

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC, *

Petitioner *

VS. *

SECURITY FIRST INNOVATIONS, LLC, *

Patent Owner *

*

IPR2024-00214 (Patent 11,068,609 B2) *

IRP2024-00215 (Patent 10,452,854 B2) *

REMOTE VIDEOCONFERENCE DEPOSITION OF

SAMRAT BHATTACHARJEE

TAKEN ON AUGUST 9, 2024

REPORTED BY:

PATRICIA L. HUBBARD, CSR #3400

Page 2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 REMOTE VIDEOCONFERENCE DEPOSITION OF SAMRAT BHATTACHARJEE, who is at the time of this proceeding located in Silver Springs, Maryland, California, taken on behalf of the Petitioner, commencing at 8:01 A.M. (Pacific Time) on August 9, 2024, before PATRICIA L. HUBBARD, CSR #3400, a Certified Shorthand Reporter in and for the State of California, pursuant to Notice.	Page 4 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 APPEARANCES OF COUNSEL: (Continued) For the Patent Owner: LOWENSTEIN & WEATHERWAX LLP BY: NATHAN LOWENSTEIN, ESQ. COLETTE WOO, ESQ. 1016 Pico Boulevard Santa Monica, California 90405 310.307.4500 lowenstein@lowensteinweatherwax.com (Present via videoconference) Also Present via videoconference: Avi Rubin
Page 3 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 APPEARANCES OF COUNSEL: For the Petitioner: WOLF, GREENFIELD & SACKS, P.C. BY: GREGORY NIEBERG, ESQ. ELISABETH H. HUNT, ESQ. 600 Atlantic Avenue Boston, Massachusetts 02210 617.646.8000 gnieberg@wolfgreenfield.com (Present via videoconference) For the Patent Owner: SULLIVAN & CROMWELL LLP BY: STEPHEN ELLIOTT, ESQ. 125 Broad Street New York, New York 10004 212.558.7375 elliotts@sullcrom.com (Present via videoconference)	Page 5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 I N D E X WITNESSPAGE SAMRAT BHATTACHARJEE (By Mr. Lowenstein)8 (By Mr. Elliott)112 E X H I B I T S PAGE EXHIBITSDESCRIPTIONREFERENCED Exhibit 1001United States Patent63 Patent No. US 10,452,854 B2 Exhibit 1003(1)Declaration of Samrat64 Bhattacharjee, Ph.D. IPR 2024-00214 Patent No. 11,068,609 Exhibit 1003(2)Declaration of Samrat112 Bhattacharjee, Ph.D. Patent No. 11,178,116

2 (Pages 2 to 5)

Page 6 1E X H I B I T S (Continued) 2PAGE <table><tr><th>3EXHIBITS</th><th>DESCRIPTION</th><th>REFERENCED</th></tr><tr><td>4Exhibit 1005</td><td>United States Patent Application Publication Tajima et al.</td><td>63</td></tr><tr><td>7Exhibit 1006</td><td>United States Patent Application Publication Foster et al.</td><td>114</td></tr><tr><td>10Exhibit 1007</td><td>United States Patent Application Publication Hayhurst</td><td>133</td></tr></table> 16INFORMATION REQUESTED: (NONE) 20WITNESS INSTRUCTED NOT TO ANSWER: (NONE)	3EXHIBITS	DESCRIPTION	REFERENCED	4Exhibit 1005	United States Patent Application Publication Tajima et al.	63	7Exhibit 1006	United States Patent Application Publication Foster et al.	114	10Exhibit 1007	United States Patent Application Publication Hayhurst	133	Page 8 1my colleague Colette Woo from Lowenstein and 2Weatherwax on behalf of Patent Owner Security First. 3MR. ELLIOTT: Stephen Elliott with 4Sullivan and Cromwell LLP representing Security 5First Innovations. 6And with us also is off Avi Rubin who is 7an expert. He's submitted a declaration earlier in 8this case. 9MR. NIEBERG: Gregory Nieberg and 10Elizabeth Hunt from Wolf, Greenfield representing 11the Petitioner. 12 13THE REPORTER: I think that's everybody. 14Okay, Counsel. You're good to go. 15 16SAMRAT BHATTACHARJEE, 17called as a witness, having been 18sworn, was examined and testified 19as follows: 20 21EXAMINATION 22BY MR. LOWENSTEIN: 23Q. Good morning, Dr. Bhattacharjee. 24How are you? 25A. I'm well, thank you.
3EXHIBITS	DESCRIPTION	REFERENCED											
4Exhibit 1005	United States Patent Application Publication Tajima et al.	63											
7Exhibit 1006	United States Patent Application Publication Foster et al.	114											
10Exhibit 1007	United States Patent Application Publication Hayhurst	133											
Page 7 1AUGUST 9, 2024 28:01 A.M. (Pacific Time) 3*** 5THE REPORTER: Dr. Bhattacharjee, can 6you tell me the city and state you are currently 7located in. 8THE WITNESS: Silver Spring, Maryland. 9THE REPORTER: Okay. I am not at the 10same location as the witness. 11Does anyone have any objection to my 12administering the oath to the witness remotely? 13If you do, please would you so state 14now. 15MR. NIEBERG: No objections. 16THE REPORTER: Okay. Would you please 17raise your right hand, sir. 18Do you solemnly swear that the testimony 19you are about to give in this deposition will be the 20truth, the whole truth, and nothing but the truth 21under penalty of perjury? 22THE WITNESS: I do. 23THE REPORTER: Counsel, would you make 24your appearances for the record, please. 25MR. LOWENSTEIN: Nathan Lowenstein and	Page 9 1Q. I trust you've been deposed before? 2A. Yes. 3Q. Approximately how many times? 4A. Between 15 to 20 times. 5Q. Okay. Very good. 6So I assume you're quite familiar with 7the process, but just to be sure, let's try not to 8speak over one another so we get a clear record. 9I trust that will work for you? 10A. Yes. 11Q. Okay. And is it fair to say that you're 12aware that you're not permitted to discuss the 13content of this deposition with the attorneys who 14are defending the deposition during the course of 15the examination. 16Is that your understanding? 17A. Yes. 18MR. NIEBERG: Object to form. 19BY MR. LOWENSTEIN: 20Q. And do you have any lines of 21communication, broadly speaking, with any of the 22attorneys via chat, text messaging, anything like 23that that you have access to during the course of 24the deposition? 25A. No.												

3 (Pages 6 to 9)

1 Q. Okay. Very good.
 2 I trust you're quite familiar with the
 3 Foster reference?
 4 A. Yes.
 5 Q. And did you have an opportunity to
 6 review it in anticipation of your deposition?
 7 A. I have looked at it.
 8 Q. Okay. And is it fair to say that Foster
 9 is attempting to synchronize encrypted content with
 10 the encryption key, in other words, synchronized --
 11 (Off-the-record discussion.)
 12 MR. LOWENSTEIN: Well, why don't we
 13 resolve -- go off the record and resolve the audio
 14 issues.
 15 (Off-the-record discussion.)
 16 BY MR. LOWENSTEIN:
 17 Q. So why don't I just re-ask the question.
 18 In relation to the Foster reference,
 19 would it be fair to say that Foster is concerned
 20 with attaching a title key to encrypted content for
 21 synchronized transmission to a recipient?
 22 MR. NIEBERG: Object to form.
 23 THE WITNESS: Is there a particular part
 24 of any of my specific declaration that you're
 25 referring to for this?

1 BY MR. LOWENSTEIN:
 2 Q. I'm just asking a basic question,
 3 Dr. Bhattacharjee.
 4 Can you answer the question?
 5 MR. NIEBERG: Object to form.
 6 THE WITNESS: Can I see the Foster
 7 reference?
 8 BY MR. LOWENSTEIN:
 9 Q. Sure. My colleague will put it in the
 10 chat.
 11 And perhaps I'll share my screen, as
 12 well.
 13 Can you see my screen?
 14 A. I can see your screen.
 15 Q. Okay. Okay. So you have the Foster
 16 reference in the chat, as well.
 17 You can see we're looking at Foster?
 18 MR. NIEBERG: Object to form.
 19 BY MR. LOWENSTEIN:
 20 Q. Dr. Bhattacharjee, you can see we're
 21 looking at the Foster reference?
 22 A. I was pulling it up.
 23 Yes, we're looking at the Foster
 24 reference.
 25 Q. Okay. And so the question I asked you

1 was would you agree that Foster is concerned with
 2 attaching a title key to encrypted content for
 3 synchronized transmission to a recipient?
 4 MR. NIEBERG: Object to form.
 5 THE WITNESS: This is the second
 6 paragraph of Foster, and it says,
 7 "The present invention generally
 8 relates to a method system and
 9 program product for attaching a
 10 title key to encrypted content for
 11 synchronized transmission to a
 12 recipient" --
 13 BY MR. LOWENSTEIN:
 14 Q. I'm sorry. That wasn't my question.
 15 That wasn't my question. I didn't ask you
 16 specifically about the second paragraph of Foster.
 17 I'll ask you again.
 18 Would you agree that Foster is concerned
 19 with attaching a title key to encrypted content for
 20 synchronized transmission to a recipient. Yes or
 21 no?
 22 MR. NIEBERG: Object to form.
 23 THE WITNESS: Sorry. Can you ask me
 24 again?
 25 ///

1 BY MR. LOWENSTEIN:
 2 Q. For the third time would you agree that
 3 Foster is concerned with attaching a title key to
 4 encrypted content for synchronized transmission to a
 5 recipient?
 6 MR. NIEBERG: Object to form.
 7 THE WITNESS: I wouldn't agree with such
 8 a narrow characterization of Foster.
 9 As I said, this paragraph that you have
 10 specifically pointed me to says,
 11 "The present invention generally
 12 relates to a method system and
 13 program product for attaching a
 14 title key to encrypted content for
 15 synchronized transmission to a
 16 recipient."
 17 And then it goes on to say,
 18 "Specifically, a title key is used
 19 to encrypt content" -- "is itself
 20 encrypted and attached to the
 21 encrypted contents so both can be
 22 synchronously transmitted to the
 23 recipient."
 24 Q. Okay. I'm going to ask it again,
 25 because you don't seem to want to ask -- answer my

1 question.

2 Now, let's be clear. You understand
3 you're here to testify under oath, right?

4 A. You have to ask again. You went --

5 Q. You understand that you are here to
6 testify under oath, correct?

7 A. I understand that.

8 Q. And you understand that you are to
9 respond to my questions to the best of your ability
10 honestly, correct?

11 MR. NIEBERG: Object to form.

12 THE WITNESS: Yes, I understand that.

13 BY MR. LOWENSTEIN:

14 Q. Okay. And you understand you have to
15 answer the question that I ask you, not some
16 different question, correct?

17 MR. NIEBERG: Object to form.

18 THE WITNESS: You know, I would really
19 appreciate that if you ask the questions and let me
20 answer them instead of telling me what to answer.

21 BY MR. LOWENSTEIN:

22 Q. I asked you a question again. You
23 understand that you need to answer the questions
24 that I ask you, not a different question.

25 Yes or no?

1 characterization of Foster.

2 BY MR. LOWENSTEIN:

3 Q. So you think Foster is not concerned
4 with the synchronized transmission -- attaching a
5 title key to encrypted content for synchronized
6 transmission to a recipient?

7 MR. NIEBERG: Object to form.

8 THE WITNESS: The Foster invention
9 generally relates to a method system and program
10 product for attaching a title key to encrypted
11 content for synchronized transmission to a
12 recipient.

13 BY MR. LOWENSTEIN:

14 Q. Okay. Why does Foster wish to attach a
15 title key to encrypted content for synchronized
16 transmission?

17 MR. NIEBERG: Objection to form, scope.

18 MR. LOWENSTEIN: I'm sorry. What -- no,
19 no. That scope objection is inappropriate. Let's
20 not have that.

21 I can ask questions about Foster.

22 That's a reference, multiple combinations. Let's
23 not have that.

24 MR. NIEBERG: Counsel, you asked your
25 question.

1 MR. NIEBERG: Object to form.

2 THE WITNESS: I will answer the
3 questions I best can.

4 BY MR. LOWENSTEIN:

5 Q. You understand that you have to answer
6 the questions that I ask you.

7 Yes or no?

8 MR. NIEBERG: Object to form.

9 THE WITNESS: I answer the -- I listen
10 to your questions, I hear them and I answer them the
11 best I can.

12 BY MR. LOWENSTEIN:

13 Q. Okay. So, let's try again.

14 You would agree that Foster is concerned
15 with attaching a title key to encrypted content for
16 synchronized transmission to a recipient.

17 Yes or no?

18 MR. NIEBERG: Object to form.

19 THE WITNESS: The Foster reference says
20 that it generally relates to a method system and
21 program product for attaching a title key to
22 encrypted content for synchronized transmission to a
23 recipient.

24 And the way you have framed your
25 question I think is far too narrow a

1 (Indecipherable simultaneous
2 colloquy.)

3 MR. LOWENSTEIN: Let's not have
4 leading -- let's not have leading objections now. I
5 don't need you to respond.

6 MR. NIEBERG: Counsel --
7 (Indecipherable simultaneous
8 colloquy.)

9 MR. LOWENSTEIN: Held on a second,
10 Ms. Hubbard.

11 That's an improper objection. I did not
12 ask you to respond. I do not wish for you to
13 respond.

14 MR. NIEBERG: Are you asking me to
15 explain my objection?

16 MR. LOWENSTEIN: No.

17 MR. NIEBERG: Well, then you have to
18 basis --

19 (Indecipherable simultaneous
20 colloquy.)

21 MR. LOWENSTEIN: You are not supposed to
22 speak. Please conform your objections to objection,
23 form and not leading objections.

24 Thank you.

25 MR. NIEBERG: My objection stands.

1 BY MR. LOWENSTEIN:

2 Q. So let me ask the question again.
3 Why does Foster seek to attach a title
4 key to encrypted content for synchronized
5 transmission to a recipient?

6 MR. NIEBERG: Same objections.

7 THE WITNESS: I will start with Foster
8 paragraph three, which is background art.

9 Foster describes background art in
10 paragraphs four, five and six.

11 In paragraph four Foster says,
12 "In the transmission of digital
13 signals, content such as video and
14 audio data is often transmitted
15 from a signal source to a receiver.

16 In transmitting such content,
17 however, the security thereof must
18 be ensured. In general, security
19 of the content is providing" -- "is
20 provided by encrypting the content
21 with a key and then transmitting
22 the encrypted content to the
23 receiver. If compliant, the
24 receiver is able to receive and
25 decrypt the content. In securing

1 what you asked requires me to tell you the
2 background and the motivation that Foster gives for
3 the invention.

4 BY MR. LOWENSTEIN:

5 Q. Would you agree that one of the reasons
6 Foster seeks to synchronize transmission of the
7 title key to the encrypted content is to reduce
8 delay?

9 MR. NIEBERG: Object to form.

10 THE WITNESS: I'm sorry. But first, was
11 I allowed to answer the previous question? Or was
12 that withdrawn? Because my answer --

13 BY MR. LOWENSTEIN:

14 Q. It's not withdrawn. I've asked you a
15 new question.

16 A. But your -- okay. I guess --

17 Q. So answer my question please.

18 MR. NIEBERG: Object to form.

19 THE WITNESS: At this point there are
20 multiple questions outstanding.

21 BY MR. LOWENSTEIN:

22 Q. There's one question. Let me ask it
23 again.

24 Would you agree that one of the reasons
25 Foster seeks to synchronize transmission of the

1 the content in this manner" --

2 BY MR. LOWENSTEIN:

3 Q. Dr. Bhattacharjee, you're just reading
4 the paragraph.

5 Are you able to answer my question
6 without just reading the entirety of the background
7 art section?

8 MR. NIEBERG: Counsel, are you
9 withdrawing the question or are you going to let him
10 finish his answer?

11 MR. LOWENSTEIN: Excuse me. You're not
12 allowed to speak.

13 This is -- we're like five minutes into
14 the deposition. You've already had multiple
15 speaking objections. The only thing you're allowed
16 to say under the rules as you well know --

17 THE REPORTER: Counsel, you have to slow
18 down if you want a record. I can't go this fast.
19 (Off-the-record discussion.)

20 BY MR. LOWENSTEIN:

21 Q. Dr. Bhattacharjee, are you able to
22 answer my question without just reading four or five
23 paragraphs out loud from the patent?

24 MR. NIEBERG: Object to form.

25 THE WITNESS: The complete answer for

1 title key in the encrypted content is to reduce
2 delay?

3 MR. NIEBERG: Object to form.

4 THE WITNESS: Is there a specific part
5 of Foster or more precisely my --

6 BY MR. LOWENSTEIN:

7 Q. Do you know the answer to my question or
8 not?

9 MR. NIEBERG: Object to form.

10 THE WITNESS: We talked about not
11 talking over each other. And every time I try to
12 give an answer you've been cutting me off. So I
13 really don't know --

14 BY MR. LOWENSTEIN:

15 Q. Let me ask you a question,
16 Dr. Bhattacharjee.

17 Have you ever seen a trial?

18 MR. NIEBERG: Object to form.

19 BY MR. LOWENSTEIN:

20 Q. Have you ever seen a trial where a
21 lawyer asks a witness questions?

22 MR. NIEBERG: Object to form.

23 THE WITNESS: Yes.

24 MR. NIEBERG: Relevance.

25 ///

1 BY MR. LOWENSTEIN:
 2 Q. Are you familiar with --
 3 MR. LOWENSTEIN: Excuse me, Mr. Nieberg,
 4 you are not allowed to object relevance.
 5 MR. NIEBERG: Counsel, it is
 6 specifically listed --
 7 (Indecipherable simultaneous
 8 colloquy.)
 9 THE REPORTER: Counsel, we are off the
 10 record.
 11 (Off-the-record discussion.)
 12 BY MR. LOWENSTEIN:
 13 Q. Okay. I believe the question,
 14 Dr. Bhattacharjee --
 15 Well, let me ask you this. You're aware
 16 of the concept of cross-examination?
 17 MR. NIEBERG: Object to form.
 18 THE WITNESS: Wait. Is that something
 19 related to my declaration that you're asking me?
 20 BY MR. LOWENSTEIN:
 21 Q. Are you aware of the concept of
 22 cross-examination?
 23 MR. NIEBERG: Object to form.
 24 THE WITNESS: As I said, is this
 25 something related to any of my declarations that

1 you're asking?
 2 BY MR. LOWENSTEIN:
 3 Q. It's a very simple question.
 4 Are you aware of the concept of
 5 cross-examination or no?
 6 A. And I'm trying to understand, is this
 7 related to my declarations in this matter?
 8 Q. Yes.
 9 A. Okay.
 10 Q. I am here -- let me put it this way. I
 11 am here to cross-examine you.
 12 Do you understand that?
 13 A. Yes.
 14 Q. And so I'm asking you if you understand
 15 the basic process of cross-examination.
 16 MR. NIEBERG: Object to form.
 17 THE WITNESS: Look, I'm not a lawyer. I
 18 understand that you are going to ask me questions
 19 and I have to give the best and truthful answers to
 20 them.
 21 BY MR. LOWENSTEIN:
 22 Q. Okay. So you've no doubt seen a lawyer
 23 aggressively question a witness and expect the
 24 witness to answer his questions or her questions?
 25 You're familiar with that process?

1 Yes?
 2 MR. NIEBERG: Object to form.
 3 THE WITNESS: I don't know what you mean
 4 by "aggressively."
 5 BY MR. LOWENSTEIN:
 6 Q. You can't answer my question?
 7 A. Your question is ambiguous, and I cannot
 8 understand your question well enough to give a
 9 reasonably formed answer.
 10 Q. I'm sorry. You can't -- you're not
 11 familiar of a process wherein a lawyer aggressively
 12 questions a witness because you don't know what the
 13 word "aggressive" means?
 14 A. That is not what I said.
 15 MR. NIEBERG: Object to form.
 16 THE WITNESS: I would like for you to
 17 define what you mean by "aggressive."
 18 BY MR. LOWENSTEIN:
 19 Q. Okay. Would it be possible for someone
 20 reviewing this transcript right now to consider the
 21 possibility that you're not answering my questions
 22 with candor and in good faith?
 23 MR. NIEBERG: Object to form.
 24 THE WITNESS: You know, I can't make up
 25 other people's minds.

1 You have asked me a question about
 2 lawyers aggressively asking questions, and I simply
 3 asked you to define what you mean by "aggressive" or
 4 "aggressively."
 5 BY MR. LOWENSTEIN:
 6 Q. Have you seen cross-examination or not?
 7 MR. NIEBERG: Object to form.
 8 Relevance.
 9 THE WITNESS: I have seen
 10 cross-examinations.
 11 BY MR. LOWENSTEIN:
 12 Q. Okay. Do you understand that I am here
 13 to cross-examine you?
 14 A. I understand that.
 15 Q. Okay. And have you ever seen any
 16 cross-examination where a lawyer asks a question and
 17 the witness reads paragraph upon paragraph from a
 18 document that's not really responsive to the
 19 question?
 20 MR. NIEBERG: Object to form.
 21 THE WITNESS: I haven't had as much
 22 experience as you, but I have seen plenty of --
 23 BY MR. LOWENSTEIN:
 24 Q. If you're watching a cross-examination
 25 and you're watching a witness answer questions and

1 the witness said, "well, I don't know what
2 aggressively questioning means," would you find that
3 witness credible?

4 MR. NIEBERG: Object to form.

5 THE WITNESS: Yes, I would find them not
6 just credible, but logical, because the questions
7 have ambiguous components to them.

8 BY MR. LOWENSTEIN:

9 Q. Because you don't know what the word
10 "aggressively" means in the context of a lawyer
11 aggressively questioning a witness? You couldn't
12 possibly discern what that means?

13 MR. NIEBERG: Object to form, relevance.

14 THE WITNESS: I don't know what you mean
15 by "aggressive."

16 BY MR. LOWENSTEIN:

17 Q. Okay. Now let's get back the Foster.
18 Let me ask you another question. Would
19 you agree that an expert witness who claims that a
20 series of patents are invalid over a reference ought
21 to be able to answer basic questions about the
22 reference?

23 MR. NIEBERG: Object to form.

24 THE WITNESS: Depends upon what you mean
25 by "basic."

1 But if you ask a well formed question,
2 they should be given the opportunity to answer the
3 best they can.

4 BY MR. LOWENSTEIN:

5 Q. Do you believe an expert who claims that
6 a series of patents of invalid over a given
7 reference should be able to answer basic questions
8 about the reference?

9 MR. NIEBERG: Object to form.

10 THE WITNESS: It depends upon what you
11 mean by "basic."

12 But as I said, if a witness is asked a
13 question, they should be given the opportunity to
14 answer the best to their ability and -- yeah.

15 BY MR. LOWENSTEIN:

16 Q. Okay. So, the question I asked you was
17 is one of the reasons Foster is concerned with
18 attaching a title key to encrypted content for
19 synchronized transmission to a recipient that Foster
20 seeks to reduce delay?

21 MR. NIEBERG: Object to form.

22 THE WITNESS: Is there a particular part
23 of one of my declarations or a part of Foster that
24 you want to point to me to sort of tell me where
25 this question is coming from?

1 BY MR. LOWENSTEIN:

2 Q. It's coming from the Foster reference in
3 general.

4 You don't know the answer?

5 A. Foster is a reference that describes a
6 large system. And I would like ideally for you to
7 point me to a part where Foster is discussing this
8 particular concept, or I can read the Foster
9 reference and give you my answer.

10 Q. But just as we sit here right now, you
11 don't know one way or the other whether Foster seeks
12 to synchronize encrypted content with a title key,
13 and one of the reasons it seeks to do that is to
14 reduce delay?

15 MR. NIEBERG: Object to form.

16 THE WITNESS: As I said, Foster is a
17 reference that has -- that is describing a large
18 system. And if there is a specific part of Foster
19 that you think --

20 BY MR. LOWENSTEIN:

21 Q. That's not my question. You got to
22 answer my question.

23 You don't know one way or the other as
24 we sit here right now whether Foster synchronizes
25 transmission of encrypted content with a title key

1 to at least in part reduce delay?

2 MR. NIEBERG: Object to form.

3 THE WITNESS: Again, Foster gives many
4 reasons for doing this. If there is a particular
5 part of Foster you would like for me to --
6 BY MR. LOWENSTEIN:

7 Q. You don't know the answer to my
8 question?

9 A. I'm sorry. I didn't hear you.

10 Q. You don't know the answer to my
11 question?

12 A. I want to know --

13 MR. NIEBERG: Object to form.

14 THE WITNESS: -- the particular part of
15 Foster that you think is the basis for this
16 question, and then I will give you my answer.

17 BY MR. LOWENSTEIN:

18 Q. Well, let's look at paragraph six.

19 Do you see at the bottom of the
20 left-hand column it says,

21 "In sending separate key sets to
22 the receiver in this manner,
23 however, loss of synchronization
24 between the content and the keys is
25 risked. Moreover, both DRMS and

Page 30 1 CAS can have inherent latencies in 2 providing random access of 3 protected content." 4 Do you see that? 5 A. I see those sentences. 6 Q. And you see, for instance, that Foster 7 is referring to a problem in prior art systems 8 concerning inherent latencies in providing access of 9 protected content. 10 Is that fair to say? 11 A. Foster is describing that both DRMS and 12 CAS can have inherent latencies in providing random 13 access of protected content. 14 Q. And you would agree that DRMS and CAS 15 systems are prior art systems that Foster is seeking 16 to approve upon -- improve upon? 17 Yes or no? 18 MR. NIEBERG: Object to form. 19 THE WITNESS: Foster discusses DRMS and 20 CAS systems as part of is background art. 21 BY MR. LOWENSTEIN: 22 Q. That wasn't my question. 23 You would agree that Foster is seeking 24 to improve upon DRMS and CAS systems. 25 Yes or no?	Page 32 1 key to encrypted content for 2 synchronized transmission to, or 3 storage by, a receiver." 4 Q. Now, you see at the bottom it says, 5 "Synchronous transmission" -- 6 "Synchronous transmission to, and 7 storage by, a receiver fosters 8 random access to the content." 9 Do you see that? 10 A. It says, 11 "In addition, synchronous 12 transmission to, and storage by, a 13 receiver fosters random access to 14 the content." 15 Q. Okay. Why does synchronous transmission 16 of encrypted content of the key foster random access 17 to the content? 18 A. The -- sorry. Can you ask me the 19 question again. 20 Q. Why does synchronous transmission to a 21 receiver foster random access to content? 22 A. That is sort of the whole invention in 23 Foster. 24 I don't know how long an answer you 25 want, but I have summarized Foster in my
Page 31 1 MR. NIEBERG: Object to form. 2 THE WITNESS: Foster discusses DRMS and 3 CAS systems as part of is background art. 4 BY MR. LOWENSTEIN: 5 Q. Is Foster seeking to improve upon DRMS 6 and CAS systems? 7 MR. NIEBERG: Object to form. 8 THE WITNESS: Foster discusses DRMS and 9 CAS sometimes as part of its background art. And it 10 is trying to improve upon DRMS and CAS systems. 11 BY MR. LOWENSTEIN: 12 Q. Thank you. 13 And you see that in paragraph seven 14 Foster tells us that, 15 "There exists a need for a method, 16 system and program product for 17 attaching a key to encrypted 18 consent for synchronized 19 transmission to, or storage by a 20 receiver." 21 Do you see that? 22 A. I see that Foster says that, 23 "In view of the foregoing, there 24 exists a need for a method, system 25 and program product for attaching a	Page 33 1 declarations or I've given a -- well, I've given a 2 summary of Foster in my declaration. We can go to 3 that. 4 But, you know, I don't know that there 5 is a -- again, if I try to give a complete answer, I 6 expect we'll go, you know -- I don't know what. 7 So, this is the invention in Foster that 8 enables -- well, this is part of the invention of 9 the Foster system in that the synchronous 10 transmission to, and storage by, a receiver fosters 11 random access to the content. 12 Q. Why or how? 13 MR. NIEBERG: Object to form. 14 THE WITNESS: I would literally have to 15 go through the process in Foster. 16 Would you like for me to do that? 17 BY MR. LOWENSTEIN: 18 Q. Let me ask you this. What does random 19 access to the content refer to? 20 A. Random access to the content refers to 21 the receiver having the content and being able to 22 play parts of it from -- not necessarily 23 sequentially from the beginning to the end. 24 Q. It could also refer to, for example, if 25 you change the channel and whether you can, you

9 (Pages 30 to 33)

1 know, receive or view the image and audio or hear
2 the audio from the new channel?

3 MR. NIEBERG: Object to form.

4 THE WITNESS: I don't -- you would have
5 to point me to where in Foster you are considering
6 this.

7 But in general, Foster is not just about
8 streaming media, but --

9 Okay. So, can you ask me the question
10 again?

11 BY MR. LOWENSTEIN:

12 Q. So, for example, if you look at
13 paragraph 56, Foster refers to a delay that can be
14 incurred when encrypted content is received and when
15 it is accessed and provides an example of when a
16 channel is changed and when an image is displayed.

17 Do you see that in paragraph 56?

18 A. I see that. I need to read the context
19 for paragraph 56.

20 Q. Would you agree that in paragraph 56
21 this is a reference to or at least an example of
22 random access to content?

23 MR. NIEBERG: Object to form.

24 THE WITNESS: As I said, I need to read
25 the context for paragraph 56 before I can answer the

1 prior to, the encrypted content.

2 When this condition is not met, a
3 delay could be incurred between
4 when encrypted content is received
5 and when it is accessed. For
6 example, between when a channel is
7 changed and when an image is
8 displayed."

9 It's -- that's what it says.

10 Q. You didn't answer my question.

11 Do you need to hear the question again?

12 A. You can ask the question again.

13 Q. Is -- when Foster says -- provides this
14 example, a channel being changed and an image being
15 displayed or not, is that an instance of random
16 access to content?

17 MR. NIEBERG: Object to form.

18 THE WITNESS: I wouldn't want to
19 characterize paragraph 56 beyond what it says.

20 BY MR. LOWENSTEIN:

21 Q. Forget paragraph 56.

22 I'm asking you whether when someone
23 changes -- the recipient changes the channel, they
24 want to watch HBO, is that an instance of random
25 access to content?

1 question.

2 BY MR. LOWENSTEIN:

3 Q. You don't know whether changing a
4 channel, whether you can view the image is an
5 instance of random access to content?

6 MR. NIEBERG: Object to form.

7 THE WITNESS: I need to read the context
8 for this paragraph before I can answer the question.

9 BY MR. LOWENSTEIN:

10 Q. What do you need to read?

11 A. The context for this paragraph.

12 Q. What would you like me to show you?

13 A. You gave me the document. I'm looking
14 at it.

15 But if you want me to tell you which
16 paragraph --

17 Q. Oh, please.

18 A. Sorry. What did we decide?

19 Q. You can read whatever it is you need to
20 read to answer this seemingly simple question?

21 A. Paragraph 56 literally says,
22 "As indicated above because the KMB
23 is necessary to access encrypted
24 content, the KMB should be
25 delivered synchronously with, or

1 MR. NIEBERG: Object to form.

2 THE WITNESS: It depends. It could
3 be -- I mean I would have to have more detail as to
4 what's going on.

5 BY MR. LOWENSTEIN:

6 Q. What detail is lacking?

7 A. Sorry. Is there a question here?

8 Q. What detail is lacking?

9 A. Well, I need to know what system you're
10 thinking of.

11 Q. So let's -- let's imagine that the
12 recipient system is a set top box.

13 Okay?

14 And the recipient wants to change the
15 channel from ABC to HBO.

16 Okay?

17 Is that an instance of random access to
18 content?

19 MR. NIEBERG: Object to form.

20 THE WITNESS: It could be. It could not
21 be. It depends on the system.

22 BY MR. LOWENSTEIN:

23 Q. Okay. What does it depend upon in
24 Foster's system?

25 MR. NIEBERG: Object to form.

1 THE WITNESS: The -- well, I mean I
2 think I would need a little bit more detail as to
3 the -- basically what the set top box is -- what it
4 has already, what it has cached and so on. Whether
5 the transmission is synchronous in the sense that --

6 So, it's possible, for instance, in
7 Foster's system that -- at least I wouldn't rule it
8 out that when I so-call change channel, I'm just
9 changing to something that was already transmitted
10 and cached.

11 Again, the idea of random access is that
12 I'm randomly accessing within the -- within a piece
13 of data.

14 Now, it is entirely possible that when I
15 change the channel, it will be from the beginning.

16 Now, would that be considered random
17 access? Potentially. But maybe not. So.

18 BY MR. LOWENSTEIN:

19 Q. Okay. Let's provide more information.

20 You're watching ABC. You see that
21 "Austin Powers" is on and it's 45 minutes into the
22 movie on HBO so you change the channel to HBO.

23 Would that be an instance of random
24 access to content?

25 MR. NIEBERG: Object to form.

1 to content?

2 MR. NIEBERG: Object to form.

3 THE WITNESS: I think the sentence
4 itself is answering your question. But I will read
5 it for you.

6 "Because delivery of keys and
7 protected content are
8 non-synchronized in a CAS, certain
9 latencies such as delays are
10 inherent in attempting to gain
11 random access to the content."

12 BY MR. LOWENSTEIN:

13 Q. So, for example, when the transmission
14 of the key and content are not synchronized, you may
15 have content but not the key, and therefore, we
16 can't access the encrypted content, correct?

17 MR. NIEBERG: Object to form.

18 THE WITNESS: It says,

19 "Because the delivery of keys and
20 protected content are
21 non-synchronized in a CAS, certain
22 latencies such as delays are
23 inherent in attempting to gain
24 random access to the content.

25 ///

1 THE WITNESS: It could be. You know,
2 it's not clear to me one way or the other.

3 BY MR. LOWENSTEIN:

4 Q. Why is it not clear to you one way or
5 the other?

6 A. Because there are very many variables
7 here. And as I said, I would have to think about
8 this hypothetical that you have given me to sort
9 of -- whether that would be random access or not.

10 Q. Okay. So I'm going to ask you a
11 question about paragraph 52 in Foster.

12 And you see at the bottom of the
13 left-hand column, it says,

14 "Moreover, because delivery of keys
15 and protected content are
16 non-synchronized in CAS, certain
17 latencies such as delays are
18 inherent in attempting to gain
19 random access to the content."

20 Do you see that sentence?

21 A. I see that sentence.

22 Q. Why is it that because delivery of the
23 keys and protected content are non-synchronous in
24 CAS, that there are certain latencies such as
25 inherent delays in attempting to gain random access

1 BY MR. LOWENSTEIN:

2 Q. Okay. And that's because the recipient
3 hasn't received the key with the encrypted content,
4 correct?

5 MR. NIEBERG: Object to form.

6 THE WITNESS: Because the delivery of
7 keys and protected content are non-synchronized in a
8 CAS.

9 BY MR. LOWENSTEIN:

10 Q. And CAS is a cable conditional access
11 system; is that correct?

12 A. A CAS is a conditional access system.

13 Q. Such as cable or satellite, correct?

14 A. Such as a cable or satellite or
15 television system.

16 Q. And you would agree that Foster sees the
17 delays in the traditional CAS system as undesirable,
18 correct?

19 MR. NIEBERG: Object to form.

20 THE WITNESS: Foster was solving many
21 problems. And one of the problems it's addressing
22 is the non-synchronization -- is the loss of
23 synchronization between content and the keys that
24 can be risked in non-synchronized systems.

25 ///

1 BY MR. LOWENSTEIN:
 2 Q. You didn't answer my question.
 3 Foster views the delay resulting from
 4 the non-synchronous transmission of the key with the
 5 encrypted content as undesirable, correct?
 6 MR. NIEBERG: Object to form.
 7 THE WITNESS: Is there a particular part
 8 of Foster you would like for me to look at?
 9 BY MR. LOWENSTEIN:
 10 Q. How about the one we just looked at.
 11 MR. NIEBERG: Object to form.
 12 THE WITNESS: I wouldn't want to
 13 characterize Foster beyond what it says.
 14 BY MR. LOWENSTEIN:
 15 Q. Do you know the answer to the question?
 16 MR. NIEBERG: Object to form.
 17 THE WITNESS: As I said, Foster says
 18 that in --
 19 "Because the delivery of keys and
 20 protected content are
 21 non-synchronized in a CAS, certain
 22 latencies such as delays are
 23 inherent in attempting to gain
 24 random access to the content."
 25 ///

1 THE WITNESS: Foster says,
 2 "Because of delivery of keys and
 3 protected content are
 4 non-synchronized in a CAS, certain
 5 latencies such as delays are
 6 inherent in attempting to gain
 7 random access to the content."
 8 BY MR. LOWENSTEIN:
 9 Q. You have not formed an opinion one way
 10 or the other on whether Foster considers the delays
 11 resulting from the non-synchronous transmission of
 12 encrypted content and keys as undesirable, correct?
 13 MR. NIEBERG: Object to form.
 14 THE WITNESS: Can you point me to a part
 15 of my declaration where I have given such an
 16 opinion?
 17 BY MR. LOWENSTEIN:
 18 Q. I'm just asking as you sit here today,
 19 have you formed any opinion one way or the other on
 20 whether Foster considers the delays resulting from
 21 the non-synchronous transmission of encrypted
 22 content and keys as undesirable?
 23 A. Sitting here --
 24 MR. NIEBERG: Object to form.
 25 THE WITNESS: -- today, my opinion is

1 BY MR. LOWENSTEIN:
 2 Q. Does Foster view those delays as
 3 undesirable?
 4 MR. NIEBERG: Object to form.
 5 THE WITNESS: So if there's a specific
 6 part of Foster where you think --
 7 BY MR. LOWENSTEIN:
 8 Q. Does Foster view delays as undesirable?
 9 Yes or no?
 10 MR. NIEBERG: Object to form.
 11 THE WITNESS: I do not want to
 12 characterize Foster beyond what --
 13 BY MR. LOWENSTEIN:
 14 Q. I don't care what you want to do. I
 15 want you to answer my question.
 16 Are you unable to answer my question?
 17 A. You are asking me to characterize a
 18 reference without giving me a specific sort of part
 19 where it says what do you want me to say. So beyond
 20 that --
 21 Q. So you don't know one way or the other
 22 whether Foster considers the delays resulting from
 23 the non-synchronous transmission of the encrypted
 24 content and the keys is undesirable, correct?
 25 MR. NIEBERG: Object to form.

1 Foster says because delivery of keys and protected
 2 content are non-synchronized in a CAS, certain
 3 latencies such as delays are inherent in attempting
 4 to gain access -- random access to the content.
 5 BY MR. LOWENSTEIN:
 6 Q. And are those inherent delays desirable
 7 or no?
 8 MR. NIEBERG: Object to form.
 9 BY MR. LOWENSTEIN:
 10 Q. Let me ask you this way. Let me ask you
 11 this way.
 12 Do you believe that Foster is trying to
 13 resolve the issue of inherent delays resulting from
 14 the non-synchronous transmission of encrypted
 15 content and keys?
 16 MR. NIEBERG: Object to form.
 17 THE WITNESS: Sorry. Can you ask me
 18 that question again?
 19 BY MR. LOWENSTEIN:
 20 Q. Do you believe that Foster is attempting
 21 to address the problem of the delays resulting from
 22 the non-synchronous transmission of encrypted
 23 content and keys in conditional access systems?
 24 MR. NIEBERG: Objection. Form.
 25 THE WITNESS: Foster describes systems

Page 46 1 with non-synchronous transmission and then describes 2 a system for synchronized transmission to, or 3 storage by, a receiver. 4 BY MR. LOWENSTEIN: 5 Q. And is it trying to address the problem 6 of delays resulting from the non-synchronous 7 transmission of encrypted content and keys? 8 MR. NIEBERG: Object to form. 9 THE WITNESS: Foster addresses many 10 problems and -- 11 BY MR. LOWENSTEIN: 12 Q. I'm asking if it's addressing that 13 problem. 14 MR. NIEBERG: Object to form. 15 THE WITNESS: Foster is generally 16 addressing problems with systems that use 17 non-synchronized transmission. 18 BY MR. LOWENSTEIN: 19 Q. Including delays, correct? 20 A. Again, if there's a specific part of 21 Foster you would like for me to look at where it 22 says it's addressing the delay problem, I will be 23 happy to. 24 But beyond that, Foster says, 25 "In view of the foregoing, there	Page 48 1 prevents the synchronization 2 problems associated with previous 3 systems but also provides random 4 access of content." 5 Q. So you agree that Foster believes there 6 were synchronization problems with the previous 7 systems, correct? 8 A. It says, 9 "Foster's system prevents the 10 synchronization problems associated 11 with previous systems." 12 Q. I'm asking whether you agree with that. 13 Do you agree that Foster believes there 14 were synchronization problems with the previous 15 systems, correct? 16 MR. NIEBERG: Object to form. 17 THE WITNESS: Foster says that -- 18 BY MR. LOWENSTEIN: 19 Q. I'm not asking you what Foster says. 20 I'm asking you if you agree that Foster 21 believes there were synchronization problems 22 associated with previous systems. 23 A. Foster literally says this not only -- 24 BY MR. LOWENSTEIN: 25 Q. The answers yes, yes?
Page 47 1 exists a need for a method, system 2 and program product for attaching a 3 key to encrypted content for 4 synchronized transmission to, or 5 storage by, a receiver." 6 Q. I'm going to direct you to paragraph 64. 7 And you see it says, 8 "Thus a recipient will receive or 9 store encrypted content along with 10 all information necessary to 11 decrypt the content. This not only 12 prevents the synchronization 13 problems associated with previous 14 systems, but also provides random 15 access of content." 16 Do you see that? 17 A. I see those sentences. 18 Q. And so you would agree that at least in 19 Foster's view there was synchronization problems in 20 the prior art systems, correct? 21 A. Foster says that, 22 "A recipient will receive or store 23 encrypted content along with all 24 information necessary to decrypt 25 the content. This not only	Page 49 1 (Indecipherable simultaneous 2 colloquy.) 3 BY MR. LOWENSTEIN: 4 Q. The answer's yes, right? 5 MR. NIEBERG: Object to form. 6 THE WITNESS: I'm not going to 7 characterize Foster beyond anything it says. 8 It says, 9 "This not only prevents the 10 synchronization problems associated 11 with previous systems, but also 12 provides random access of content." 13 BY MR. LOWENSTEIN: 14 Q. Why does synchronization allow for 15 random access of content? 16 MR. NIEBERG: Object to form. 17 THE WITNESS: Foster says, 18 "Thus, the recipient will receive 19 or store encrypted content along 20 with all information necessary to 21 decrypt the content. This not only 22 prevents a synchronization problem, 23 but also provides random access to 24 content." 25 ///

13 (Pages 46 to 49)

1 BY MR. LOWENSTEIN:

2 Q. Why?

3 A. It's -- because, as Foster says, a
4 recipient will receive or store encrypted content
5 along with all information necessary to decrypt the
6 content.

7 Q. And so you could -- it logically follows
8 if you don't have the key -- if you don't have
9 synchronized transmission of the key and the
10 encrypted content, then you may have trouble
11 randomly accessing content, correct?

12 MR. NIEBERG: Object to form.

13 THE WITNESS: It again depends on the
14 system and how the random access is done.

15 BY MR. LOWENSTEIN:

16 Q. I want you to imagine you're having a
17 conversation with a person of ordinary in the art
18 who has read Foster. And imagine that person said
19 to you "Foster is seeking to address a problem in
20 prior art systems where the encrypted content and
21 the key are not sent in a synchronized fashion."

22 Would that be a reasonable statement?

23 MR. NIEBERG: Object to form.

24 THE WITNESS: Can you ask me that
25 question again?

1 the encrypted content and the key are not
2 transmitted in a synchronous fashion to the
3 recipient."

4 Would that be a reasonable statement or
5 not?

6 MR. NIEBERG: Object to form.

7 THE WITNESS: As I said, Foster solves
8 many problems and -- yeah. There -- Foster as a
9 system has many contributions.

10 BY MR. LOWENSTEIN:

11 Q. Would that be a reasonable statement or
12 not?

13 MR. NIEBERG: Object to form.

14 THE WITNESS: Again it depends upon what
15 you mean by "reasonable."

16 BY MR. LOWENSTEIN:

17 Q. Do you consider that to be a reasonable
18 statement or not?

19 MR. NIEBERG: Object to form.

20 THE WITNESS: My answer is Foster solves
21 many problems with prior art systems.

22 BY MR. LOWENSTEIN:

23 Q. And you would agree that one of those
24 problems is the problem of the non-synchronous
25 transmission of the encrypted content and the key,

1 BY MR. LOWENSTEIN:

2 Q. I want you to imagine that a person of
3 ordinary skill in the art has read Foster and says
4 to you "Foster is seeking to address a certain
5 problem in certain prior art systems resulting from
6 the non-synchronous transmission of encrypted
7 content with the key.

8 Would that be a reasonable statement or
9 not?

10 MR. NIEBERG: Object to form.

11 THE WITNESS: I wouldn't characterize
12 Foster so narrowly.

13 BY MR. LOWENSTEIN:

14 Q. I asked you whether that was a
15 reasonable statement or not.

16 MR. NIEBERG: Object to form.

17 THE WITNESS: I don't know what you mean
18 by "reasonable."

19 Foster was solving many problems and its
20 contributions as an entire system.

21 BY MR. LOWENSTEIN:

22 Q. Okay. So a person of ordinary skill in
23 the art says to you "I've just read Foster,
24 Dr. Bhattacharjee, and I think Foster is trying to
25 address a problem in certain prior art systems where

1 correct?

2 A. That may or may not be a problem. But
3 Foster does discuss loss of synchronization between
4 content and keys as part of its background art.

5 Q. I don't know what you mean "that may or
6 may not be a problem."

7 Surely you understand that Foster
8 considers that to have been a problem, correct?

9 MR. NIEBERG: Object to form.

10 THE WITNESS: It depends.

11 BY MR. LOWENSTEIN:

12 Q. Foster is seeking to address that
13 problem, correct?

14 MR. NIEBERG: Object to form.

15 THE WITNESS: Foster says,
16 "In sending separate keys" -- "in
17 sending separate key sets to the
18 receiver in this manner, however,
19 loss of synchronization between
20 content and the keys is risked."

21 BY MR. LOWENSTEIN:

22 Q. So therefore, Foster considers that to
23 be a problem, yes?

24 A. It's a risk. It may or may not be a
25 problem.

1 Q. What is an elementary stream of content?

2 A. Is there a part of Foster or my
3 declaration that you want me to look at?

4 Q. It arises in the context of Figure 8?

5 A. In the context of Figure 8, Foster says,
6 "As depicted, an elementary content
7 stream 100 comprising of compressed
8 content is parceled into content
9 units 102. Each content unit
10 includes a header 104 and a content
11 packet 106. Header 104 includes
12 information helpful in identifying
13 content, such as a timestamp, type
14 of content, video, audio or other.
15 Header 104 is especially useful,
16 for example, in synchronizing sound
17 data with video data."

18 BY MR. LOWENSTEIN:

19 Q. That wasn't my question.

20 My question is what is an elementary
21 content stream.

22 A. Oh. As I said, Foster says,
23 "An elementary content stream
24 comprising of content" -- "of
25 compressed content is parceled into

1 packet 106 is encrypted with title
2 key 108 to yield encrypted content
3 packet 104, then key encrypting key
4 110 is used to encrypt title key,
5 which is then attached to content
6 packet 106 along with header 104."

7 Q. What information is included in the
8 header 104?

9 A. Foster says --

10 MR. NIEBERG: Form.

11 THE WITNESS: -- "Header 104 includes
12 information helpful in identifying
13 the content such as a timestamp,
14 type of content: Video, audio or
15 other."

16 BY MR. LOWENSTEIN:

17 Q. Aside from the header, the payload,
18 encryption key and the key encryption key, does
19 Foster send anything else to the requesting
20 subscriber?

21 MR. NIEBERG: Object to form.

22 THE WITNESS: It may. I mean it
23 certainly may, yes.

24 BY MR. LOWENSTEIN:

25 Q. Is there a disclosure of any other

1 content units 102."

2 Q. So you said what happens to it.

3 But I'm asking you what is a elementary
4 content stream?

5 A. An elementary content stream comprising
6 of compressed content is parceled into content units
7 102 in context of Figure 8.

8 Q. So, would you agree that Foster parcels
9 an elementary content stream into content units?

10 A. Foster says,
11 "As depicted, an elementary content
12 stream 100 comprising of compressed
13 content is parceled into content
14 units 102."

15 Q. And you would agree that the content
16 units include a header and a payload?

17 A. Each content in it includes a content
18 header and a content packet.

19 Q. And you agree that later the -- a key is
20 added to the content unit?

21 MR. NIEBERG: Object to form.

22 THE WITNESS: Foster says,
23 "Once parceled, header 104 of each
24 content unit 102 is parsed from
25 content packet 106 and content

1 information that is transmitted from Foster's system
2 to the requesting subscriber?

3 A. Can you ask the question again.

4 Q. Yes. Aside from the content unit,
5 including the header, the payload and the encryption
6 key and the key encryption key, is there anything
7 else that Foster discloses sending to the requesting
8 subscriber?

9 MR. NIEBERG: Object to form.

10 THE WITNESS: I'd have to look through
11 Foster to answer such a broad question, frankly.
12 I'm not prepared to say one way or the other.

13 BY MR. LOWENSTEIN:

14 Q. As you sit here today, though, you don't
15 recall anything that Foster discloses sending to a
16 recipient aside from the content unit, including the
17 header, the payload and the key and the key
18 encryption key to the recipient, correct?

19 MR. NIEBERG: Object to form.

20 THE WITNESS: I'd have to look through
21 Foster much more carefully to find, you know,
22 something explicit that you may be asking for.
23 Because obviously the header has header extensions
24 with a lot of metadata that Foster talks about
25 and -- yeah.

1 I mean one of ordinary skill would
2 understand that systems such as these will always
3 have other information which may not be necessary to
4 demonstrate the overall schematic of how the system
5 works, but certainly there will be other information
6 that would in some cases be necessary, but in many
7 cases will often be included when such -- when
8 content is packetized and/or parceled for
9 transmission and storage.

10 MR. LOWENSTEIN: Let's take a break.
11 We'll be back if ten minutes.
12 Off the record, please.
13 (Brief recess.)

14 BY MR. LOWENSTEIN:

15 Q. Dr. Bhattacharjee, can you see that
16 we're looking at Figure 16 of Foster?

17 A. Yes, I see that.

18 Q. And you would see element 430, that's
19 the recipient, correct?

20 A. I believe that's correct.

21 Q. I'm sorry. Say again?

22 A. I believe that's correct.

23 Q. Okay. And is computer system 400
24 coupled to recipient 430?

25 MR. NIEBERG: Object to form.

1 coupled to recipient 430?

2 MR. NIEBERG: Object to form.

3 THE WITNESS: The recipient 430 is
4 something that computer system 400 transmits
5 processed computer -- content units to.

6 BY MR. LOWENSTEIN:

7 Q. So is computer system 400 coupled to
8 recipient 430 or not?

9 MR. NIEBERG: Object to form.

10 THE WITNESS: I'm saying it depends on
11 the context of how you're using the word "coupled."

12 BY MR. LOWENSTEIN:

13 Q. What do you understand "coupled" to
14 you -- to mean?

15 A. It's a very broad term. It can -- its
16 meaning will depend upon the context in which we use
17 it.

18 Q. How about in the context of Foster's
19 system?

20 A. Does -- I mean is there a place where
21 Foster uses the word "coupled" with respect to this
22 figure?

23 Q. Have you formed an opinion as to whether
24 a computer system 400 or anything in computer system
25 400 is coupled to recipient 430 or anything in

1 THE WITNESS: Is there a particular line
2 in Foster you want me to look at where it uses the
3 word "coupled"?

4 BY MR. LOWENSTEIN:

5 Q. I'm just asking have you formed an
6 opinion as to whether computer system 400 is coupled
7 to recipient 430.

8 MR. NIEBERG: Object to form.

9 THE WITNESS: Recipient 430 as explained
10 in paragraph 78 -- where paragraph 78 starts by
11 saying,

12 "It should be understood that
13 computer system 400 is intended to
14 be representative of any system
15 capable of processing content units
16 of an elementary content stream
17 received from source 428 and
18 transmitting the processed content
19 units to a recipient 430."

20 Q. So is computer system 400 coupled to
21 recipient 430?

22 A. System 400 is able to transmit the
23 processed content units to recipient 430.

24 Q. That wasn't my question.

25 Is recipient -- is computer system 400

1 recipient 430?

2 A. Can you point me to a specific part of
3 my reports or at least one of them where I have said
4 that?

5 Q. Can you as you sit here right now one
6 way or the other tell me whether computer system 400
7 or anything in computer system 400 is coupled in any
8 way to recipient 430?

9 MR. NIEBERG: Object to form.

10 THE WITNESS: Again, it depends on the
11 context and how we're using the word "coupled" and
12 with respect to how we're using that word and so on.

13 And so if it's an opinion that you think
14 I have given, then, you know, please point me to my
15 declaration.

16 BY MR. LOWENSTEIN:

17 Q. Now, Foster's system is sending, as we
18 discussed, content units to recipients, correct?

19 A. Foster's system is broad. It is
20 sending -- it can send any type of data. And in
21 some cases I think those are referred to as content
22 units.

23 Q. And the recipient can be something like
24 a set top box, correct?

25 A. There are -- again a recipient is

Page 62 1 defined in Foster, I believe. Let me look. 2 A recipient in Foster is any entity such 3 as a content service provider or a receiver capable 4 of receiving transmissions. 5 Q. Let's -- let's take the instance where 6 recipient 430 is a set top box. 7 Would you consider the processor in 8 Foster's system to be coupled to a recipient set top 9 box? 10 MR. NIEBERG: Object to form. 11 THE WITNESS: Again it depends upon how 12 we are using that word and in what context. 13 The recipient is an entity or any entity 14 capable of receiving transmissions. 15 BY MR. LOWENSTEIN: 16 Q. Is it your opinion that Foster's 17 processor would be coupled to a recipient set top 18 box in Foster's system? 19 MR. NIEBERG: Object to form. 20 THE WITNESS: Sorry. What is Foster's 21 processor? 22 BY MR. LOWENSTEIN: 23 Q. For example, CPU 406. 24 A. It depends on the context of how we're 25 using this word "coupled."	Page 64 1 claims, what does "coupled to" mean? 2 A. Can I take a look at my analysis of this 3 claim element from my '609 declaration? 4 Q. Sure. Do you have a copy of your 5 declaration? 6 A. I have paper copies of my declarations 7 that are unmarked. 8 Q. Do you want me to display it? 9 A. Ideally if you would put it in the chat, 10 I can open it up and look through it. 11 Q. I believe it's in the chat now. 12 A. Yeah. I'm downloading it. 13 (Whereupon the document previously 14 marked as Exhibit 1003 was 15 referenced and is attached 16 hereto.) 17 BY MR. LOWENSTEIN: 18 Q. Dr. Bhattacharjee, have you concluded 19 your review of your declaration? 20 A. No. I'm still looking. 21 Q. Perhaps if you'd like, we can look at 22 paragraph 204 of your declaration, which I've -- 23 your declaration from the 214 IPR, I should say. If 24 that would move things along. 25 A. Sorry. Can you ask me the question
Page 63 1 But in general, the recipient is any 2 entity, such as a content service provider or a 3 receiver capable of receiving transmissions. 4 Q. How about as that term is used in the 5 '854 patent, "coupled to" -- sorry -- '609? 6 A. Okay. 7 MR. NIEBERG: Object to form. 8 (Whereupon the document previously 9 marked as Exhibit 1001 was 10 referenced and is attached 11 hereto.) 12 THE WITNESS: So, I would like to see my 13 declaration and the specific either claim or part of 14 the specification where that is used. 15 (Whereupon the document previously 16 marked as Exhibit 1005 was 17 referenced and is attached 18 hereto.) 19 BY MR. LOWENSTEIN: 20 Q. So, I'm showing you claims of -- I 21 apologize. 22 So I'm showing you the claims of the 23 '609 patent. And see the claim requires storing in 24 the memory coupled to the processor. 25 And my question is in the context of the	Page 65 1 again? 2 Q. I think the question was what do you 3 understand "coupled to" to mean in the context of 4 the '609 patent claims. 5 A. As I've discussed above and as it says 6 in paragraph 204, 7 "A person of ordinary skill 8 understood the '609 patent uses 9 'coupled to' broadly include a 10 connection using any communication 11 interface that allows two 12 components to exchange 13 information." 14 Q. Sir, Doctor, do you believe that 15 recipient 430 is coupled to Foster's computer system 16 or anything in Foster's computer system? 17 A. In the context of Foster's Figure 16, 18 "Each processed content unit 116 is 19 stored on a receiver at receipt 20 430. That receiver is a storage 21 device; for example, a consumer set 22 top box, with memory, for example, 23 a hard disk. As illustrated in 24 Figure 16 recipient 430 and its 25 memory is in communication with CPU

17 (Pages 62 to 65)

406; i.e., the processor, via transmission system 424 and bus 410. Thus, the memory in recipient 430's storage device is coupled to Foster's CPU, the processor. That memory in storage device 430 and Foster's processor are also coupled to each other under the claim scope that the Patent Owner attributes to 1F in related district court litigation."

Q. Now, I want to put aside whatever you believe the Patent Owner -- however the Patent Owner might interpret the limitation. I just want to focus on your understanding of the limitation.

And so in your example in this paragraph you're referring to the recipient as a set top box, right?

MR. NIEBERG: Object to form.

THE WITNESS: The --

BY MR. LOWENSTEIN:

Q. As we just saw, you're using an example of recipient 430 as a consumer set top box, correct?

A. In Foster, a recipient is any entity such as the contents of its provider or a receiver

is designed to service multiple customers.

BY MR. LOWENSTEIN:

Q. Hundreds of thousands or millions, correct?

MR. NIEBERG: Object to form.

THE WITNESS: Unless I see something which says exactly how many hundreds of thousands or millions, as I said, multiple is the best I can do.

BY MR. LOWENSTEIN:

Q. But a very large number of set top boxes, correct?

MR. NIEBERG: Object to form.

THE WITNESS: You know, I don't know what you mean by "very large."

BY MR. LOWENSTEIN:

Q. Thousands.

A. Again, you know, depends on the system and the deployment and so on. Cable systems are in general --

Q. You're familiar, for example, a Hayhurst system, that it refers to thousands of households, correct?

A. Can you show me the reference in Hayhurst?

MR. NIEBERG: Object to form.

capable of receiving transmissions.

Q. In your example you're identifying a consumer set top box. Yes?

A. In paragraph 205 I've given an example of a consumer set top box.

Q. Okay. And in a cable system that transmits to set top boxes, you would agree that there could be -- you know, Comcast could have millions of set top boxes, correct?

MR. NIEBERG: Object to form.

THE WITNESS: I mean I don't have numbers on how many set top boxes Comcast has or had in that time frame.

BY MR. LOWENSTEIN:

Q. All I'm asking you to acknowledge, which as I think anyone understands to be the case, is that you can have a cable system that services hundreds of thousands if not millions of subscribers, each with one or more set top boxes.

Is that fair to say?

MR. NIEBERG: Object to form.

THE WITNESS: I mean I don't know back then if there was an inherent limitation on the number of subscribers, but in general a cable system

BY MR. LOWENSTEIN:

Q. You don't know whether a Hayhurst system refers to thousands of households?

MR. NIEBERG: Object to form.

THE WITNESS: It may well do, I just want to see the reference --

BY MR. LOWENSTEIN:

Q. Do you know -- yes or no? Do you know whether Hayhurst system envisions thousands of households?

MR. NIEBERG: Object to form.

THE WITNESS: Hayhurst is a reference that describes a large system.

If there is a particular sentence you want me to consider, I will do that --

BY MR. LOWENSTEIN:

Q. As you sit here right now you don't know whether Hayhurst system contemplates thousands of households, correct?

MR. NIEBERG: Object to form.

THE WITNESS: As I said, it may do. I don't -- I would have to see Hayhurst to see what phrases they use.

BY MR. LOWENSTEIN:

Q. But just so I understand, in your view,

1 Foster's system can be coupled -- would be coupled
2 to each of the set top boxes serviced by that
3 system, correct?

4 MR. NIEBERG: Object to form.

5 THE WITNESS: One of ordinary skill
6 would understand that the '609 patent uses "coupled
7 to" broadly to include a connection using any
8 communication interface that allows two components
9 to exchange information.

10 And as illustrated in Foster's
11 Figure 16, each processed content unit 116 is stored
12 on a receiver at receipt 430 that receiver is a
13 storage device, for example, a consumer set top box
14 with memory as --

15 Q. You would -- in your view as you
16 understand the phrase "coupled to" in the
17 '609 patent, it's your view that Foster's system is
18 coupled to each of the set top boxes, however many
19 thousands there may be, serviced by the system,
20 correct?

21 MR. NIEBERG: Object to form.

22 THE WITNESS: The '609 patent uses
23 "coupled to" broadly to include a connection using
24 any communication interface that allows two
25 components to exchange information.

1 And in context of Figure 16, the
2 recipient 430 and its memory is in communication
3 with CPU 406 via a transmission system 424. Thus,
4 the memory in 430 storage device is coupled to
5 Foster's CPU.

6 BY MR. LOWENSTEIN:

7 Q. You didn't answer my question. I'll ask
8 it again.

9 Under your understanding of the term
10 "coupled to" in the '609 patent, in your view,
11 Foster's system is coupled to each of the set top
12 boxes serviced by the system no matter how many
13 thousands of set top boxes there may be, correct?

14 MR. NIEBERG: Object to form.

15 THE WITNESS: Is there a particular part
16 of Foster you want me to look at to answer this?

17 BY MR. LOWENSTEIN:

18 Q. So you believe that Foster's system is
19 coupled to some set top boxes but not others that
20 are serviced by its system?

21 MR. NIEBERG: Object to form.

22 THE WITNESS: Again this is a
23 hypothetical without a grounding that I can see in
24 Foster. In Foster --
25 ///

1 BY MR. LOWENSTEIN:

2 Q. You don't -- you don't believe there
3 needs to be any sort of physical connection between
4 the -- in other words, like a direct physical
5 connection between Foster's computer system and a
6 given set top box in order for the computer system
7 to be coupled to the set top box, correct?

8 A. I'm sorry. What do you mean by "direct
9 physical connection"?

10 Q. You would agree that Foster's system can
11 be coupled to set top boxes solely vis-a-vis the
12 internet, correct?

13 MR. NIEBERG: Object to form.

14 THE WITNESS: I didn't hear the last --

15 BY MR. LOWENSTEIN:

16 Q. Solely vis-à-vis the internet.

17 MR. NIEBERG: Same objection.

18 THE WITNESS: "Person of ordinary skills
19 "understood that the '609 patent
20 uses coupled to" broadly to include
21 a connection using any
22 communication interface that allows
23 two components to exchange
24 information."
25 For example, did you -- did you put the

1 '609 patent in the chat?

2 BY MR. LOWENSTEIN:

3 Q. Let me ask you a question. Would my
4 personal computer that I'm using right now, would it
5 be coupled to, for instance, Google's servers
6 because I can access Google.com and perform searches
7 vis-à-vis the internet?

8 MR. NIEBERG: Object to form.

9 THE WITNESS: It depends on the context
10 of how you're using "coupled to."

11 BY MR. LOWENSTEIN:

12 Q. In the context of the '609 patent
13 claims?

14 A. The '609 patent uses "coupled to"
15 broadly to include a connection using any
16 communication interface that allows two components
17 to exchange information.

18 Q. So would my personal computer be coupled
19 to Google servers as that term is used in the '609
20 patent?

21 MR. NIEBERG: Object to form.

22 THE WITNESS: It could be, yeah.

23 BY MR. LOWENSTEIN:

24 Q. In other words, insofar as my computer
25 has an internet connection -- and I believe you can

1 infer that my computer has internet connection due
2 to the fact that we're conducting a Zoom call; is
3 that fair to say?

4 A. Your sentences are cutting out. I'm
5 sorry.

6 Q. I think you can infer that my computer
7 has an internet connection given that we're
8 conducting a Zoom call, correct?

9 A. I think that's fair.

10 Q. Okay. And I think you can properly
11 infer that my computer has web browsers that can
12 access Google's servers.

13 Is that fair to say?

14 A. I don't know what's on your computer.

15 Q. I have -- I'll let you know that I have
16 web browsers that can contact almost any internet
17 domain there is, including Google. And because my
18 personal computer has a web browser that can access
19 Google.com, is my personal computer coupled to
20 Google's servers vis-à-vis -- per your understanding
21 of "coupled to" as it's used in the '609 patent?

22 MR. NIEBERG: Object to form.

23 THE WITNESS: The '609 patent uses
24 "coupled to" broadly to include a connection between
25 any communication interface that allows two

1 Let's shift to Hayhurst,
2 Dr. Bhattacharjee.

3 I trust you're familiar with the
4 Hayhurst reference?

5 A. I'm generally familiar with it.

6 Can I get a copy of Hayhurst?

7 Q. I'm sorry. I couldn't hear you. Say it
8 again?

9 A. Can I get a copy of Hayhurst, please?

10 Q. I believe it's in the chat box or it
11 should be arriving shortly. Let me know when you've
12 got it.

13 A. I have it. Also, I would like to take a
14 break sometime. But it doesn't have to be right now
15 but relatively soon.

16 Q. Now is probably a good time seeing as
17 we're about to shift to Hayhurst.

18 You want ten minutes?

19 A. Five minutes, ten minutes, anything is
20 fine.

21 Q. Okay. Let's get back in ten minutes.

22 (Brief recess.)

23 BY MR. LOWENSTEIN:

24 Q. Dr. Bhattacharjee, you can see we
25 have -- we're looking at Hayhurst.

1 components to exchange information.

2 BY MR. LOWENSTEIN:

3 Q. I need you to answer the question.

4 A. That is the answer.

5 Q. No, no, no. My question is, is my
6 personal computer coupled to Google's servers --

7 MR. NIEBERG: Object to form.

8 BY MR. LOWENSTEIN:

9 Q. -- as "coupled to" is used in the '609
10 patent?

11 MR. NIEBERG: Object to form.

12 THE WITNESS: I mean it's not clear to
13 me how to map Google servers to -- and your personal
14 computer into the '609 patent frankly. So, yeah, it
15 could be.

16 BY MR. LOWENSTEIN:

17 Q. Is my computer coupled to any internet
18 server I can access using the World-Wide Web?

19 MR. NIEBERG: Object to form.

20 THE WITNESS: I don't have -- you know,
21 beyond saying how the '609 patent uses "coupled to,"
22 I'm not able to tell you about these hypotheticals
23 without thinking about them.

24 BY MR. LOWENSTEIN:

25 Q. Sorry. I didn't realize I was muted.

1 I trust you're familiar with the
2 Hayhurst reference?

3 A. I am.

4 Q. Okay. And would you agree that Hayhurst
5 is attempting to address an issue relating to
6 bandwidth from the perspective of a content
7 provider?

8 MR. NIEBERG: Object to form.

9 THE WITNESS: Is there a particular part
10 of Hayhurst you would like me to look at?

11 BY MR. LOWENSTEIN:

12 Q. Do you know the answer or no?

13 A. Hayhurst is describing a system and it
14 has many components.

15 Q. Is Hayhurst concerned with addressing an
16 issue relating to bandwidth or not?

17 MR. NIEBERG: Object to form.

18 THE WITNESS: That's just very vague and
19 a broad question. Hayhurst is --

20 BY MR. LOWENSTEIN:

21 Q. It's a very simple yes or no question.

22 Is Hayhurst addressing an issue relating
23 to bandwidth or not?

24 MR. NIEBERG: Object to form.

25 THE WITNESS: I think that's too vague

1 of a question for me to give a "yes" or "no" answer.
 2 BY MR. LOWENSTEIN:
 3 Q. So you can answer the question. But
 4 let's just look at the summary of the invention.
 5 You agree that paragraph five of
 6 Hayhurst says, quote,
 7 "The present invention addresses
 8 the problem of prohibitive
 9 bandwidth requirements for a
 10 content provider."
 11 Correct?
 12 A. That line says,
 13 "The present invention addresses
 14 the problem of prohibitive
 15 bandwidth requirements for a
 16 content provider in delivering
 17 video on demand or other" -- "other
 18 large media files."
 19 Q. So, I asked you just now whether
 20 Hayhurst concerns an issue relating to bandwidth.
 21 And you would agree that the very first
 22 sentence of the summary of the invention of
 23 Hayhurst, your reference, says,
 24 "The present invention addresses
 25 the problem of prohibitive

1 bandwidth requirements."
 2 Correct?
 3 A. The sentence says,
 4 "The present invention addresses
 5 the problem of prohibitive
 6 bandwidth requirements for a
 7 content provider in delivering
 8 video-on-demand or other large
 9 media files."
 10 Q. So clearly the very first line of the
 11 published invention of Hayhurst talks about the
 12 problem of prohibitive bandwidth requirements. And
 13 yet, you could not answer "yes" or "no" whether
 14 Hayhurst concerns issues relating to bandwidth,
 15 correct?
 16 MR. NIEBERG: Object to form.
 17 THE WITNESS: I wouldn't characterize my
 18 answer that way.
 19 BY MR. LOWENSTEIN:
 20 Q. But the record will -- the transcript
 21 will say what it says.
 22 Yes?
 23 A. The transcript --
 24 MR. NIEBERG: Object to form.
 25 THE WITNESS: -- will say what it says,

1 yes.
 2 BY MR. LOWENSTEIN:
 3 Q. Is that the only time that Hayhurst
 4 references issues related to bandwidth in the very
 5 first sentence of the summary of the invention?
 6 MR. NIEBERG: Object to form.
 7 THE WITNESS: I'm sorry. I don't
 8 understand your question.
 9 BY MR. LOWENSTEIN:
 10 Q. Is that the only time bandwidth is
 11 mentioned in Hayhurst?
 12 A. No. Bandwidth is mentioned at other
 13 places in Hayhurst, as well.
 14 Q. Is Hayhurst a voluminous reference? Is
 15 it like "War and Peace," thousands of pages?
 16 MR. NIEBERG: Object to form.
 17 THE WITNESS: Depends upon what you mean
 18 by "voluminous."
 19 BY MR. LOWENSTEIN:
 20 Q. Is Hayhurst voluminous or not as patents
 21 go?
 22 MR. NIEBERG: Object to form, relevance.
 23 THE WITNESS: No. The distribution of
 24 patent limits I can't tell you. And it depends upon
 25 how you define "voluminous."

1 BY MR. LOWENSTEIN:
 2 Q. Okay. Is a patent with a written
 3 description of slightly over two pages excluding
 4 figures -- would that be considered a voluminous
 5 reference?
 6 MR. NIEBERG: Object to form, relevance.
 7 THE WITNESS: As I said, I don't know
 8 what you mean by "voluminous." But -- and I don't
 9 know the distribution of patent lengths.
 10 BY MR. LOWENSTEIN:
 11 Q. Do you have any patents?
 12 A. Yes.
 13 Q. How many?
 14 A. I think four.
 15 Q. And how many patents have you reviewed
 16 in your life?
 17 A. Oh, more than 20.
 18 Q. More than 100?
 19 A. Maybe. I don't know.
 20 Q. 1,000?
 21 A. I don't know.
 22 Q. Possibly?
 23 A. Probably not.
 24 Q. Okay. Do you recall seeing any patent
 25 shorter than Hayhurst?

1 A. I don't recall.
 2 MR. NIEBERG: Form.
 3 THE WITNESS: I said I don't recall.
 4 BY MR. LOWENSTEIN:
 5 Q. So you can't recall any patent in the
 6 hundreds of patents that you've seen that are
 7 shorter than Hayhurst, and you can't say whether
 8 Hayhurst is a voluminous patent or not?
 9 MR. NIEBERG: Object to form.
 10 THE WITNESS: As I said, I don't know
 11 what you mean by "voluminous."
 12 BY MR. LOWENSTEIN:
 13 Q. Do you believe that the 1,000 patents
 14 that you looked at were statistically a significant
 15 cluster of very, very long patents, that you just
 16 happened to be looking at really, really long
 17 patents; and therefore, you've had a skewed
 18 distribution of patent lengths of the 1,000 you were
 19 looking at? Is that your understanding?
 20 MR. NIEBERG: Object to form, relevance.
 21 THE WITNESS: First, it's not clear to
 22 me I've looked at thousands or a thousand patents.
 23 And I don't know the distribution of patent lengths.
 24 BY MR. LOWENSTEIN:
 25 Q. Okay. Would it be fair for us to expect

1 an expert who presents to reference Hayhurst in
 2 multiple proceedings to be familiar with the very
 3 first sentence of the summary of the invention of
 4 that reference?
 5 MR. NIEBERG: Object to form.
 6 THE WITNESS: You know, I wouldn't want
 7 to -- you know, I don't know how to answer that
 8 question about what are your expectations.
 9 BY MR. LOWENSTEIN:
 10 Q. When you said you were generally
 11 familiar with the reference, that did not include
 12 the very first sentence of the summary of the
 13 invention?
 14 MR. NIEBERG: Object to form.
 15 THE WITNESS: I'm familiar with the
 16 patent.
 17 BY MR. LOWENSTEIN:
 18 Q. Are you familiar with the background of
 19 the invention? It's not that long.
 20 MR. NIEBERG: Object to form.
 21 THE WITNESS: I'm familiar with the
 22 patent and the background.
 23 BY MR. LOWENSTEIN:
 24 Q. Okay. So you're very familiar with the
 25 background of the invention.

1 Should we look at that?
 2 MR. NIEBERG: Object to form.
 3 THE WITNESS: We can look at that.
 4 BY MR. LOWENSTEIN:
 5 Q. Okay. Let's do that. It's only two
 6 very short paragraphs.
 7 Let's look at paragraph four.
 8 Quote,
 9 "It is usually not economically
 10 feasible for the operator of, for
 11 example, a cable television system
 12 or other content provider to
 13 provide for delivery-on-demand a
 14 large number of movie selections to
 15 subscribers, because such a system
 16 requires an extensive amount of
 17 bandwidth between the content
 18 provider and each of the subscriber
 19 units, televisions or other display
 20 devices, on the network."
 21 Do you see that?
 22 A. I see that.
 23 Q. Okay. So we can agree that's the
 24 background of the invention.
 25 You wouldn't consider the background of

1 the invention to be voluminous, would you?
 2 MR. NIEBERG: Object to form.
 3 THE WITNESS: You know, I don't want to
 4 characterize what you mean by "voluminous." It's --
 5 BY MR. LOWENSTEIN:
 6 Q. Would you consider the background of the
 7 invention to be voluminous?
 8 MR. NIEBERG: Object to form.
 9 THE WITNESS: I'm not going to
 10 characterize it. It is what it is.
 11 BY MR. LOWENSTEIN:
 12 Q. Okay. Do you evaluate students for
 13 whether they should get a Ph.D. or not? Do you
 14 evaluate dissertations?
 15 A. Yes.
 16 Q. Okay. And if a student came to you to
 17 defend their thesis and they didn't know what was in
 18 the abstract of their thesis, would you think that
 19 would reflect well upon them?
 20 MR. NIEBERG: Object to form.
 21 THE WITNESS: I don't think students
 22 will come to a thesis not knowing their abstract.
 23 BY MR. LOWENSTEIN:
 24 Q. But an expert could come to a deposition
 25 not knowing what's in the two-paragraph background

1 of the invention or the summary of the invention, is
2 that your testimony?

3 MR. NIEBERG: Object to form.

4 THE WITNESS: I would disagree with your
5 characterization of my answer.

6 You asked me a vague question, and I
7 said where is it in Hayhurst that you want me to
8 look at.

9 BY MR. LOWENSTEIN:

10 Q. Would you agree that a person of
11 ordinary skill in the art reading the background of
12 the invention Hayhurst might think that it's trying
13 to address an issue of a cable system requiring an
14 extensive amount of bandwidth between the content
15 provider and each of the subscriber units?

16 MR. NIEBERG: Object to form.

17 THE WITNESS: Hayhurst paragraph four
18 says,

19 "It is usually not economically
20 feasible for the operator of, for
21 example, a cable television CATV
22 system or other content provider to
23 provide delivery-on-demand a large
24 number of movie selections to
25 subscribers because such a system

1 Q. Okay. And if we look at paragraph
2 three, it says -- Hayhurst says,

3 "Current options for viewing a
4 movie at home include traveling to
5 a movie rental store to obtain a
6 videotape or DVD copy of the
7 movie."

8 And it says,

9 "The copy must be returned a few
10 days later. Another option is to
11 select" --

12 THE REPORTER: Counsel, I really need
13 you to slow down.

14 (Off-the-record discussion.)

15 BY MR. LOWENSTEIN:

16 Q. All right.

17 "Another option is to select from
18 the limited number of choices that
19 are offered from the sources that
20 provide what is known as
21 pay-per-view movies. Cable or
22 broadcast movie channels provide a
23 limited number of selections of
24 movies for display at predetermined
25 times."

1 requires an extensive amount of
2 bandwidth between the content
3 provider and each of the subscriber
4 units, televisions or other display
5 devices, of the network."

6 BY MR. LOWENSTEIN:

7 Q. So again, as you would understand that
8 could be the problem Hayhurst is trying to address,
9 this issue of the extensive amount of bandwidth
10 required to this context, correct?

11 MR. NIEBERG: Object to form.

12 THE WITNESS: That is one of the
13 problems that is being discussed in the background.

14 BY MR. LOWENSTEIN:

15 Q. Okay. And if we look at the preceding
16 paragraph -- well, start with the field of the
17 invention, paragraph two, or the technical field.
18 You see it says that,

19 "The application relates to the
20 field of electronic media delivery,
21 such as video-on-demand."

22 What is video-on-demand?

23 A. Video-on-demand generally is a system
24 where a subscriber or customer can choose a video
25 and choose to view it.

1 So, you would agree that paragraph three
2 concerns difficulties in watching movies at home
3 under various circumstances, correct?

4 MR. NIEBERG: Object to form.

5 THE WITNESS: Paragraph three is
6 describing current options for viewing a movie at
7 home.

8 BY MR. LOWENSTEIN:

9 Q. And the problem, however, is it says --
10 Hayhurst says,

11 "It's not economically feasible for
12 the operator, for example, a cable
13 television system or other content
14 provider to provide for
15 video-on-demand a large number of
16 movie selections to subscribers
17 because such a system requires an
18 extensive amount of bandwidth
19 between the content provider and
20 each of the subscriber units,
21 televisions or other display
22 devices, of the network."

23 Do you see that?

24 A. No.

25 Q. You don't see paragraph four?

1 A. That's not what you said.
 2 Q. What did I not say?
 3 A. I mean if you read paragraph four in the
 4 transcript, I think you will see that that --
 5 Q. Well, let me ask a different question.
 6 A. Okay.
 7 Q. You agree that paragraph four states the
 8 problem that Hayhurst is trying to solve?
 9 MR. NIEBERG: Object to form.
 10 THE WITNESS: Paragraph four is a
 11 background of the technology that existed during the
 12 time Hayhurst was written.
 13 BY MR. LOWENSTEIN:
 14 Q. Does paragraph four state the problem
 15 Hayhurst is trying to solve or not?
 16 MR. NIEBERG: Object to form.
 17 THE WITNESS: Paragraph four describes
 18 some problems that a cable television system or
 19 other content provider may have faced.
 20 BY MR. LOWENSTEIN:
 21 Q. Okay. And so you see paragraph five, it
 22 says quote,
 23 "The present invention addresses
 24 the problem of prohibitive
 25 bandwidth requirements for a

1 content provider in delivering
 2 video-on-demand or other large
 3 media files."
 4 Do you see that?
 5 A. I see that.
 6 Q. Is that the problem Hayhurst is trying
 7 to address?
 8 A. That is one of the problems that's
 9 addressed by Hayhurst.
 10 Q. Can you tell because it says "the
 11 present invention addresses that problem"?
 12 Is that a good sign of what the
 13 invention is trying to address?
 14 MR. NIEBERG: Object to form.
 15 THE WITNESS: The sentence stands on its
 16 own.
 17 BY MR. LOWENSTEIN:
 18 Q. Okay. And the sentence says,
 19 "The present invention addresses
 20 the problem."
 21 So, that's pretty good indication of the
 22 problem that's trying to be addressed; is that fair
 23 to say?
 24 MR. NIEBERG: Object to form.
 25 THE WITNESS: It says,

1 "The present invention addresses
 2 the problem of prohibitive
 3 bandwidth requirement for a content
 4 provider in delivering
 5 video-on-demand or other large
 6 media files."
 7 BY MR. LOWENSTEIN:
 8 Q. And that's the problem Hayhurst is
 9 trying to solve, correct?
 10 A. That's one of the problems that's
 11 addressed in Hayhurst.
 12 Q. Now, Hayhurst addresses this problem by
 13 taking, for example, a movie -- let's take "Austin
 14 Powers."
 15 And what Hayhurst will do is it will
 16 take "Austin Powers" and rather than stream it
 17 directly to a requesting subscriber, it will instead
 18 distribute or break that movie up in segments and
 19 then distribute those segments amongst thousands of
 20 subscriber units, correct?
 21 MR. NIEBERG: Object to form.
 22 THE WITNESS: Is there a part of
 23 Hayhurst that you want me to look at to -- for that
 24 characterization?
 25 ///

1 BY MR. LOWENSTEIN:
 2 Q. Is that correct or not?
 3 MR. NIEBERG: Object to form.
 4 THE WITNESS: Hayhurst describes its
 5 system in this patent, and we can go over it.
 6 BY MR. LOWENSTEIN:
 7 Q. Does Hayhurst take, for example, a movie
 8 like "Austin Powers" and would it divide that movie
 9 amongst thousands of households, into segments
 10 across house of households?
 11 MR. NIEBERG: Object to form.
 12 THE WITNESS: Hayhurst's specification
 13 describes Hayhurst's system.
 14 BY MR. LOWENSTEIN:
 15 Q. Your answer is "Hayhurst's specification
 16 describes Hayhurst's system"?
 17 Can you provide something that's not a
 18 tautology?
 19 MR. NIEBERG: Object to form.
 20 BY MR. LOWENSTEIN:
 21 Q. You didn't answer my question.
 22 I mean that sounds like an answer
 23 someone would give if they didn't study for the
 24 test, they didn't read the paper.
 25 Hayhurst's system -- specification

described Hayhurst system. Yes, I know that.
The question is what does Hayhurst's
system do, and I would expect you to answer very
basic questions about what Hayhurst's system does.

Hence, the question I'm asking you is,
does Hayhurst's system take a movie like "Austin
Powers" and. Rather than transmit it directly to a
requesting subscriber, divide that movie into a
thousand segments or more and distribute those
segments across households?

MR. NIEBERG: Object to form.

THE WITNESS: I can start going through
from paragraph 21 on if you want. Because that's
Hayhurst's system.

BY MR. LOWENSTEIN:

Q. Can you answer my question?

It's a pretty basic question about
Hayhurst's system.

MR. NIEBERG: Object to form.

THE WITNESS: You know, can we look at
one of my declarations where I have described
Hayhurst?

BY MR. LOWENSTEIN:

Q. Can you answer my question?

MR. NIEBERG: Object to form.

the unit."

BY MR. LOWENSTEIN:

Q. Now let me ask you a question. You were
just reading from Hayhurst verbatim, yes?

A. That's correct.

Q. Now let's go back to your -- because I
didn't ask you to read from Hayhurst, you would
agree.

Yes?

MR. NIEBERG: Object to form.

THE WITNESS: You asked me about
Hayhurst's system, and I was describing to you --

BY MR. LOWENSTEIN:

Q. No. I asked you a more specific
question than that.

MR. NIEBERG: Object to form.

BY MR. LOWENSTEIN:

Q. Now let's go back to your Ph.D. student
or aspiring doctorate and you're asking the student
to describe their dissertation. And you say "Well,
Mr. So and So" or "Ms. So and So, What's your paper
about?"

And if the student just started reading
verbatim some passage from his or her paper, would
that suggest a strong understanding of even their

THE WITNESS: "Hayhurst's system
describes an alternative way of
segmenting out media file movie for
storage in the segment storage of a
subscriber unit. Here several
separate segments S1, S5, S9, S13
of a movie, movie A, are bundled
together for storage. The segments
are separate in the sense that they
represent discontinuous or
nonsequential portions of the movie
and must be" -- it says "soiled"
but --

(A clarification was requested by
the reporter.)

THE WITNESS: Soiled, s-o-i-l-e-d.

"And integrated with the remaining
segments distributed elsewhere in
the network to provide the complete
movie. This approach to segmenting
the movie provides increased
security from piracy since each
subscriber A, B, C, et cetera, will
store only very small portions of
the movie on the storage device of

own work?

A. First you are not --

MR. NIEBERG: Object to form.

THE WITNESS: -- you are not the
adviser; and second, this is not a Ph.D.
dissertation.

BY MR. LOWENSTEIN:

Q. Fair enough. Fair enough.

But I didn't ask you to just read from
Hayhurst. I'm asking you basic -- very basic
questions about a two-page reference, and questions
that I think someone presenting themselves as an
expert to testify before the Board, and you're under
oath, and yet you can't seem to answer even -- or
won't answer even the most fundamental questions
about Hayhurst.

So let's try that again.

You would agree that in Hayhurst's
system it contemplates taking a movie like "Austin
Powers" and dividing that movie into segments,
distributed amongst thousands of subscribers,
correct?

MR. NIEBERG: Object to form.

THE WITNESS: Hayhurst says that,
"A media file for storage in

1 segmented storage" --
 2 Well, it suggests or describes,
 3 "An alternative way of segmenting a
 4 media file, movie, for storage in
 5 the segmented storage of the
 6 subscriber unit. Here, several
 7 separate segments of the movie are
 8 bundled together for storage. The
 9 segments are separate in the sense
 10 they represent discontinuous or
 11 nonsequential portions of the movie
 12 and must be integrated with
 13 remaining segments distributed
 14 elsewhere in the network to provide
 15 the complete movie."
 16 BY MR. LOWENSTEIN:
 17 Q. So you just read again from Hayhurst,
 18 correct?
 19 A. That's correct.
 20 Q. Okay. You didn't provide an answer
 21 based upon your understanding of the reference,
 22 correct?
 23 MR. NIEBERG: Object to form.
 24 THE WITNESS: That is my understanding
 25 of the reference.

1 BY MR. LOWENSTEIN:
 2 Q. Okay. Are you only able to answer
 3 questions where you read directly from Hayhurst or
 4 are you able to answer the questions I ask as I ask
 5 them?
 6 MR. NIEBERG: Object to form.
 7 THE WITNESS: If the questions you ask
 8 are answered by the reference and that's what I feel
 9 is the best answer, then that's what I'm going to
 10 give you.
 11 BY MR. LOWENSTEIN:
 12 Q. Okay. Let's -- let's assume a POSITA
 13 came to you and said, "Dr. Bhattacharjee, I just
 14 read Hayhurst. Here's what Hayhurst's system seems
 15 to be about. It seems to be a system whereby rather
 16 than just have the movie streamed directly to the
 17 requesting subscriber to avoid bandwidth issues on
 18 the content service provider, instead what we're
 19 going to, we're going to take 'Austin Powers,' for
 20 example, divide that up amongst 1,000 households.
 21 And then when a requesting subscriber wants to view
 22 'Austin Powers,' it will obtain each of those
 23 segments from the other subscribing units."
 24 Is that a fair description of what
 25 Hayhurst is about?

1 MR. NIEBERG: Object to form.
 2 THE WITNESS: I think Hayhurst has more
 3 components, and, you know, that's your high level
 4 description of Hayhurst.
 5 BY MR. LOWENSTEIN:
 6 Q. Is there anything I said that was
 7 incorrect?
 8 MR. NIEBERG: Object to form.
 9 THE WITNESS: I would have to see the
 10 question again. It was a very long description.
 11 BY MR. LOWENSTEIN:
 12 Q. All right. Okay. Let's take it in
 13 steps.
 14 You would agree that Hayhurst
 15 contemplates distributing a movie into segments and
 16 then spreading those segments across thousands of
 17 subscriber units, correct?
 18 MR. NIEBERG: Object to form.
 19 THE WITNESS: Hayhurst segments movies
 20 into separate segments and --
 21 BY MR. LOWENSTEIN:
 22 Q. And distributes those segments across
 23 thousands of households, correct?
 24 MR. NIEBERG: Object to form.
 25 THE WITNESS: You know, Hayhurst does

1 not say how many households per se. It -- Hayhurst
 2 does say that -- Hayhurst has a sentence which says,
 3 "The small number of subscribers
 4 depicted here is intended to be
 5 representative of, for example, the
 6 thousands of subscribers that may
 7 be part of a typical cable
 8 television network."
 9 The distribution in Hayhurst is, as I
 10 have said before, several segments are bundled
 11 together for storage and the segments are separate
 12 in the sense that they will present discontinuous or
 13 nonsequential portions of the movie.
 14 BY MR. LOWENSTEIN:
 15 Q. So you did see that Hayhurst
 16 contemplates distributing a movie into segments
 17 across thousands of its subscriber units, correct?
 18 MR. NIEBERG: Object to form.
 19 THE WITNESS: Hayhurst contemplates a
 20 cable TV system in which there may be thousands of
 21 subscribers, and Hayhurst contemplates distributing
 22 separate segments that can be bundled together for
 23 storage. And they have to be integrated with
 24 remaining segments distributed elsewhere in the
 25 network to provide the complete movie.

1 BY MR. LOWENSTEIN:

2 Q. Okay. Then let's take the scenario
3 where "Austin Powers" is divided amongst 1,000 or
4 more households into segments.

5 When a requesting subscriber wants to
6 see "Austin Powers," that requesting subscriber will
7 ask to receive each of the segments of the movie,
8 correct?

9 A. It depends.

10 Q. That's how Hayhurst's system works,
11 correct?

12 A. I mean if the subscriber already had the
13 movie in total, maybe it was watching it for the
14 second time, they would have it potentially --

15 BY MR. LOWENSTEIN:

16 Q. Let's assume that's not the case. Let's
17 assume that the customer doesn't already have
18 "Austin Powers" on their system and they would like
19 to access it via Hayhurst's system.

20 In that instance the requesting
21 subscriber would request the segments that have been
22 distributed amongst the thousands of households,
23 correct?

24 MR. NIEBERG: Object to form.

25 THE WITNESS: Hayhurst subscribers are

1 requesting customer."

2 Q. And you would agree that the segments
3 are not presented or sent in order, correct?

4 MR. NIEBERG: Object to form.

5 THE WITNESS: Is there a particular part
6 of Hayhurst where you think that is described --
7 BY MR. LOWENSTEIN:

8 Q. Do you have the answer to that question
9 or not?

10 MR. NIEBERG: Object to form.

11 THE WITNESS: It is not clear to me
12 that -- I mean it's not clear to me whether they
13 need to be sent in order or not.

14 MR. NIEBERG: Dr. Bhattacharjee, can you
15 let me get my objection on the record, please. We
16 sometimes talk over each other.

17 BY MR. LOWENSTEIN:

18 Q. So you don't know whether Hayhurst
19 contemplates a system wherein the segments are not
20 received in order, correct?

21 MR. NIEBERG: Object to form.

22 THE WITNESS: I would disagree with
23 that. As I said and ask you if you want to point me
24 to something in Hayhurst, you know, I don't know
25 that Hayhurst precludes the segments being received

1 capable of getting segments from other subscribers.

2 BY MR. LOWENSTEIN:

3 Q. At the request of the requesting
4 subscriber, correct?

5 MR. NIEBERG: Object to form.

6 THE WITNESS: Hayhurst says,
7 "When a subscriber requests a
8 movie, the segment-tracking module
9 provides an efficient way of
10 instructing the remaining units,
11 that is, the ones storing the
12 segments of the requested movie, to
13 forward all of the stored segments
14 to the requesting subscriber."

15 Q. So at the request of a requesting unit,
16 the segments will be sent to the requesting unit,
17 correct?

18 A. The -- Hayhurst --

19 "When the subscriber requests a
20 movie based upon the
21 segment-tracking module, the
22 remaining units, that is, the ones
23 storing the segments of the
24 requested movie, will forward all
25 of the stored segments to the

1 in order.

2 BY MR. LOWENSTEIN:

3 Q. You're aware that the requesting
4 subscriber cannot view the content until all of the
5 segments are received in Hayhurst, correct?

6 MR. NIEBERG: Object to form.

7 THE WITNESS: I don't know that I would
8 agree with that.

9 BY MR. LOWENSTEIN:

10 Q. What do you mean you don't know whether
11 you would agree with that or not?

12 Do you mean to say you don't know?

13 A. No. Your question is implicitly
14 narrowing Hayhurst's system. And again, unless you
15 think that's actually disclosed, I wouldn't narrow
16 Hayhurst's system --

17 Q. Do you know whether it's disclosed?

18 A. I would have to look through Hayhurst.

19 Q. Is there any disclosure in Hayhurst
20 suggesting that the segments are not received in
21 order?

22 MR. NIEBERG: Object to form.

23 THE WITNESS: I would have to look
24 through Hayhurst.

25 ///

1 BY MR. LOWENSTEIN:

2 Q. Is there any disclosure in Hayhurst
3 suggesting that the movie cannot be displayed until
4 all of the segments are received?

5 MR. NIEBERG: Object to form.

6 THE WITNESS: Again, is there a part of
7 my declaration where I have given an opinion --
8 BY MR. LOWENSTEIN:

9 Q. Do you know one way or the other whether
10 there is any disclosure in Hayhurst suggesting that
11 the movie cannot be displayed until all of the
12 segments are received?

13 MR. NIEBERG: Object to form.

14 THE WITNESS: I would have to look
15 through Hayhurst to answer that specific --

16 BY MR. LOWENSTEIN:

17 Q. Are you aware that there is a system of
18 redundancy contemplated in Hayhurst?

19 A. Yes. Hayhurst contemplates redundancy.

20 Q. And would that -- what Hayhurst has in
21 mind is you've distributed "Austin Powers" amongst
22 1,000 subscribing households, but, hey, one of those
23 set top boxes, they might not be connected to the
24 internet or their internet might be down or their
25 set top box might be turned off or the segment was

1 BY MR. LOWENSTEIN:

2 Q. The requesting -- the requesting unit.

3 MR. NIEBERG: Object to form.

4 THE WITNESS: The subscriber requests a
5 movie and the segment-tracking module provides an
6 efficient way of instructing the remaining units,
7 that is, the one storing the segments of the
8 requested movie, to forward all of the stored
9 segments to the requesting survivor --

10 BY MR. LOWENSTEIN:

11 Q. To the extent segments are not received,
12 the redundant -- the segments restored in a --
13 stored in a redundant fashion on other subscribing
14 units would have to be sent in their stead, correct?

15 MR. NIEBERG: Object to form.

16 THE WITNESS: Sorry. Can you ask that
17 question again?

18 BY MR. LOWENSTEIN:

19 Q. Yes. To the extent segments are not
20 delivered for one reason or another, the tracking
21 module would cause redundant segments stored on
22 other subscribing units to be sent to replace the
23 missing segments -- or to provide the missing
24 segments, correct?

25 MR. NIEBERG: Object to form.

1 lost or damaged or is no longer a subscriber,
2 correct?

3 MR. NIEBERG: Object to form.

4 THE WITNESS: There can be many reasons
5 why Hayhurst contemplates replication.

6 BY MR. LOWENSTEIN:

7 Q. Okay. And each of those reasons would
8 be reasons why a set top box in Hayhurst's system
9 would not be able to provide a segment of a movie
10 when requested, correct?

11 MR. NIEBERG: Object to form.

12 THE WITNESS: Those are some reasons
13 why. Those are not --

14 BY MR. LOWENSTEIN:

15 Q. There may be others, correct?

16 A. There may be others.

17 Q. Okay. A loss of power, for example.
18 And so -- so Hayhurst has said it's not
19 even the case that you can just request -- the
20 requesting -- you can just request the segments and
21 get it. If the segments are missing, you have to go
22 back and get them from the redundant storage sites,
23 correct?

24 MR. NIEBERG: Object to form.

25 THE WITNESS: Who is "you"?

1 THE WITNESS: The system is set up such
2 that the segment-tracking module will provide an
3 efficient way for instructing remaining units, i.e.,
4 the ones that are storing the segments, to forward
5 all of the stored segments to the requesting
6 subscriber.

7 BY MR. LOWENSTEIN:

8 Q. And once the requesting unit receives
9 all of the segments of the movie, it then needs to
10 ask permission to view them, correct?

11 A. "The subscriber unit CPU and the
12 associated buffers log the received
13 packets and, once all packets are
14 received, sends a notice to the
15 main server that all packets now
16 reside in the unit of the
17 requesting subscriber. The main
18 server upon receiving this notice
19 responds by transmitting an
20 authorization, such as an
21 entitlement control message to the
22 subscriber unit."

23 BY MR. LOWENSTEIN:

24 Q. So the answer to my question is yes,
25 after all the segments are received, the requesting

Page 110 1 unit needs to seek permission in order to display or 2 store the movie, correct? 3 MR. NIEBERG: Object to form. 4 THE WITNESS: The subscribing unit sends 5 a notice to the main server that all packets are now 6 received and the main server responds by 7 transmitting an authorization, and then it can also 8 do billing as is described in paragraph 29. 9 BY MR. LOWENSTEIN: 10 Q. And before the movie can be displayed, 11 descrambling needs to occur, correct? 12 MR. NIEBERG: Object to form. 13 THE WITNESS: The -- when the segments 14 are received at the requesting unit, they are 15 applied to a demultiplexor for header parsing to 16 recover the packet or segment identification number 17 and descrambling control and other information. 18 BY MR. LOWENSTEIN: 19 Q. So you would agree that once 20 authorization is received, packets need to be 21 descrambled and further processed by the decoder 22 before the movie can be played, correct? 23 MR. NIEBERG: Object to form. 24 THE WITNESS: Once the authorization is 25 received by the unit, the packets are then	Page 112 1 AUGUST 9, 2024 2 11:23 A.M. (PACIFIC TIME) 3 * * * 4 5 (Whereupon at 11:23 P.M. the 6 deposition proceedings were 7 resumed.) 8 9 MR. LOWENSTEIN: Okay. So I'm going to 10 pass the baton to Steve Elliott, who is going to 11 shift to questions about the 212 IPR. 12 MR. ELLIOTT: 212 IPR which has to do 13 with the '116 patent. 14 (Whereupon the document previously 15 marked as Exhibit 1003 is 16 referenced and is attached 17 hereto.) 18 19 EXAMINATION 20 BY MR. ELLIOTT: 21 Q. Good afternoon, Dr. Bhattacharjee. 22 A. Good afternoon. 23 Q. My name's Steve Elliott. 24 I'm another lawyer who is working on 25 some of the IPR's. And in particular I wanted to
Page 111 1 descrambled and further processed by the decoder. 2 MR. LOWENSTEIN: Let's take a short 3 break, please. 4 MR. NIEBERG: How about ten minutes? 5 MR. LOWENSTEIN: Or actually, do you 6 guys want to break for lunch at some point, or not? 7 Let's go off the record. 8 9 (Whereupon at 10:47 A.M. (Pacific 10 Time) a lunch recess was taken.) 11 * * * 12 13 14 15 16 17 18 19 20 21 22 23 24 25	Page 113 1 ask you about what is known as the 112 IPR, which is 2 the IPR dealing with the '116 patent. 3 Are you -- do you know what I mean when 4 I say '116 patent? 5 A. Yes. 6 Q. Let me start -- one of the -- you're 7 aware, aren't you, that one of the combinations that 8 you invoke to -- to attempt to invalidate the '112 9 [sic] patent or some of the claims, at least, is the 10 Foster/Hayhurst combination? 11 A. Can you ask that question again? 12 Q. One of the combinations that you invoke 13 or one of the grounds that you invoke to invalidate 14 the '116 patent is the Foster/Hayhurst combination. 15 Do you understand that? 16 A. Yes. And also if you don't mind, can I 17 have access to my declaration, the '116 declaration. 18 Q. You don't have that in front of you? 19 You don't have a paper company copy? 20 A. Not in front of me. 21 Q. Okay. Let me find it here. 22 Okay. I'm putting it in the chat. 23 Dr. Bhattacharjee, did you review your 24 '116 declaration prior to your -- in preparation for 25 your deposition today?

29 (Pages 110 to 113)

1 MR. NIEBERG: And I'll just warn
2 Dr. Bhattacharjee not to reveal the contents of any
3 attorney-client communications.

4 THE WITNESS: I did.

5 BY MR. ELLIOTT:

6 Q. And so you're generally familiar with
7 your opinions as they're set out in the declaration;
8 is that fair?

9 A. I'm generally familiar, yes.

10 Q. Okay. Let me ask you first --

11 And so what you have in front of you now
12 is your declaration; is that right?

13 A. That's correct.

14 Q. Okay. All right. Having given you the
15 declaration, let me ask you to take a look back at
16 the Foster exhibit, which I think is marked as
17 Exhibit -- the Foster reference which is marked as
18 Exhibit -- excuse me. I'm trying to do this at the
19 same time.

20 I believe that's been marked as
21 Exhibit 1006.

22 (Whereupon the document previously
23 marked as Exhibit 1006 was
24 referenced and is attached
25 hereto.)

1 THE WITNESS: Is there a specific part
2 of Foster you would like for me to look at for
3 this --

4 BY MR. ELLIOTT:

5 Q. Dr. Bhattacharjee, I just pointed you to
6 it, one example of it, which is in paragraph 55.
7 Can you answer my question?

8 A. So the key encryption key is required in
9 Foster to decrypt the content that's been encrypted
10 with the title key.

11 And so -- and as it says, that,

12 "The key encrypting key is
13 typically delivered to a recipient
14 concurrently with or prior to the
15 delivery of the encrypted content."

16 Q. Do you understand that to mean that the
17 key encrypting key is typically delivered to a
18 recipient prior to the recipient's receipt of the
19 first content unit in Foster?

20 MR. NIEBERG: Object to form.

21 THE WITNESS: So the thing that I'm not
22 clear about is what do you mean by the first.

23 The -- it's -- Foster says that,

24 "The key encrypting key is
25 typically delivered to recipient

1 BY MR. ELLIOTT:

2 Q. And I'm putting that in the chat just in
3 case you don't have it in front of you.

4 A. I do have it from earlier.

5 Q. Okay. Great.

6 So I'd like you to turn to that -- to
7 that reference. And specifically I want to ask you
8 to turn to -- let's start with paragraph 55.

9 Do you have that in front of you?

10 A. I do.

11 Q. Now, do you understand that in the -- in
12 Foster the key encrypting key is typically delivered
13 to a recipient at the same time or prior -- or prior
14 to the delivery of the first content unit as part of
15 that -- a key management block?

16 MR. NIEBERG: Object to form.

17 THE WITNESS: Can you ask me that
18 question again?

19 BY MR. ELLIOTT:

20 Q. Sure.

21 Do you understand that in the Foster
22 reference the key encrypting key is typically
23 delivered to a recipient either at the same time or
24 prior to the delivery of the first content unit?

25 MR. NIEBERG: Object to form.

1 concurrently with or prior to
2 delivery of encrypted content."

3 BY MR. ELLIOTT:

4 Q. So if it's prior to the delivery of
5 encrypted content, that means, doesn't it, that it's
6 prior to the delivery of the first content unit?

7 A. It can be that it's delivered prior to
8 the receipt of the first content, yes.

9 Q. Now, let me ask you to turn to your
10 declaration. And I want you to take look at
11 paragraph 234.

12 And there you said that the requesting
13 subscriber unlocks the movie only after it's
14 received all of the media file segments; is that
15 correct?

16 A. I think -- are you referring to the
17 sentence which says,

18 "After receiving all the media file
19 segments, for example, after the
20 requesting subscriber has received
21 the entire movie, the requesting
22 subscriber obtains from main server
23 the key encryption key to unlock
24 the movie" --

25 Sorry, paragraph 234?

1 Q. Yes. And that was your opinion back
2 when you wrote your declaration, right?

3 A. Are we talking about Foster or Hayhurst?

4 Q. Oh, I'm sorry. I apologize. I
5 apologize. I'm -- that's my fault.

6 I'm talking about Hayhurst now.

7 A. Okay.

8 Q. So let me -- let me start again. All
9 right?

10 So, now I want to turn to Hayhurst.

11 A. Okay.

12 Q. And in Hayhurst I want to direct your
13 attention to paragraph 234 of your declaration.

14 A. Okay.

15 Q. Okay. And that paragraph relates to
16 Hayhurst. And I apologize for that -- the confusion
17 there.

18 Right? That paragraph relates to the
19 Hayhurst reference?

20 A. That's correct.

21 Q. Okay. And in Hayhurst you offered the
22 opinion, didn't you, that the encryption key
23 necessary to decrypt the movie is provided to the
24 subscriber only after the subscriber receives all of
25 the -- all of the segments, all of the content

1 the media file, and that can include receiving keys.

2 BY MR. ELLIOTT:

3 Q. And before they receive those keys they
4 can't unlock any of the segments of the movie,
5 right?

6 MR. NIEBERG: Object to form.

7 BY MR. ELLIOTT:

8 Q. That was your opinion? Do I have that
9 right?

10 MR. NIEBERG: Object to form.

11 THE WITNESS: I mean it's not clear to
12 me they can't get anything, but it -- in Hayhurst
13 specifically in at least one of the embodiments
14 there is an interaction with the server to receive
15 authorization for either decrypting or descrambling
16 content.

17 BY MR. ELLIOTT:

18 Q. There's no -- there's no embodiment in
19 Hayhurst, is there, in which a subscriber can
20 decrypt the segments before receiving all of the
21 segments of the movie, right?

22 MR. NIEBERG: Object to form.

23 THE WITNESS: I don't know that I would
24 necessarily agree with that narrow characterization
25 of Hayhurst.

1 units, right?

2 A. This is something that is in the
3 Hayhurst provisional application, which I don't have
4 in front of me.

5 But I can read the sentence again that's
6 about the Hayhurst and Hayhurst provisional --

7 Q. Well, it was your opinion, wasn't it,
8 back in -- when you wrote this declaration that
9 Hayhurst, the encryption key was only provided after
10 the recipient received all of the movie segments?

11 MR. NIEBERG: Object to form.

12 THE WITNESS: The -- it's my opinion in
13 paragraph 234 that after receiving all the media
14 file segments, for example, after the requesting
15 server has received the entire movie, the requesting
16 server obtains from main server 26 the encryption
17 key to unlock the movie.

18 BY MR. ELLIOTT:

19 Q. Right. It doesn't receive it until
20 after it has received all the segments; is that
21 right?

22 Well, that was your opinion, wasn't it?

23 MR. NIEBERG: Object to form.

24 THE WITNESS: Well, Hayhurst's
25 subscribers interact with the server after receiving

1 BY MR. ELLIOTT:

2 Q. Are you aware of any embodiment in
3 Hayhurst in which the subscriber can decrypt the
4 segments before receiving all of the segments that
5 they have that they -- of the requesting unit?

6 MR. NIEBERG: Object to form.

7 THE WITNESS: It sort of depends.

8 Because, you know, Hayhurst is broad and it does
9 talk about movies, but it also talks about media in
10 general. And it's certainly possible that in
11 Hayhurst, media have different parts. And certain
12 parts can be decrypted, for instance, before --
13 before the entire, let's say, series or something
14 has been received.

15 BY MR. ELLIOTT:

16 Q. You didn't point that out in your
17 declaration, though, did you?

18 A. It's just a question --

19 MR. NIEBERG: Object to form.

20 (Whereupon the question was read
21 as follows:

22 "Question: You didn't point that
23 out in your declaration, though,
24 did you?")

25 THE WITNESS: As I said, this is a

question you're asking now and I'm trying to give my best answer with respect to that.

BY MR. ELLIOTT:

Q. In your declaration you didn't point to any embodiment in which the -- of Hayhurst in which a subscriber can decrypt segments prior to receiving all of the segments of the movie?

MR. NIEBERG: Object to form.

THE WITNESS: I would have to look through my analysis of Hayhurst in '116. Because as I said, Hayhurst is broad.

BY MR. ELLIOTT:

Q. Okay. And would you be surprised if there was no -- if you did not point to any embodiment -- well, withdraw that. Forget it.

But at least your opinion as expressed in paragraph 234 is that in Hayhurst the receiving -- the requesting subscriber can't unlock any of the segments before receiving all of the segments, because at that -- that's the time at which they receive the encryption key?

MR. NIEBERG: Object to form.

THE WITNESS: Paragraph 234 is a general description of Hayhurst, and it's describing one of the embodiments in Hayhurst. And in that particular

247.

BY MR. ELLIOTT:

Q. That's right. But the implementation of the combination -- of the Foster/Hayhurst combination that you provide is the one that you discuss in paragraph 248.

That's how you put the pieces together, right?

MR. NIEBERG: Object to form.

THE WITNESS: No. I wouldn't -- I think that's a bit too narrow. Because the entire section is describing an exemplary implementation of Foster/Hayhurst. And that's -- just to make sure we're clear, it's just an exemplary implementation.

BY MR. ELLIOTT:

Q. Is there another exemplary implementation that you provide in the '116 declaration?

A. I think one of ordinary skill would understand that it could be multiple ways to combine them. And I have explained one of them in that section.

Q. Okay. And that's the one that you rely on for your contention that the Foster/Hayhurst combination renders the invention of the '116 patent

embodiment the encryption key to unlock the movie is received after receiving all the media file segments.

BY MR. ELLIOTT:

Q. While I have you with your declaration, let me turn to a different reference which is -- well, let me stick for a few minutes with the Foster/Hayhurst combination.

And let me ask you about paragraph 248 of your declaration.

Do you have that in front of you?

A. Getting there.

Yes. I see paragraph 248.

Q. Okay. In paragraph 248 you illustrate one exemplary implementation of Foster/Hayhurst.

Do I have that right?

A. I provide exemplary implementation.

Q. The exemplary implementation that you provide in 248, that's the only implementation you discuss in your declaration, right?

MR. NIEBERG: Object to form.

THE WITNESS: I mean I'm describing a combination or how one of ordinary skill would see the Foster/Hayhurst combination. And that's in that section that starts with two, starting on paragraph

obvious, right?

MR. NIEBERG: Object to form.

THE WITNESS: That's again a bit too narrow.

This is an exemplary implementation of Foster/Hayhurst.

Right?

What I rely on is what one of ordinary skill would have learned reading Foster and Hayhurst in that particular -- for that particular ground.

Q. Why did you put the -- forget that.

The diagram at the end of paragraph 248 is the only thing that you label as an exemplary implementation of the Foster/Hayhurst combination, right?

MR. NIEBERG: Object to form.

THE WITNESS: I'm not sure that phrase is used elsewhere.

But certainly, you know, what's been described in paragraph 249 is also expanding upon that example, and in general is a way that one of ordinary skill in the art would combine Foster and Hayhurst.

///

BY MR. ELLIOTT:

Page 126 1 Q. You said that you were generally aware 2 of your declaration. 3 You're not aware of any other -- 4 anything else labeled exemplary implementation of 5 Foster/Hayhurst in your declaration, are you? 6 A. As I -- 7 MR. NIEBERG: Object to form. 8 THE WITNESS: I don't know whether I 9 have used that phrase elsewhere. 10 BY MR. ELLIOTT: 11 Q. Okay. But sitting here today, based on 12 your general awareness of what your opinions were in 13 your declaration, you're not aware of any other 14 exemplary implementation, are you? 15 MR. NIEBERG: Object to form. 16 THE WITNESS: So there are two things 17 here. First, the entire section is describing how 18 Foster and Hayhurst may be combined by one of 19 ordinary skill in the art. And there is an 20 exemplary implementation that I have shown in 21 paragraphs 248, 249, 250, 251. 22 BY MR. ELLIOTT: 23 Q. Okay. And that -- so that's -- that's 24 what you consider to be the description of the 25 exemplary implementation, those paragraphs?	Page 128 1 But my opinion is based on what one of 2 ordinary skill would have learned by reading the 3 Foster/Hayhurst combination at the time of the -- at 4 the time of the -- priority time of the '116 patent. 5 BY MR. ELLIOTT: 6 Q. You're aware, aren't you, that in order 7 to show obviousness, you have to show a motivation 8 to combine the references, and you still have to 9 show a reasonable expectation that the combination 10 would be successful, right? 11 MR. NIEBERG: Object to form. 12 BY MR. ELLIOTT: 13 Q. Are you aware of that? 14 A. Those are -- I mean we can go to the 15 legal section. I'm not a lawyer. But those are 16 analyses that I have provided in my Foster/Hayhurst 17 combination. 18 Q. And it's fair to say, isn't it, that in 19 order to show a reasonable expectation of success, 20 you have to show how the implementation would work, 21 right? 22 MR. NIEBERG: Object to form. 23 BY MR. ELLIOTT: 24 Q. That means you have to show what the 25 implementation is?
Page 127 1 MR. NIEBERG: Object to form. 2 THE WITNESS: Those are the descriptions 3 of one exemplary implementation. 4 BY MR. ELLIOTT: 5 Q. Okay. And just to be clear, you're not 6 aware of any other description of an exemplary 7 implementation in Foster/Hayhurst in your 8 declaration? 9 You didn't offer any opinions about how 10 another implementation might be exemplary, did you? 11 MR. NIEBERG: Object to form. 12 THE WITNESS: I think it's important to 13 understand that this is a schematic description and 14 there can be other forms. But this is -- you know, 15 this is an exemplary implementation that 16 demonstrates the types of combinations that could be 17 made with Foster/Hayhurst. 18 BY MR. ELLIOTT: 19 Q. This is what you based your opinion on, 20 that the Foster/Hayhurst combination renders the 21 '116 patent claims obvious, right? 22 MR. NIEBERG: Object to form. 23 THE WITNESS: I think that's a bit too 24 narrow a characterization, because this is an 25 exemplary implementation.	Page 129 1 MR. NIEBERG: Object to form. 2 THE WITNESS: The -- you know, I've 3 provided an exemplary implementation. And as I've 4 said, the combination that I have discussed above 5 would have been nothing more than an obvious 6 application of Hayhurst's known distributed storage 7 technique to Foster's system. 8 BY MR. ELLIOTT: 9 Q. I see. All right. Let me -- let's 10 focus in on the exemplary implementation that you 11 provided in this case. 12 And I'm looking at paragraph 248 in 13 particular. 14 And in this case your exemplary 15 implementation relies on, among -- well, let's take 16 them in order. 17 The -- I'm sorry. 18 The Foster computer system 400 is 19 augmented to include the functionality of Hayhurst's 20 main server 26, and that -- the combination of 21 Foster to the system 400 Hayhurst main server 26 22 controls distribution of Foster's encrypted content 23 portions, right? 24 A. I think you paraphrased a sentence, but 25 that's broadly correct.

33 (Pages 126 to 129)

1 Q. Okay. And your exemplary implementation
2 requires equating the multiple -- equating multiple
3 recipients 430 with the Hayhurst subscriber units,
4 right?

5 MR. NIEBERG: Object to form.

6 THE WITNESS: I'm not sure I would say
7 necessarily equating, but I have described that
8 Foster's recipients 430 are adapted to perform the
9 functionality of sending storage content segments to
10 requesting subscriber unit -- of Hayhurst subscriber
11 units. And that's in paragraph 250.

12 BY MR. ELLIOTT:

13 Q. Okay. So is there -- it's not your
14 opinion that the multiple recipients 430 are
15 implemented as multiple subscriber units of
16 Hayhurst?

17 MR. NIEBERG: Object to form.

18 THE WITNESS: I would disagree with that
19 characterization. Because the -- there are, for
20 instance, the Foster recipients have to be able to
21 use a key encrypting key, which may or may not be
22 present in Hayhurst.

23 So, the recipient is a combination of it
24 will -- the Foster's recipients are adapted to
25 perform the functionality of sending stored content

1 but the rest of that section.

2 Q. Okay. But at least in part the reason
3 that you believe that a POSA would have a reasonable
4 expectation of success is because both references
5 teach segmenting content for content providers, both
6 references teach encrypting each segment, right?

7 MR. NIEBERG: Object to form.

8 THE WITNESS: The recipients in Foster
9 and Hayhurst both receive encrypted segments. So,
10 they were already capable of receiving segments that
11 were encrypted. And that's part of why they would
12 have had reasonable expectation of success.

13 There is more to the combination which I
14 describe in full detail in paragraphs 252 and 253.

15 BY MR. ELLIOTT:

16 Q. And let me -- let me switch gears here.
17 I wanted to ask you about the Tajima reference.

18 Do you -- I can provide that to you.

19 And I just put the reference in the
20 chat. But the first thing I want to ask you about
21 is --

22 A. I haven't -- I don't see it in the chat.

23 Q. Oh, okay. Let me try to send it again.

24 A. Okay. I think now we see it.

25 Q. Tajima reference is Exhibit 1005.

1 segments to requesting subscriber as in Hayhurst.

2 BY MR. ELLIOTT:

3 Q. Okay. And let me just ask you quickly
4 about.

5 A. And if you don't mind can I just add to
6 that answer for a second?

7 Q. I think you answered my question.
8 It's -- that's --

9 Let me ask the next question, which is
10 if you turn to paragraph 252, it's your opinion,
11 isn't it, that -- that a POSA would have reasonably
12 expected success in implementing the Foster/Hayhurst
13 combination because both references teach segmenting
14 content for content providers and both references
15 teach encrypting each segment. Is that your
16 opinion?

17 MR. NIEBERG: Object to form.

18 THE WITNESS: That is part of my
19 opinion. And the rest of the paragraph, which I can
20 read out. Also tells us why a person of ordinary
21 skill would have had a reasonable expectation of
22 success.

23 BY MR. ELLIOTT:

24 Q. Okay.

25 A. It's not just the rest of the paragraph,

1 And just to make sure that it's on the
2 record, the Hayhurst reference is Exhibit 1007.
3 (Whereupon the document previously
4 marked as Exhibit 1007 was
5 referenced and is attached
6 hereto.)

7 BY MR. ELLIOTT:

8 Q. But in any event you have the Tajima
9 reference in front of you?

10 A. I do.

11 Q. You talk about the Tajima reference in a
12 number of places, but one place where you talk about
13 it is in paragraph 174 of your declaration.

14 A. Also, if you don't mind, Tajima is used
15 in multiple grounds, so perhaps you can tell me in
16 what context you are talking about Tajima?

17 Q. The one I have -- the one I want to ask
18 about first is the Tajima/Foster combination.
19 Okay?

20 A. Thank you.

21 Q. And in paragraph 174 you offer the
22 opinion that Tajima/Foster uses Tajima's technique
23 of storing each encrypted data fragment attached to
24 key information that encrypted a different data
25 fragment on separate databases under the control of

Page 134 1 different certificate authorities. 2 Right? 3 A. I see that sentence. 4 Q. That was your opinion? Or that is your 5 opinion, right? 6 A. That is my opinion for that particular 7 ground in that combination. 8 Q. And then you say, 9 "That (or the obvious use of 10 redundant storage in Tajima) meets 11 the separately storing limitation." 12 You see that? 13 A. I see that sentence. 14 Q. That's also your opinion? 15 A. That is my opinion. 16 Q. What did you mean by "the obvious use of 17 redundant storage in Tajima"? 18 A. Tajima describes storing the data at 19 multiple places as shown in the Tajima citations. 20 Let me just look at those for a second. 21 Q. Do you need the question read back? 22 A. I'm just looking through the reference 23 for a second. 24 Q. Well, sitting here today, based on your 25 general understanding of your declaration, can you	Page 136 1 I think that was your answer previously before we 2 went on the break. 3 Do I have that right? 4 MR. NIEBERG: Object to form. 5 THE WITNESS: Okay. In paragraph 174 6 and 175 I'm discussing this limitation, but I'm also 7 citing back to where I have discussed Tajima itself 8 in section 7B5 and also 7F1. 9 BY MR. ELLIOTT: 10 Q. Okay. So is that -- are you changing 11 your answer, then? You don't think that the obvious 12 use of redundant storage is stored in paragraphs 48, 13 111, 113, 116, 153 or 156 of Tajima? 14 MR. NIEBERG: Object to form. 15 THE WITNESS: No. I mean they are 16 discussed there. But my analysis of those 17 paragraphs and the separately storing limitation is 18 also in sections 7B5 and 7F1. 19 /// 20 BY MR. ELLIOTT: 21 Q. Okay. So having -- having had a chance 22 to look back at your declaration and at Tajima, what 23 did you mean by the obvious use of redundant storage 24 in Tajima? 25 A. If we start at paragraph 107, I provide
Page 135 1 tell me what you meant by "obvious use of redundant 2 storage in Tajima"? 3 MR. NIEBERG: Object to form. 4 THE WITNESS: The disclosures in Tajima 5 that I have cited, 111, 113, 116, 153 and 156, those 6 are describing what I mean by the redundant storage. 7 And also we're looking at the -- we're 8 looking at claim 9 of Tajima/Foster. 9 And can you remind me of the paragraph 10 number that you had me look at before? 11 BY MR. ELLIOTT: 12 Q. 174. 13 A. And I've also provided further analysis 14 of this in section 7B5 in which I think I was 15 discussing Tajima by itself. 16 MR. ELLIOTT: I apologize. I have to 17 take a short break. 18 I have a family member in the hospital. 19 Please go off the record. 20 (Brief recess.) 21 BY MR. ELLIOTT: 22 Q. Dr. Bhattacharjee, the -- you said that 23 you discussed the use of -- obvious use of redundant 24 storage of Tajima in paragraphs -- or that that is 25 discussed in paragraphs 48, 111, 113, 116, 153, 156.	Page 137 1 a -- this is 7D5 and claim limitation 1D. 2 My full opinion for that separately 3 storing limitation with -- understanding that the 4 text is potentially slightly different in claim 9, 5 but the basis for my opinion is also starting from 6 paragraph 107 until -- until paragraph 122, and in 7 particular I have discussed the use of redundant 8 storage starting paragraph 120 for Tajima. 9 Q. I see. 10 And so you're not claiming -- it's your 11 opinion that -- you're not claiming that Tajima 12 discloses use of redundant storage. Your claim 13 is -- your opinion is that it would have been 14 obvious to implement redundant storage in Tajima? 15 MR. NIEBERG: Object to form. 16 THE WITNESS: To the extent that claim 17 limitation requires redundant storage, then it would 18 have been obvious to implement redundant storage in 19 Tajima. 20 BY MR. ELLIOTT: 21 Q. Okay. So just so I understand, you're 22 not claiming -- again, it's not your opinion that 23 Tajima discloses the use of redundant storage. It's 24 your opinion that it would have been obvious to use 25 redundant storage in Tajima?

35 (Pages 134 to 137)

Page 138 1 MR. NIEBERG: Object to form. 2 THE WITNESS: To the extent that claim 3 limitation requires redundant storage, it would have 4 been obvious we implement redundant storage in 5 Tajima. 6 BY MR. ELLIOTT: 7 Q. And just to make sure, the -- your 8 opinion that it would have been obvious to implement 9 redundant storage in Tajima is based on the 10 references that you describe in paragraph 122? 11 MR. NIEBERG: Object to form. 12 THE WITNESS: Paragraph 122 discloses a 13 few references that shows that it was routine and -- 14 to use redundant storage, but those are just 15 examples of that -- that -- that corroborate my 16 opinion. 17 BY MR. ELLIOTT: 18 Q. Those are the examples that you use to 19 establish that it would have been obvious -- or to 20 try to establish that it would have been obvious to 21 implement redundant storage in Tajima, right? 22 MR. NIEBERG: Object to form. 23 THE WITNESS: Those are the examples I 24 have provided. And that along with one of -- the 25 knowledge of one of ordinary skill in light of	Page 140 1 rough draft has been ordered for today. 2 (Off-the-record discussion.) 3 THE REPORTER: I do need to get copy 4 orders on the record. 5 Mr. Lowenstein, what's your order? 6 MR. LOWENSTEIN: Next day, which I 7 believe would be Monday. 8 THE REPORTER: For the final and a rough 9 draft today? 10 MR. LOWENSTEIN: No. We can get the 11 final on Monday or -- if you need an extra day we'll 12 do Tuesday. Mondays is fine. 13 Do we need a rough? I don't think we 14 need a rough. 15 MR. NIEBERG: We'd like a rough. If you 16 have it and you can send it out today. 17 THE REPORTER: I will send it out today. 18 No problem. And you want your copy on Monday, 19 right? 20 MR. NIEBERG: For us, yeah, whenever 21 it's ready is fine. 22 MS. HUNT: Yeah. We'll just take 23 whatever timing the other side is taking on the 24 final. 25 ///
Page 139 1 Tajima and what -- again, what they would have known 2 is the basis for my opinion that it would have been 3 obvious to implement redundant storage in Tajima. 4 MR. ELLIOTT: Let me take a short break 5 and check my notes and see if I have any more 6 questions. 7 MR. NIEBERG: Five minutes or -- 8 MR. ELLIOTT: Yeah. About five minutes. 9 MR. NIEBERG: Okay. 10 (Brief recess.) 11 MR. ELLIOTT: Okay. I don't have any 12 further questions at this time. 13 I need to drop off the call because of a 14 very sick relative. And I will leave it to Nate to 15 deal with any redirect or recross. 16 MR. NIEBERG: Well, we don't have any 17 redirect. 18 So I hope everything is okay or gets 19 better. 20 MR. ELLIOTT: I guess we're done here, 21 unless Nate -- 22 MR. LOWENSTEIN: No. Thank you, 23 everyone. 24 MR. ELLIOTT: Thanks, everybody. 25 THE REPORTER: My understanding is a	Page 141 1 (Whereupon at 12:17 P.M. (Pacific 2 Time) the deposition proceedings 3 were concluded.) 4 * * * 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

36 (Pages 138 to 141)

Page 142 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 I, SAMRAT BHATTACHARJEE, say I have read the foregoing deposition and declare under penalty of perjury under the laws of the State of California: That the foregoing is my deposition under oath; That I have read same and have made the necessary corrections, additions or changes to my answers that I deem necessary; That my answers as indicated are true and correct. Executed at _____, California, this _____ day of _____, 20____. _____ SAMRAT BHATTACHARJEE	Page 144 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 That the foregoing pages contain a full, true and accurate record of the proceedings and testimony to the best of my skill and ability; Before completion of the deposition, review of the transcript [] was [xx] was not requested. If requested, any changes made by the deponent (and provided to the reporter) during the period allowed are appended hereto. I further certify that I am not a relative or employee or attorney or counsel of any of the parties, nor am I a relative or employee of such attorney or counsel, nor am I financially interested in the outcome of this action. IN WITNESS WHEREOF, I have subscribed my name this 11th day of August, 2024. _____ PATRICIA L. HUBBARD, CSR #3400
Page 143 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 REPORTER'S CERTIFICATE I, PATRICIA L. HUBBARD, do hereby certify: That I am a duly qualified Certified Shorthand Reporter in and for the State of California, holder of Certificate Number 3400, which is in full force and effect, and that I am authorized to administer oaths and affirmations; That the foregoing deposition testimony of the herein named witness, to wit, SAMRAT BHATTACHARJEE, was taken before me at the time and place herein set forth; That prior to being examined, SAMRAT BHATTACHARJEE was duly sworn or affirmed by me to testify the truth, the whole truth, and nothing but the truth; That the testimony of the witness and all objections made at the time of examination were recorded stenographically by me and were thereafter transcribed by me or under my direction and supervision;	Page 145 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 ERRATA SHEET FOR THE TRANSCRIPT OF: Case Name: GOOGLE vs SECURITY FIRST INNOVATIONS Dep. Date: AUGUST 9, 2024 Deponent: SAMRAT BHATTACHARJEE Page Line Now Reads Should Read Reason _____ Signature of Deponent Date

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