

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD
3
4

5 LG ELECTRONICS INC., LG ELECTRONICS U.S.A., INC.,
6 Petitioner

7 v.

8 MULTIMEDIA TECHNOLOGIES PTE. LTD.,
9 Patent Owner

10
11 Case IPR2024-00354

12 U.S. Patent No. 10,419,805
13

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16 DEPOSITION OF DR. ANDREW B. LIPPMAN
17 TAKEN REMOTELY BY VIDEOCONFERENCE
18 July 17, 2024
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24 Reported by: Mary Ann Payonk

25 Job No. 1483

July 17, 2024

10:00 a.m. Eastern

DEPOSITION OF DR. ANDREW B. LIPPMAN, taken
remotely by videoconference pursuant to Notice and
agreement of counsel, stenographically reported by Mary
Ann Payonk, Shorthand Reporter and Notary Public, CA CSR
No. 13431.

All attorneys participating in this deposition
acknowledge that the reporter is not physically present
in the deposition room and there is no objection to the
oath being administered remotely.

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1 THE REPORTER: Let me give you my California
2 license number, which is 13431. And now I'll swear the
3 witness.

4 DR. ANDREW B. LIPPMAN,

5 called as a witness, having been duly
6 sworn, was examined and testified as
7 follows:

8 EXAMINATION

9 BY ATTORNEY YANG:

10 Q. Good morning, Dr. Lippman. Can you please
11 state your name for the record.

12 A. Andrew Benjamin Lippman, L-I-P-P-M-A-N.

13 Q. Thank you.

14 Do you understand that you're under oath?

15 A. Yes.

16 Q. Is there any reason that you cannot give
17 truthful, complete, and accurate testimony today?

18 A. No.

19 Q. And can you confirm that you've closed out of
20 all of your applications other than Zoom?

21 A. Let me make sure that I've done that. I'm
22 leaving my finder application open so I can bring up
23 different documents.

24 Q. Okay.

25 A. If that's okay with you.

1 Q. Yes.

2 A. Okay.

3 Q. And to confirm, you won't open any documents
4 or applications unless instructed to do so?

5 A. No. I may consult documents. I may bring up
6 documents to consult in the course of my answers.

7 Q. But you'll let me know what those documents
8 are. Is that right?

9 A. Absolutely, yes.

10 Q. Excellent.

11 And how many times have you been deposed?

12 A. Probably on the order of 20.

13 Q. And how many of those depositions are for
14 IPRs?

15 A. IPRs are more recent than not. They didn't
16 always exist. So maybe on the order of five, perhaps a
17 few more.

18 Q. Does that include the two depositions that
19 were held yesterday and the day before that?

20 A. Yes.

21 Q. And did you write an expert declaration for
22 the subject of today's deposition?

23 A. Yes.

24 Q. And how long did you spend writing it?

25 A. I haven't totaled the hours, but probably -- I

1 haven't totaled the hours. I'm not sure.

2 Q. Do you have a rough guess, or you're just
3 entirely unsure?

4 ATTORNEY BOWSER: Objection. Form.

5 A. I did this months ago so I don't really recall
6 the number of hours.

7 BY ATTORNEY YANG:

8 Q. I guess that's fair.

9 What did you do in connection with writing
10 your declaration?

11 A. I read references. I composed my thoughts. I
12 discussed elements of it with the legal team.

13 Q. And did you spend any time preparing for
14 today's deposition?

15 A. Yes, I did.

16 Q. Do you remember how long you spent preparing
17 for today's deposition?

18 A. Again, I haven't totaled those hours so I'm
19 not going to give you a precise answer, but probably on
20 the order of 20.

21 Q. Just to confirm, that's 20 hours?

22 A. Yes.

23 Q. Okay. And what did you do to prepare for this
24 deposition?

25 A. I read the exhibits and I had discussions with

1 the lawyers.

2 Q. Is that all, just reading the exhibits and
3 discussing things with attorneys?

4 A. I can't offhand think of anything else. Is
5 there anything you had in mind?

6 Q. I don't. I was just confirming those were the
7 only things you were thinking of.

8 Were you familiar with the '805 patent prior
9 to your work in this IPR?

10 A. Prior to this case?

11 Q. Yes.

12 A. No.

13 Q. Were you familiar with the inventors of the
14 '805 patent prior to your work in this case?

15 A. No. I'm going to bring up the '805 patent.
16 I'm looking at the front page of the '805 patent, and it
17 lists three people as authors, and I know none of them.

18 Q. I see.

19 Did you perform a prior art search and find
20 the prior art cited in your declaration?

21 A. Most of the prior art search was done by the
22 legal team. As I say, I prepared the declaration months
23 ago. In the course of doing that, I would have
24 certainly searched for some information.

25 Q. You said most of the prior art search was done

1 by the legal team. Does that mean that you identified
2 at least one of the prior art in your declaration?

3 A. I can't recall if I identified the prior --
4 particular prior art that's in the declaration.

5 Q. Were you familiar with any of the prior art in
6 your declaration before your work in this case?

7 A. When you say the prior art in my declaration,
8 are you referring to the exhibits?

9 Q. Yes.

10 A. I'm looking in the finder at the list of
11 Exhibits 1 through 18. And I was familiar with my CV,
12 but I don't believe I was familiar with any of the
13 others.

14 Q. Okay. I assume you have a copy of
15 Exhibit 1003, which is your declaration.

16 Is that correct?

17 A. Yes, I do.

18 (Exhibit No. 1003, previously marked, was
19 referenced and indexed.)

20 BY ATTORNEY YANG:

21 Q. And can you confirm that it's a clean copy
22 with no markings in it?

23 A. Yes, indeed.

24 Q. Once you have it, could you please open
25 Exhibit 1003?

1 A. Okay, I have Exhibit 1003 open.

2 Q. And turn to page 10.

3 A. Okay.

4 Q. Looking at the bottom of page 10, paragraph 19
5 says: A person of ordinary skill in the art in the
6 field of the '805 patent as of its earliest possible
7 filing date of August 17, 2012, would have been someone
8 knowledgeable and familiar with the television display
9 technology that is pertinent to the '805 patent.

10 Do you see that?

11 A. Yes.

12 Q. And then it goes on to say: A POSITA would
13 have had a bachelor's degree in electrical engineering,
14 software engineering, or computer engineering or
15 equivalent training and approximately two years of
16 experience working in the field of television systems
17 and networking, human-computer interaction, or related
18 technologies.

19 Do you see that?

20 A. Yes.

21 Q. How did you arrive at this definition?

22 A. Based on understanding the concepts and the
23 issues in the patent and what a person, for example, a
24 colleague or students would have known at the time.

25 Q. And what do you mean by computer-human

1 interaction in paragraph 19?

2 A. Systems that interface humans and computers.

3 Q. And could you give me some examples of what
4 those systems potentially could be?

5 A. They could be interactive systems that are
6 graphical. They could be systems that are based on
7 speech. They could be systems that are based on
8 gestures. They're -- we sometimes used to call that the
9 human interface, but the ways in which we interact with
10 machines.

11 Q. Why would a person of ordinary skill in the
12 field of the '805 patent need to have experience with
13 human-computer interaction?

14 A. Because we're dealing with systems that
15 interact with humans.

16 Q. To be clear, your testimony is that the '805
17 patent includes systems that interact with humans?

18 A. Is relevant to the technology of the '805
19 patent.

20 Q. And in paragraph 19, you also testify that the
21 relevant time period for the '805 patent is August 17,
22 2012. Is that right?

23 A. Yes.

24 Q. Could I direct your attention to page 13 of
25 your declaration, Exhibit 1003.

1 A. Page 13?

2 Q. Yes.

3 A. Okay.

4 Q. Under the header Overview of The '805 Patent,
5 you have: Intelligent TV that organizes metadata from
6 different sources into a uniform format.

7 Do you see that?

8 A. Yes.

9 Q. Could you briefly describe your experience in
10 organizing metadata into a uniform format?

11 A. I'm not sure how you want me to answer that.

12 Q. Can you give me examples of your professional
13 experience that involves organizing metadata into a
14 uniform format?

15 A. That -- organizing data into formats and
16 manipulating and using data and interfacing and
17 interacting with that data is pervasive in the things
18 that I've done for most all of my life.

19 Q. So then could you give me an example of
20 something that you've done?

21 A. You want one example of something that I've
22 done?

23 Q. Yeah.

24 A. In the 1990s, me and my students developed a
25 system at MIT that I think is mentioned in my biography

1 in this declaration that we called the Media Bank.

2 And the Media Bank was a storage means for a
3 diverse set of data and a way of interacting with that
4 data where the interaction was a function of -- it was,
5 in a sense, a media server where the interaction was a
6 function of the bandwidth and processing capabilities of
7 the data. In the Media Bank, we certainly organized all
8 of the data.

9 Q. You said you organized the data. How is that
10 related to organizing metadata?

11 A. When we were using media, there was data and
12 metadata associated with the medium. We were all
13 familiar with that and those terms in the 1990s.

14 Q. I see. Could you now turn to page 37 of --
15 (Reporter clarification.)

16 BY ATTORNEY YANG:

17 Q. Please let me know when you've reached page
18 37.

19 A. Okay, I'm on 37.

20 Q. Looking at section 6 on page 37, is it fair to
21 say that you applied the ordinary and customary meaning
22 for all claim terms where the '805 patent did not
23 provide a definition?

24 THE WITNESS: Somehow when you move your
25 microphone I think you may be overloading it, but some

1 of the words you're saying are less than perfectly
2 clear.

3 ATTORNEY YANG: I apologize about that. Let
4 me try again.

5 BY ATTORNEY YANG:

6 Q. Is it fair to say that you applied the
7 ordinary and customary meaning for all claim terms where
8 the '805 patent did not provide a definition?

9 A. I believe I said it is my understanding that
10 for the purposes of this Inter Partes Review, the claims
11 are to be construed under the so-called Phillips
12 standard under which the claim terms are given their
13 ordinary and customary meaning as would be understood by
14 one of ordinary skill in the art in the light of the
15 specification and prosecution history.

16 Q. So did you use the ordinary and customary
17 meaning?

18 A. Yes, unless they've been defined elsewhere.

19 ATTORNEY YANG: Okay. Could you look at the
20 '805 patent, which is Exhibit 1001.

21 THE WITNESS: Yes.

22 (Exhibit No. 1001, previously marked, was
23 referenced and indexed.)

24 TECHNICIAN: Would you like me to circulate
25 that in the chat?

1 ATTORNEY YANG: If you'd like. My
2 understanding is that Dr. Lippman has copies of the
3 exhibits.

4 TECHNICIAN: Fair enough.

5 THE WITNESS: I'm sorry, I do have copies of
6 the exhibits. I have it. Go ahead.

7 BY ATTORNEY YANG:

8 Q. Sorry, I asked you to look at Exhibit 1001,
9 which is the '805 patent.

10 A. Right. I have a copy of Exhibit 1001.

11 Q. Okay. Let me know when you get to column 3,
12 line 21.

13 A. Okay.

14 Q. Is column 3, line 21 an example where the '805
15 patent provided definitions?

16 A. In that particular case, it defines what the
17 phrase at least one, one or more, and so on, mean. I
18 adhered to that definition.

19 Q. And is it fair to say that there are
20 additional definitions below that in column 3 and in
21 column 4?

22 A. There may be. I don't know.

23 Q. Do you consider the statements in column 4
24 definitions or not?

25 A. I can't say globally. I'd have to look at

1 each one.

2 Some of them may be definitions; some of them
3 may be examples.

4 Q. Did you consider whether those statements or
5 definitions are examples for the purposes of your
6 declaration?

7 A. Yes.

8 Q. So what was the result of that?
9 Did you conclude that they were definitions or
10 examples?

11 ATTORNEY BOWSER: Objection. Form.

12 A. There are several columns of things that could
13 be definitions or could be examples. I took them at
14 their word.

15 BY ATTORNEY YANG:

16 Q. Okay. Could you turn to column 37 and look at
17 Claim 1. I'm sorry, column 38 and look at Claim 10.

18 A. Okay.

19 Q. Does the '805 patent provide a definition for
20 the term "subservice" as it appears in Claim 10?

21 A. I don't believe it does.

22 Q. Okay. Then what is the ordinary and customary
23 meaning of the word "subservice"?

24 A. Well, let me see where I've used the word
25 "subservice," because I use the plain and ordinary

1 meaning of the term. So if you'll permit me to return
2 to my report, I'll show you where I use it.

3 Q. Well, my question isn't tell me where you used
4 it. My question is what is the plain and ordinary
5 meaning of this term, "subservice"?

6 A. I just used it in its plain and ordinary
7 meaning. I did not define it in my report more
8 specifically than that.

9 Q. And what is the plain and ordinary meaning?

10 A. I'm not going to provide a plain and ordinary
11 definition. I used it in its plain and ordinary
12 meaning.

13 Q. So you used it in its plain and ordinary
14 meaning but you can't tell me what that plain and
15 ordinary meaning is?

16 A. I'm not going to give you a definition of it
17 other than that it's interpreted as its plain and
18 ordinary meaning.

19 Q. How did you interpret it in its plain and
20 ordinary meaning?

21 A. I'd have to refer to my report.

22 Q. Could you please do so?

23 A. We're talking about the word "subservice"?

24 Q. Yes.

25 A. For example, on page 17 in column 28.

1 Do you want to open that?

2 Q. I have it up.

3 A. The '805 patent does not explicitly define a
4 subservice, but in one embodiment, the '805 patent
5 states that each subservice will be able to manage media
6 and/or metadata from its particular sources and further
7 aggregate media and/or data from multiple sources.

8 Q. Would you agree that video on demand, VOD, is
9 a subservice?

10 A. More commonly, in the patent I use the data
11 about VOD with respect to the subservice, I think.

12 Q. Look at Claim 10. Doesn't it say a video on
13 demand, VOD, subservice?

14 A. You're going to return to Claim 10?

15 Q. Right.

16 A. Receiving data relevant to one or more
17 scheduled events from one or more -- sorry, from one of
18 a corresponding subservice of a plurality of subservices
19 where the plurality of subservices comprises a video on
20 demand subservice.

21 Q. So is video on demand a subservice?

22 A. I believe that it -- Claim 10 says that it
23 comprises a video on demand subservice. It doesn't say
24 "video on demand." It says "a video on demand
25 subservice."

1 Q. Using the precise language of Claim 10, would
2 you agree that a video on demand, VOD, subservice is a
3 subservice?

4 A. I don't think I would disagree with that. Let
5 me think for a moment. But Claim 10 requires that it
6 receives data relevant to one or more scheduled events
7 from one of a corresponding subservice. So video on
8 demand subservice is described in Claim 10 as a
9 subservice.

10 Q. I see.

11 And then looking at Claim 14, it says: Media
12 sources of the TV.

13 Do you see that?

14 A. I do.

15 Q. Would you agree that the subservices of
16 Claim 10 such as the VOD subservice would fall under the
17 term "media sources of the TV" in Claim 14?

18 I guess another way of putting it is are these
19 subservices media sources of a TV?

20 Are the subservices of Claim 10 media sources
21 of a TV in Claim 14?

22 ATTORNEY BOWSER: Objection. Form.

23 A. The section of Claim 10 that we have been
24 referring to says receiving data relevant to one or more
25 scheduled events from a corresponding subservice that

1 includes, as you asked, a video on demand subservice.
2 That's the best I can do.

3 BY ATTORNEY YANG:

4 Q. Right. But now I'm asking about the
5 relationship between the media sources of the TV and
6 Claim 14 with Claim 10.

7 Are the subservices in Claim 10 media sources
8 of the TV in Claim 14, or is your testimony that there's
9 other element in Claim 10 that provides media sources?

10 ATTORNEY BOWSER: Objection. Form.

11 A. I'm not claiming either or any of those. I'm
12 merely claiming I think what you asked me about, what a
13 subservice is, and I gave you an example of that.

14 BY ATTORNEY YANG:

15 Q. And I'm now asking you whether the subservices
16 in Claim 10 could fall under media sources of the TV in
17 Claim 14. Yes or no.

18 A. Let me return to my report and see where I
19 addressed Claim 14. Sorry, but it's going to take me a
20 moment to do that.

21 Q. That's fine.

22 A. It's taking me a while, and I apologize for
23 that. If you have a particular point you'd like me to
24 turn to, I'd be happy to do that.

25 Q. My question is about your understanding of

1 Claim 10. So I simply asked you to look at Claim 10 and
2 Claim 14 and tell me would a video on demand subservice
3 fall under the media sources in Claim 14?

4 A. I lost the last part of your question.

5 Q. Sorry. Let me repeat that.

6 Would the video on demand subservice in
7 Claim 10 fall under the media sources of the TV in
8 Claim 14? That's all I'm asking is looking at Claim 10
9 and Claim 14, which you've reviewed, whether that is
10 true or not.

11 ATTORNEY BOWSER: Objection. Form.

12 A. Sorry to be obtuse, but explain to me what you
13 mean by "fall under."

14 BY ATTORNEY YANG:

15 Q. Like, would a predefined -- I'm sorry. Would
16 a video on demand subservice be considered a media
17 source of the TV in Claim 14?

18 I'm trying to understand what the media
19 sources of the TV in Claim 14 are in relation to the
20 elements of Claim 10.

21 ATTORNEY BOWSER: Objection. Form.

22 A. The media subservice in Claim 10 in general
23 most often is referring to data. Claim 10 says that
24 they're receiving data relevant to one or more scheduled
25 events from subservices where the plurality of

1 subservices comprises video on demand.

2 BY ATTORNEY YANG:

3 Q. Right. But Claim 14 says that there are media
4 sources of the TV.

5 Do you see that?

6 A. Yes.

7 Q. And I'm trying to understand what the media
8 sources of the TV are, because Claim 14 relates back to
9 Claim 10.

10 Are the media sources of the TV, does that
11 include the subservices in Claim 10 or --

12 ATTORNEY BOWSER: Objection. Sorry.

13 A. Claim 14 depends from Claim 11, which again is
14 with respect to data services. And Claim 14 is a
15 further limitation on the data services where the media
16 browser is configured to provide a real time view of
17 media sources of the TV and maintain a list of connected
18 media sources. A video on demand server can be a media
19 source.

20 BY ATTORNEY YANG:

21 Q. And the video on demand server, that's related
22 to the video on demand subservice in Claim 10 because
23 there's no other video on demand in Claim 10.

24 Am I right?

25 A. No, you introduced video on demand.

1 Q. Right, because I'm asking about the
2 relationship between Claims 14 and 10.

3 Claim 14 says there has to be a media sources
4 of the TV, and I'm asking you what that media source is.

5 Is it anything in Claim 10?

6 ATTORNEY BOWSER: Objection. Form.

7 A. Asking is the media source -- Claim 10 refers
8 to the subservice.

9 BY ATTORNEY YANG:

10 Q. Right.

11 A. And says it has to provide a real time view of
12 media sources of the TV. So are you asking whether one
13 of those media sources can be a VOD source? I think
14 I've lost the train of what you're asking exactly.

15 Q. That's similar to what I'm asking. I'm asking
16 can that media source be the video on demand subservice
17 in Claim 10?

18 A. The video on demand service is a video on
19 demand service. There is potentially a video on demand
20 subservice as well.

21 Q. Well, not potentially, because Claim 10 says
22 there is a video on demand subservice.

23 A. I'm sorry, you didn't ask me a question.

24 Q. Oh. Would you agree with that, that Claim 10
25 says there is a video on demand subservice?

1 A. Claim 10 says: Where the plurality of
2 subservices comprises a video on demand subservice.

3 Q. So you would agree that Claim 10 says there is
4 a video on demand subservice?

5 A. Claim 10 says from -- relevant to one or more
6 scheduled events from one of a corresponding subservice,
7 so it doesn't have to be.

8 Q. So I'm simply asking is that video on demand
9 subservice a media source of the TV as in Claim 14?

10 A. Your sound broke up again, but I think you
11 said media source.

12 Q. Right. Media source of the TV in Claim 14.

13 A. Claim 10 refers to the subservice. Claim 14
14 says connected media sources of the TV. There's a
15 plurality of media -- potential media sources, at least
16 one of which or -- one of which comes from the plurality
17 of subservices, including a video on demand subservice.
18 Claim 14 says that the browser is configured to provide
19 a real time view of media sources of the TV. Video on
20 demand can be a media source of the TV.

21 Q. Okay, let's go back to Claim 10 and look at
22 another term.

23 A predefined format corresponding to each of
24 the plurality of services.

25 Do you see that?

1 A. No. Give me a second.

2 Q. Okay. Please let me know when you see it.

3 A. Sorry, what am I looking for?

4 Q. Starting at the clause "organizing the data,"
5 there's -- it follows -- it further says: A predefined
6 format corresponding to each of the plurality of
7 subservices.

8 A. Yes.

9 Q. Does that mean each of the subservices has a
10 predefined format?

11 A. I think I addressed that in my report. For
12 example, in paragraph 31, as shown in -- well, here I'm
13 describing the '805. As shown in Figure 14 below, the
14 '805 patent explains that each type of content, EPG, VOD
15 media, and its corresponding metadata have an associated
16 data model such as a VOD data model for VOD data, EPG
17 data model for EPG data, and a media data model for
18 1412.

19 Q. I mean, I understand that in paragraph 31
20 you're saying that each type of content has a model. My
21 question is, does the term "a predefined format
22 corresponding to each of the plurality of subservices"
23 mean each subservice has a predefined format?

24 A. I think I've discussed that more with respect
25 to Claim 1. The discussion related to Claim 10 is

1 similar to Claim 1 so I'm going to refer to Claim 1, if
2 that's all right.

3 Q. If your testimony is that the -- if the
4 wording is identical in Claim 1 and Claim 10, then your
5 testimony directed to both claims is the same, then
6 that's fine.

7 A. My discussion of -- in ground one of Claims 1,
8 10, and 17 are basically the same. So I'm looking
9 through ground one, Claim 1. Maybe we're going through
10 this in an odd order, but okay.

11 In addressing the claim, I discuss Chen as a
12 reference. And Chen has an illustration that shows
13 there is a predefined format for each specific data
14 type. So if you interpret that claim to mean that there
15 is a distinct model for each type, then I accept that
16 you could interpret it that way if you do and that that
17 predefined format is as described, for example, in Chen.

18 Q. Well, I'm not asking about what the prior art
19 says. I'm asking about what the claims say.

20 My question is whether the claim -- what
21 the -- based on what the claims say, does that require
22 each subservice to have a predefined format? Yes or no.

23 A. And my answer is not yes or no. My answer is
24 if you interpret it that way, that's -- and I provide a
25 discussion of that interpretation. I'm not going to

1 provide an interpretation beyond what I've said in the
2 report.

3 Q. So just to clarify, did you interpret the
4 claim to mean that each subservice has a predefined
5 format?

6 A. I didn't interpret the claim per se. I said
7 that if that is what the claim means, then here is an
8 analysis of the art that would read on that meaning of
9 it.

10 Q. So is it fair to say that in your analysis,
11 you assumed that is what the claim means?

12 A. In my analysis, I account for that meaning.

13 Q. And you didn't say anywhere in your
14 declaration that you disagreed with that meaning.

15 A. I can't point to what I didn't say.

16 Q. Well, let me ask it differently.

17 A. I don't use the word "disagree" in my --

18 Q. All right. Let me ask it differently.

19 Do you disagree with that meaning?

20 A. I can only tell you what -- that I analyzed it
21 with that meaning as well. I can't say whether I agree
22 with it or disagree with it. I said that I analyzed it
23 with respect to that meaning of it.

24 Q. So you can't say that you disagree with it?

25 A. I didn't say that I disagree with it.

1 Q. Okay. I guess we're looking at Claim 1 now.
2 Could you look at the second clause of Claim 1 starting
3 with "organizing by the processor."

4 A. I'm looking in my report for where I discuss
5 second clause. These claims are often discussed with,
6 when you say which clause is which, with a set of
7 numbers, like 1, 1.1, 1.1.1.

8 Do you happen to have that number handy? That
9 makes life easier.

10 Q. I'm sorry, I assumed you'd be looking at the
11 patent since we are discussing the claims of the patent
12 rather than your declaration at this point.

13 A. The claims of the patent are discussed in my
14 declaration. Am I waiting for you or are you waiting
15 for me?

16 Q. Let me see if I can point you to a particular
17 page, because I wasn't planning to ask you about your
18 declaration at this point. I was trying to understand
19 what you -- I was trying to get into what you understand
20 about the patent. But let's see. Could you look at
21 page 96?

22 A. Page 96 of?

23 Q. Of the declaration, of Exhibit 1000 and --

24 A. Exhibit 1003?

25 Q. Right. Your declaration.

1 A. I thought you said Exhibit 1000. I'm not sure
2 your microphone is perfect. We mean Exhibit 1003?

3 Q. Yes, Exhibit 1003. That is what I think I
4 said.

5 A. Yeah. Page 90?

6 Q. 96.

7 A. Okay, I've got page 96.

8 Q. So in this section titled 1.2.2, it says:
9 Wherein the predefined format comprises one of a VOD
10 data model, an EPG data model, and a media data model.

11 Do you see that?

12 A. Yes.

13 Q. What is the ordinary and customary meaning of
14 "media data model"?

15 A. I -- again, I don't define these terms other
16 than the plain and ordinary meaning, which is as used in
17 the declaration and the references.

18 Q. Could you tell me what a media data model is?

19 A. A media data model has a plain and ordinary
20 meaning that will become clear if we look at its uses.

21 Q. So could you please clarify what that meaning
22 is?

23 A. We were on page, sorry, 90 which?

24 Q. 96.

25 A. I discuss how the data is rendered into a

1 specific format for the purpose of storing it in a
2 database, and I note that the '805 patent's example data
3 models define what and how information is to be stored.

4 So '805 describes data models. Let me consult
5 '805. But if you're asking me to provide you with a
6 independent definition of the word "data model," I'm
7 only going to address data model as plain and understood
8 and referenced in my report.

9 Q. Okay. Could you turn to page 154 of your
10 report, specifically, Claim 4.

11 A. 154?

12 Q. That's right.

13 So in the middle of the page, there's a
14 section titled --

15 A. Wait, wait, wait. I'm not there yet.

16 Q. Sorry.

17 A. Okay, I'm on page 154.

18 Q. And you see in the middle of the page there's
19 a section for Claim 4?

20 A. Yes.

21 Q. So when you were analyzing Claim 4, did you
22 interpret "media metadata personalized for a user" to
23 mean that the metadata was personalized for a user?

24 A. I think I described that a favorite channel
25 card object, for example, includes personalized metadata

1 to make the user instantly aware of the favorite channel
2 list.

3 Q. So for Claim 4 you based your analysis on the
4 metadata as personalized for the user. Is that right?

5 A. Well, the favorite channel list is
6 personalized for a user so that user views that
7 metadata.

8 Q. So I'm trying to understand that. Are you
9 saying that the -- are you saying that the channel list
10 is personalized to the user, or are you saying the
11 metadata of the channel list is personalized for the
12 user?

13 ATTORNEY BOWSER: Objection. Form.

14 A. Well, when you look at the favorite channel
15 list, you are viewing descriptions of the programs and
16 the channels so you are seeing a personalized view of
17 the metadata.

18 BY ATTORNEY YANG:

19 Q. So when you analyzed Claim 4, you did analyze
20 that the metadata is personalized for a user?

21 A. Well, I'm -- I'm putting it in my words. I'm
22 not sure I understand how to put it into your words.
23 The favorites channel shows metadata personalized for
24 that -- metadata that is for that person.

25 Q. Well, I'm asking about how your analysis

1 impacts Claim 4. When you analyzed Claim 4, is that
2 analysis based on metadata personalized for a user as
3 opposed to something else?

4 A. And I'm having trouble understanding the
5 question because I'm -- and I apologize. I'm not trying
6 to be unresponsive. I'm trying to -- you know, if you
7 put it in different words, then I have to consider what
8 all possible meanings of those words could be, which,
9 you know, I don't know whether you mean that, for
10 example, User 1 would see a different title of the
11 program from what User 2 would see so that the metadata
12 coming from some remote source would be different for
13 each user, or the metadata that that user sees is
14 particular to that user but it's the same metadata that
15 another user would see if that was their favorite
16 channel. So I'm trying to understand what you mean by
17 that question, and that's -- I guess that's why I'm
18 having the difficulty.

19 Does that make sense?

20 Q. It does, and that's the question I was asking
21 you about. Which one of those two understandings did
22 you use in your analysis of Claim 4?

23 A. That in the favorites channel, the user sees
24 metadata that is metadata of their favorite channels.

25 Q. So earlier, you gave two examples. One of

1 them was User 1 would see a different title of the
2 program from what User 2 would see --

3 A. I did --

4 Q. -- right?

5 A. I did not give that as an example. I gave
6 that as one of the possible meanings that I could impute
7 to your question.

8 Q. Let me rephrase that.

9 You gave that as a possible meaning. And to
10 be clear, that was not the possible meaning that you
11 applied in your analysis for Claim 4.

12 Is that right?

13 A. I analyzed that each individual user sees
14 their own favorite channels and sees the metadata
15 associated with those favorite channels.

16 Q. Okay. Could you turn back to the '805 patent
17 and look at column 7.

18 A. Yes.

19 THE WITNESS: You are changing -- if you are
20 at a reasonable point in the line of your questions, we
21 have been going for about an hour.

22 ATTORNEY BOWSER: Yeah.

23 THE WITNESS: Is this a reasonable time for a
24 break?

25 ATTORNEY YANG: Yeah. I'm terrible at

1 scheduling breaks, so whenever you need a break, just
2 let me know and we can certainly have a break. How long
3 would you like the break to be?

4 THE WITNESS: About 10 minutes.

5 ATTORNEY BOWSER: 10 minutes?

6 ATTORNEY YANG: Yeah, that's fine. Let's come
7 back here at 11:15.

8 (Recess taken.)

9 BY ATTORNEY YANG:

10 Q. Hi, Dr. Lippman. Did you talk to anyone
11 during the break?

12 A. No.

13 Q. Okay. Could you turn back to the '805 patent,
14 which is Exhibit 1001.

15 A. Yes.

16 Q. Specifically, column 7.

17 A. Okay.

18 Q. And line 37.

19 A. Okay.

20 Q. Column 7, line 37 says: The term "video on
21 demand" (VOD) as used herein refers to systems and
22 processes which allow users to select and watch/listen
23 to video or audio content on demand.

24 Do you see that?

25 A. Yes.

1 Q. Is that a definition of video on demand?

2 A. That describes how it's used herein, so it is
3 a definition for the purpose of this patent.

4 Q. And what is video content in that definition?

5 A. In general?

6 Q. As referred to in that paragraph there.

7 A. Watch/listen to video or audio. Watch video
8 would be what you conventionally assume video to be.

9 Q. And what format would that video content be
10 in?

11 A. I'm sorry, I don't understand what you mean by
12 "format."

13 Q. Let me rephrase.

14 Is MP3 a possible format for video on demand
15 video content?

16 A. MP3?

17 Q. Yes.

18 A. Is MP3 video? Is that what you're asking?

19 Q. My question was: Is MP3 a possible format for
20 video content for video on demand?

21 A. Well, as used herein, it says you could listen
22 to audio content on demand, so I suppose you could
23 consider an MP3 to be video on demand. But it could
24 also be construed to be other things. The converse
25 doesn't apply.

1 Q. You said video content can be construed to be
2 other things. Could you give me examples of what other
3 things you mean?

4 A. I don't think I said that.

5 Q. So then if you didn't say that, are you saying
6 that MP3 is the only possible format?

7 ATTORNEY BOWSER: Objection. Mischaracterizes
8 testimony.

9 A. No, I'm not.

10 BY ATTORNEY YANG:

11 Q. Are there other possible formats for video
12 content?

13 A. There are many formats for video content.

14 Q. So I'm simply asking for what those formats
15 may be.

16 A. MPEG-2, MPEG-4, MPEG-1.

17 Q. So is it fair to say that video content as
18 used here can encompass both MPEG-4 and MPEG-1?

19 A. Video content can be represented or formatted
20 as MPEG-1, MPEG-2, MPEG-4. Well, yeah.

21 Q. Are MPEG-1 and MPEG-4 the same format or are
22 they different formats?

23 ATTORNEY BOWSER: Objection. Scope.

24 A. Are we asking questions in general about MPEG
25 itself? I'm not sure what you're trying to elicit.

1 BY ATTORNEY YANG:

2 Q. I'm asking about your expertise in media. I'm
3 asking, since you're an expert in this field, do you
4 know if MPEG-1 and MPEG-2 are identical formats, or are
5 they different formats?

6 ATTORNEY BOWSER: Objection. Scope.
7 Objection. Form.

8 A. MPEG-1 and MPEG-2 are different formats for
9 the representation of video, although I don't use that
10 term, "formats." But they're different.

11 BY ATTORNEY YANG:

12 Q. And is that true also for audio content?
13 Can you have different forms of audio content,
14 or different representations of audio content?

15 A. I like the word "representation." You can
16 have different representations of audio content.

17 Q. Well, give me at least two examples.

18 A. AAC.

19 ATTORNEY BOWSER: Objection. Scope.

20 A. AAC, AC3.

21 BY ATTORNEY YANG:

22 Q. And could MP3 be another example of audio
23 content?

24 A. Yes, it --

25 ATTORNEY BOWSER: Objection. Scope.

1 A. Yes, it could.

2 BY ATTORNEY YANG:

3 Q. And you would agree that an MP3 representation
4 is different than an AC3 representation, right?

5 ATTORNEY BOWSER: Objection. Scope.

6 A. They are different.

7 BY ATTORNEY YANG:

8 Q. But they are both video content. Is that
9 right? I'm sorry, they're both audio content. Is that
10 right?

11 ATTORNEY BOWSER: Objection. Scope.

12 Objection. Form.

13 A. Yes.

14 BY ATTORNEY YANG:

15 Q. Okay. In addition to video on demand, VOD,
16 the '805 patent also talks about electronic programming
17 guide, or EPG.

18 A. Can you point me to that?

19 Q. For example, column 12, line 49.

20 A. Okay.

21 Q. Could you explain what EPG is?

22 A. It's a guide to television programming that is
23 electronic.

24 Q. And how would one obtain EPG?

25 ATTORNEY BOWSER: Objection. Scope.

1 A. How would one obtain EPG?

2 BY ATTORNEY YANG:

3 Q. Yeah. If I wanted to get EPG information, how
4 would I do it?

5 A. So you're saying how would one obtain the data
6 used in an EPG? Is that what you're asking?

7 Q. Yes.

8 ATTORNEY BOWSER: Objection. Scope.

9 A. From a variety of ways.

10 BY ATTORNEY YANG:

11 Q. Well, could you give me an example of one way?

12 ATTORNEY BOWSER: Objection. Scope.

13 A. Well, a service provider, like a cable
14 provider, might well provide EPG information so that
15 they could have an EPG associated with their service.
16 There were and have been independent program guide
17 providers as well.

18 Q. Let's say that the service provider
19 provides --

20 (Reporter clarification.)

21 BY ATTORNEY YANG:

22 Q. Let's say that a service provider provides EPG
23 information. How would I, as a subscriber, receive that
24 information?

25 ATTORNEY BOWSER: Objection, scope.

1 Objection, incomplete hypothetical.

2 A. I'm not sure that I described that particular
3 example in my report.

4 BY ATTORNEY YANG:

5 Q. Well, my question is directed to you as an
6 expert in this field, because I apparently am not.

7 Let's say that a service provider is providing
8 the EPG information. How would I obtain it from them?

9 ATTORNEY BOWSER: Objection, scope.
10 Objection, form.

11 A. I describe these things with respect to this
12 patent in my report. I would have to consider that
13 question, and I would give you a studied answer for it,
14 but I'm not going to give you an off-the-cuff,
15 on-the-fly-derived answer.

16 BY ATTORNEY YANG:

17 Q. So off the top of your head you don't know how
18 EPG is obtained.

19 A. I didn't say that.

20 ATTORNEY BOWSER: Objection. Scope.

21 BY ATTORNEY YANG:

22 Q. Well, could you just -- if you do know how it
23 is, obtained could you describe to me how one would
24 obtain it?

25 A. I would be reluctant --

1 ATTORNEY BOWSER: Objection. Scope.

2 A. I would be reluctant to formulate such a thing
3 without thought and references associated with it.

4 BY ATTORNEY YANG:

5 Q. What specific references would you need to
6 consider in order to formulate an answer?

7 A. References to EPG and the distribution thereof
8 at least, definitions, and so on.

9 Q. So is it fair to say that you, without these
10 references, you haven't considered how EPG information
11 is received?

12 ATTORNEY BOWSER: Objection, mischaracterizes
13 testimony. Objection, scope.

14 THE WITNESS: Can I also object that I didn't
15 hear the last part of the question? Your microphone is
16 terrible.

17 ATTORNEY YANG: I'm sorry. This is the best I
18 can do. I've already shifted it multiple times.

19 THE WITNESS: No, I understand, but please
20 accept the fact that I may ask you to repeat the
21 questions, not because I'm obtuse or deaf, but
22 because --

23 ATTORNEY YANG: That's totally fine. We're
24 having a conversation here.

25 BY ATTORNEY YANG:

1 Q. I'm trying to understand what your testimony
2 is, and I'm trying to understand the patent and the
3 prior art based on what you're saying.

4 So again, is it fair to say that you haven't
5 considered how EPG is obtained when you're doing your
6 declaration?

7 ATTORNEY BOWSER: Objection, scope.
8 Objection, mischaracterizes testimony.

9 A. It's fair to say that I'm not going to give
10 you an off-the-cuff answer without considering the
11 matter fully as to how an EPG might reach a customer,
12 which I believe was your question.

13 BY ATTORNEY YANG:

14 Q. And is it fair to say that how a EPG
15 information reaches a customer is not in your
16 declaration?

17 A. What's in my declaration is --

18 ATTORNEY BOWSER: Objection, scope.

19 A. What's in my declaration, if we want to refer
20 to that in my declaration, I'm perfectly happy to
21 discuss that.

22 BY ATTORNEY YANG:

23 Q. Sure. Let's discuss your declaration.

24 Does your declaration discuss how EPG
25 information reaches a customer?

1 A. Do you have a particular section in my report
2 that you want me to refer to?

3 Q. I don't. This is a question about your
4 declaration, which I assume you've reviewed. It's just
5 does it state? Yes or no. Does it answer that?

6 A. I'm sorry, you broke --

7 ATTORNEY BOWSER: Objection.

8 THE WITNESS: Again, your question was lost.
9 Say that again.

10 ATTORNEY YANG: My question is --

11 THE WITNESS: I think you should speak slowly.
12 I would recommend getting a little farther from the
13 microphone.

14 ATTORNEY YANG: Oh, I'm sorry. Is the
15 answer -- is the issue that I'm too loud for you?

16 THE WITNESS: No, the issue is not that you're
17 too loud, it's that sometimes the sound is dropped for a
18 moment and so I miss some of those words.

19 ATTORNEY YANG: I see. Let me -- let me try
20 to elucidate.

21 BY ATTORNEY YANG:

22 Q. Does your declaration discuss how EPG
23 information is received by a customer?

24 A. I think my response was is there a part of my
25 declaration you want to refer me to, or do you want me

1 to look through the declaration? Because EPG data is
2 one form of metadata, and how that metadata is processed
3 is in my declaration in a variety of places.

4 Q. Well, I'm asking specifically about EPG data
5 and where in your declaration it's -- does it discuss
6 how EPG data is received.

7 A. Okay, so you do want me to go through the
8 declaration.

9 ATTORNEY BOWSER: Counsel, are you asking him
10 to recall his entire declaration?

11 ATTORNEY YANG: I'm asking him to give
12 examples that answer my question. I mean, he wrote the
13 declaration. He has to know some of it, right?

14 ATTORNEY BOWSER: If you could point him to a
15 specific portion of his declaration, then he can testify
16 about that.

17 ATTORNEY YANG: I'm not asking about
18 specifics. I'm asking about general examples.

19 ATTORNEY BOWSER: So you're asking him about
20 questions outside of the declaration.

21 ATTORNEY YANG: I'm asking him questions based
22 on his expertise in the field, unless you're presenting
23 him not as an expert and only on what he has testified
24 to.

25 ATTORNEY BOWSER: Is that a question? I'm --

1 ATTORNEY YANG: Yes. My question is are you
2 presenting him as an expert in the field? Yes or no.

3 ATTORNEY BOWSER: His declaration speaks for
4 itself. Yes, we're presenting him as an expert in the
5 field.

6 ATTORNEY YANG: Then I can ask him questions
7 on it.

8 ATTORNEY BOWSER: But he's --

9 ATTORNEY YANG: He's an expert in this field.

10 ATTORNEY BOWSER: Can we go offline or sort of
11 off the record here?

12 THE REPORTER: Do counsel agree to go off the
13 record?

14 ATTORNEY YANG: That's fine.

15 (Recess taken.)

16 BY ATTORNEY YANG:

17 Q. Going back to EPG, what kind of content is
18 included in EPG?

19 A. Typically, an EPG includes channels, programs,
20 and times.

21 Q. And by "channels," what do you mean by that?

22 A. By the way, that's not necessarily complete.
23 That's an example.

24 Channels. Distribution channels.

25 Q. What are distribution channels?

1 A. For example, NBC, WCVB.

2 ATTORNEY YANG: Okay, could you open up
3 Exhibit 1009, which is US Patent Number 9,398,339, which
4 your declaration has identified as Lee-2.

5 THE WITNESS: Okay.

6 (Exhibit No. 1009, previously marked, was
7 referenced and indexed.)

8 BY ATTORNEY YANG:

9 Q. Could you please turn to Figure 32B. I'm
10 sorry. I misspoke. 33B.

11 A. Okay.

12 Q. Is Figure 33B a view of the home screen of
13 Lee's TV?

14 A. I'd have to check, but I expect so.

15 Q. Well, if you need to check, that's fine. I
16 just want to confirm whether it is or not.

17 A. Figure 3B, as I have it, is on my page 57.
18 Does that correspond with you?

19 Q. Yes. That's page 57 of 94.

20 A. Okay. In column 38, what Lee says is
21 referring to Figure 33A, an image 3310 is displayed full
22 screen on the display 180. Upon input of a local key
23 (not shown) or a favorite channel key (not shown) of the
24 remote controller, the home screen 2000 may be displayed
25 as illustrated in Figure 33B. Then return to page 57.

1 Q. Thank you.

2 So again looking at page 57, Figure 33B, I'd
3 like to focus on some of the elements here starting with
4 element 2027, which is a login button.

5 Do you see that?

6 A. Yes.

7 Q. That logs into a user's account, does it not?

8 A. Well, it's how a user identifies themselves to
9 the television.

10 Q. And under the login button 2027 there is an
11 element 2060.

12 Do you see that?

13 A. Yes.

14 Q. Is element 2060 a list of the user's favorite
15 channels?

16 A. Element 27 is a card by which one can access
17 and peruse favorite channels.

18 Q. I'm sorry, I thought you said element 27. I
19 was asking about element 2060.

20 A. I'm sorry, I misspoke. I was referring to
21 2060.

22 Q. Got it. Thank you.

23 So in order for element 2060 to populate, does
24 a user have to log in using the login button?

25 ATTORNEY BOWSER: Objection. Scope.

1 A. I'm not sure whether that's required in Lee-2.
2 BY ATTORNEY YANG:

3 Q. Is it fair to say that you don't recall one
4 way or the other?

5 ATTORNEY BOWSER: Objection.

6 A. The favorites channel could be generic or it
7 could apply to a user, so I'm not sure which -- I don't
8 recall. You're right. I don't recall which he uses it
9 as.

10 BY ATTORNEY YANG:

11 Q. On the left, to the left of 2060 there's also
12 an element 2021.

13 Do you see that?

14 A. Yes.

15 Q. 2021 provides information about what's shown
16 in element 2015.

17 Is that right?

18 ATTORNEY BOWSER: Objection. Scope.

19 A. Column -- sorry, element 2010 is a card that
20 displays television, and 2021 displays what that program
21 or channel is.

22 BY ATTORNEY YANG:

23 Q. I thought you said 2021 is the card that
24 displays the television.

25 A. The card that displays the television is 2010.

1 Q. And is it fair to say if you look at 2015 that
2 is a specific channel in the list of channels?

3 A. Well, it is a television channel.

4 Q. The channel in 2015 also appears in the list
5 of favorites in 2105.

6 Is that right?

7 A. From the illustration, it looks that way.

8 Q. The first element on that list in 2105 is
9 highlighted, and the illustration seems to be the same
10 as what's in 2015.

11 Is that right?

12 A. It's similar to what's in 2015.

13 Q. Okay. Do you know what the difference is
14 between elements 2105 and 2072, the favorites channel
15 versus the recorded list?

16 ATTORNEY BOWSER: Objection. Scope.

17 THE WITNESS: Again, I -- say that question
18 again, please.

19 BY ATTORNEY YANG:

20 Q. Well, I'm looking at 2105, which is the
21 favorites channel, and then to the right of that there's
22 also a 2070.

23 Do you see that, these two different views,
24 one labeled favorite channel and one labeled recorded
25 list?

1 A. I see that.

2 Q. Do you know what the differences between these
3 two is?

4 ATTORNEY BOWSER: Objection. Scope.

5 A. With respect to my report here, I didn't
6 analyze the various cards in Figure 33B to express their
7 differences. But I can say that -- we're talking about
8 2070 versus 2060?

9 BY ATTORNEY YANG:

10 Q. Yes.

11 A. Those are different cards.

12 Q. And what is the purpose of card 2070?

13 ATTORNEY BOWSER: Objection. Scope.

14 A. I don't think I referenced that card in my
15 report.

16 BY ATTORNEY YANG:

17 Q. That's fair.

18 But you did review Lee-2. Is that right?

19 A. Yes.

20 Q. And that card is disclosed by Lee-2, and so
21 I'm trying to figure out what it does.

22 A. Well, I --

23 ATTORNEY BOWSER: Objection. Scope.

24 A. I didn't analyze Lee with respect to that.

25 BY ATTORNEY YANG:

1 Q. But you did review the reference, so I'd like
2 you to tell me what this particular thing does.

3 A. Well, I --

4 ATTORNEY BOWSER: Objection. Scope.

5 A. I'm not prepared to do that.

6 BY ATTORNEY YANG:

7 Q. Did you review Lee-2?

8 A. Yes.

9 Q. Then why are you not prepared to tell me what
10 Lee-2 does?

11 A. Because that's not in my report and so it's --
12 I can't be encyclopedic about Lee-2 without re-reviewing
13 Lee-2.

14 BY ATTORNEY YANG:

15 Q. That's fair.

16 Could you re-review Lee-2 and tell we what
17 2070 does?

18 ATTORNEY BOWSER: Counsel, are you asking him
19 to review the entire patent?

20 ATTORNEY YANG: Yes, because it is one of the
21 patents that he testified that he reviewed.

22 ATTORNEY BOWSER: How long should we give him
23 to review the entire patent? And I also just want to
24 reiterate the scope objection. This is outside of his
25 declaration.

1 ATTORNEY YANG: Well, this can't be outside
2 the declaration because he testified that he reviewed
3 this particular piece of prior art in preparation of his
4 declaration. He didn't testify that he only reviewed
5 particular column and line numbers. He testified that
6 he reviewed the entire thing.

7 ATTORNEY BOWSER: He testified about specific
8 portions of Lee.

9 ATTORNEY YANG: Yes, but his testimony is that
10 he reviewed all of Lee. He didn't say I only reviewed
11 column 1, line 20.

12 ATTORNEY BOWSER: So you're asking him about
13 portions that are not specifically addressed in his
14 declaration?

15 ATTORNEY YANG: I'm asking him about the prior
16 art which he testified that he reviewed.

17 ATTORNEY BOWSER: Okay. Well, let's -- if you
18 want him to review Lee in its entirety, we can stay
19 online and he can review Lee in its entirety. But also,
20 this is outside of the scope of his declaration, as we
21 have been over.

22 ATTORNEY YANG: It can't be outside the scope
23 of his declaration because he testified that he reviewed
24 the document.

25 ATTORNEY BOWSER: But he's not testifying

1 about -- he's testified about specific portions of Lee,
2 and that's what he's here to testify about.

3 ATTORNEY YANG: He testified -- he's answering
4 questions based on his testimony. His testimony is that
5 he reviewed this document. And, by the way, since we're
6 still on the record, please use this opportunity to
7 review Lee while we're discussing this.

8 THE WITNESS: I can't review Lee while you're
9 discussing it because you're arguing in the background.

10 ATTORNEY BOWSER: I mean, this sounds like a
11 fishing expedition for him to look at things that he did
12 not testify about.

13 ATTORNEY YANG: It's not a fishing expedition
14 because I want to confirm Lee's functionality, so --

15 ATTORNEY BOWSER: Okay, so if you want to use
16 the deposition time for him to sit here and review the
17 entirety of Lee, I guess that's what we're going to have
18 to do. I just -- one, this is outside the scope of his
19 declaration, as we talked about. But --

20 ATTORNEY YANG: Oh, I disagree, because he
21 testified that he reviewed the document.

22 ATTORNEY BOWSER: Okay, but this is not a
23 memory test for him to testify about what he reviewed.
24 He reviewed Lee --

25 ATTORNEY YANG: I agree.

1 ATTORNEY BOWSER: -- when he was preparing --

2 ATTORNEY YANG: It's not a memory test.

3 ATTORNEY BOWSER: -- for the deposition.

4 ATTORNEY YANG: But I'm willing to give him
5 the opportunity to review Lee now and tell me what it
6 does.

7 ATTORNEY BOWSER: Okay. Are there specific
8 portions that you would like him to review?

9 ATTORNEY YANG: If he wants to do a word
10 search to look for this particular element in what Lee
11 says, that's totally fine with me.

12 ATTORNEY BOWSER: Okay. Well, lee is 94
13 pages. If you want to review that, Dr. Lippman --

14 THE WITNESS: I'm not sure I understand. Are
15 you trying to say that if I reviewed a dictionary for my
16 declaration I should be able to report on any word in
17 that dictionary?

18 BY ATTORNEY YANG:

19 Q. If your testimony is you reviewed the entire
20 dictionary and you didn't limit it to any specific
21 definitions, yes. Like, you testified you reviewed this
22 document. I -- I don't -- are you saying now that
23 you've only reviewed certain portions of the document
24 and you didn't review others?

25 A. I reviewed the document with respect to my

1 report. I did not memorize the rest of the document. I
2 might review a dictionary with respect to a word and
3 look at several portions of the dictionary, but that
4 doesn't mean that I reviewed and memorized the entire
5 dictionary or am prepared to talk about components of
6 the dictionary not relevant to the word I looked up.

7 ATTORNEY BOWSER: Counsel, if you'd like him
8 to review portions of Lee that he didn't testify about
9 then we're going to have to have him review the entirety
10 of Lee, all 94 pages. Is that what you want to do?

11 ATTORNEY YANG: Well, I don't think he needs
12 to review all 94 pages because most of them are figures
13 and I haven't asked about any of the other figures.

14 ATTORNEY BOWSER: So you're asking him to just
15 focus on the cherry-picked portions that are outside his
16 declaration?

17 ATTORNEY YANG: I'm asking him to focus on
18 Figure 33B.

19 ATTORNEY BOWSER: Can you review as whatever
20 you deem sufficient so you can testify about Figure 33B?

21 ATTORNEY YANG: Before we --

22 ATTORNEY BOWSER: And the other thing --

23 ATTORNEY YANG: Before we do that, let me
24 point you to page 153 of the declaration. On page 153
25 of the declaration, figure -- I'm sorry, 154 of the

1 declaration, there is a reproduction of Figure 33B right
2 there. So I think it's unfair for you to say that
3 Figure 33B is off limits when that figure's reproduced
4 in his declaration on page 154.

5 ATTORNEY BOWSER: We're not saying that
6 Figure 33B is off limits, we're saying that Figure 33B
7 relates to other features. It's not Figure 33B is
8 entirely in isolation. You're asking him about concepts
9 that are outside his declaration, as we've clearly been
10 talking about, so he should have the opportunity to
11 review other portions of Lee which can inform his
12 opinion about Figure 33B.

13 ATTORNEY YANG: I haven't denied him the
14 opportunity. He's free to review any portions of Lee he
15 deems necessary to answer my questions. All I'm saying
16 is that Figure 33B occurs on this page of his
17 declaration; therefore, it's fair game for me.

18 ATTORNEY BOWSER: Okay, then let's let him
19 look at the full document, whatever he needs to
20 understand Figure 33B. And I think he should have the
21 opportunity to review all 94 pages.

22 ATTORNEY YANG: I disagree because there are
23 multiple other figures that I don't plan on questioning
24 him about. This is a particular figure that's
25 reproduced in his declaration.

1 ATTORNEY BOWSER: Yeah, but you're asking him
2 about specific portions of Figure 33B that are discussed
3 earlier in the patent itself, so he can't --

4 ATTORNEY YANG: Right. I'm saying --
5 (Simultaneous speaking)

6 ATTORNEY BOWSER: -- look at things in
7 isolation.

8 ATTORNEY YANG: The discussion of Lee is not
9 entirely -- all 94 pages of Lee doesn't have to do with
10 the discussion of Figure 33B. There are multiple other
11 figures in Lee that he does not need to review to answer
12 my question.

13 ATTORNEY BOWSER: Yeah, but they're all
14 related. One feature relates to others, and you have to
15 look at the patent in its entirety.

16 ATTORNEY YANG: So you agree with me that in
17 order to answer questions, you have to look at the
18 patent in its entirety.

19 ATTORNEY BOWSER: I haven't agreed with
20 anything. Don't put words in my mouth.

21 ATTORNEY YANG: Regardless, I'm entitled to an
22 answer to a question based on a figure that he cited in
23 his declaration.

24 ATTORNEY BOWSER: Right. And you're asking
25 him questions that are outside of his declaration, so

1 give him the opportunity to review --

2 ATTORNEY YANG: I haven't denied --

3 ATTORNEY BOWSER: -- the --

4 ATTORNEY YANG: -- him the opportunity. I
5 asked him to do it right now while we were arguing.

6 ATTORNEY BOWSER: Okay.

7 ATTORNEY YANG: I haven't said don't review
8 the figure and tell me what it is off the top of your
9 head.

10 ATTORNEY BOWSER: No, but you're asking him
11 for pinpoint -- whatever portions you've cherry-picked,
12 you want him to review only those portions.

13 ATTORNEY YANG: I haven't told him to review
14 anything. I told him that if he needs to review any of
15 it, if there's portions of Lee that he deems necessary
16 to review, to please review those portions.

17 ATTORNEY BOWSER: Dr. Lippman, in order to
18 provide an informed answer, review whatever portions of
19 Lee that you need to to be able to provide an informed
20 answer. We're going to do this on the record, and we're
21 going to use the deposition time here. And to be clear,
22 to be able to provide an informed opinion, if you need
23 to review all 94 pages, review all 94 pages.

24 THE WITNESS: If I might try to simplify
25 things, if you look at my report, on page 153 I describe

1 Figure 33B with respect to favorite channels. I did not
2 reference other elements in Figure 33B so I'm not sure I
3 understand how the other elements in Figure 33B are
4 germane and relevant or something that you want to ask
5 me.

6 BY ATTORNEY YANG:

7 Q. That's fine, but I'd still like an answer.
8 Even if you don't think it's relevant, I'm entitled to
9 an answer in a deposition.

10 A. It's not that I don't think it's -- well, I
11 don't know whether I care that it's relevant. But am I
12 to understand that you're going to ask me about anything
13 that's in Figure 33B?

14 Q. That's right. I will ask you about the
15 elements of Figure 33B so we can determine how
16 Figure 33B works.

17 A. There's a large number of elements in
18 Figure 33B that, in the limit, if you want to spend your
19 entire time on Figure 33B, would require -- actually
20 really would require re-reviewing the entire patent.

21 Q. If you feel like that's necessary, then please
22 go ahead.

23 A. Can I ask you if it's okay with you if I
24 bookmark or --

25 Q. As long as you're doing it right now and you

1 let me know what those bookmarks are.

2 A. I want to put a bookmark at column 28 because
3 it mentions favorite channel, if that's all right.

4 Q. Yeah, just tell me as you're bookmarking them
5 what you're bookmarking. That's fine with me.

6 A. I'm bookmarking column 28.

7 Q. Okay.

8 A. I'm also bookmarking column 12.

9 Q. Okay.

10 A. I might add that I'm focusing my review on the
11 home screen with the favorites channel because that's
12 the portion of Lee that I used in my report. I'm also
13 bookmarking column 30. Bookmarking column 29. Can I
14 ask if you're going to ask me about other illustrations
15 besides Figure 33B?

16 Q. Certainly. If you could also look at
17 Figure 39B, that would be helpful.

18 A. Thank you. I'm bookmarking column 35 and
19 column 37 and 40.

20 ATTORNEY BOWSER: We've been going for an
21 hour. Is it okay if we take a break?

22 ATTORNEY YANG: Well, I'd like to finish up my
23 questions on at least Figure 33B. And I only have a
24 few.

25 ATTORNEY BOWSER: Okay. Well, in that case,

1 Dr. Lippman, just keep going, reviewing.

2 THE WITNESS: I'm not sure, but I may be able
3 to answer your questions about Figure 33B, and I may
4 have to do further review. So if you'd like, I'm happy
5 to do my best and return to the review as needed.

6 ATTORNEY YANG: That's fine. If you'd like to
7 proceed that way, that's totally fine with me. If you
8 need me to repeat the question, I can do that as well.

9 ATTORNEY BOWSER: Yes, please repeat the
10 question.

11 ATTORNEY YANG: Sure.

12 BY ATTORNEY YANG:

13 Q. The question is, is 2072 in Figure 33B a list
14 of channels that the user plans to record?

15 A. So you're asking about the recorded list?

16 Q. Right.

17 A. Lee dwells on the favorites channel and
18 describes the existence of other cards without going
19 into much of the detail of the functionality of all of
20 the other cards that are possible to have on the home
21 screen. That's from my re-review of Lee-2, which I
22 might point out initially was reviewed months ago.

23 So, you know, I don't think I need to
24 apologize for not being able to be encyclopedic about
25 Lee-2 today since only a small section of it was used in

1 my report. But I'm trying to be as responsive as
2 possible to your question. I think I answered it.

3 Q. I think your answer was Lee just -- Lee mostly
4 talks about the favorites card and doesn't provide as
5 much explanation for the other cards, whatever they may
6 be. Is that correct?

7 A. Well, for example, in column 27, he says
8 providing a favorite channel list and a recorded list
9 card object for providing a list of recorded programs.

10 In column 29, card object 2070 representing a
11 recorded list may include a card named -- object named
12 recorded list 2072 and a scheduled or recorded program
13 list 2075.

14 So there is some discussion of a recorded list
15 in columns 29 and 30.

16 Is that sufficient?

17 Q. Based on that discussion, does it say that the
18 recorded list is what the user plans to record?

19 ATTORNEY BOWSER: Objection. Scope.

20 A. It says in column 29 that the recorded list
21 may include programs scheduled for recording. I'm not
22 sure I've found something where it says you can
23 manipulate that card to select a program for recording.

24 BY ATTORNEY YANG:

25 Q. I see.

1 Going back to Figure 33B, there's also a
2 button underneath card 2021 that says input, which is
3 labeled button 2017.

4 THE WITNESS: If we're going to continue on
5 Figure 33B, in view of the time and the request of the
6 stenographer, perhaps this would be a good time to take
7 a break.

8 ATTORNEY YANG: All right, certainly. I guess
9 we can take a break. Can we take another 10-minute
10 break?

11 ATTORNEY BOWSER: Yeah, that's fine. But the
12 review of Lee should be during the deposition time. So
13 please just take a break, Dr. Lippman, without having to
14 review Lee further.

15 THE WITNESS: Understand.

16 (Recess taken.)

17 BY ATTORNEY YANG:

18 Q. Dr. Lippman, during the break did you
19 communicate with anyone?

20 A. No.

21 Q. Okay, turn --

22 A. Oh, wait a minute. I sent a note to my wife.

23 Q. Okay. I'm sure she'll appreciate it.

24 A. I sent a note to my son-in-law as well.

25 Q. Turning back to Figure 33B --

1 A. Okay.

2 Q. -- at the bottom of card 2010, two zero one
3 zero, there is an input button 2019, two zero one nine.

4 Do you see that?

5 A. Yes.

6 Q. Can you explain what the input button 2017
7 does?

8 ATTORNEY BOWSER: Objection. Scope.

9 A. I'm going to have to go back to the report for
10 a bit. Sorry, to the document for a bit.

11 BY ATTORNEY YANG:

12 Q. That's fine. Just let me know where you are.

13 A. Are you ready?

14 Q. I am.

15 A. We are asking about object 2017?

16 Q. That's right.

17 A. The reference that I can find to 2017 in the
18 text is: The broadcast card object 2010 may contain a
19 broadcast image received through the tuner 110 or the
20 network interface 130 and object 2021 for providing
21 information about the broadcast image 2015 and object
22 2017, representing an external device, a setup object,
23 and a favorite channel object for indicating favorite
24 channels.

25 So in object 2017 representing an internal --

1 an external device.

2 Q. By "external device" does Lee mean external
3 device to the TV?

4 ATTORNEY BOWSER: Objection. Scope.

5 A. Well, without dwelling further on it, it might
6 well mean that.

7 BY ATTORNEY YANG:

8 Q. Okay. And going back to Figure 33B, there's
9 also a setup button 2018 next to button 2017.

10 Do you see that?

11 A. I see that.

12 Q. What is that button 2018?

13 ATTORNEY BOWSER: Objection. Scope.

14 A. That's at least described in the same
15 paragraph, a setup object. On column 28, it says: The
16 setup object 2018 may be used to set various settings of
17 the image display apparatus such as video settings,
18 audio settings, screen settings, program scheduling
19 settings, setting of the pointer of the remote
20 controller, and network certification.

21 BY ATTORNEY YANG:

22 Q. Okay, I'd like to move on now to Figure 39B.

23 ATTORNEY BOWSER: Just a standing objection to
24 any questions related to Figure 39B we object to on the
25 basis of scope.

1 THE WITNESS: I'm looking at Figure 39B.

2 ATTORNEY YANG: Okay.

3 BY ATTORNEY YANG:

4 Q. Is Figure 39B a display screen titled Favorite
5 Channel List?

6 ATTORNEY BOWSER: Objection. Scope.

7 A. It's a panel describing favorite channel list.

8 BY ATTORNEY YANG:

9 Q. On that panel there are tabs 3920 labeled A,
10 B, C, and D.

11 Do you see that?

12 ATTORNEY BOWSER: Objection. Scope.

13 A. Yes.

14 BY ATTORNEY YANG:

15 Q. Each of those tabs A, B, C, and D opens up a
16 different list of channels 3910 underneath that.

17 Is that correct?

18 ATTORNEY BOWSER: Objection. Scope.

19 A. I'd have to check.

20 BY ATTORNEY YANG:

21 Q. Please do.

22 A. Okay, referring to the text in column 41, a
23 group area 3920 includes tabbed menus, including the
24 plurality of groups, for example, A Group, B Group, C
25 Group, and D Group. Each group favorite channel list

1 may correspond to the favorite channel list of each
2 user.

3 Q. Based on what you just said, when Lee-2 says
4 each group favorite channel list may correspond to the
5 favorite channel list of each user, that would mean I
6 could have a favorite channel list in Tab A and you
7 could have a favorite channel list in Tab B.

8 Is that right?

9 ATTORNEY BOWSER: Objection. Scope.

10 A. It may correspond to the favorite channel list
11 of each user, as it says.

12 BY ATTORNEY YANG:

13 Q. Going back to Figure 39B, could you confirm
14 for me that there are 15 channels shown in 3910 for
15 Tab --

16 ATTORNEY BOWSER: Objection. Scope.

17 A. In 39B, the favorite channel list of B Group
18 is displayed in channel list area 3910. Thumbnail
19 images are shown for 15 channels in Figure 39B.

20 BY ATTORNEY YANG:

21 Q. So there are 15 channels shown in 39B, is that
22 right?

23 A. That's what he says --

24 ATTORNEY BOWSER: Objection. Scope.

25 THE WITNESS: Sorry.

1 A. That's what he says in the text. I'll refer
2 back to 39B and count them if you'd like.

3 BY ATTORNEY YANG:

4 Q. That won't be necessary if that's what the
5 text says. I'd like to move on to the buttons 3930 at
6 the bottom of the favorite channel list.

7 Do you see those?

8 ATTORNEY BOWSER: Objection. Scope.

9 A. I have to go back to the illustration.

10 BY ATTORNEY YANG:

11 Q. Sorry. Please do.

12 A. Sorry, which illustration? 30?

13 Q. 39B.

14 A. 39B. Okay.

15 Q. Do you see the buttons 3930 at the bottom of
16 the illustration?

17 ATTORNEY BOWSER: Objection. Scope.

18 A. 3930 buttons at the bottom of 39B?

19 BY ATTORNEY YANG:

20 Q. Of illustration 39B, there should be a group
21 of buttons 3930.

22 A. Okay.

23 Q. And I just want to confirm the functionality
24 of those buttons.

25 The exit button on the far right would close

1 the favorite channel list. Is that right?

2 ATTORNEY BOWSER: Objection. Scope.

3 A. I'll go back to the text. In column 41, the
4 text says: The favorite channel list screen may further
5 include a channel setup menu 3930. For example, the
6 channel setup menu 3930 may include menu items edit for
7 editing channels; zoom for changing the number of
8 displayed thumbnail images; group view for viewing
9 thumbnail images by group; compact view for displaying a
10 broadcast image in a part; and a channel list in another
11 part; and exit. Lee does not describe the function of
12 exit.

13 BY ATTORNEY YANG:

14 Q. What exactly is the compact view button? What
15 is --

16 ATTORNEY BOWSER: Objection. Scope.

17 BY ATTORNEY YANG:

18 Q. In other words, what is a compact view?

19 ATTORNEY BOWSER: Objection. Scope.

20 A. Just bookmarking page 92 so when I go back, I
21 can return to page 92.

22 In column 30, it says: An application menu
23 2005 includes a plurality of application menu items,
24 particularly predetermined menu items 2006 to 2009,
25 selected from among all available application menu items

1 on the display. Thus, the application menu may be
2 referred to as an application compact view menu.

3 BY ATTORNEY YANG:

4 Q. When it says that, what is a compact view?

5 ATTORNEY BOWSER: Objection. Scope.

6 A. The application menu 2005 may be referred to
7 as an application compact view menu.

8 BY ATTORNEY YANG:

9 Q. So again, my question is what is a compact
10 view?

11 A. That's what informs --

12 ATTORNEY BOWSER: Objection.

13 THE WITNESS: Sorry.

14 ATTORNEY BOWSER: Objection. Scope.

15 A. That's what informs our understanding of a
16 compact view menu.

17 BY ATTORNEY YANG:

18 Q. Is your understanding of a compact view menu
19 based on that sentence and nothing else?

20 ATTORNEY BOWSER: Objection. Scope.

21 A. In the context of Lee, that's my understanding
22 of a compact view.

23 BY ATTORNEY YANG:

24 Q. Okay. Going back to Figure 39B, looking at
25 the group view button next to compact view, what is a

1 group view button?

2 ATTORNEY BOWSER: Objection. Scope.

3 A. In column 41, to give you the entire paragraph
4 again, the channel list screen may further include a
5 channel setup menu. And eventually, it goes on to say
6 group view for viewing thumbnail images by group.

7 BY ATTORNEY YANG:

8 Q. The thumbnail images are those shown in 3910.
9 Is that right?

10 ATTORNEY BOWSER: Objection. Scope.

11 A. I don't know if the group view has been
12 selected, so it may or may not be.

13 BY ATTORNEY YANG:

14 Q. Okay. Hopefully, this is easier. The button
15 next to group view says zoom.

16 Do you see that? Would that --

17 A. I --

18 Q. -- increase or decrease the size of the
19 buttons displayed in 3910?

20 ATTORNEY BOWSER: Objection. Scope.

21 A. 3910 displays what are described as images or
22 thumbnails. They're not described as buttons. You used
23 buttons.

24 BY ATTORNEY YANG:

25 Q. Sorry. Would the -- would the zoom button

1 increase or decrease the thumbnails in 3910?

2 A. I think I have to return to column 41 again.
3 Zoom for changing the number of displayed thumbnail
4 images. That's the same paragraph that we have been
5 consulting for the other buttons, and that's column 41,
6 lines 3 through, I guess, 9.

7 Q. Right. If I zoomed in, each of the thumbnails
8 would be larger so I would see fewer of them. Wouldn't
9 that be correct?

10 ATTORNEY BOWSER: Objection. Scope.

11 A. You might.

12 BY ATTORNEY YANG:

13 Q. And if I zoomed out, the icons would be larger
14 and I might see more. I'm sorry, if I zoomed -- if I
15 zoomed out, each of the icons would be smaller and I
16 would see more of them. Is that right?

17 ATTORNEY BOWSER: Objection, form. Objection,
18 scope.

19 A. Lee does not describe changing the size of
20 them explicitly. He describes changing the number of
21 them.

22 BY ATTORNEY YANG:

23 Q. But the number would change if I changed the
24 size of them. Is that right?

25 A. Well, that's --

1 ATTORNEY BOWSER: Objection. Scope.

2 A. That's the converse of what Lee says. They
3 may overlap, for example.

4 BY ATTORNEY YANG:

5 Q. Isn't it the typical feature of a zoom button
6 to increase or decrease sizes of images?

7 ATTORNEY BOWSER: Objection. Scope.

8 A. Lee describes the zoom button as changing the
9 number of items that are displayed.

10 ATTORNEY YANG: I'd like to move on now to
11 Exhibit Number 1011, which is a U.S. patent application
12 2013/0057764, which is Choi.

13 (Exhibit No. 1011, previously marked, was
14 referenced and indexed.)

15 THE WITNESS: Can I close Lee?

16 ATTORNEY YANG: Please keep Lee open, because
17 I do have a question about the relationship between Lee
18 and Choi.

19 THE WITNESS: Okay.

20 BY ATTORNEY YANG:

21 Q. And could you please turn to Figure 1 of Choi.

22 A. Okay.

23 Q. And could you please confirm for me that
24 Figure 1 of Choi is the same as Figure 1 of Lee.

25 ATTORNEY BOWSER: Objection. Scope.

1 A. Figure 1 of Choi and Figure 1 of Lee contain
2 same elements with the same numbers.

3 BY ATTORNEY YANG:

4 Q. Do you know why that would be the case even
5 though the listed -- in -- of Choi and Lee are
6 different?

7 A. I lost the --

8 ATTORNEY BOWSER: Objection. Scope.

9 THE WITNESS: I -- I'm sorry, I lost the word
10 you said there.

11 THE REPORTER: As did the reporter.

12 ATTORNEY YANG: Let me repeat that.

13 BY ATTORNEY YANG:

14 Q. Do you know why Figure 1 of Choi looks the
15 same as Figure 1 of Lee even though the listed inventors
16 of Choi and Lee are different?

17 ATTORNEY BOWSER: Objection. Scope.

18 A. I'm not sure how I would know that.

19 BY ATTORNEY YANG:

20 Q. So is the answer no?

21 A. Do I know why the figures are the same?

22 Q. Right.

23 And is your answer no?

24 A. I don't know why the --

25 ATTORNEY BOWSER: Objection, form. Objection,

1 scope.

2 A. I don't know why the figures are the same.

3 BY ATTORNEY YANG:

4 Q. Okay. Looking at Figure 1 of Choi,
5 specifically element 10, it says content -- do you see
6 that?

7 (Reporter clarification)

8 THE WITNESS: I think the interpreter --
9 sorry, the stenographer and I are both having the same
10 problem with your microphone.

11 ATTORNEY YANG: Yeah. I'm kind of annoyed
12 with this microphone as well.

13 THE WITNESS: Well, I don't know what to do
14 about it, but maybe could you work on that during lunch.

15 ATTORNEY YANG: I'll try something during
16 lunch.

17 BY ATTORNEY YANG:

18 Q. But do you see element 10 labeled content
19 provider?

20 A. Yes.

21 Q. And underneath that, there are -- there's a
22 first terrestrial broadcaster, a second terrestrial
23 broadcaster, and a cable MSO and then a satellite
24 broadcaster.

25 Do you see that?

1 ATTORNEY BOWSER: Objection. Objection.
2 Scope.

3 A. And various internet broadcasters are private
4 content providers.

5 BY ATTORNEY YANG:

6 Q. Right. Are all these, the first terrestrial
7 broadcaster through various internet broadcaster or
8 private content providers, examples of content provider
9 10?

10 ATTORNEY BOWSER: Objection. Scope.

11 A. In paragraph 26, it says: Referring to
12 Figure 1, the broadcasting system includes a content
13 provider, service provider, network provider, and a home
14 network. Your question was?

15 BY ATTORNEY YANG:

16 Q. Are the first terrestrial broadcaster up
17 through various internet broadcaster or private CPs
18 shown in Figure 1 examples of content providers 10?

19 ATTORNEY BOWSER: Objection. Scope.

20 A. I don't think any of those -- I don't think
21 Figure 1 is referred to in my deposition. Sorry, my
22 declaration.

23 ATTORNEY BOWSER: Counsel, if you want him to
24 testify about Figure 1, do you want him to take
25 additional time to review? It's the same situation

1 where we're asking about stuff that's not in his
2 declaration.

3 ATTORNEY YANG: Again, he can take whatever
4 time he needs to review whatever he feels like in order
5 to answer my questions, but these -- this -- these are
6 all prior art cited in his declaration.

7 THE WITNESS: These are all what?

8 ATTORNEY YANG: These are all cited in your
9 declaration, and you represented that you reviewed these
10 when preparing your declaration. So if you -- you can
11 take whatever time you need to review whatever you want,
12 whatever you need to in these documents to answer my
13 questions, but I'd like for you to answer my questions.

14 ATTORNEY BOWSER: So I see that Choi has 17
15 drawings. Are there any particular drawings that you're
16 going to ask him about so he can spend time looking at
17 those?

18 ATTORNEY YANG: I'll ask about Figure 1 and
19 Figure 5 and Figure 11.

20 ATTORNEY BOWSER: Okay, Dr. Lippman, please
21 take time to review, whatever time you need, to
22 understand what's going on in Figures 1 and 5, knowing
23 that oftentimes, the disclosure in one drawing relates
24 to another drawing. So just take whatever time you
25 need.

1 THE WITNESS: You said Figure 1, Figure 5, and
2 which?

3 BY ATTORNEY YANG:

4 Q. Figure 11.

5 A. Uh-huh. And the pending question is?

6 Q. Are the items in Figure 1 below content
7 provider 10 including first terrestrial broadcaster
8 through the last one, various internet broadcaster or
9 private CPs, examples of content providers 10?

10 A. In paragraph 28, Choi says: Moreover, the CP
11 10, i.e., content providers, manufactures and provides
12 various contents. As shown in Figure 10, the CP --
13 sorry, Figure 1, the CP10 may be a terrestrial
14 broadcaster, a cable system operator (SO), a multiple
15 system operator (MSO), a satellite broadcaster, or an
16 internet provider. Additionally, CP10 may provide
17 various applications besides the broadcast content.
18 This will be described in more detail later.

19 Q. So based on paragraph 28, the answer to my
20 question would be yes, the terrestrial broadcaster is an
21 example of CP10?

22 ATTORNEY BOWSER: Objection. Scope.

23 A. Yes.

24 BY ATTORNEY YANG:

25 Q. What is a cable MSO?

1 THE REPORTER: Was there an objection? You're
2 muted, sir.

3 ATTORNEY BOWSER: Oh, I apologize. Yes.
4 Objection. Scope.

5 THE REPORTER: Thank you.

6 A. A cable MSO is a multiple system operator.

7 BY ATTORNEY YANG:

8 Q. And what is a multiple system operator?

9 ATTORNEY BOWSER: Objection. Scope.

10 A. An entity that operates more than one cable
11 system.

12 BY ATTORNEY YANG:

13 Q. And what is a private CP?

14 ATTORNEY BOWSER: Objection. Scope.

15 A. I'm not sure that that's defined anywhere or
16 necessarily a common term of art.

17 BY ATTORNEY YANG:

18 Q. Okay. And content providers 10 provide
19 content to customers 40 in Figure 1. Is that right?

20 ATTORNEY BOWSER: Objection. Scope.

21 A. It says client.

22 BY ATTORNEY YANG:

23 Q. Well, 40 is labeled HNED (custom).

24 A. Yeah, I see that. Thank you.

25 In paragraph 27, it says: The HNED 40 may

1 correspond to a client 100, i.e., the image display
2 device, according to an embodiment. And, for example,
3 the client may be a network TV, a smart TV, and an IPTV.

4 Q. Based on that, the client would be, for
5 example, a TV that receives content from the content
6 providers 10 in Figure 1. Is that right?

7 ATTORNEY BOWSER: Objection. Scope.

8 A. Via other elements in the distribution chain,
9 one would assume so.

10 BY ATTORNEY YANG:

11 Q. And the content that it's receiving is media.
12 Is that right?

13 ATTORNEY BOWSER: Objection. Scope.

14 A. Well, a terrestrial broadcaster commonly
15 distributes what you would call as media.

16 BY ATTORNEY YANG:

17 Q. When you said via other elements in the chain,
18 you're referring to the fact that the content provider
19 provides the content through the service provider 20 and
20 the network provider 30 to the customer.

21 Is that right?

22 ATTORNEY BOWSER: Objection. Scope.

23 A. Essentially.

24 BY ATTORNEY YANG:

25 Q. Figure 1 says that the network provider could

1 be the internet. Is that right?

2 ATTORNEY BOWSER: Objection. Scope.

3 A. I'll refer to the text. Simply describes the
4 network provider may provide a network to provide
5 service to the client.

6 BY ATTORNEY YANG:

7 Q. Based on the fact that these are internet
8 broadcasts, you could expect the network to be the
9 internet. Is that right?

10 ATTORNEY BOWSER: Objection. Scope.

11 A. You could expect so.

12 BY ATTORNEY YANG:

13 Q. Okay, let's look at Figure 5 of Choi.

14 A. Okay.

15 Q. On the left-hand side of Figure 5 there's a
16 network interface unit 133.

17 A. Right.

18 Q. That provides a network connection to the
19 internet, does it not?

20 ATTORNEY BOWSER: Objection. Scope.

21 A. In paragraph 0103, Choi says: The network
22 interface unit 133 may provide an interface for
23 connecting the images display device 100 to a
24 wire/wireless network, including an internet network.
25 For example, the network interface unit 133 may include

1 an ethernet terminal for accessing a wire -- wired, that
2 is, with a D on the end, network or may be connected to
3 a wireless network through a communications standard
4 such as wireless LAN (WLAN), such as Wi-Fi, wireless
5 broadband, (WiBro), world interoperability for microwave
6 access (WiMax), and high-speed downlink packet access
7 (HSDPA).

8 Q. So based on paragraph 103 of Choi, the network
9 connection would go through network interface unit 133
10 in Figure 5. Is that right?

11 ATTORNEY BOWSER: Objection. Scope.

12 A. I haven't read Choi enough to definitively
13 answer that, but what you're saying sounds reasonable.

14 BY ATTORNEY YANG:

15 Q. Okay. Going back to Figure 5, in addition to
16 the network interface unit 133, underneath that there's
17 also an external device interface unit 135.

18 A. Right.

19 Q. Does the external device unit -- I'm sorry.
20 Does the external device interface unit 135
21 connect to external devices?

22 ATTORNEY BOWSER: Objection. Scope.

23 A. Well, for example, in paragraph 0119:
24 Additionally, the image signal processed in the control
25 unit 170 -- and I'm picking up that paragraph in the

1 middle -- is inputted to an external output device
2 through the external device unit 135.

3 Likewise, in paragraph 0130: The channel
4 browsing processing unit receives a stream signal (TS)
5 outputted from the demodulation unit 132 or a stream
6 signal outputted from the external device interface unit
7 135.

8 Likewise, in 145: According to another
9 embodiment of the present invention, unlike Figure 5 --
10 it goes on, but that's not like Figure 5 so I'll pass on
11 that.

12 BY ATTORNEY YANG:

13 Q. So does external device interface unit 135
14 connect to external devices?

15 ATTORNEY BOWSER: Objection. Scope.

16 A. Well, it reference -- it says that there are
17 external devices and they would connect through that
18 device unit.

19 BY ATTORNEY YANG:

20 Q. Okay. If we look at Figure 11 of Choi --

21 A. Okay.

22 Q. -- element 830 in Figure 11, those are
23 external -- I'm sorry, element 820 of Figure 11,
24 those -- that is a list of external devices, are they
25 not?

1 A. Not a list.

2 Q. Okay. Those are icons showing external
3 devices.

4 A. Quoting from paragraph 0250: As shown in
5 Figure 11, a plurality of external device icons 820
6 representing a plurality of external devices are
7 displayed on the full screen of the display.

8 That's what's shown in Figure 11.

9 Q. So you would expect those external devices to
10 connect through external device interface 135, right?

11 ATTORNEY BOWSER: Objection. Scope.

12 A. That's a reasonable expectation.

13 BY ATTORNEY YANG:

14 Q. And you wouldn't expect those external devices
15 to connect to network interface unit 133, right?

16 ATTORNEY BOWSER: Objection. Scope.

17 A. Network unit 133 in which illustration?

18 BY ATTORNEY YANG:

19 Q. In Figure 5.

20 A. Figure 5 doesn't specify -- the description of
21 the network interface in Figure 5 doesn't solely limit
22 it to the internet, so one can conceive of devices that
23 would be accessed via a network as opposed to via an
24 external device interface unit.

25 I'm not 100 percent sure that that's described

1 in Choi, but most generally, that's the case.

2 Q. But you haven't -- you're not -- sure what's
3 described in Choi, is that --

4 A. I haven't --

5 (Reporter clarification.)

6 THE REPORTER: Please repeat the question.

7 ATTORNEY BOWSER: Objection. Scope.

8 BY ATTORNEY YANG:

9 Q. You are not sure it's described in Choi.

10 ATTORNEY BOWSER: Objection. Scope.

11 A. I haven't looked through Choi to see if he
12 says that. But would you like me to?

13 BY ATTORNEY YANG:

14 Q. Do you recall if Choi says that?

15 ATTORNEY BOWSER: Objection.

16 A. Well --

17 ATTORNEY BOWSER: Not a memory test.

18 A. -- let me just check, since we just described
19 that. In 104: The network interface unit 133 may
20 transmit/receive data to/from another user or another
21 electronic device via a connected network or another
22 network linked to the connected network.

23 So an external device can connect to -- sorry,
24 connect to the system through the network interface.

25 ATTORNEY YANG: I'd like to turn now to Chen,

1 which is Exhibit 1007. I'd like you to --

2 ATTORNEY BOWSER: Before we turn to Chen, how
3 about we take a lunch break? We have been going for
4 almost three hours.

5 ATTORNEY YANG: That's fine.

6 ATTORNEY BOWSER: Okay. Yeah, I have 3 hours
7 and one minute we have been going on the clock. So how
8 about a 30-minute lunch break? So come back at 2:05
9 Eastern?

10 ATTORNEY YANG: Can we just do 2:10 instead?

11 ATTORNEY BOWSER: 2:10? Sure.

12 (Recess taken.)

13 (Exhibit No. 1007, previously marked, was
14 referenced and indexed.)

15 BY ATTORNEY YANG:

16 Q. Dr. Lippman, can you please turn to Chen,
17 which is Exhibit 1007.

18 A. Okay.

19 Q. Specifically, paragraph 16.

20 A. Okay.

21 Q. If you turn to the next page, because
22 paragraph 16 runs over onto page 6.

23 A. Okay.

24 Q. The second complete sentence in paragraph 16
25 on page 6 says: The first importer 110 receives a first

1 media data transmitted by a first signal source terminal
2 10 and then obtains a first metadata from the first
3 media data.

4 Do you see that?

5 A. Yes.

6 Q. Is the first metadata the metadata of the
7 first media data?

8 A. The first metadata is metadata for the first
9 media data.

10 Q. Okay. And then paragraph 16 later on says:
11 The second importer 120 receives a second media data
12 transmitted by a second signal source terminal 20 and
13 then obtains a second metadata from a second media data.

14 Do you see that?

15 A. Yes.

16 Q. And just to make sure, the second metadata
17 data is the metadata of the second media data. Is that
18 correct?

19 A. It says the second media -- receives the
20 second media data transmitted by the second signal
21 source and then obtains a second media data from a
22 second metadata from a second media data, yes.

23 Q. Moving on to paragraph 18 of Chen, the fifth
24 sentence of paragraph 18 says: The method of managing
25 metadata begins at step 210. The set-top box receives a

1 Video On Demand movie program transmitted by the
2 internet. That is the media data transmitted by a
3 signal source terminal.

4 Do you see that?

5 A. One second. Signal source terminal. I wasn't
6 clear on whether you said "signal" or "single."

7 Q. Yeah, it should be by a signal source
8 terminal.

9 A. Okay.

10 Q. And then the next sentence says: Examples of
11 the VOD programs include a moving picture experts group
12 4 (MPEG-4) file having metadata to record relevant
13 information of the MPEG-4 file, such as file name,
14 author, and so on.

15 A. Yes.

16 Q. So if the source is using the MPEG-4 format,
17 does that mean that the metadata is in MPEG-4 -- is
18 meta -- MPEG-4 metadata?

19 A. The MPEG-4 stream contains both video, audio,
20 and metadata stream information.

21 Q. And the metadata that's in the stream, is that
22 specific for MPEG-4, since the stream itself is for
23 MPEG-4?

24 A. I'm not sure I understand the question
25 exactly. For each stream?

1 Q. Let me rephrase it.

2 If the stream is MPEG-4, you wouldn't expect
3 to see metadata from MP3 in that stream, would you?

4 A. Well, that's an audio encoding, and an MPEG-4
5 stream might well include MPEG-4 -- MP3.

6 Q. Let's say that there is no audio and it's just
7 moving pictures. Would you still expect to see MP3
8 encoding?

9 A. You would see some indication that there was
10 no audio.

11 Q. But you wouldn't expect MP3 metadata if it was
12 just MPEG-4 without audio. Is that right?

13 A. I wouldn't expect data relevant to decoding
14 the MP3 stream if there was no MP3 stream.

15 Q. Going on to the next part of paragraph 18,
16 paragraph 18 also says that -- says a video on -- I'm
17 sorry. Let me go back.

18 Okay, the next -- the top of the next column
19 says the importer uses the metadata to generate a
20 metadata table.

21 Do you see that?

22 A. Where? Where were you looking? What
23 paragraph and what column?

24 Q. Paragraph 19 on the right-hand side, the
25 second full sentence says: The importers use the

1 metadata to generate a meta table -- metadata table
2 complying with a specific table.

3 Do you see that?

4 A. Yes.

5 Q. The metadata that's being used to generate the
6 metadata table, that is metadata for each format, right?

7 A. That is metadata associated with each stream.

8 Q. So if the stream was a MP3 stream, that
9 metadata would be MP3 metadata and not MPEG-4 metadata,
10 right?

11 A. One would assume so.

12 Q. Could you turn back to Exhibit 1003, which is
13 your declaration?

14 A. Sure.

15 Q. And specifically look at paragraph 327.

16 A. Okay.

17 Q. Looking at paragraph 327, you testified that
18 Lee-2, quote, includes personalized metadata, e.g.,
19 user-set thumbnails.

20 Do you see that?

21 A. Yes.

22 Q. And just to confirm, you base that on the
23 quote in paragraph 326 of your declaration, which is
24 column 4, lines 61 to 67. Is that right?

25 A. I'm sorry, did I base paragraph --

1 Q. 327 on 300 and -- on the evidence from Lee-2
2 in 326, or the quote from Lee-2 in 326.

3 A. In part.

4 Q. Is there anything else in your declaration
5 besides the quote in 326 that you base your conclusion
6 in 327 on?

7 A. 325, 326, 327. The entirety of the
8 discussion.

9 Q. I see.

10 But isn't it true that 325 is a discussion of
11 Kim?

12 A. No, not entirely.

13 Q. And so your conclusion is that everything
14 after the first sentence of Kim starting with "Lee-2
15 supplements," that is also the basis of your conclusion
16 in 327. Is that right?

17 A. I think I said the entirety of the section is
18 the basis for my conclusion in 327.

19 Q. And just to confirm, it's only this section
20 titled Claim 4, nothing else.

21 A. Sorry, it's only what?

22 Q. Only the section titled Claim 4 starting on
23 page 154 to 158, and you don't have any -- you don't
24 base your conclusion for paragraph 327 on any other
25 paragraph that's not in this section.

1 A. I'm not sure that I would even characterize
2 paragraph 327 as a conclusion. It's a statement that it
3 generates a favorite channel card object that includes
4 personalized metadata, for example, user-set thumbnails
5 for a user.

6 That's all that's in paragraph 327. And
7 that's a reflection of what's in paragraph 325.

8 Q. I'm just making sure that it's only a
9 reflection of what's in paragraph 325, 326, and the rest
10 of this section and -- and it's not a reflection of any
11 other paragraph in any other section.

12 Is that right?

13 A. I -- I can't confirm that.

14 Q. Why not?

15 A. Because I can't confirm a negative, that it's
16 not anywhere else.

17 Q. Okay. Could you point me to where else?

18 A. I can't recall offhand that it is anywhere
19 else. If we find a place that it's somewhere else, I'll
20 be happy to return to the issue.

21 ATTORNEY YANG: No, that's -- that actually
22 answers my question. And unfortunately, I have no
23 further questions so I'll pass the witness. Jonathan,
24 do you have anything?

25 ATTORNEY BOWSER: Give me five minutes, if I

1 may. I'll come back on. So to 2:30 Eastern, is that
2 okay? And then -- I just want to go over my notes.

3 ATTORNEY YANG: Yeah, okay.

4 (Recess taken.)

5 ATTORNEY BOWSER: I have no questions on
6 redirect. I have no questions, Dr. Lippman. Thank you
7 very much.

8 THE WITNESS: My pleasure.

9 ATTORNEY YANG: Thank you.

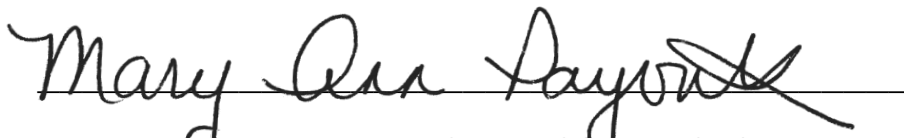
10
11 (Deposition adjourned at 2:32 p.m.)
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1 REPORTER'S CERTIFICATE

2 I, MARY ANN PAYONK, shorthand reporter and
3 Notary Public, CA CSR No. 13431, do hereby certify that
4 the witness whose deposition is hereinbefore set forth
5 was sworn by agreement of all parties, that the
6 proceedings were reported stenographically by me, and
7 that this transcript is a true, correct, and full record
8 of the testimony given.

9 I further certify that I am not related to
10 any of the parties to this action by blood or by
11 marriage, and that I am in no way interested in the
12 outcome of this matter.

13 IN WITNESS WHEREOF, I have hereunto set my
14 hand this 26th day of July, 2024.

15
16 
17 MARY ANN PAYONK, CSR #13431
18
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25

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DEPOSITION DATE: July 17, 2024

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Date

1 I,

2 DR. ANDREW B. LIPPMAN,

3 state that I have read the foregoing deposition and
4 declare under penalty of perjury:

5 That the foregoing is my deposition under
6 oath;

7 That I have read same and have made the
8 necessary corrections, additions or changes to my
9 answers that I deem necessary;

10 That my answers as indicated are true and
11 correct.

12
13 Executed at _____
14 this _____ day of _____, 2024.

15
16 _____
17 DR. ANDREW B. LIPPMAN
18
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25

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