction where
21 there's encryption and decryption occurring, the only
22 people who should know a piece of secret information
23 are the parties that are encrypting or decrypting and
24 no one else?

25 MR. BARCELO: Objection, form -- sorry, Dr.

1 Rubin, you'll have to give me a moment to get my
2 objection in.

3 THE WITNESS: I apologize, I'll pause.

4 MR. MCKEE: I'll re-ask the question then.

5 I know you're going to disagree with the
6 premise of it. So let me just read the exact same
7 question.

8 Q. So in a cryptographic transaction, where
9 there's encryption and decryption occurring, the only
10 people who should know a piece of secret information
11 are the parties that are encrypting or decrypting and
12 no one else, correct?

13 MR. BARCELO: Objection, form, calls for
14 speculation. Outside the scope.

15 THE WITNESS: So that's not necessarily
16 always the case. In fact in the work I did for my
17 PhD, I worked on a system where there was a trusted
18 key server.

19 And so if two parties wanted to communicate,
20 they would go to the trusted key server for a shared
21 key. And they would each get the key but the trusted
22 server would also know the key.

23 So in terms of your question, that's not
24 exactly correct -- in that example.

25 ///

1 BY MR. MCKEE:

2 Q. Is that the subject of --
 3 (Reporter clarification.)
 4 -- a thesis or dissertation that you
 5 prepared?

6 A. So the title of my dissertation was Non-
 7 Monotonic Cryptographic Protocols. And in there, I
 8 looked at many different types of cryptographic
 9 protocols.

10 And the one that I just mentioned was one of
 11 them that I examined and wrote extensively about.

12 Q. And what was -- when did you prepare that
 13 dissertation?

14 A. I graduated in 1994. I did most of that
 15 work in the years leading up to that.

16 Q. Before the '730 patent in any event?

17 A. Yes.

18 Q. So there are cryptographic environments in
 19 which there is -- they're a party to the transaction
 20 to use -- to coin of term which you called a trusted
 21 key server.

22 Is there anyone else in a cryptographic
 23 transaction that would have access to secret
 24 information?

25 MR. BARCELO: Objection to form.

1 THE WITNESS: There are protocols out there
2 where there's an escrow service that if you have an
3 important keys that you may want to recover later,
4 you would escrow the secret keys with that escrow
5 service, and then you could recover those keys under
6 certain circumstances using the protocols that are
7 specified and get the secret key.

8 BY MR. MCKEE:

9 Q. Are there any other similar services in
10 which there's a third party that might have access to
11 secret information other than the escrow service that
12 you just mentioned and the trusted key server that
13 you mentioned previously?

14 MR. BARCELO: Objection, vague. Outside the
15 scope.

16 THE WITNESS: Within certain hierarchal
17 organizations, there may be a requirement that a
18 higher-level authority --

19 So, for example, I worked at AT&T labs. And
20 the labs would have key management, then a department
21 could have key management, then individuals could
22 have key management.

23 And while it wasn't the case at AT&T, there
24 are organizations that require access to the
25 lower-level keys from the higher-level

1 administration.

2 So in that case, they would have copies of
3 the keys.

4 BY MR. MCKEE:

5 Q. But in all of these configurations, the
6 information is kept secret from the bad guys to use
7 your terminology earlier?

8 A. Yeah --

9 MR. BARCELO: Objection. Sorry, Dr. Rubin,
10 objection, vague. Outside the scope.

11 THE WITNESS: The idea behind these
12 protocols is that only the parties that the designer
13 of the protocol wants would know the secret keys, and
14 the bad guys wouldn't.

15 MR. BARCELO: Is now an okay good time for a
16 break for you?

17 THE WITNESS: I would appreciate a break,
18 yeah.

19 MR. BARCELO: I'd like some coffee, so I
20 would, too.

21 VIDEO OPERATOR: Going off the record. The
22 time is 9:11 a.m.

23

24 (Recess taken.)

25

1 VIDEO OPERATOR: Back on the record. The
2 time is 922 a.m.

3

4 MR. MCKEE:

5 Q. So we've -- I've asked you a number of
6 questions about the biometric key that's described in
7 the '730 patent.

8 Do you recall that?

9 A. I recall questions about that, yes.

10 Q. And the biometric key that's shown in figure
11 1 of the '730 patent, for example, that's a
12 fingerprint reader or thumbprint reader, right?

13 A. Yes.

14 Q. Now, there are plenty of other types of
15 biometrics out there, right?

16 A. Yes.

17 Q. So you could do an eye scanner like in
18 Mission Impossible. Or a face scanner like on an
19 iPhone, right?

20 MR. BARCELO: Objection, compound, vague.

21 THE WITNESS: So there are systems that use
22 face scanning and iris scanning for -- as a
23 biometric.

24 BY MR. MCKEE:

25 Q. You could do, you know, a full handprint

1 that gets the entirety of your fingers and your palm
2 and your whole hand, right?

3 MR. BARCELO: Objection, vague. Outside the
4 scope.

5 THE WITNESS: I don't know that I could do
6 it.

7 But I think what you're asking is if that
8 can be used as a biometric. And it can be.

9 BY MR. MCKEE:

10 Q. Now, when you have a -- when you're at the
11 hospital, you have a brand new baby and they take a
12 handprint of the baby, what parts of the hand does
13 that capture?

14 MR. BARCELO: Objection, calls for
15 speculation. Vague. Outside the scope.

16 THE WITNESS: When my kids were born, they
17 got their feet. And it wasn't for biometric.

18 It was just to make a little mark for us for
19 a souvenir. But I don't know what those systems use.

20 BY MR. MCKEE:

21 Q. What parts of the foot, then, is it?

22 MR. BARCELO: Objection, vague, outside the
23 scope. And then I'd like to object to the second
24 question as well for the same reason: Outside the
25 scope. Vague.

1 THE WITNESS: You know, my youngest is 21
2 years old, I don't remember what those footprints
3 looked like but they were very cute.

4 BY MR. MCKEE:

5 Q. Well, when you talk about a handprint as a
6 person of skill in the art in these patents, you
7 understand that includes the fingers, right?

8 MR. BARCELO: Objection, misstates
9 testimony, vague.

10 THE WITNESS: I don't see the word handprint
11 in the patent.

12 BY MR. MCKEE:

13 Q. I don't think it is. But you're a person of
14 skill in the art in this patent, which talks about
15 biometrics that include different parts of the hand,
16 right?

17 MR. BARCELO: Objection, vague.

18 THE WITNESS: So the patent does talk about
19 thumbs and other fingers. And it mentions various
20 types of biometrics, like hand geometry.

21 MR. MCKEE: What is hand geometry?

22 MR. BARCELO: Objection, outside the scope.

23 THE WITNESS: So hand geometry is a way of
24 mathematically representing somebody's hand and using
25 that as a biometric.

1 BY MR. MCKEE:

2 Q. And when you say mathematically representing
3 someone's hand, what parts of the hand?

4 A. My understanding of the term hand geometry
5 is that it is a broad term that could represent any
6 mathematical use of something to do with the hand.

7 Q. Does the hand include the fingers?

8 A. A hand can include fingers.

9 Q. Does the hand include the palm?

10 A. A hand includes the palm.

11 Q. Does the palm include the fingers?

12 MR. BARCELO: Objection, outside the scope.

13 THE WITNESS: I am not an anatomy expert.

14 But I don't believe that I would include the fingers
15 in a palm.

16 MR. MCKEE: All right. I realized I forgot
17 to do something earlier. So I'm going to mark an
18 Exhibit 8.

19 (Exhibit 8 was marked for identification by
20 the court reporter and is attached hereto.)

21 BY MR. MCKEE:

22 Q. And if you could pull up the '905 patent
23 again, and just have it side-by-side with Exhibit 8?

24 Just give me a moment, I think we can go
25 through this pretty quickly.

1 So Exhibit 8 is being distributed now. You
2 should see it in a minute. It's being distributed
3 very slowly.

4 So I'll let you know when it's uploaded on
5 my end.

6 A. Sure, meanwhile I'm getting up the '905.

7 Q. Okay, it should show up now.

8 A. I have it.

9 Q. All right. And you see that on the first
10 page of Exhibit 8 it says application number
11 11/314199?

12 A. Yes.

13 Q. And if you were to look at the '905 patent,
14 where it's talking about how it's a continuation of
15 the '730 patent, it says that it's a continuation of
16 that same application number.

17 Do you see that?

18 A. I do.

19 Q. This is file history for the '730 patent,
20 right?

21 A. That's what it looks like.

22 Q. All right, turn to column 4 of the '905
23 patent again then please?

24 A. Okay.

25 Q. And I understand this will take slightly

1 longer to search because it is a much longer
2 document.

3 But the sentence, "in one embodiment, the
4 biometric key 100 is integrated into another object
5 or device," is not part of the file history of the
6 '730 patent, right?

7 A. When I search for "another object," it does
8 not come up. So I would say it's not there.

9 Q. And the sentence, "a device having an
10 integrated biometric key 100 is occasionally referred
11 to herein as an integrated device," also does not a
12 show up in the file history for the '730 patent,
13 correct?

14 A. I don't see that.

15 Q. And finally, the sentence, "for example, in
16 one embodiment, the biometric key 100 is integrated
17 into a mobile phone e.g., a cellular phone or smart
18 phone, tablet, laptop, MP3 player, mobile gaming
19 device, watch, key fob or other mobile device,
20 thereby making the biometric key 100 unobtrusive to
21 carry," similarly does not appear in the file history
22 of the '730 patent, correct?

23 A. I don't see that sentence.

24 Q. All right. Now turning back to your
25 declaration, I'd like to ask you about something you

1 wrote in paragraph 32.

2 So let me know when you're there.

3 A. Okay.

4 Q. And here you refer to one of those sentences
5 we just read that the device having an integrated
6 biometric key is occasionally referred to as an
7 integrated device.

8 Do you see that?

9 A. Yes.

10 Q. And you say, "first, a person of ordinary
11 skill in the art would have that understanding
12 already from the context of the '730 patent."

13 Do you see that?

14 A. Yes.

15 Q. What is the basis for that opinion that a
16 person of ordinary skill in the art would have that
17 understanding from the '730 patent's -- '730 patent
18 alone?

19 A. So the '730 patent talks about biometric
20 keys.

21 It's mentioned in particular in claim 15.
22 And claim 15 also mentions uniquely identifying
23 legitimate integrated devices.

24 If you read the patent, you understand that
25 there's an integrated device that has the biometric

1 key stored in it.

2 And within the context of the specification
3 of the patent, including the abstract, the
4 specification, it's clear that the device having an
5 integrated biometric key is occasionally referred to
6 as an integrated device.

7 Q. All right, let me -- let's take a look at
8 claim 15 then.

9 Claim 15 recites two components at a high
10 level: Biometric key and an authentication unit,
11 right?

12 MR. BARCELO: Objection, vague, form.

13 THE WITNESS: So the first two elements of
14 claim 15 are a biometric key and an authentication
15 unit.

16 So those are two components.

17 BY MR. MCKEE:

18 Q. And claim 15 is a system comprising,
19 correct?

20 A. Yes.

21 Q. Not an integrated device comprising.

22 A. Well, it doesn't use the word integrated
23 device in the preamble. But it does use that term
24 later in the claim.

25 Q. To refer to legitimate integrated devices?

1 MR. BARCELO: Objection, form.

2 THE WITNESS: To identifying legitimate
3 integrated devices.

4 BY MR. MCKEE:

5 Q. Okay. And let me just shift gears slightly.
6 Do you have the '905 patent up?

7 A. I can get it. Now I do.

8 Q. If you can turn to column 2 for me.

9 A. Okay.

10 Q. And at line 43, there's a sentence that
11 begins "in one embodiment, a system includes an
12 integrated device, e.g., a biometric key to store
13 biometric data for a user in a tamper-resistant
14 format."

15 And then it continues.

16 Do you see that?

17 A. I see that.

18 Q. So biometric key is an example of an
19 integrated device, correct?

20 A. It's an example of something that -- well,
21 can I hear the question again, please?

22 Q. A biometric key, according to this sentence,
23 is an example of an integrated device, correct?

24 A. Yes.

25 Q. Can you confirm for me whether this

1 embodiment is described in the '730 patent?

2 MR. BARCELO: Objection, form.

3 THE WITNESS: Which embodiment?

4 BY MR. MCKEE:

5 Q. The one that we were just looking at in
6 column 2 of the '905 patent: "In one embodiment, a
7 system includes an integrated device, e.g., a
8 biometric key to store biometric data for a user."

9 A. So the abstract of the '730 patent talks
10 about an integrated device that persistently stores
11 biometric data for a user in a temporary system
12 format.

13 Q. And that confirms for you that in that sense
14 integrated device is referring to biometric key?

15 MR. BARCELO: Objection, form.

16 THE WITNESS: Oh, I see what you're saying.

17 I didn't understand the question. So if you
18 look at figure 1 and the description of figure 1 that
19 we looked at earlier, in column 3, line 12, it talks
20 about the biometric key and it shows that it is
21 composed of different components so it's an
22 integrated device.

23 BY MR. MCKEE:

24 Q. One final question to close the loop about
25 something we were discussing earlier: Encryption and

1 decryption in cryptography are opposite sides of a
2 single transaction, correct?

3 MR. BARCELO: Objection, form, vague, calls
4 for speculation.

5 THE WITNESS: That's not exactly how I would
6 put it.

7 BY MR. MCKEE:

8 Q. How would you put it?

9 MR. BARCELO: Objection, same objection.

10 THE WITNESS: How would I put what?

11 BY MR. MCKEE:

12 Q. I asked the question, "encryption and
13 decryption in cryptography are opposite sides of a
14 single transaction, correct," and you said that's not
15 exactly how I would put it.

16 So how would you put it?

17 MR. BARCELO: Objection, compound. Calls
18 for speculation. Outside the scope.

19 THE WITNESS: I don't know what you're
20 asking me. But the statement you made is not one I
21 would make.

22 It's not technically precise. But I'm not
23 sure what you mean.

24 BY MR. MCKEE:

25 Q. What is technically imprecise about my

1 question?

2 A. I don't think of the functions of encryption
3 and decryption as being transactions.

4 Q. In order to decrypt -- you can only decrypt
5 something that's been encrypted, right?

6 MR. BARCELO: Objection, calls for
7 speculation. Outside the scope.

8 THE WITNESS: So that's not entirely true.
9 You could run the decryption function on any data and
10 produce a plain text from that cyphered text.

11 If you're thinking of it from a mathematical
12 perspective, you're just applying a function to bits.

13 So you could run decryption without ever
14 having run encryption.

15 BY MR. MCKEE:

16 Q. In order to recover encrypted information,
17 you must decrypt it, fair?

18 MR. BARCELO: Objection -- Dr. Rubin, please
19 give me one second. I'll object to the question as
20 outside the scope and vague and calls for
21 speculation.

22 THE WITNESS: That's not true.

23 So let's say that you encrypt something and
24 then I break into your computer and I find the plain
25 text data, then I've recovered the data without

1 decrypting.

2 But you could also coerce someone who knows
3 the information to tell it to you.

4 BY MR. MCKEE:

5 Q. Fine. But in order to get the information
6 that's been encrypted out of, you know, the packet of
7 encrypted information, I have to decrypt it unless
8 you go through some other mechanism to get at the
9 information pre-encrypted?

10 MR. BARCELO: Objection -- sorry, Dr. Rubin.
11 I have to wait for Mr. McKee to finish his question,
12 and then you'll have to give me a second, just to
13 wait.

14 So I'll object to the question as calling
15 for a hypothetical -- an incomplete hypothetical,
16 calls for speculation and outside the scope.

17 THE WITNESS: So in the world of
18 cryptography as a science outside of these patents,
19 which I assume this entire line of questioning has
20 been, the -- if you have some encrypted information
21 and you don't get it any other way, then to get the
22 information, you would decrypt it.

23 MR. MCKEE: All right. I have no further
24 questions.

25 MR. BARCELO: Nothing from us.

1 VIDEO OPERATOR: This completes today's
2 deposition. We are going off the record. The time
3 is 9:44 a.m.
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1 I declare under penalty of perjury under the laws of
2 the State of California that the foregoing is true
3 and correct.

4 Executed on _____, 2023, at

5 _____, _____.

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9 _____
10 SIGNATURE OF WITNESS
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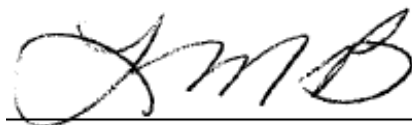
1 STATE OF CALIFORNIA) ss.
2 COUNTY OF LOS ANGELES)
3

4 I, Lori M. Barkley, CSR No. 6426, do hereby
5 certify:

6 That the foregoing deposition proceedings
7 were taken before me at the time and place therein
8 set forth and were recorded stenographically by me,
9 and were thereafter transcribed under my direction
10 and supervision, and that the foregoing pages contain
11 a full, true and accurate record of all proceedings
12 and testimony to the best of my skill and ability.

13 I further certify that I am neither counsel
14 for any party to said action, nor am I related to any
15 party to said action, nor am I in any way interested
16 in the outcome thereof.

17 IN WITNESS WHEREOF, I have subscribed my
18 name this 18th day of December 2023.

19 
20

21 LORI M. BARKLEY, CSR No. 6426
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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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