

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

Case: IPR2025-01308

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SAMSUNG ELECTRONICS CO., LTD. AND
SAMSUNG ELECTRONICS AMERICA, INC.

Petitioners

v.

MAXELL, LTD.,
Patent Owner
-----X

DEPOSITION

OF

JOSEPH A. PARADISO

FRIDAY, MARCH 13, 2026

HELD REMOTELY

Reported by:
Candida Borriello
Stenographic Court Reporter
Job No. 7088343-001-001

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DATE: March 13, 2026
TIME: 10:00 a.m. (Eastern Time)

Deposition of JOSEPH A. PARADISO, held
REMOTEY, before Candida Borriello,
Stenographic Court Reporter and Notary
Public of the State of New York.

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2 A P P E A R A N C E S:

3

4 Appearing on Behalf of Samsung Electronics
5 Co., Ltd. and Samsung Electronics America,
6 Inc.:

7

8 MAYER BROWN LLP
9 1999 K Street, NW
10 Washington, DC 20006-1101
11 (202) 263-3046

12 BY: SÉKÉ G. GODO, ESQ.
13 EMAIL: Sgodo@mayerbrown.com

14

- and -

15 MAYER BROWN LLP

16 71 South Wacker Drive
17 Chicago, Illinois 60606
18 (312) 701-8645
19 BY: AMANDA STREFF BONNER, ESQ.
20 EMAIL: Asbonner@mayerbrown.com

21

22

23 Appearing on Behalf of Maxell, LTD.:

24 DLA PIPER LLP (US)
25 One Liberty Place
1650 Market Street, Suite 5000
Philadelphia, Pennsylvania
19103-7300
(215) 656-3359
BY: JOSEPH WOLFE, ESQ.
EMAIL: Joseph.wolfe@us.dlapiper.com

26

- and -

27

28 DLA PIPER LLP (US)
29 One Fountain Square
30 11911 Freedom Drive
31 Suite 300
32 Reston, Virginia 20190-5602
33 (703) 773-4000
34 BY: GIANNI MINUTOLI, ESQ.
35 EMAIL: Gianni.minutoli@us.dlapiper.com

1 J. Paradiso

2 THE COURT REPORTER: We're on the
3 record.

4 J O S E P H P A R A D I S O,
5 called as a witness, having been
6 duly sworn by a Notary Public,
7 was examined and testified as
8 follows:

9 EXAMINATION BY

10 MR. GODO:

11 Q. Good morning. I'm Séké Godo. I'm
12 counsel for the patent owner Maxell. With me
13 I have Amanda Bonner, also counsel for
14 Maxell.

15 Good morning, Dr. Paradiso. Did I
16 say it correctly?

17 A. Yes, you did.

18 Q. Okay, great. So where are you
19 located right now?

20 A. I am at DLA Piper's offices in
21 Boston.

22 Q. Is there anyone in the room with
23 you?

24 A. There's actually nobody actually.

25 Q. Do you have any physical documents

1 J. Paradiso

2 with you?

3 A. Yes, I have copies of the case
4 materials with me.

5 Q. Do you -- you have your laptop with
6 you, could you put that to the side?

7 A. I don't have my laptop with me.

8 Q. Oh, you don't have your laptop with
9 you, okay.

10 A. I mean, the laptop I was given is
11 the one that has Zoom running on it.

12 Q. Okay. Great. Yeah, you can use
13 that. What I'll do is via Zoom I'll be
14 sending you some documents, so can you put
15 your documents away, so you can pull up
16 whatever I send you online?

17 A. Yeah.

18 MR. WOLFE: I'm sorry, just to
19 interject, it seems entirely proper
20 that Dr. Paradiso can use his
21 documents if he would like to
22 reference them during the deposition.

23 MR. GODO: He can do it
24 electronically. I'll be sending him
25 the documents. He shouldn't be

1 J. Paradiso

2 referencing. I'd like for him to use
3 whatever I send to him via Zoom.

4 MR. WOLFE: Understood. But I
5 believe he could still use his paper
6 documents if it's just easier for him
7 to look at them.

8 BY MR. GODO:

9 Q. Dr. Paradiso, are your documents
10 marked up?

11 A. Not at all. They were provided to
12 me this morning by counsel.

13 Q. Are they clean copies?

14 A. Yes.

15 Q. Okay. That's fine then.

16 Do you have any other electronics
17 located near you?

18 A. I have a phone on airplane mode in
19 my pocket.

20 Q. Can you turn it off?

21 A. Okay. Okay, it's off.

22 Q. Do you have any other applications
23 running on your laptop?

24 A. I don't know. This is the laptop
25 that was provided, it looks like it's only

1 J. Paradiso

2 Zoom.

3 Q. Okay, no problem. So have you been
4 deposed before?

5 A. Yes, I have.

6 Q. Approximately how many times?

7 A. Oh, I don't know, maybe 30 times,
8 something on that order.

9 Q. What types of cases were those?

10 A. Mainly IP cases. Some were trade
11 secret cases, and lot of it is about intranet
12 of things, technology, wearable technology
13 and media technology of various sorts, sensor
14 technology. Things in this space.

15 Q. Okay. Were you representing
16 defendants and plaintiffs?

17 A. In the cases that I've been on,
18 I've tended to represent defendants more.

19 Q. Okay. In how many of these cases
20 were you hired as an expert witness?

21 A. Essentially all of them.

22 Q. Okay.

23 A. Not all of them went to deposition.
24 Some of them were just a report of some sort.

25 Q. When was the most recent time you

1 J. Paradiso

2 were deposed?

3 A. I was deposed six months ago. It
4 was for an MIT case, it has nothing to do
5 with IP or anything like this. Just
6 testifying on behalf of MIT. Last time I was
7 deposed for an IP case was probably about a
8 few years ago.

9 Q. Few years ago, okay.

10 A. Something like that.

11 Q. Okay. So to refresh your memory,
12 you've probably done this a lot of times, but
13 let's go over some of the guidelines for the
14 deposition today.

15 A. Sure.

16 Q. The court reporter is transcribing
17 everything we say. So it's important that
18 you give verbal responses. So if I ask a
19 question, instead of nodding can you say
20 "yes" or "no," is that okay?

21 A. That's okay.

22 Q. And also please wait until I finish
23 my entire question before you begin your
24 answer, this will help ensure that we have a
25 clean record. And if I ever cut you off, you

1 J. Paradiso

2 know, when you're giving an answer or you
3 feel you weren't able to fully respond,
4 please let me know. Is that agreeable?

5 A. Yes.

6 Q. If you don't understand a question,
7 please let me know and I will rephrase it.
8 If you answer a question I'll assume you
9 understand it. Is that fair?

10 A. That's fair. I will ask you for
11 clarification if I'm confused.

12 Q. Okay. Your counsel may object from
13 time to time, but unless he specifically
14 instructs you not to answer based on
15 privilege or court order, you still need to
16 answer the question, okay?

17 A. Yes.

18 Q. If you refuse to answer on the
19 basis of privilege I will need you to
20 explicitly state that and what part of the
21 question you can't answer, and if you are
22 refusing to answer it on the basis of
23 attorney-client privilege, I also ask you to
24 specifically tell me what part of the
25 question it is related to. Understood?

1 J. Paradiso

2 A. Yeah.

3 Q. If at any point you need to take a
4 break, let me know. The only thing I ask is
5 that if there's a question pending, answer
6 the question before we take the break; is
7 that okay?

8 A. Yes, that's okay.

9 Q. Is there any reason that you can't
10 testify truthfully and accurately today?

11 A. There's no reason.

12 Q. Specific to an IPR deposition, do
13 you understand that you are not permitted to
14 discuss the substance of your testimony with
15 counsel during the breaks?

16 A. Yes, I am.

17 Q. Okay. You agree not to talk to
18 counsel during breaks regarding your
19 testimony, okay, right?

20 A. Yep, I will not.

21 Q. So this IPR relates to U.S. patent
22 number 11277650, correct?

23 A. Yes.

24 Q. If I refer to this as the
25 '650 patent, you will understand what I mean,

1 J. Paradiso

2 correct?

3 A. I will.

4 Q. Okay. Let's go into your
5 preparation.

6 What did you do to prepare for
7 today's deposition?

8 A. I went over the case materials and
9 I discussed with counsel.

10 Q. Approximately how long, how many
11 hours did you spend preparing?

12 A. Probably on the order of three
13 days, so something like 36 hours, maybe
14 24 hours. It depends on how you add them up.

15 Q. Did you review any documents during
16 your preparation for this deposition?

17 A. Yes, I did.

18 Q. What documents did you review?

19 A. I reviewed my declaration.
20 I reviewed the petitioner's initial response.
21 I reviewed the prior art in the case.

22 Q. Who did you meet with during your
23 preparation?

24 A. I met with attorneys from
25 DLA Piper, Joseph Wolfe is here, Gianni as

1 J. Paradiso

2 well, and another attorney from the team,
3 James, I believe. But those were the people.

4 Q. James, is there a last name for
5 James?

6 A. I don't recall. There is of
7 course, but he's one of the attorneys on the
8 case.

9 Q. When did you meet with each person?

10 A. The last two days.

11 Q. As each -- okay, as a whole. How
12 much time did you spend meeting with them?

13 A. Maybe five hours each day, maybe
14 total of ten, something like that, no more.

15 Q. Five hours for all the people that
16 you mentioned?

17 A. Yes, it's -- we were all together.

18 Q. Okay. And did you meet with anyone
19 from Samsung?

20 A. No.

21 Q. Okay. When did you first hear
22 about this IPR proceeding?

23 A. When DLA Piper reached out to me
24 about it. This was, oh, probably last
25 spring.

1 J. Paradiso

2 Q. Okay. When did you start working
3 on the case?

4 A. Summer, late spring. Don't
5 remember exactly but by summer.

6 Q. Did you -- have you done any work
7 for Samsung before this IPR proceeding?

8 A. What do you mean by "work"?

9 Q. Like, did you -- did you serve as
10 an expert witness?

11 A. Yes. I believe I may have been on
12 one case with them. I don't recall. It
13 would be on my IP list that I provided to you
14 guys on my list of IP consulting. It's
15 possible one case but if so, not much.
16 I forget exact.

17 Q. And do you recall what the nature
18 of the case was?

19 A. No, I don't actually. I have to
20 look. This could be the first case or the
21 only case I've been with Samsung on, entirely
22 possible but I have to look.

23 Q. Okay. We'll get to that. No
24 problem.

25 So other than serving as an expert,

1 J. Paradiso

2 did you work with Samsung in the past?

3 A. Yes, in different ways. They are a
4 member company at the MIT Media Lab. So I've
5 met them once in a while over the last
6 decades. They never supported me directly
7 but, you know, they are -- come to our
8 meetings and so on, so I met some of their
9 researchers.

10 Q. And what was the nature of the
11 interaction with Media Lab?

12 A. They come to our member meetings,
13 we present our work. All the companies that
14 our members come and, you know, we discuss
15 our stuff and we demo it. It's pretty much
16 what it is.

17 Q. So what is -- what is a member
18 company, what does that mean?

19 A. A member company is what we call --
20 we call them now, yeah. They are member
21 companies, we used to call them sponsors.
22 But they fund research at the Media Lab as a
23 whole. And Samsung had been a member company
24 for, I don't know, 15 years probably now,
25 10 years, probably 15. So, you know, they

1 J. Paradiso

2 have been coming to our meetings. We have,
3 of course, anywhere from 30 to 120 members
4 depending on when you're talking.

5 Q. And Samsung is still a member
6 company?

7 A. Yes, I believe they are.

8 Q. And they're sponsoring the Media
9 Lab?

10 A. They are.

11 Q. Okay. So what exactly -- what is
12 the collaboration between the MIT lab --
13 Media Lab and Samsung?

14 MR. WOLFE: Objection.

15 THE WITNESS: Sorry, can you
16 repeat, Joe?

17 MR. WOLFE: Objection. Scope.

18 Q. Go ahead. Can you answer the
19 question, Dr. Paradiso?

20 A. So as I mentioned, Samsung or a
21 member company of the Media Lab, they come to
22 our meetings, they send researchers over
23 sometimes for demos in different groups and,
24 you know, it's the nature of the
25 relationship.

1 J. Paradiso

2 They have -- they do fund some
3 professors. There's a project on sleep that
4 they fund, but it's not part of my group.

5 Q. You say they come for demos, what
6 are those demos?

7 MR. WOLFE: Objection. Scope.

8 A. Demos are the visitor group. The
9 professor or the students will basically run
10 through a discussion of our different
11 projects that we're working on. And if we
12 have something we can demonstrate we'll
13 demonstrate it sometimes.

14 Q. Can you give me an example of what
15 a demonstration entails?

16 A. Oh, I did tell you, actually. So
17 they come, we discuss. If there's something
18 [indiscernible] -- now I have an interactive
19 music system using AI --

20 THE COURT REPORTER: I'm sorry,
21 "if there's something" what?

22 A. I'm sorry. They come and they
23 visit, we give them talks. It's pretty
24 standard. I give these talks all over the
25 world, and if there's something we can

1 J. Paradiso

2 physically demonstrate to them, for instance
3 we have a very popular demo now with AI and
4 music performance, you know, we can show that
5 to them, right -- if it seems to be -- if we
6 think it's of interest and we can sometimes
7 show them something.

8 Q. And have they ever -- one of your
9 demonstrations, has Samsung ever taken that
10 and done a collaboration with you?

11 A. No.

12 Q. And the Media Lab?

13 A. With the Media Lab there had been
14 collaborations that have gone to different
15 lengths but I can't tell you exactly what.
16 With me, I don't believe Samsung has licensed
17 any of my work or taken any of my work.

18 Q. How much funding does -- I'm sorry,
19 did you say something, Dr. Paradiso?

20 A. No, I finished my sentence.

21 Q. Okay. How much funding does
22 Samsung provide to Media Lab?

23 MR. WOLFE: Objection. Scope.

24 A. I don't exactly remember. It's
25 anywhere between 250k, most sponsors give up

1 J. Paradiso

2 to maybe 500-or-something k, maybe a few
3 hundred k more than that depending on what
4 they're funding in a given year.

5 So, you know, it's a standard
6 member fee and sometimes they pay extra
7 for -- to have an affiliate at the lab or
8 something like that.

9 Q. And so from what you just said, is
10 it a yearly fee, is that --

11 A. Yes.

12 Q. Is that what it is?

13 A. It works that way with all of our
14 member companies.

15 Q. So they -- so Samsung has provided
16 a fee for the Media Lab this year, correct?

17 MR. WOLFE: Objection. Scope.

18 A. Again, Samsung together with many,
19 it's just how universities operate.

20 Q. Have you ever served in an Inter
21 Partes Review before this one?

22 A. Yes, I have.

23 Q. What was that related to?

24 A. Oh, it's so long ago I have to go
25 through my case list and see. It's related

1 J. Paradiso

2 to my expertise which is, you know, media
3 technology, IoT sensor technology, wearable
4 technology, so something in that space. But
5 yeah, for me, I would have to go through and
6 find it.

7 Q. Before being retained for this
8 case, were you aware of the patent owner
9 Maxell?

10 A. Yes.

11 Q. What did you know about them?

12 A. I certainly know about Maxell from
13 being a tape manufacturer because I do a lot
14 of recording ever since I was a kid and I
15 used to have Maxell tape, which I loved,
16 actually. The famous Maxell ad of the hair
17 going in the backdrop in that time, and I
18 just saw it at the Cooper-Hewitt Museum in
19 New York, they have it on display, a pretty
20 exhibit there.

21 So Maxell has legacy in audiotape,
22 they don't really have any kind of a -- I
23 don't know of any work Maxell's done in
24 interactive media or hardware. But tape,
25 yeah, we all know, physical media at that

1 J. Paradiso

2 time they had a name.

3 And I did have a case with Apple
4 and Maxell. It was actually a district court
5 case that I was involved in. So Maxell was
6 on the other side and, you know, I did have
7 that interaction.

8 Q. Thank you.

9 Okay. Via the chat I'm going to
10 transfer a document, Exhibit 1002 -- let's
11 see. Have you received it, Dr. Paradiso?

12 A. I'm not used to a PC.

13 (Cross-talk.)

14 A. I see it. It's here, and let me
15 open it up. How do I open something on a PC?
16 Usually you would double-click. I think I
17 can save it. If I save it --

18 MR. WOLFE: Let's go off the
19 record.

20 THE COURT REPORTER: We're off the
21 record.

22 (Off the record from 10:19 a.m. to
23 10:21 a.m.)

24 THE COURT REPORTER: We're back on
25 the record.

1 J. Paradiso

2 (Exhibit 1002 was introduced.)

3 BY MR. GODO:

4 Q. So do you recognize the document I
5 put in the chat, Dr. Paradiso?

6 A. Yes, I do.

7 Q. I will represent to you that this
8 is a copy of your expert declaration which
9 includes your CV, and this is Exhibit 1002.

10 A. Yes.

11 Q. Can you turn to page 145?

12 A. Okay. I see, okay.

13 Q. This is the start of the CV. Is
14 this an accurate and current version of your
15 CV?

16 A. It was current as of April 2025.
17 Of course, you know, many things have
18 happened since.

19 Q. And can you elaborate on what has
20 happened since?

21 A. Well, I'm now an IEEE fellow, so
22 that's significant. We published many
23 papers, some patents of issue, things like
24 that. And I'm now the department head, I
25 might have that there. Yeah, I'm department

1 J. Paradiso

2 head. So things on that level.

3 Q. Are you serving as an expert --
4 other than this matter, is there a new matter
5 that you're serving as an expert on?

6 A. Great question. I have not signed
7 onto anything other than this now I believe.
8 Other cases I was involved in have finished.
9 But as of what we're talking about, I have
10 not signed onto another case.

11 Q. And as an IEEE fellow, what are the
12 types of publications that you publish?

13 A. Oh, it's not just an IEEE fellow,
14 it's -- I have publications that I publish
15 regardless of that. That is just given to
16 you as an award. It has nothing to do with a
17 particular kind of publication. But as you
18 can see from my publications here, I publish
19 on our research, which involves my fields of
20 interest which you can see here, including
21 interactive media.

22 Q. What are your fields of interest?

23 A. Well, here it says "sensor
24 applications and sensor networks," which I
25 have done a lot of work in. Ubiquitous

1 J. Paradiso

2 computing and intranet of things.

3 (Court Reporter clarification.)

4 A. I didn't say that properly.

5 Ubiquitous computing and the
6 intranet of things. Wearable sensing
7 systems. That's one of the things I got
8 the IEEE fellow for. Energy harvesting --

9 (Court Reporter clarification.)

10 A. Wearable sensing systems; energy
11 harvesting for embedded and wearable sensing;
12 human-computer interaction; augmented and
13 virtual reality; digital twins; energy
14 management in the built environment; space
15 systems; and interactive media; and
16 electronic/computer music generation and
17 performance.

18 Q. So I see you mention sensor
19 applications or sensor networks, can you give
20 some specifics on that? What does that mean?

21 A. Sensor networks are essentially
22 embedded computers with sensors and wireless
23 transmission typically. It can be wired as
24 well.

25 Essentially we change -- we used to

1 J. Paradiso

2 have sensors wired directly to systems,
3 eventually the systems became networked. Now
4 we have embedded computers that are small and
5 can be put into all kinds of applications.
6 So they can have a whole speed of sensors
7 that talk to the computer, the computer
8 processes the information, and then sends it
9 up to a server cloud infrastructure, other
10 infrastructure. And you can start putting
11 together sensor information over large spaces
12 of different kinds. You have lots more
13 information to work with. And the sensors
14 are smart, and that feeds right into the
15 intranet of things. And then if you look at
16 how the sensor information is, it can involve
17 interactive media as well.

18 Q. Can you give me an example of a
19 sensor that is interactive media?

20 A. Well, I do talk about, in my
21 declaration for instance, the spinner
22 platform, for example, that we built which
23 were very early in thinking about sensor
24 networks and how people interact with them.
25 And I'm actually known as the person who

1 J. Paradiso
2 coined the term "cross reality," which is now
3 pretty big when you talk about virtual worlds
4 and sensors. And that's about sensor
5 networks acting as this kind of wormhole
6 between real and virtual worlds, so you can
7 start to put spaces together dynamically by
8 presenting sensor information to people in
9 different ways.

10 So our units were small displays.
11 They had sensors on them as well as being
12 network displays. They could store content,
13 we could pull content off our servers, we --
14 the content could depend on what the sensors
15 were doing. We could pick the content
16 depending on what the sensors were saying,
17 and then show it on the screen or on other
18 screens.

19 We had 50 of them all over the
20 Media Lab. We even looked at connecting
21 different spaces where what happens in one
22 space can appear in a different space.
23 Something like a spontaneous video
24 conference, or it could also be overlaying
25 the video in interesting ways where you

1 J. Paradiso

2 could -- if someone moves, you can suddenly
3 see the spaces start to overlay in a dynamic
4 way.

5 So we play with a lot of ideas like
6 that.

7 Q. I see.

8 A. Including getting access. Are you
9 able to use the camera in your system?
10 Because they had cameras too. Are you able
11 to show this video? Depending on the
12 context, and we have wireless devices that
13 could just turn -- turn all the feed off.

14 Q. And when did you transition from
15 wire to wireless from the work you've done?

16 A. I got the IEEE fellow for that to
17 some extent because I was very early in
18 wireless sensors, especially wearables. And
19 the first platform I built that was a
20 wireless sensors platform was in 1997.

21 Q. Okay. And what type of content?
22 You mentioned sensors have content, what's
23 the type of content?

24 A. Well, the sensors would basically
25 create content you generate from the sensors.

1 J. Paradiso

2 Lots of different things. We had one example
3 where we would take video clips because we
4 had a camera and people would be walking
5 around with sensors on them. The sensors
6 that they wore would label the video that was
7 taken by the cameras that were pointed on the
8 walls because we'd know when you were near
9 from the radio. We had infrared as well.

10 And then, you know, we can label
11 the video by what the sensors there could
12 describe. Then you can query the system to
13 give me playback of a whole day of this
14 person, active -- tell a whole story in a
15 way, just you frame something and have the
16 video just self-assemble from the sensor
17 labeling.

18 Q. I'm sorry. Go ahead, continue.

19 A. That's one example.

20 Q. And was this in 1996?

21 A. That one was a bit later. That was
22 probably in the 2008/2009 time frame.

23 Q. Okay. And the bit rate during that
24 time, was it fast where you could transmit
25 video --

1 J. Paradiso

2 A. No.

3 Q. -- streams, or were they
4 prerecorded?

5 A. No, that was fast enough to be able
6 to transmit stream. We had, for instance,
7 live video conferences that would happen from
8 one of these portals to the other. We call
9 them portals, they were on a wire, those are
10 on a wired network.

11 And yeah, we'd put -- exchange all
12 kinds of -- we'd even stream video from a
13 server, or transfer to them, and they would
14 play it or stream it. So we did all of that.

15 Q. So in 2008 it was still wired, it
16 was not wireless?

17 A. You could do wireless too, or just
18 think about getting Nokia phones and using
19 those because they could start to do some of
20 it depending on the resolution. But our
21 system, that system was wired.

22 And then we -- you know, with the
23 cross-reality systems, we built a
24 cross-reality system there too where we
25 actually stream from Second Life.

1 J. Paradiso

2 So with virtual world, the sensor
3 information would go in through a virtual
4 world and you could browse the virtual world
5 either from your computer at home or from one
6 of these. And you could have the virtual
7 world as an intermediary between, you know,
8 the real world with the sensors in different
9 locations basically, bring them together in a
10 virtual world. So we did a lot of that too.

11 Q. And the virtual world was -- what
12 was the earliest for that, was it 2008?

13 A. We started playing with these ideas
14 in 2005. By 2008 we were doing it with
15 Second Life. I think it was 2009 our
16 publications came out, thereabouts. I would
17 have to look.

18 Q. You said -- you mentioned Second
19 Life, what is that?

20 A. Second Life is a very early shared
21 online virtual world where people could
22 appear as avatars, you could build your own
23 landscape and people could communicate with
24 each other. No one thought about tying it to
25 the real world, from what I know back then,

1 J. Paradiso

2 we were really the first one -- one of the
3 first people to do it.

4 Q. So Second Life, when did that
5 start, what's the earliest?

6 A. Geez, I don't remember. It was
7 going for a long time, early 2000 somewhere,
8 could be earlier. Could be -- well, hard to
9 say but I'd say early 2000s anyway. Early
10 mid-2000s, got popular for a while around
11 then.

12 Q. When you say early 2000s, can you
13 give me a range?

14 A. I would have to dig. I don't
15 remember. You could ask easily on the web
16 "When did Second Life start?", and it would
17 tell you. But somewhere certainly by the
18 mid-2000s people knew about it, so I think it
19 started before.

20 Q. When you say "mid-2000s" what does
21 that mean?

22 A. Mid-2005, thereabouts.

23 Q. Okay.

24 A. I'd say it was established -- there
25 are others. Sound of Wonderland, I used to

1 J. Paradiso

2 work with them too, another virtual world.

3 Q. Is it correct that this Second Life
4 was first wired --

5 A. No.

6 Q. -- between the --

7 (Cross-talk.)

8 A. Well, Second Life runs on a server.
9 Well, that's a good question. Well, some of
10 it's pushed to the client, you see it more
11 with WonderWorld, which is an innovation
12 where they push most of the processing to the
13 client. Second Life I think did most of
14 their rendering on servers, and it would send
15 the information to connected users.

16 I believe that was wired, I don't know if
17 anyone did a wireless version, or wireless
18 portal into it. Maybe. You could. But I
19 think most of the people using it would just
20 use it live with a wired connection on a
21 computer.

22 Q. When did it start being wireless;
23 do you know?

24 A. What do you mean by "wireless"?
25 You're getting into an area where it doesn't

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2 make much sense to me. What do you mean by
3 that?

4 Q. So let's say -- well, to answer
5 your question, let's say -- can you explain
6 what the configuration is for the second one?
7 When you say "client," do you mean a computer
8 that someone is on and --

9 A. I --

10 (Cross-talk.)

11 A. Second Life is a server. Well,
12 they're the company, Linden Lab is the
13 company that ran Second Life. It is a suite
14 that ran on their server and you would give
15 input to the server and it was just from
16 using your keypad. Some people had -- we had
17 sensors going in. Some people may have had
18 gloves going in.

19 That information would go into the
20 server and you could move your avatar around.
21 You could build things in your world. Like
22 Minecraft. You can build things in your
23 world and do things like that. And you would
24 get from the server a video of whatever
25 you're doing, other people that were in the

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2 space, you'd see it there. So that's what
3 Second Life was.

4 You know, we actually ren- -- we
5 actually rendered it on our platforms, so we
6 ran a Second Life on our portals. So these
7 little -- little things you actually could
8 see the Second Life version of the Media Lab
9 and interact with it through your -- your
10 screen.

11 Q. The screen, what was the screen on,
12 what was that?

13 A. It was our device, our ubiquitous
14 awareness portals we called them. I sent you
15 a paper, I think even a video. You got it
16 all in the materials that were considered
17 were provided.

18 Q. So the device, what were the
19 devices? Were they PCs, desktops, laptops?

20 A. Our device was our own device. We
21 built it ourselves. So it was based around a
22 TI DaVinci processor. Half of the processor
23 was made for fast graphics, the other half
24 was an ARM. That's before people started
25 embedding arms widely into everything.

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2 So then we had our own display, we
3 had our own sensors, we had our own camera we
4 put in. So we designed that all ourselves.

5 Q. Were the sensors wirelessly
6 connected through your device or wired?

7 A. We had wearable sensors that would
8 wirelessly connect to these. So this
9 actually was able to talk, I don't know if it
10 spoke Bluetooth, it might have. It did
11 certainly speak our own low energy -- we used
12 to develop our own protocols back then too.
13 So it would speak that to talk to your
14 wearable sensors. There were other sensors.
15 So you could connect devices of this sort to
16 it. It itself was wired. We have a
17 hardwired Ethernet connection into it.

18 Q. Okay. So as we discussed earlier
19 you do work for Media Lab and you still do,
20 correct?

21 A. That's correct.

22 Q. During the time 2005 to 2006
23 related to the work with Media Lab, did that
24 include the Second Life?

25 A. We started working on that stuff

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2 around then, yeah. I think I'd have to look
3 back at details but we started a
4 collaboration with them actually. May have
5 begun around then, I don't remember. But
6 Second Life -- Second Life is not part of the
7 Media Lab. That was a separate company.

8 Q. Okay. Did you deal with content
9 distribution for or over network system with
10 Media Lab?

11 A. Yes. This was an example of it.
12 Many of my colleagues were very deep into
13 that. We had a whole consortium called
14 Television of Tomorrow.

15 Q. Can you expand on that?

16 A. That ran from the '90s, so it went
17 way back. In the beginning, Media -- in the
18 Media Labs of pioneer in the beginning of
19 digital television, when we shifted to
20 digital TV, the MIT Media Lab was one of the
21 main partners in -- in those discussions.
22 And Television of Tomorrow was a consortium
23 set up by my friend and colleague
24 Andy Lippman who, you know, assembled groups
25 of companies and researchers at the lab

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2 together to do different projects that looked
3 at the future of television.

4 One example is the MediaBank which
5 I described, I believe, in my preamble.

6 Q. Can you expand on just one example?

7 A. Well, MediaBank was a server where
8 people could store all different kinds of
9 media, so video, newspapers. Because the
10 Media Lab you have to realize was formed
11 around that media convergence, that was what
12 started the lab in the beginning. Nicholas
13 Negroponte founded the Media Lab and the word
14 convergence, media convergence is traced to
15 him. So he saw --

16 THE COURT REPORTER: I'm sorry, he
17 saw what?

18 A. We saw film publishing, video,
19 music all combining into one platform, which
20 is the world we live in now. Back then it
21 was an unusual idea. So the MediaBank had
22 the idea that people could store media in the
23 server and then it could transcode and
24 provide different resolutions to other
25 clients.

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2 Q. And this was around 2005, 2006?

3 A. Much earlier. It was dating, I
4 think, from the early 2000s or the '90s.
5 I think the '90s. I have the dates in the
6 report.

7 Q. Can you provide some of the
8 challenges that you experienced when
9 developing one of those projects?

10 A. Developing our portals, we, of
11 course, developed all this hardware
12 ourselves, including the DaVinci chip.
13 There, you know -- so we had to physically
14 embed all of this in hardware and make it
15 work. That's always, you know, a challenge,
16 and I think we did quite well.

17 What was the other challenges that
18 we had? I mean, the network worked quite
19 well. Getting the DaVinci chip to work
20 properly we had to do our homework with that.
21 It was a hard chip to develop for but we did
22 it. Getting the Codex to work right on it.
23 We had to work at that.

24 Well, getting information -- the
25 Second Life part, getting sensor information

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2 into Second Life, there was no protocol to do
3 that. We had to develop our own 'cause
4 Second Life wasn't built for generic sensor
5 information to come in, so we had to develop
6 a whole way of doing that. These are some
7 examples.

8 Q. You mention hardware limitations.
9 Can you explain, let's say, on the device
10 that you built, the sensors, the display that
11 you had, what was some of the challenges like
12 the hardware limitations?

13 A. I think the biggest limitation we
14 had developing for DaVinci, the device had
15 just come out, there wasn't -- there weren't
16 a lot of apps we can grab and just use. So
17 we developed a lot of it ourselves, including
18 the Codex and stuff like that.

19 So we did a lot more work than we
20 would have to at a later stage because we had
21 to develop a lot of these things that are now
22 pretty standard.

23 Q. Did you have any restrictions
24 hardware-wise like as far as bit rates or the
25 transmission?

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2 A. That was never a problem. I think
3 for us, for the displays that we have which
4 are like in this patent, the portable
5 displays, it's similar to something like
6 that. On a wired network for what we're
7 doing, that was okay.

8 Q. And to be correct, this was around
9 2005, 2006, correct?

10 A. Started May 2005, it goes up to
11 2009. So that's the period where we were
12 developing and then deploying that.

13 Q. And so there was no limitation as
14 far as display, from your personal display to
15 other devices, that was not an issue,
16 correct?

17 A. There's always -- go ahead. Sorry.

18 MR. WOLFE: Objection. Form.

19 A. I mean, we were able to do what we
20 had to do with our system that we had, so we
21 didn't -- I mean, there's always limitation
22 depending on how far you want to push the
23 bar. But to do what we did, to send video in
24 the content that we did, we were able to do
25 that and that was not a problem.

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2 Q. You mentioned there's always
3 limitation depending on how far you want.
4 Can you tell me -- can you tell me, what's
5 the limitation when you were trying to push
6 the boundary?

7 A. We did -- we didn't encounter a
8 limitation 'cause we didn't have to push the
9 boundary. We were able to send the videos at
10 the resolution we had from one terminal to
11 the other and they were fine.

12 Q. So there was no display resolution
13 limitations, that was not an issue?

14 A. For us, no. For what we had, no.

15 Q. Did you use cell phones?
16 I remember you mentioning Nokia, was that a
17 cell phone?

18 A. I used to work a lot with Nokia.
19 And we had some of their PDAs and cell
20 phones. We have used them in other projects.
21 We didn't use them in this project.

22 Q. So there was mainly desktops and
23 laptops?

24 A. This project we built our own
25 hardware. We built our own little system

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2 with a display and with camera and sensors.

3 You could use desktops and laptops to talk to

4 it, yes. You could bring up a window and

5 look at this through your desktop or laptop.

6 But that system was built on -- we built it

7 ourselves.

8 Q. And the hardware that you built,

9 what would you -- what would you call that?

10 Is it a desktop, or is it something far from

11 a desktop?

12 A. No. This hardware is more like

13 the -- it's like a PDA maybe. It's like the

14 remote terminals in some of the art that we

15 see here. Probably like that.

16 Q. Is it a handheld, or is it --

17 A. These were not handheld, they were

18 mounted on a wall. We'd screw it on a wall.

19 They even had motors, so we could move the

20 display. We built 50 of them.

21 Q. Can you provide a size for that

22 display?

23 A. Again, I have papers on them and

24 video in my report that I linked, so you got

25 plenty -- you got the actual thing there.

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2 But it's probably (indicating). Putting my
3 hands up like that, like that (indicating).
4 PDA size.

5 Q. Okay. All right. Did those
6 PDAs -- how much -- how much could they save
7 as far as -- the Second Life, I assume, with
8 virtual reality and you having some video, is
9 that carrying a lot of -- does that require a
10 lot of data?

11 MR. WOLFE: Objection.

12 A. There's data that comes in. Second
13 Life basically would send the rendering
14 through the network to your terminal, and
15 then you would render it on your screen.

16 So can you repeat your question,
17 actually?

18 Q. Yeah. So you mention -- okay. So
19 I was asking you, you had -- you built this
20 hardware connected with your sensors. They
21 were wired to the -- the PDAs were wired to
22 the sensors and you have this virtual reality
23 on the server, correct?

24 A. Yeah. If you call them PDAs, we
25 call them portals, and the virtual reality

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2 ran on Second Life server. And it basically
3 sent video back that we could render on our
4 displays. That was one example.

5 We would also take video from one
6 of the portals, they all had cameras, and
7 send it to another one through our own
8 network. So you'd connect two spaces. If
9 two people came by that knew each other, we
10 could pop open a window so they could see
11 each other and talk to each other in real
12 time. That's another example.

13 We ran many things like this.

14 Q. And would they need restrictions on
15 the size? What was the -- what was the size
16 of those portals as far as memory is
17 concerned?

18 A. Oh, I don't remember how much
19 memory we had. We had memory on them, but I
20 don't remember how much.

21 Q. Would you say it was -- in 2005
22 would you say it was the order of megabytes?

23 A. Some, yeah, probably a bit more,
24 but you know. And again, the portals came
25 later. We built them 2007, '08, '09,

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2 something like that. I forget. We started
3 designing them and working in this field in
4 2005. By the time we built them it was a few
5 years later.

6 Q. So between 2005 to 2006 could
7 you -- were you able to run these things,
8 like you said, live or -- so you're saying --
9 I'm sorry. Strike that. Let me repeat the
10 question.

11 When you had the final portal done
12 where you could have a live feed, when was
13 that?

14 (Cross-talk.)

15 A. May have been 2009, 2008. I don't
16 remember. I'd have to go and look back at
17 the papers. It's there in the declaration.

18 Q. So in -- let's say in 2005 or let's
19 say 2006, was it more like you built the
20 sensors, you built those portals but they
21 weren't working with each other yet, they
22 weren't connected to the server; is that
23 correct?

24 A. I think we started designing these
25 things then. I think we built several

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2 generations, but I think you're talking the
3 later 2000s where we actually started
4 building and using them seriously.

5 Q. And later 2000s, you mean 2009,
6 2010?

7 A. Yeah, 2008 to 2010, probably that
8 vicinity.

9 Q. Okay. All right. Let's turn to
10 page 1 of your -- of Exhibit 1002 which is
11 your declaration.

12 A. Yep.

13 Q. You recognize this document,
14 correct?

15 A. I do.

16 Q. Is that your signature there on the
17 first page?

18 A. Yes, it is.

19 Q. Does this document appear to be a
20 true and accurate copy of your declaration
21 dated July 16, 2025?

22 A. Just flipping through a few pages
23 here.

24 (Document review.)

25 It does look like my declaration,

1 J. Paradiso

2 yes.

3 Q. Does this declaration contain all
4 your opinions related to the validity related
5 to the '650 patent?

6 MR. WOLFE: Objection. Form.

7 A. As we're sitting here today, when I
8 wrote this declaration, yes, it contains all
9 of my opinions at that time.

10 Q. Did you write all of this report
11 yourself?

12 A. This is my report.

13 Q. Did you write all of this report
14 yourself?

15 A. I wrote much of it. Some of it I
16 would go back and forth with the attorneys
17 on, but these are my opinions.

18 Q. Can you explain the drafting
19 process?

20 A. I would talk to attorneys about
21 ideas, I would contribute text, and we would
22 with just work on parts of it together. I'd
23 revise, go over everything, and in the end
24 make sure that I can stand behind these
25 opinions.

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2 Q. Which parts did you write?

3 A. Oh, I wrote much of it, I don't
4 remember exactly what.

5 Q. Which part didn't you write?

6 A. Again, this is my report.
7 I basically and fundamentally was involved in
8 all of it.

9 Q. About how many hours did you spend
10 reviewing materials on drafting this report?

11 A. Oh, I spent probably many tens of
12 hours. I forget exactly how many.

13 Q. Can you quantify tens of hours?

14 A. Oh, I don't know, could be
15 40 hours, could be more, could be -- I don't
16 think it's less. Something on that order.
17 Probably more.

18 Q. I'm sorry?

19 A. Probably more.

20 Q. Can you give me like a maximum
21 number?

22 A. Oh, I don't know. I'd say between
23 40, 80 hours, something. I have to go back
24 and think but yeah, tens of hours.
25 40 anyway, probably, I'm guessing.

1 J. Paradiso

2 Q. What level of education do you
3 think is needed to understand the technology
4 related to the '650 patent?

5 A. I believe I have in this report the
6 definition of a POSITA, which I can turn to,
7 and I think both sides agree with it.

8 Q. Yes. Please go ahead turn to it,
9 and let me know what it is.

10 A. Okay. One moment.

11 MR. WOLFE: While he's looking for
12 it, I know we're approaching an hour
13 on the record, just let me know
14 whenever you want to take a break and
15 what makes sense.

16 MR. GODO: Okay.

17 A. Here it is. So it's paragraph 52.
18 So a person of ordinary skill in the art at
19 the time of invention would have a --

20 THE COURT REPORTER: You have to
21 slow down.

22 A. When I read I go fast. Sorry about
23 that.

24 -- would've had a bachelor's degree
25 in electrical or computer engineering,

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2 computer science, or a comparable field of
3 study, plus approximately two or more years
4 of experience with content distribution or
5 over network systems or other relative
6 experience. Additional education could
7 substitute for experience and industry
8 experience could substitute for formal
9 education.

10 Q. Do you know anyone with a
11 bachelor's degree in electrical or computer
12 engineering, computer science or comparable
13 field of study that would have the requisite
14 level of skill for the '650 patent?

15 A. Yeah. Many people in my group
16 would've had that skill.

17 Q. Do you satisfy this definition of
18 person of ordinary skill in the art?

19 A. Yes, I believe I do.

20 MR. GODO: We can take a break at
21 this point.

22 THE COURT REPORTER: We're off the
23 record.

24 (Off the record from 10:55 a.m. to
25 11:05 a.m.)

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2 THE COURT REPORTER: We're back on
3 the record.

4 BY MR. GODO:

5 Q. Dr. Paradiso, I sent you a file via
6 the chat, can you open it? It's
7 Exhibit 1001.

8 A. Okay. Here it is.

9 (Exhibit 1001 was introduced.)

10 THE COURT REPORTER: These are
11 previously marked exhibits, right.
12 I'm not marking them?

13 MR. GODO: That's correct.

14 A. Sorry about this.

15 Q. That's okay.

16 A. I'm just not used to Windows.

17 Q. Should we go off the record?

18 A. Yeah, you can for a second.

19 I should be able to get there a little more
20 quickly. I got it through search. Okay. So
21 it's the patent 112- -- that's the one, it's
22 the '650 patent?

23 Q. That's correct.

24 A. Okay. And I've opened it so I'm
25 good.

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2 Q. Okay. So what is your overall
3 understanding of the '650 patent?

4 A. I believe it talks about -- or says
5 a content receiving distribution system.
6 I believe I summarize it in my declaration.
7 Let me go to that.

8 So as I say in paragraph 50, it
9 relates to a content receiving system, so it
10 says that in the patent title, for displaying
11 content to plurality, to a bunch of viewers
12 through the use of a main content receiving
13 display in one or more subsidiary content
14 control receivers.

15 So essentially, people can be
16 watching some content on a common display and
17 they can see related content coming up in
18 their small screens that they would have,
19 each individually would have.

20 Q. Okay. And what problem did the
21 '650 patent seek to solve?

22 A. I think they talked about -- you
23 know, at the time there weren't -- there
24 wasn't much space for subtitles, for example,
25 on the screen or other bits of content. So

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2 you could have people with their own displays
3 that could see them, and then they could each
4 look at a different kind of a content too.

5 So one of them could see a subtitle
6 in one language or another. There are
7 examples also of the main unit playing music,
8 and you could look at a picture of the album
9 and see the artist kind of like what items
10 would do on the small display.

11 So just a matter of brokering the
12 contents so that you could look at other
13 levels of information on the small displays.

14 Q. Okay. How did the '650 patent
15 solve this problem?

16 A. I believe the '650 patent would
17 show the main content, and it says it very
18 clearly here actually. So the display
19 content can include main and subsidiary
20 content, which I just said the main content
21 is displayed by the main content display unit
22 which everyone sees.

23 Subsidiary content is the content
24 that's received by the subsidiary control
25 receiver from the main content. So they

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2 split it off at the request of the subsidiary
3 content control receivers. So receivers
4 request a certain other kind of a content,
5 and it goes through a protocol for this and
6 it sends the content to them.

7 Q. Okay. You mention main content.
8 What do you define as main content, or what
9 does the '650 define as main content?

10 MR. WOLFE: Object to form.

11 Q. Sorry. Strike the question.
12 What is main content?

13 A. Main content in the context of
14 '650, the way it says main content?

15 Q. Yes.

16 A. Well, there's one sentence from it:
17 "Enjoy video by use of the main content
18 receiving display unit."

19 So that would be, you know,
20 whatever program you're looking at but, you
21 know, content itself has so many different
22 meanings, including in this patent. So
23 people are watching, you know, together one
24 set of content on the big display and then
25 there's content that goes to the small

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2 displays which is usually different.

3 Q. So is it fair to say that main
4 content is shown on the display that everyone
5 sees; is that correct?

6 A. The patent talks about this. The
7 main content receiving display unit is
8 showing what I imagine would be the main
9 content, but that is -- there's also content
10 that goes to the separate devices which is
11 different from that.

12 Q. Okay. And so is it fair to say the
13 main content is a video?

14 A. It's saying that. There are a lot
15 of scenarios in this patent. You read the
16 spec, it doesn't just talk about video, it
17 talks about music, it talks about other
18 things.

19 Q. What are the other things?

20 A. I have to go back to the patent and
21 read them.

22 Q. Okay. Then you mention the
23 subsidiary terminals receive some content,
24 and it's defined as subsidiary content.

25 A. Yes.

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2 Q. What is subsidiary content?

3 A. It gives examples here.

4 Multi-language audio data, electronic program
5 guide, an electronic content table,
6 additional information, content obtained by
7 down-converting the main content, resolution
8 into SD resolution and/or content information
9 obtained by transforming an encoding method
10 of the main content. These are examples.

11 Q. Okay. And would you say that
12 content -- so would you say that a content is
13 main content, correct?

14 A. No.

15 Q. What would you say a content is
16 then?

17 A. A content is different things in
18 this patent depends on what the sensory
19 receivers see. It's the content that's been
20 made for them, so they're seeing the content
21 that has been made for them.

22 Q. So you're saying that a content is
23 not main content, correct?

24 A. Doesn't have to be, no.

25 Q. Can it be?

1 J. Paradiso

2 A. It's -- I think in general it
3 isn't -- 'cause even -- it's transforming it
4 'cause it can send the content to these
5 displays, so it is not the same.

6 Q. So a content can only be subsidiary
7 content, correct?

8 A. Depends on what you're talking
9 about. You have to point me to the patent
10 where you see a content and then we have to
11 you unpack it from there.

12 Q. I mean -- but you said that a
13 content cannot be main content, correct? So
14 then, well, what else can it be?

15 A. A content that goes to the
16 subsidiary displays in this list of examples,
17 it doesn't say the main content. It says,
18 you know, it's transforming it in different
19 ways or it's totally different information.
20 That's what it can be, because it clearly
21 says what it can be in those phrases.

22 Q. Let's turn to the '650 patent.

23 A. Okay.

24 Q. Which is Exhibit 1001.

25 A. Yep.

1 J. Paradiso

2 Q. I want to point you to -- I'll get
3 back to that. I'm sorry. I'll get back to
4 that. Let's go back to -- yeah, we're on the
5 '650 patent. I'm sorry. I'll turn back to
6 that.

7 So would you say that content can
8 be main content and subsidiary content?

9 MR. WOLFE: Objection to form.

10 A. This depends on how you -- what
11 you're looking at here. I think content is a
12 very -- it's a very -- it's -- the word is
13 used in many different ways in this patent.
14 I do believe I drill down on that too in the
15 footnote for one of the subplans in my
16 declaration, if you look at that.

17 Q. If you -- on the main terminal --
18 what would be content on the main terminal?

19 A. On the main, you mean what's being
20 shown on the screen in the main terminal?

21 Q. Yes.

22 A. That would be either the video that
23 is coming in over, I'd imagine, or could be
24 if you look to the spec of the music --
25 sorry, spec of the patent, it could be music

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2 that's playing. Things of that sort. They
3 give a few examples.

4 Q. Are you saying it can only be one,
5 this --

6 (Cross-talk.)

7 A. What do you mean only one? Sorry,
8 can you repeat that?

9 Q. Are you saying that the main
10 display can only show the music or the video?

11 A. I'd have to read into the patent
12 more particularly to tell you that. I'm not
13 sure but I think there are different modes
14 where it's showing video, it's showing music
15 in the main terminal, things like that. It
16 could be some text that comes up, I'm not
17 sure, but it's different from what the
18 subsidiary terminals see.

19 Q. So my question is: Can the main
20 terminal show two main contents?

21 A. I'm not sure. I'd have to go back.
22 I don't know if I opined on that.

23 Q. I'll give you the time to look
24 through your -- you can go back to your
25 declaration or look through the patent,

1 J. Paradiso

2 that's fine.

3 A. Yeah, yeah.

4 (Document review.)

5 Okay. Can you repeat your
6 question?

7 Q. Okay. So the main terminal, the
8 main content receiving display unit can show
9 two main contents?

10 MR. WOLFE: Object to form.

11 A. I saw no evidence of that in the
12 spec. Matter of fact, it teaches away from
13 what this patent repeatedly is saying, that
14 you can keep one content for the whole family
15 to watch and then have separate content
16 streams or packets sent to the subsidiary
17 displays. So maybe they're somewhere, but I
18 didn't -- I didn't see it, and I don't
19 believe I talk about that in my report
20 either.

21 Q. Okay. So let's unpack that. You
22 referenced content to what is shown on the
23 main terminal and also said one content to
24 what is shown on the subsidiary terminal,
25 correct?

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2 A. There's the main content, and uses
3 that term over and over again, that's what's
4 shown on the main display. And subsidiary
5 content, which is, you know, definitely
6 content, is sent to the mobile or the
7 portable displays, yes.

8 Q. So the main terminal does not show
9 content?

10 A. The main terminal shows the main
11 content. It shows whatever the video is that
12 the family is watching, for example. So it
13 shows that.

14 Q. So it does not show -- it does not
15 show content?

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

18 A. Yeah, I answered that. It says in
19 the patent that the main terminal shows what
20 it calls the main content, which is the main
21 video. It does not show the subsidiary
22 content, I don't think. It could be there
23 somewhere that is generated for the
24 subsidiary displays. As a matter of fact,
25 the patent teaches away from that. It's

1 J. Paradiso

2 built so you could get these other levels of
3 content at the smaller displays.

4 Q. So my question, Dr. Paradiso, is
5 that the main terminal does not show content,
6 correct?

7 MR. WOLFE: Objection. Asked and
8 answered.

9 A. The main terminal shows the main
10 content that everybody is watching.

11 Q. But that's not --
12 (Cross-talk.)

13 A. -- perhaps the full resolution
14 movie. I don't know.

15 Q. I'm sorry for cross-talking. My
16 apologies.

17 A. Okay, go ahead.

18 Q. So my question is: The main
19 terminal does not show content, correct?

20 MR. WOLFE: Objection. Asked and
21 answered three times.

22 A. Yeah, I would just repeat myself.

23 Q. Is content shown on the main
24 terminal?

25 MR. WOLFE: Objection. Asked and

1 J. Paradiso

2 answered.

3 A. The main terminal shows what the
4 patent calls the main content.

5 Q. Do the subsidiary terminals show
6 content, a content?

7 A. The subsidiary terminals show their
8 content, yes. This -- the main terminal
9 produces content for the subsidiary terminals
10 and they show that.

11 Q. So let me -- just to be clear, the
12 main terminal produces content for the
13 subsidiary terminals, correct?

14 A. Yes, it does.

15 Q. So therefore, the main content does
16 not show content, whatever -- strike that.
17 Let me repeat that.

18 So therefore, the main terminal,
19 while it produces content for the subsidiary,
20 it does not display that content, correct?

21 A. It does not. It does not appear to
22 display the subsidiary content, it appears to
23 display the main content.

24 Q. How is content transmitted to the
25 subsidiary terminals?

1 J. Paradiso

2 A. It's transmitted through a
3 connection. I'll go back to look at the
4 patent here. If you look at Figure 1 you can
5 see there's a connection from the main
6 content receiving display unit to the
7 subsidiary displays, this little kind of
8 zaggy bar.

9 Q. Can you describe what the zaggy
10 bars are?

11 A. It's a connection. It is -- well,
12 I don't know if the patent is particular
13 about it. It's got a communications control
14 unit and that somehow sends the information
15 to the other units, I believe, but I have to
16 unpack that.

17 Q. So Dr. Paradiso, does the main
18 content receiving display unit 100 display
19 content?

20 MR. WOLFE: Objection.

21 A. Go back to the patent. The main
22 content receiving display unit receives the
23 main content which is whatever the family has
24 selected to view, in this case it's a TV
25 program.

1 J. Paradiso

2 Q. So the main display, the main
3 content receiving display unit in 100 only
4 shows one main content, correct?

5 A. I believe at the time, yes, it's
6 showing -- I see no evidence that it shows
7 any of the subsidiary content on it. And the
8 patent is developed so that you can -- you
9 have subsidiary displays for that, so you
10 don't have to show it on the main display.

11 Q. So you mention the main terminal
12 produces content for the subsidiary, which is
13 for the subsidiary?

14 A. Yes.

15 Q. How is the main terminal able to
16 select the content to produce for subsidiary
17 terminal?

18 A. It depends on how you -- what the
19 subsidiary terminals are requesting. So
20 there's a stream coming in, the patent
21 teaches a stream that comes in from the
22 content of the unit through the network into
23 the main content receiving display unit, and
24 it splits it into main and subsidiary
25 content, stores it, I imagine, on its hard

1 J. Paradiso

2 drive or storage. And depending on what the
3 remote terminals, subsidiary terminals have
4 selected to view, it will render or split off
5 the appropriate stream and sent it to those
6 terminals.

7 Q. How is the main terminal able to
8 process what to send to the subsidiary
9 terminals?

10 A. Let me -- let me go back to my
11 declaration 'cause I think I unpacked that
12 quite a bit. Take a quick look...

13 (Document review.)

14 Can you repeat your question?

15 Q. So how is the main terminal able to
16 process what to send to the subsidiary
17 terminals?

18 A. Again, the main terminal gets a
19 stream of metadata and either levels of data
20 together with the main content coming from
21 the server, and it splits it off into, you
22 know, separate buckets, so to speak, and
23 from -- and users will select, using a menu,
24 what subsidiary content they want to see.

25 And there's a flowchart, Figure 4

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2 talks about that. And the main terminal will
3 basically just extract that content. If
4 you're authorized to be able to see it, it
5 will send it to your display. Yeah, in some
6 cases it may be compressed, it goes through
7 other operations it talks about in the spec,
8 but that's essentially what it does.

9 Q. Does the '650 patent speak of
10 identifiers for the subsidiary terminals?

11 A. Yes, I believe it does.

12 Q. And how is the '650 patent
13 described in the use of those identifiers?

14 A. Take a look...

15 (Document review.)

16 The patent describes it in -- what
17 is this -- column 3, the last paragraph, it
18 starts. And basically there it's saying
19 that -- that the subsidiary receivers will
20 issue an acquisition request to acquire this
21 content.

22 So, you know, they have an -- they
23 send an acquisition request and their ID, and
24 the main content receiving display unit
25 transmits the desired content to the outside

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2 to get the receive ID information, and then
3 it says again, it goes into more detail. It
4 adds the information to the requested content
5 before transmitting it to the -- then it --
6 the receiver -- the content control receiver
7 and the main content display unit receives
8 the necessary content that the ID --

9 THE COURT REPORTER: "That the"
10 what? I'm sorry?

11 A. That the ID information has been
12 added to. Only when the ID information
13 stored in the subsidiary control content
14 receiver in question agree with the ID
15 information that has been received together
16 with the subsidiary content, the subsidiary
17 content control receiver in question acquires
18 the subsidiary content.

19 So as a result each of the
20 plurality of subsidiary content control
21 receivers can display the subsidiary content
22 corresponding to each ID information and/or
23 audio data of the subsidiary content control
24 corresponding to each ID information.

25 Q. And, Dr. Paradiso, to be sure, ID

1 J. Paradiso

2 information refers to the subsidiary
3 terminals, correct?

4 A. The subsidiary terminals create ID
5 information that they send to the main
6 terminal. I believe the claims have it
7 stored in the main terminal too.

8 Q. Okay.

9 MR. WOLFE: Hey, Séké, just one
10 thing to note, I know we're
11 approaching the top of the hour and
12 it's around lunchtime, so I don't know
13 how much longer you want to go for
14 before we break.

15 MR. GODO: Let's see. Give me
16 about 10 or 12 minutes and then...

17 MR. WOLFE: Okay.

18 Q. Dr. Paradiso, do you agree that the
19 '650 patent seeks to use the subsidiary ID
20 information together with the content for
21 transmission to the subsidiary terminals?

22 A. What does that mean? I think you'd
23 have to point me to some example or go
24 through a plane element in particular.

25 Q. Based on your description of the --

1 J. Paradiso

2 from the column 3 to column 4 that you just
3 gave, can you -- can you answer my question?

4 A. Can you repeat your question?

5 Q. Does the '650 patent seek to use
6 the subsidiary ID information together with
7 the content for transmission of content to
8 the subsidiary terminals?

9 A. I think in particular there --
10 there are some things that deal exactly with
11 this, and I prefer to go to those, and I can
12 do that. Actually, my declaration has a
13 better spread of the claim, it's broken up
14 better.

15 So what these claims require is
16 that there's association information that
17 means -- it's defined in the claims, not
18 defined in the spec, that's why you really
19 have to go back to the claim because the spec
20 says nothing about what association
21 information is.

22 So we're in the association
23 information defines the -- one of the
24 contents identified by the content
25 information is associated with one of the

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2 device-specific ID information.

3 So essentially this association
4 information identified by content in -- it
5 says that one of the contents is associated
6 with one of the devices specific IDs. So
7 association information basically ties the ID
8 of a device to the content.

9 Q. So to be clear, the association
10 information ties the content to the ID of the
11 subsidiary terminal, correct?

12 A. Yeah. It relates aspects of the
13 content that's going to the subsidiary
14 terminals to the ID.

15 Q. Do you agree that the '650 patent
16 seeks to solve the problem of providing
17 content to users based on taste, based on
18 their taste?

19 A. That's a hard question to unpack.
20 Certainly based on your language. So you can
21 get, you know, English subtitles or Japanese
22 subtitles or one or the other, perhaps audio.
23 You can also -- they have a great example.
24 If you're looking at a car ad that comes on,
25 you can -- one user can look at -- listen

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2 to -- have information about the music that's
3 used in the background of the ad. The
4 Pembroke ads also license interesting music
5 sometimes, we all wonder what that track is,
6 this is before you had Shazam, so you could
7 look at -- you'd have display 'cause it's
8 coming in with a metadata. You can look at
9 that.

10 The other person is maybe
11 interested in the price of the car, they can
12 get pricing information. Is that taste?
13 I don't know exactly. It's more preference.
14 In the case of subtitles, is that taste or is
15 it just, you know, the language you speak?

16 But yeah, the whole idea is you can
17 split off different content to different
18 users, yes.

19 Q. And you agree that the delivery of
20 content to users is via the subsidiary
21 terminal, correct?

22 A. Which content?

23 Q. The content.

24 A. The subsidiary content, yes. The
25 subsidiary content is delivered to the

1 J. Paradiso

2 subsidiary users that have those terminals.

3 Q. And the delivery of the content is
4 based on what the main terminal includes,
5 correct?

6 A. I don't know if the claims require
7 that. I mean, the claims just talk about
8 different content stream that you can send.
9 The spec talks about it being related, yes.

10 Q. So the delivery of the content is
11 based on what the main terminal includes,
12 correct?

13 MR. WOLFE: Objection. Form.

14 A. The main terminal gets all the
15 content that comes in. So all the different
16 substreams come in together and they are
17 stored on the main terminal. And then
18 they're separated into separate -- separate
19 file structures, and the subsidiary terminals
20 will get subsidiary content that's coming in
21 with the main content in the way this patent
22 spec describes it.

23 Q. Is the '650 patent -- I'm sorry,
24 strike that.

25 Is the '650 patent concerned with

1 J. Paradiso

2 hardware limitations of the terminals?

3 A. It does mention it in the spec.

4 Q. Can you point me to that?

5 A. I'd have to find it but it talks
6 about displays having limited resolution and
7 capability.

8 Q. Does it address any other
9 limitations?

10 A. I don't know the name.

11 Q. What are the limitations?

12 A. I'd have to look again.

13 Q. Is storage capacity an issue?

14 A. It could be. Somewhere here it
15 talks about it.

16 Q. Can you point me to it?

17 A. I'm looking. I think the main
18 thing it talks about is that -- actually,
19 it's ironic. It talks about the main display
20 as being limiting. It was a very early
21 outdated time where the, you know, the
22 displays increased radically in their
23 capability. So you're saying the main
24 display was not able to show the subsidiary
25 content to any degree of resolution, or at

1 J. Paradiso

2 least it would distract from what the main
3 display had because it was too small. Give
4 people their own display, it's better. So it
5 talks about that.

6 Does it talk about the display
7 resolution being a problem? The
8 subsidiary display -- well, certainly it
9 talks about the fact that it recode it for
10 the display. So it can produce content
11 that's better for that display, I mean, in
12 terms of the resolution. And you would say
13 one...

14 Q. I'm sorry, can you repeat the last
15 sentence? "You would say"?

16 THE COURT REPORTER: He didn't
17 finish, that's why it --

18 A. Yeah.

19 Now, they talk a lot about -- they
20 just don't want to have this information on
21 the main terminal, so they want to send it
22 off to the subsidiary terminals. That's a
23 lot of it.

24 Q. So does this specifically talk
25 about processing power limitations?

1 J. Paradiso

2 A. It may somewhere. What I see here
3 a lot is just the desire to move that content
4 off the main screen.

5 Q. Does this explicitly talk about
6 processing power limitations?

7 A. Can you point me to somewhere in
8 the patent if you know where it is?

9 Q. No, I'm asking you.

10 A. Again, I would have to look.

11 (Document review.)

12 It does talk about resolution. If
13 you send video to the subsidiary terminal, it
14 encodes it in a format --

15 THE COURT REPORTER: I'm sorry,
16 you have to slow down please.

17 A. Sorry.

18 If it sends video to a subsidiary
19 terminal, it encodes it in a format that is
20 compatible with its capability.

21 Q. That refers to display resolution
22 capabilities, correct?

23 A. Yes, it does.

24 Q. Now, that doesn't address
25 processing power capabilities, correct?

1 J. Paradiso

2 A. It could if you think about the
3 amount of computation you need to decode.

4 Q. Does it -- does that also talk
5 about storage capacity capabilities?

6 A. At least frame storage or buffer
7 storage as related to the resolution of the
8 video. But I'm looking to see if it actually
9 calls out -- where it calls out the
10 constraints on the subsidiary terminals.

11 I'm looking here. It's mainly
12 telling me, you know, it's adjusting -- if
13 it's video it's adjusting it for them. It's
14 not saying a whole lot about the capability,
15 unless I'm skipping over something, might be
16 there.

17 It actually talks about the
18 subsidiary content. If you look at end of
19 column 10 it talks about the subsidiary
20 content receivers having a small hard drive
21 or an SD card. So it's talking about putting
22 big storage into them. So it's leaving it
23 open. I don't see it talking about too many
24 constraints aside from reconverting of the
25 video.

1 J. Paradiso

2 Q. And if you read that, the line on
3 page -- line 65 of column 10, can you -- can
4 you read -- well, actually starting at
5 line 64.

6 A. Okay. If each of the subsidiary --
7 sorry, I have to talk slow.

8 If each of the subsidiary content
9 control receivers A 101, B 102 includes a
10 storage medium (a SD card, a small-size HDD,
11 or the like) it is also possible to download
12 content to the storage medium by including
13 the authorization to view the content in the
14 above-described ID information. Accordingly,
15 it also becomes possible to carry information
16 of the main content.

17 Q. So according to this, do you agree
18 that the subsidiary terminal displays main
19 content, correct?

20 A. No. It says "carry information of
21 the main content." Again, this is maybe
22 translated, I don't know. It teaches all
23 over this patent that you have to recode the
24 video that you send to the remote terminal
25 just because of its display.

1 J. Paradiso

2 Even if it had an SD card or a
3 small HDD, you would never send the full
4 video down there, you transcode it according
5 to how it teaches. It seems to be saying you
6 could use it as a portable device and take it
7 away. It's a different kind of a thing.

8 Q. So Dr. Paradiso, does the
9 '650 patent explicitly disclose that the
10 subsidiary terminals have storage capacity
11 limitations?

12 A. It's saying you could add more
13 storage to it. By itself I would assume it
14 does have capacity limitations --

15 Q. How is that --

16 A. -- compared to the main terminal.
17 The main terminal is your media, your hub
18 where you have a big hard drive.

19 Q. Is the '650 patent concerned with
20 the terminals operating systems?

21 A. You mean if it's iOS or -- it
22 wouldn't be iOS back then, it would be iPod
23 operating system. I don't know what you
24 would run. You would run Windows XP maybe.
25 I don't know. I don't think it mentions

1 J. Paradiso

2 anything about iOS.

3 Q. To be clear, the '650 patent does
4 not talk about terminals operating system,
5 correct?

6 A. I don't believe it does.

7 MR. GODO: We can take a break.

8 THE COURT REPORTER: We're off the
9 record.

10 (Off the record from 12:06 p.m. to
11 12:55 p.m.)

12 THE COURT REPORTER: We're back on
13 the record.

14 BY MR. GODO:

15 Q. Hi, Dr. Paradiso. Welcome back.

16 A. Hi.

17 Q. Hope you had a good break.

18 A. Yeah, I had a good little sandwich.
19 I can't complain. I'm fortified.

20 Q. All right, great.

21 Let's start looking at Ground 1.

22 Let's turn to your expert declaration. I'll
23 let you take your time to find it.

24 A. I got it. Okay.

25 Q. What references are you relying on

1 J. Paradiso

2 for Ground Number 1?

3 A. Ground 1, I believe, is Shindo.
4 It's in anticipation.

5 Q. Okay.

6 A. And of course, always my experience
7 as a POSITA in any of these two.

8 Q. Please turn to paragraph 58.
9 That's on page 20, page 37 of the PDF.

10 A. I'm looking at the paragraph
11 number 58, yes.

12 Q. So here you reference an
13 international publication which you refer as
14 Shindo, that's Exhibit 1004. You see that,
15 right?

16 A. I do see it, yes.

17 Q. And this international publication
18 is number WO 2005/094080, correct?

19 A. Yes.

20 Q. Dr. Paradiso, what does Shindo
21 disclose?

22 A. Shindo discloses an analogous
23 system. Let me go to Shindo here. I do have
24 it in -- so he calls it accumulation display
25 device interlock display method. And system

1 J. Paradiso

2 accumulation, by the way, I believe is most
3 probably Japanese translation artifact, which
4 is -- essentially it means storage. Storage
5 can be translated as accumulation.

6 And I introduced it in my report.
7 It generally relates to systems and methods
8 for display in television content to a main
9 display device in one or more sub-display
10 devices. You can see in the Figure 2 of
11 Shindo the mobile devices, the portable
12 devices, the subsidiary devices, and then the
13 main terminal of Shindo, which is the
14 stand-alone display device.

15 So Shindo essentially gets a
16 content stream, has metadata coming in, as
17 which '650 does, and stores it onto a hard
18 drive together with information relating to
19 specific elements of the video. So if it's a
20 sports game you can actually physically
21 outline where the different plays are. So we
22 can actually have highlights of the game.

23 There are a whole list of things
24 that Shindo looks at as clips that can be
25 extracted from the main feed and the source

1 J. Paradiso

2 on a hard drive. And it can distribute that
3 content to the subsidiary devices depending
4 on what they request.

5 Q. So you're saying that Shindo
6 subsidiary devices receive highlights; is
7 that correct?

8 A. They can receive highlights, they
9 can receive replays. There are other modes
10 they can do, but those are two of the main
11 ones. Shindo talks a lot about trying to
12 catch up on a game if you come in late, so
13 highlights can be useful, or if you want to
14 see a replay, it can send a replay off to you
15 too.

16 Q. So what problem does Shindo seek to
17 solve?

18 A. Shindo is also looking at other
19 information that is coming in with the
20 program but you don't want to put it up on
21 the main display because it would distract
22 the other users that are watching the main
23 display, so you can watch it on your portable
24 display just as '650 tries to do a similar
25 thing.

1 J. Paradiso

2 Q. What specifically is it trying to
3 do?

4 A. What is what trying to do? I think
5 I just told you.

6 Q. Shindo. Shindo.

7 A. It is basically allowing users to
8 have portable displays that they're watching
9 together a common feed, which in this case
10 would be -- or common program, which in this
11 case would be the sports game in the example,
12 and allows them to look at subsidiary content
13 independently without bothering everybody
14 with this content on the main display. You
15 can look at it in your portable display.

16 For instance, if you come in very
17 late, everybody is already watching the game,
18 why should everybody have to watch the
19 highlights again, you can watch it on your
20 portable display.

21 Q. Okay. Let's turn to paragraph 59
22 of your report, specifically on page 22 which
23 is page 39 of the PDF.

24 A. Yep, I see it.

25 Q. I'll point to the last sentence.

1 J. Paradiso

2 It's your opinion that Shindo's main display
3 device contains program contents, correct?

4 A. Yeah, that's the first part of the
5 sentence. So it does accumulate, which is
6 basically store the program contents, but
7 then it also sends the contents that have
8 different play -- at least the parts of the
9 contents that have playback modes to the
10 mobile terminals.

11 Q. What's a playback mode?

12 A. As I mentioned there's several of
13 them and I think I do enumerate them
14 somewhere. But two quick examples are
15 highlights. So highlights of the game so
16 far. It's not the whole thing but highlight
17 scenes, and replays.

18 Q. And it's your opinion that the
19 mobile information terminals we see are
20 program content based on the requested
21 playback modes, correct?

22 A. Yeah. The terminals request
23 playback modes and then the main terminal
24 will send that content to them according to
25 what they've requested and how it matches

1 J. Paradiso

2 what's in the program data.

3 Q. So this is a yes-or-no answer. Do
4 mobile information terminals receive a
5 cumulative program content based on --

6 THE COURT REPORTER: I'm sorry,
7 "based on cumulative program"?

8 Q. I'm sorry. Let me...

9 So in your opinion the mobile
10 information terminals receive accumulated
11 program content based on requested playback
12 modes, correct?

13 A. The contents that are sent to the
14 mobile terminals depend on their chosen
15 playback mode and, you know, where that
16 matches the actual data in the program.
17 That's what's entered.

18 Q. Do you agree that Shindo's main
19 display device is the same or analogous to
20 the stand-alone display device 1, correct?

21 A. It's very similar, yes.

22 Q. Can you turn to page 23 or page 40
23 of your declaration?

24 A. Sure.

25 Q. You see a reproduction of Figure 1?

1 J. Paradiso

2 A. Page 40 or paragraph 40?

3 Q. Page 23 or page 40 of the PDF.

4 A. Okay. So page 23 of my
5 declaration?

6 Q. Yes, page 23 of the declaration.
7 So let me state the question again.

8 A. I have it there, yes.

9 Q. Do you agree -- okay, yeah.
10 Can you describe the components of
11 stand-alone display device 1? You can zoom
12 in if you like to.

13 A. So there's a reception unit to pull
14 the program content in. You separate off the
15 metadata, you store it on the hard drive, and
16 there's a video processing unit that
17 basically processes the video that sends to
18 the main display.

19 And then there's another video
20 processing unit that basically will create
21 video and store video with the metadata for
22 the portable terminals or the mobile -- the
23 subsidiary terminals. And there's also a
24 controller that listens to the -- that talks
25 to the -- the necessary terminals and gets

1 J. Paradiso

2 instruction from them and also stores the
3 ID information and things like that.

4 And requested mode, they are the
5 structures that I believe I pointed to in
6 this report that it stores.

7 Q. What is display unit 107
8 displaying?

9 A. Display unit 107 I believe is the
10 main display, and that displays the program
11 that everybody watches. Let me go back to
12 where I describe it. I have to zoom in.

13 Q. I can make a suggestion, if that's
14 okay?

15 A. Sure.

16 Q. If you go to paragraph 69, actually
17 it's a better picture that you can use.

18 A. Okay. Paragraph 69, yes. I'm just
19 reading very quickly to refresh where it
20 talks about display here in 1-D.

21 (Document review.)

22 Yeah, the display unit is 107 and
23 that receives the input of the program
24 content of the video processing
25 unit --

1 J. Paradiso

2 THE COURT REPORTER: I'm sorry,
3 you have to slow down.

4 THE WITNESS: Okay.

5 A. Receives input of the program
6 content from the video processing unit,
7 processing unit 102 and displays it. Display
8 unit 107 is assumed to be a display device at
9 the center of a family where multiple people
10 watch. It is assumed multiple viewers are
11 watching a program being broadcast in real
12 time on the stand-alone display device.

13 So that's what the display shows.

14 Q. Can you describe the components in
15 mobile information terminal A or B?

16 A. In the mobile information terminal,
17 okay. So that's 110, correct? Or not 110,
18 it's -- yeah, information terminal A is what
19 you're asking about, right?

20 Q. Yes.

21 A. That calls out a display unit, of
22 course you have a display. There's a UI in
23 there, it's for sending commands, and there
24 are a few examples of that in the patent. So
25 it's -- you're able to enter commands from a

1 J. Paradiso

2 touch panel with buttons or something.

3 And then there are -- there's
4 processing in there, it could be in many
5 places in this, but you have an instruction
6 unit that is essentially taking the UI and
7 sending commands out, and you've got a
8 reception unit which is controlling the
9 receiving of the data coming in from the main
10 terminal.

11 Q. And you see display unit 109,
12 correct?

13 A. Yes.

14 Q. What is display unit 109
15 displaying?

16 A. That displays a subsidiary content.

17 Q. What is Shindo disclosing as what
18 unit -- display unit 109 is displaying?

19 MR. WOLFE: Objection. Form.

20 Q. Let me repeat the question.

21 Shindo's display unit 109, what is
22 it displaying?

23 A. I believe it displays the
24 subsidiary content. I'm looking for where it
25 would be cited.

1 J. Paradiso

2 (Document review.)

3 It's essentially what I said but I
4 say it in more detail in the report in
5 paragraph 85 I believe. So reading on to the
6 claim, it's a second display displaying the
7 content, especially for that claim, it's the
8 content sent to it. So where is it here?
9 (Indiscernible.)

10 THE COURT REPORTER: I'm sorry --

11 THE WITNESS: Sorry, you can
12 strike that.

13 A. Let me...

14 The display unit 109 receives the
15 reconstructed program content from the
16 reception unit 108 and displays it. Mobile
17 information terminal A receives the sent
18 stream at the reception unit of 10-8 and
19 displays it on the display unit. Display
20 unit 109 may display the arrival of trigger
21 information and its content on the screen.

22 So that's what it's displaying.
23 Essentially displaying the subsidiary
24 content. It has been sent to it by the main
25 terminal.

1 J. Paradiso

2 Q. So you mention reconstructed
3 program content?

4 A. Yes.

5 Q. In your opinion what is
6 reconstruction program content?

7 A. Well, an example would be the
8 replay. So there's data structures that
9 associate replay timings with the idea the
10 video stream comes in or the stored video and
11 it pulls out the reconstructed program
12 content. And, of course, if that matches
13 requests from the ID of one of the subsidiary
14 terminals, it will send that program content
15 to that terminal. And I have -- I go through
16 all the data structures for that above this
17 in my report.

18 Q. Is reconstructed program content
19 also partial program content?

20 A. I don't know exactly how to parse
21 that. Can you -- can you describe what
22 partial program content is?

23 Q. Okay. Let me -- let me show you --
24 okay, I'm gonna transfer a file to you which
25 is --

1 J. Paradiso

2 A. Okay, sure.

3 Q. While I'm sending this, so let me
4 rephrase the question.

5 What do you understand to be
6 partial program content?

7 A. I don't know if partial program
8 content come up anywhere in either of these
9 patents.

10 Q. Okay.

11 A. I don't think it does. You have to
12 construe it. What I can tell you is that
13 Shindo, he can send many different things,
14 he's got a list of many different things he
15 can send. You know, one of them is a video
16 clip of a highlight or a replay. He can send
17 some program information, there may be some
18 stats he can send.

19 There are other kinds of things
20 Shindo can send as well. But yeah, that's
21 just different content that is related to the
22 stream that comes in but it's different from
23 it.

24 Q. Do you recognize the document I
25 just uploaded to the chat?

1 J. Paradiso

2 A. Let me take a look. Oh, I have to
3 get back to the Zoom. Sorry. Still on my
4 PC. Sorry. It's Exhibit 1004, correct?

5 Q. That's correct.

6 A. Okay. Let me download it so I can
7 look at it.

8 (Exhibit 1004 was introduced.)

9 A. (Document review.)

10 Okay. I have it here. So it's the
11 translation and it does appear to be Shindo,
12 yes.

13 Q. Okay. So I'm going to refer to
14 this publication as Shindo. We understand
15 each other when I say that, correct?

16 A. Yes.

17 Q. Okay. Let's turn to paragraph 34
18 of Shindo. It's page 12.

19 A. Sure.

20 Q. And specifically the last three
21 lines of that paragraph is starts with:

22 The accumulation video processing
23 unit 104 rearranges the partial content based
24 on the contents of trigger information 15 and
25 sends the reconstructed program content.

1 J. Paradiso

2 Do you agree that the partial
3 content is the reconstructed program content?

4 A. One minute here. So you're looking
5 at paragraph 34?

6 Q. Yes.

7 A. So when the accumulation video
8 processing unit 104 receives and so on. Let
9 me read it.

10 (Document review.)

11 Can you repeat your question?

12 Q. Do you agree that the partial
13 content is the reconstructed program content,
14 correct?

15 A. It -- I think there's little more
16 going on 'cause it will have metadata that
17 will say there's a certain segment to this
18 video stream, which is either a highlight or
19 a replay or both or something else. And it
20 will separate that out. It won't just send
21 it along necessarily. It will certainly look
22 at the -- at the resolution of the PDA, or
23 the device, the mobile device.

24 I believe Shindo has resolution
25 tables, and it could recode it to fit the

1 J. Paradiso

2 proper display. And, of course, it has to
3 match the kind of information there is in
4 that segment with the request. So if it is a
5 replay and if this particular terminal
6 requested a replay, it will send that
7 segment, recoded segment, to the mobile
8 terminal.

9 Q. And to be clear, the main display,
10 the stand-alone display device 1 is not
11 showing the same content as the mobile
12 information terminal A, correct?

13 A. That's just showing the game as it
14 goes on in whatever resolution it arrives in,
15 I believe. The mobile terminal is looking at
16 the highlight or the replay or whatever other
17 thing the request is in its own resolution.

18 Q. Are those two contents the same?

19 A. I would say they're not but I don't
20 think they have to be for the claims of this
21 patent.

22 Q. Okay. Let's turn to paragraph 5 of
23 Shindo, which is page 2 of -- I'm sorry,
24 paragraph 5 which is on I think page 2.

25 A. Yes, I see it.

1 J. Paradiso

2 Q. Do you see the sentence above
3 paragraph 5 that says:

4 The problem to be solved by the
5 invention.

6 A. Yes, I do see that.

7 Q. Isn't it true that the first
8 sentence of paragraph 5 states:

9 It was not possible to view replays
10 or highlights of a program being broadcast in
11 real time on another device.

12 Correct?

13 A. That's what that sentence says.
14 Let me read the whole paragraph though.

15 (Document review.)

16 Okay. Are you waiting for me or...

17 Q. Okay. So based on you reading
18 paragraph 5, can you explain what is the
19 problem to be solved by Shindo?

20 A. Shindo is saying that it's not
21 possible to view the replays or highlights of
22 the program on another device, so this way
23 you can watch it on another device.

24 Q. Okay. So do you agree that a
25 replay is not the program broadcasted in real

1 J. Paradiso

2 time, correct?

3 A. The replay that you're looking at
4 in the mobile device or the -- sorry -- the
5 sub-device, he calls it sub-display device,
6 is not necessarily broadcast in real time,
7 especially if it's the highlights. Good
8 example, you come in later, the highlights
9 are -- you're looking at them definitely not
10 real time, that's the whole purpose of them
11 but it could be in real time.

12 As a matter of fact, if you look at
13 what we just read, when it has a replay that
14 matches the trigger it will send it to the
15 terminal. So replay is never real time,
16 that's by definition, but it will take that
17 segment that it received and send it to the
18 subsidiary terminal.

19 Q. So to be clear, a replay is a
20 segment of -- of the -- let's see. It's a
21 segment of what is received to the subsidiary
22 terminal, correct?

23 A. It appears to be A segment to the
24 video that is sent.

25 Q. Okay. Can you turn to paragraph 13

1 J. Paradiso

2 of Shindo? It's on page 3 or 6 of the PDF.

3 A. Yep, I see it.

4 Q. Can you describe what this
5 paragraph is explaining?

6 A. Let me read it.

7 (Document review.)

8 It's talking about the different
9 kinds of display data that can be sent to the
10 subsidiary displays. So it's talking about
11 the past scenes of the program being viewed
12 on the main device, you can view it on
13 another device in the form of highlights or
14 replays, and also other information about the
15 currently viewed program. So there are other
16 kinds of data streams that can be viewed as
17 well.

18 Q. So around 2005 or 2006 was it
19 possible for a replay to occur concurrently
20 with a program that is broadcasted live or in
21 real time?

22 A. What do you mean "concurrently"?

23 Q. At the same time.

24 A. Well, the replay is never really at
25 the same time 'cause it's a replay, right?

1 J. Paradiso

2 So the play has happened, you have indices
3 into the game. I don't know if it relies on
4 the broadcaster actually showing the replay
5 and you cut that out. That's another
6 possibility where the replay is being
7 broadcast, and then you snip that out so it
8 can go back to the portable terminal.

9 But, yeah, you had the technology
10 to keep the stuff on the disc and to index it
11 and reconstruct it.

12 Q. Isn't it true that a highlight is
13 not a program being broadcasted live?

14 A. No, it's not. It may have been
15 broadcast live at the beginning but a
16 highlight tends to be a compression of things
17 you've highlighted in the stream as it comes
18 in, an accumulation device of the storage
19 device storing those highlights, or at least
20 indexing them.

21 Q. All right. Let's turn to
22 paragraph 6 which is on page 2 or page 5 of
23 the PDF.

24 A. Yes.

25 Q. And it states above paragraph 6:

1 J. Paradiso

2 Means for solving the problem.

3 Correct?

4 A. Yep.

5 Q. Can you describe, you know, reading
6 paragraph 6, can you describe what Shindo --
7 how Shindo is solving the problem?

8 A. Give me a second.

9 (Document review.)

10 This is saying more or less what I
11 said earlier when I described this patent, or
12 this system. You have reception unit
13 receives the content that's being broadcast
14 and it stores it all. So receives trigger
15 information for the special playback. So
16 it's metadata about the actual content,
17 stores it in the -- some data structure, an
18 accumulation unit that is -- that's part of
19 the content.

20 And then you can interpret the
21 metadata that's being broadcast or if you're
22 playing back the accumulated content you
23 accumulate the data there. And you -- it --
24 when you have a match between what one of the
25 mobile devices has requested, the kind of

1 J. Paradiso

2 content it wants, and the metadata that's
3 there, it sends it across. So reconstructs
4 it and outputs the reconstructed program
5 content.

6 Q. Okay. So you agree that it states
7 that the solution includes an accumulation
8 image processing unit that extracts at least
9 a part of the accumulated program content
10 using the information from trigger
11 information, correct?

12 A. Are you reading from the patent?

13 Q. Yes.

14 A. So it's -- repeat that again so I
15 hear it carefully.

16 Q. So do you agree that it states that
17 the solution includes an accumulation imaging
18 processing unit that extracts at least a part
19 of the accumulated program content using the
20 mode information from trigger information,
21 correct?

22 A. Okay, so you're talking about the
23 accumulation image processing unit that
24 extracts at least part of the accumulated
25 program content using the mode information

1 J. Paradiso

2 from the trigger information. So it does
3 that, it reconstructs it and then it outputs
4 the reconstructed content.

5 Q. So a part of an -- a part means a
6 portion of the whole, correct?

7 A. Yes. It's taking a part of it or
8 it could be something that could be different
9 as well, 'cause there are other kinds of data
10 that Shindo talks about, program guides, I
11 think he talks about stats. But in this case
12 you're looking at it replays or highlights.

13 Q. All right. Let's go back to your
14 expert report, Exhibit 1002. Let's go to
15 paragraph 69, and that's on page 26 or
16 page 43 of the PDF.

17 So here you rely on excerpt of
18 Shindo and say:

19 Display unit 107 receives input of
20 the program content from the video processing
21 unit 102 and displays it.

22 Correct?

23 A. Sorry. I'm trying to find it
24 again. It's page 47?

25 Q. Page 26 or page 43 of the PDF.

1 J. Paradiso

2 A. Okay, page 43. Okay, I'm at
3 page 43 and you're reading from page 88?

4 Q. Let's go back. I'll restate the
5 question. So turn to paragraph 69 --

6 A. 69, okay.

7 Q. -- of your declaration.

8 A. Yeah.

9 Q. Which is page 26 or page 43 of the
10 PDF.

11 A. I'm almost there. Okay, I'm there.

12 Q. So if you look underneath the
13 annotated Figure 2, I think, or Figure 1.
14 Figure 1, okay. You're relying on an excerpt
15 of Shindo.

16 You say:

17 Display unit 107 receives input of
18 the program content from the video processing
19 unit 102 and displays it.

20 Correct?

21 A. Yes.

22 Q. So this is referring to one
23 program, correct?

24 A. What do you mean by that?

25 Q. What did you write?

1 J. Paradiso

2 A. I wrote:

3 Display unit 107 receives input of
4 the program content from the video processing
5 unit 102 and displays it. Display unit
6 107 (indiscernible) --

7 THE COURT REPORTER: I'm sorry,
8 you have to slow down.

9 THE WITNESS: Oh, sorry.

10 A. Display unit 107 is assumed to be a
11 display device at the center of a family
12 where multiple people watch.

13 That's what I say. Now what are
14 you asking?

15 Q. So you're referring to Shindo
16 paragraph 44.

17 You state:

18 It is assumed that multiple viewers
19 are watching a program being broadcast in
20 real time.

21 You're referring to one program,
22 correct?

23 A. There the program on the main
24 display is one program.

25 Q. Let's turn to paragraph 73 of your

1 J. Paradiso

2 declaration, and that's page 30 or page 47 of
3 the PDF.

4 A. Yep.

5 Q. And it is your opinion that
6 Shindo's metadata interpretation unit 103,
7 video processing unit 104, mobile terminal
8 management unit 106 have collectively the
9 first controller, correct?

10 A. I believe so, yes.

11 Q. Can you turn to Exhibit 1004,
12 Shindo?

13 A. You could -- there are digital
14 parts in there that you could add to it but,
15 yeah, those are our literature.

16 Q. Okay. Can you turn to Exhibit 1004
17 which is Shindo? And let's go to page 27 or
18 it's page 30 of the PDF.

19 A. Yes.

20 Q. Okay. Can you -- do you see
21 metadata interpretation unit 103?

22 A. Yes, I do.

23 Q. Can you show me where it's video
24 processing unit 104?

25 A. 104? It's an accumulation video

1 J. Paradiso

2 processing unit. Is that what you're talking
3 about?

4 Q. I'm asking what is video processing
5 unit 104?

6 A. Let me go back to where I discuss
7 it. I would believe that would be the unit
8 that is producing the clips that are stored
9 or sent. But I may discuss it.

10 (Document review.)

11 It says it pretty clearly in my
12 report in paragraphs 71 where video
13 processing unit 104 and the mobile
14 information from a management unit are in the
15 display device, the stand-alone device.
16 104 controls transmission of the content to
17 the mobile information terminals A-B. The
18 program content and index information are
19 sent --

20 THE COURT REPORTER: I'm sorry,
21 you have to slow down when you're
22 reading please.

23 THE WITNESS: Oh, sorry.

24 A. The program content and index
25 information are sent directly to HDD 105 to

1 J. Paradiso

2 accumulated processing unit 104, when the
3 accumulative video processing unit 104
4 receives program content from video
5 processing unit 102, it accumulates the
6 program content in HDD for each program and
7 sends the reconstructed program content to
8 the mobile information terminal.

9 Mobile information terminal A
10 receives the input of the reconstructed
11 content from the accumulated video processing
12 unit 104 of the stationary display device.
13 And he's got -- Figure 1 includes lines that
14 represent transmission or program content
15 from the display device to the mobile
16 information terminal.

17 So that's what that does.

18 Q. Okay. So to be clear, using
19 Figure 1 of Shindo, when you reference video
20 processing unit 104 you actually mean
21 accumulation video processing unit 104,
22 correct?

23 A. Well, I'm not sure they're both
24 related. Video processing unit is clearly
25 processing video for the display unit. But

1 J. Paradiso

2 you also have this odd line where everything
3 seems to talk to everything else on top. It
4 could be they're all talking together at that
5 point.

6 Certainly video processing unit is
7 having a dialogue with the accumulation video
8 processing unit. So this is part of this,
9 this flows somewhere.

10 Q. So Dr. Paradiso, looking at
11 Figure 1 right, what exactly is the callout
12 104?

13 A. 104 is the accumulation video
14 processing unit I believe.

15 Q. So my question is: Is accumulation
16 video processing unit 104 the same as video
17 processing unit 104?

18 A. If I say that -- you're saying in
19 my report or in Shindo?

20 Q. In your report or Shindo?

21 MR. WOLFE: Objection. Form.

22 A. I would have to look at where you
23 point me to it in my report. There could be
24 somewhere where I mean 102 and it is typed as
25 104 or vice versa, I'm not sure.

1 J. Paradiso

2 Q. Okay. So let me repeat the
3 question.

4 In Figure 1 of Shindo, 104 states
5 accumulation video processing unit, correct?

6 A. That's correct.

7 Q. Okay. Now let's go to your report.

8 A. Okay.

9 Q. And if we look at paragraph 73
10 which is on page 30 you reference processing
11 unit 104. So my question is: Is video
12 processing unit 104 the same as accumulation
13 video processing unit 104?

14 A. Oh, I see what you're saying. In
15 this context I believe it is, but you could
16 make a case for also including 102 as part of
17 the controller on there too. Is that -- it's
18 tightly coupled to the -- you can see -- it's
19 hard to see but there's a double arrow
20 I believe in between 104 and 102. They're
21 talking.

22 Q. Okay. Now staying on Figure 1, you
23 see HDD 105?

24 A. Yes, I do.

25 (Cross-talk.)

1 J. Paradiso

2 A. Yep.

3 Q. What is a signal line? What is
4 signal line A?

5 A. It appears to be program content,
6 according to the legend.

7 Q. And what is signal line B?

8 A. B is index information.

9 Q. And what is signal line C?

10 A. C is trigger information.

11 Q. And what is signal line D?

12 A. Program information.

13 Q. Are those stored in HDD 105?

14 A. They appear to go to HDD 105 so
15 they're probably stored there.

16 Q. Is Figure 1 showing any other
17 signal lines other than A, B, C, D going into
18 HDD 105?

19 A. It's showing no other signal lines
20 going into it, although there are many other
21 places you can store information in this
22 architecture. As a matter of fact, Shindo
23 says the mobile information -- mobile
24 device -- sorry, mobile information
25 terminal --

1 J. Paradiso

2 Q. Dr. Paradiso, that was not my
3 question. It was more: What is stored in
4 HDD 105? Is Figure 1 -- on Figure 1 is HDD
5 105 showing any other lines going in --
6 signal lines going into HDD 105?

7 A. Let me speak from the point of view
8 of a POSITA. No, there's no other lines.
9 Clearly --

10 Q. That's it, Dr. Paradiso.

11 A. Sorry.

12 Clearly the mobile information
13 terminal management unit talks to it as well.
14 You can store other data on it, entirely
15 possible. A POSITA would do that.

16 But Shindo itself discloses that
17 the mobile information internal ID
18 information is stored in the mobile
19 information terminal management unit, which
20 can easily have storage, flash storage,
21 non-volatile memory, regular memory. Even
22 just to input it you have to store it.

23 So that information is being
24 stored, it doesn't have to be stored in HDD.
25 And Shindo says it's stored in the mobile

1 J. Paradiso

2 information terminal management unit.

3 Q. Dr. Paradiso, is this in your
4 report?

5 A. I believe it is, yes. I do quote
6 where Shindo says it's stored there.

7 Q. Can you point me to that?

8 A. Sure. I believe it's in 75. So in
9 my opinion I talk about Shindo stores the --
10 [sotto voce] --

11 THE COURT REPORTER: I'm sorry, it
12 sounds like you're speaking to
13 yourself, so --

14 THE WITNESS: I kinda am.

15 A. So according to paragraph 40,
16 mobile information terminal on management
17 unit 106 accepts a connection request from
18 mobile information terminal A, establishes a
19 connection and further accumulates and
20 manages information, management information
21 of the mobile information terminal A.

22 And the example it has of that
23 information has the ID in addition to the
24 mode request and so on.

25 "Accumulates" in Japanese

1 J. Paradiso

2 translation means "stores." It's storing it,
3 and it's saying it's storing it in the
4 information terminal and management unit 106.
5 That's how I interpret that.

6 Q. Going to paragraph 66 of your
7 declaration. It is your opinion that HDD 105
8 is a storage storing the contents, correct?

9 A. That appears to be the place where
10 the contents are stored.

11 Q. Okay. All right. Let's turn --
12 let's continue on with your expert report.
13 Let's go to Ground Number 2.

14 A. Okay.

15 Q. Let's go to paragraph 121.

16 A. Let me get down there. Sorry.

17 Q. And here you reference a Japanese
18 patent publication which you refer to as
19 Sasaki which is Exhibit 1006.

20 Do you see that?

21 A. I'm sorry, I'm scrolling down by
22 hand here. Here, I got it.

23 Yes, I see that.

24 Q. This is Japanese patent application
25 number 2003-208375, correct?

1 J. Paradiso

2 A. Yes, I see that.

3 Q. What does Sasaki disclose?

4 A. Sasaki, it says in the next
5 paragraph is it relates to an information
6 distribution system that includes a PC home
7 server, which is made up of personal computer
8 PDA and information distribution server
9 device, which is a Web server device. So the
10 server device receives content from Web
11 server and distributes the content to the
12 PDAs. There can be more than one PDA and it
13 shows multiple PDAs attachment to this.

14 So, you know, talks about how
15 they're connected with the internet so on and
16 so forth. But it's essentially to get
17 content coming in and then distribute
18 elements of the content to the different
19 displays.

20 Q. What problem does Sasaki seek to
21 solve?

22 A. Sasaki is solving a problem where
23 you have different people that you may want
24 to see different media feed or different
25 content. This is -- essentially it's a print

1 J. Paradiso

2 and publish focus system where what's coming
3 into the system is either Manga or newspapers
4 or books, for example. And you can
5 distribute this content across multiple users
6 who are reading or looking at it.

7 Q. Are the PDAs receiving the Manga,
8 as you place it?

9 A. Yeah, there's Manga. Yeah, if they
10 subscribe to the Manga they will receive a
11 portion of the Manga on their PDA.

12 Q. Okay. Why are they receiving
13 portions of the Manga?

14 A. Sasaki is actually clear of the
15 limitations of the portable devices where the
16 kind of tablet devices that he was using at
17 the time couldn't support an entire volume of
18 Manga and newspapers or something like that,
19 so they would render a page at a time,
20 essentially.

21 Q. You mean portions, correct?

22 A. Yeah, portions that they were able
23 to store and also show.

24 Q. And as you say "store and also
25 show," it shows that the PDAs didn't have the

1 J. Paradiso

2 capacity that the main terminal had, correct?

3 A. Sasaki does talk to that.

4 Q. Okay. So how does Sasaki go about
5 solving this problem?

6 A. Sasaki enables different users to
7 request different content or request content
8 from the main device and then scroll through
9 it on their own. So they -- they get a
10 segment, they read it, they get the next
11 segment. Let me use as a whole delimiter
12 data structure to do it that indexes the main
13 media.

14 Q. Okay. All right. Let's turn to
15 paragraph 131 of your declaration and that's
16 on page 65 or page 82 of the PDF.

17 A. I have it.

18 Q. So in your opinion Sasaki
19 electronic newspapers is the contents,
20 correct?

21 A. He talks about a few different
22 contents but newspapers are an example,
23 right, that's why I have it in parentheses.
24 He talks about books and Manga as well.
25 I think he leaves it open for other things

1 J. Paradiso

2 too.

3 Q. So you agree that Sasaki server
4 device 1 displays multiple electronic papers,
5 correct?

6 A. It could. It could store them.
7 It's possible. I don't know if just Sasaki
8 talks about -- too much about different ones
9 but I could see where that could happen.
10 There is an ID, there's a content ID, so that
11 would lead --

12 Q. So --

13 A. -- to think there are different
14 contents.

15 Q. I'm sorry.

16 Dr. Paradiso, my question is --
17 maybe I didn't state the question correctly.
18 So my question is: Is display 105, according
19 to paragraph 131 of your declaration, display
20 105 is displaying multiple electronic
21 newspapers, correct?

22 A. Let me look back on this. So 105
23 or Figure 3 is the main terminal. So in the
24 main terminal you could be looking at
25 different newspapers 'cause you have the

1 J. Paradiso

2 storage for it.

3 Q. So let me rephrase my -- let me ask
4 it again.

5 So Sasaki server display -- I'm
6 sorry, strike that.

7 Sasaki server device 1 displays
8 multiple electronic newspapers, correct?

9 A. On its own display?

10 Q. Yes?

11 A. You can -- I think it displays one
12 at a time. I don't know if it can display
13 multiple newspapers at the same time.

14 Q. So I --

15 (Cross-talk.)

16 A. -- one at a time.

17 Q. So let's go to the last sentence of
18 your declaration on page 65. You say:

19 In my opinion a POSITA would have
20 understood and found obvious that display
21 device 1 is capable of displaying contents,
22 correct?

23 A. Yes.

24 Q. And contents, according to you, is
25 electronic newspapers, correct?

1 J. Paradiso

2 A. For this example, yeah.

3 Q. So let me ask the question again.

4 Sasaki server device 1 displays
5 multiple electronic newspapers, correct?

6 A. I believe it -- I believe it
7 would -- it can display a newspaper, okay.
8 So it can do that. We assume it can do that.

9 You probably can bring other --
10 it's able to store multiple newspapers, you
11 could bring up another newspaper and look at
12 it. Could you look at multiple newspapers at
13 the same time with this device at that time,
14 I don't know. But yeah, you could look at a
15 newspaper, you could look then at a different
16 newspaper.

17 Q. Okay. So would you agree that one
18 of the electronic newspaper is one out of
19 many electronic newspapers, correct?

20 A. I would have to look at Sasaki for
21 the reinforcement on that. It's got a disc,
22 it can store newspapers on the disc. It may
23 be able to store several but I don't know how
24 Sasaki talks to it.

25 Q. My question is simpler than that.

1 J. Paradiso

2 One of the electronic newspapers is one other
3 meaning electronic newspapers, correct?

4 A. Well, if you look at all the
5 electronic newspapers that are available
6 online, that's true.

7 Q. And in Sasaki server device 1, one
8 of the electronic newspapers is one other
9 meaning electronic newspapers, correct?

10 MR. WOLFE: Objection. Asked and
11 answered.

12 A. Yeah. Server device 3 you mean?

13 Q. No, I mean server device 1.

14 A. Is that in Figure 3? Which figure
15 is that on in Sasaki?

16 Q. So if we look at paragraph 132 of
17 your expert report you say Sasaki server
18 device 1, right?

19 A. Oh that. No, I was referring to
20 information distribution server device 3,
21 that clearly has many newspapers on it.

22 Q. I'm sorry. I'm confused.
23 Device 3, according to paragraph 132 you
24 clearly wrote -- did you write this section,
25 Dr. Paradiso?

1 J. Paradiso

2 A. Yes, yes.

3 Q. So you clearly wrote Sasaki server
4 device 1 include a display, which is display
5 105, correct?

6 A. Yes, that's obvious.

7 Q. Okay. So my question is:
8 Display 1 -- in server device 1 it stores
9 electronic newspapers, correct?

10 A. Yes, it does store electronic
11 newspapers.

12 Q. Okay. So my question is one of the
13 electronic newspapers is one out of many
14 electronic newspapers, correct?

15 MR. WOLFE: Objection. Asked and
16 answered.

17 A. I don't know if Sasaki stores
18 multiple newspapers at the same time. It's
19 possible it could. I don't know if he talks
20 about that so much in the disclosure. I see
21 no evidence, you could look at more than one
22 at a time on the display.

23 Q. So let's turn to paragraph 141 of
24 your declaration, which is page 72 or page 89
25 of the PDF.

1 J. Paradiso

2 A. Okay.

3 Q. So in your opinion Sasaki's lines
4 of electronic newspaper is one of the
5 contents, correct?

6 A. It's one of the -- yes, it's one of
7 the contents that you're sending to the
8 subsidiary terminals.

9 Q. And lines of an electronic
10 newspapers is only a portion of the entire
11 newspaper, correct?

12 A. Yes.

13 Q. So I'm gonna upload another
14 document in the chat. Do you recognize this
15 document I just uploaded?

16 A. One second I have to get it. 1006?

17 Q. Yes.

18 MR. WOLFE: Just want to interject
19 while we're trying to get the
20 document, we're about over an hour.

21 MR. GODO: Sure, we can take a
22 break.

23 THE WITNESS: Yeah, I can use a
24 break. I've got it though. It's
25 here. I've downloaded it.

1 J. Paradiso

2 MR. GODO: Okay. We'll start
3 after the break.

4 We can go off record.

5 THE COURT REPORTER: We're off the
6 record.

7 (Off the record from 2:01 p.m. to
8 2:12 p.m.)

9 THE COURT REPORTER: We're back on
10 the record.

11 (Exhibit 1006 was introduced.)

12 BY MR. GODO:

13 Q. Okay. So, Dr. Paradiso, if I ask a
14 question and you don't understand it, it's
15 perfectly normal to say "Can you restate the
16 question?" Please can you ensure that if I
17 ask a question you answer the question I'm
18 asking and that you don't go outside of the
19 question that was asked; is that okay?

20 A. I think sometimes the question you
21 ask requires me to go outside of it because
22 it involves context that's important to the
23 question. So when I do that I think it's
24 vital or answering the question properly.

25 Q. Okay. All right.

1 J. Paradiso

2 So earlier I put in Exhibit 1006.
3 I sent it to the chat. I'm now going to use
4 that. We're going to continue now with
5 Ground Number 3.

6 A. Let me take a look. I saw 1006 as
7 Sasaki; is that correct?

8 Q. Yes. Well, don't worry about that
9 anymore. We're gonna now turn onto Ground
10 Number 3.

11 A. Okay.

12 Q. Let's go back to your expert
13 declaration which is Exhibit 1002.

14 A. Okay, let me go to that. Yes.

15 Q. Let's go to paragraph 183.

16 A. Yes, I see it.

17 Q. So here you referenced U.S. patent
18 application publication which you refer to as
19 Futa. This is Exhibit 1009. You see that,
20 right?

21 A. I do see it.

22 Q. This is U.S. patent application
23 publication number 2004/0010687, correct?

24 A. That's correct. That's correct.

25 Q. Is it your opinion that claims 1,

1 J. Paradiso

2 2, 4 are obvious in view of Futa, correct?

3 A. I believe this is an obviousness
4 with Futa and McClellan I think in some of it
5 as well.

6 Q. What does Futa disclose?

7 A. Futa discloses, I say it clearly in
8 paragraph 184, a content distribution -- a
9 content distributing system for distributing
10 content to viewers. And it has Figure 1 that
11 shows the parts of it. It's broadcast
12 receiving device, a TV and a PC and a data
13 communication controlling device, a table
14 updating server, broadcast device.

15 And it basically talks about main
16 content coming in and it stores the content,
17 the main terminal in Futa, and it receives
18 requests from the subsidiary devices for
19 playing content, and it sends the content to
20 them if they are allowed to see it.

21 So it has judgment tables where it
22 compares the ID of the device to what the
23 device is allowed to see.

24 Q. Okay. And one point that I just
25 want to make sure is when we refer to this

1 J. Paradiso

2 patent publication, when I refer to it as
3 Futa you know what I mean, right?

4 A. Yes, I do.

5 Q. Okay. What problem is Futa seeking
6 to solve?

7 A. Futa is -- it's a content of the
8 receiving system is the other thing we've
9 been talking about are. They're systems hat
10 store content then deliver content to
11 different -- different terminals or different
12 devices that are attached. And Futa is
13 seeking to solve distributing content that's
14 coming into the different terminals.

15 Q. Okay. Let me send to the chat
16 Exhibit 1009 which is Futa.

17 (Exhibit 1009 was introduced.)

18 Q. Do you see that?

19 A. I see it. Let me download it here.
20 Let me try to open it. Okay, I have it.

21 Q. Can you turn to paragraph 5 which
22 is page 18 of the PDF? I'll let you read
23 paragraph 5.

24 A. (Document review.)

25 Yes, I've read paragraph 5.

1 J. Paradiso

2 Q. What is paragraph 5 describing?

3 A. Paragraph 5 is describing content
4 being distributed via the internet or
5 broadcast satellites being widespread. Such
6 content distributed from suppliers to users
7 is copyrighted in many cases, not always. So
8 to protect the copyright suppliers have to
9 manage content, so they don't allow users to
10 use the content beyond the scope of their
11 license. This is a common problem even now.

12 Q. Okay. So you agree that the
13 problem that Futa is seeking to solve is how
14 to protect copyright and scope of licenses,
15 correct?

16 A. Futa is showing that within the
17 context of a media distribution system.
18 Matter of fact, I think the title of Futa
19 isn't anything to copyright. See if I can
20 scroll up this way.

21 It's content distributing system
22 and data communication controlling device.
23 So yeah, it's a content distribution system.
24 It does happen to also have a gating control
25 on the content depending on the user who

1 J. Paradiso

2 looks.

3 Q. And it's relying on copyright and
4 scope of licenses, correct?

5 A. I don't think it has to be
6 copyright, it could be other things. They
7 talk about, you know, how much you pay and
8 stuff like that, or access, they may have
9 open -- you know, we think parental control,
10 you think of other things this could apply
11 to. I believe, yeah, copyright is part of it
12 but there could be other things.

13 Q. Now let's turn to paragraph 10.
14 It's on the same page.

15 A. I have to scroll down again.
16 Sorry.

17 Q. No problem.

18 A. Paragraph 10. I see it.

19 Q. So can you describe what
20 paragraph 10 is proposing?

21 A. Paragraph 10 says that Futa
22 provides a content distributing system that
23 can incorporate copyright restrictions as it
24 does by its judgment tables. But it's a
25 content distributing that can prohibit

1 J. Paradiso

2 transmission according to level of access
3 you're allowed.

4 Q. But paragraph 10 is specifically
5 addressing copyright protection, right?

6 A. It's addressing a content
7 distributing system. You can see it says
8 that even before it says copyright. So it's
9 a -- as it says in the title of the patent,
10 it's a content distributing system. It
11 had -- has a feature that it can prohibit
12 transmission of content depending on access.

13 Q. How is Futa solving this problem?

14 A. Futa solves this problem by --
15 well, it has a whole diagram somewhere. Let
16 me go back to my report. I'll try to go back
17 to my report, it's easier.

18 (Document review.)

19 Yeah, Futa is solving this problem
20 by having an infrastructure again to receive
21 and store content as all of these devices do
22 and ways of accessing and indexing the
23 content and providing it to the different
24 clients.

25 But what Futa does do is associate

1 J. Paradiso

2 the ID of each client, the PC in this case or
3 the TV, with a judgment table that is -- that
4 the content indexes as well. The judgment
5 table lists essentially the IDs of the
6 clients who have access to certain level of
7 content that comes in.

8 So if you pass -- if your ID -- if
9 you've requested that program and your ID
10 passes that level, you can get the program
11 information and decrypt it and watch it or
12 experience it.

13 Q. Okay. So let's go to -- back to
14 your declaration, which is Exhibit 1002. Can
15 you turn to paragraph 215?

16 A. Sure.

17 Q. It's on page 108 or 125.

18 A. I see it.

19 Q. In your opinion Futa's judgment
20 table is the claim association information,
21 correct?

22 A. It's a great example of it,
23 correct.

24 Q. Let's go back to Futa Exhibit 1009.
25 Let's go to paragraph 169 through 170.

1 J. Paradiso

2 A. Okay.

3 Q. I'll let you read them and then
4 I'll ask you a question, okay?

5 A. (Document review.)

6 Okay.

7 Q. Okay. So do you agree that these
8 paragraphs -- from these paragraphs that
9 judgment tables A or B are generated by
10 communication concerning unit 407, correct?

11 A. Let me go back to my declaration on
12 this as well. We talk about this.

13 (Document review.)

14 Okay, can you repeat your question?

15 Q. We were looking at paragraph 169
16 through 170 of Futa.

17 A. Yes.

18 Q. And I'm asking from what you read
19 in Futa in paragraph 169 through 170, do you
20 agree that judgment tables A or B are
21 generated by communication controlling unit
22 407, correct?

23 A. I don't know if they're generated
24 by 407 but 407 writes into them, it stores --
25 it stores the information in them.

1 J. Paradiso

2 Q. Okay. And do you agree that
3 judgment tables include device ID and
4 category information, correct?

5 A. Yes. They include device ID and
6 they are category information, yeah.

7 Q. And can you confirm that Futa
8 discloses that category information can be
9 the values of one or two, correct?

10 A. Yes.

11 Q. Let's turn to Figure 8A of Futa
12 which is on page 9.

13 A. One second here. Page 9 of the
14 PDF?

15 Q. Yes, page 9 of the PDF.

16 A. Yep.

17 Q. Okay. So starting -- do you agree
18 that Figure 8A is showing judgment table
19 A430, correct?

20 A. Yes.

21 Q. And you agree that the value of 1
22 indicates free content, correct?

23 A. Meaning it indicates IDA, IDB and
24 IDC can access it, so if they don't have a
25 value of zero it probably is the lowest level

1 J. Paradiso

2 of access which could be free.

3 Q. So my question is: Do you agree
4 that the value of 1 shown on Figure 8A
5 indicates free content, correct?

6 A. I would have to see if Futa calls
7 it free. I think he does but it's the --
8 certainly the most available level of
9 content, yes.

10 Q. Do you see what it says at the --
11 right underneath Figure 8A? What is it
12 saying?

13 A. Under Figure 8A free content on top
14 but yeah, that is free content, I would agree
15 to that.

16 Q. So let me restate the question.
17 You agree that the value of 1
18 indicates free content, correct?

19 A. Yes.

20 Q. And you also agree that judgment
21 table A430 only discloses additional
22 information 1 on the left column and
23 permitted device IDs, correct?

24 A. It stores the IDs and it discloses
25 that these IDs are accessing level 1. So

1 J. Paradiso

2 that is, in my opinion, clear association
3 information. But you know, this is what it
4 is, it's a list of IDs and a category it can
5 access.

6 Q. So on the same page you see
7 Figure 8B?

8 A. Yes.

9 Q. And it discloses another judgment
10 table which is B440, correct?

11 A. Yes.

12 Q. You agree that the value of 2
13 indicates high value content, correct?

14 A. That's what it says there, yes.

15 Q. And you also agree that judgment
16 table B440 discloses additional information 2
17 on the left column and permitted device IDs,
18 correct?

19 A. Yes. These are the device IDs that
20 can access contents of level 2 associated ID
21 with the content as association information
22 is supposed to do, but it does that, yes.

23 Q. Let's go back to the expert
24 declaration, Exhibit 1002.

25 A. Yep.

1 J. Paradiso

2 Q. Let's go to paragraph 187 which is
3 page 94, 111 of the PDF.

4 A. Paragraph 187.

5 Q. Yeah.

6 A. Okay.

7 Q. Here you reference U.S. patent
8 which you refer to as McClellan Exhibit 1010,
9 correct?

10 A. Yes, that's correct.

11 Q. And this is U.S. patent
12 number 5,619,250, correct?

13 A. Yes, that's correct.

14 Q. It is your opinion that claims 1
15 through 4 are rendered obvious by Futa in
16 view of McClellan, correct?

17 A. Yes.

18 Q. I'm going to upload a document on
19 the chat.

20 A. Okay.

21 (Exhibit 1010 was introduced.)

22 Q. Do you recognize the document?

23 A. One second, I'm going the wrong way
24 here but yeah it looks like it's McClellan
25 but let me download it. It's going to take

1 J. Paradiso

2 me a second because of the way I have to do
3 it here. Okay. I downloaded it, now I have
4 to find it. Oh, I think I know where it will
5 be. I see it. Now I can open it.

6 Q. Okay. So if I refer to this patent
7 as McClellan, you know what I mean by that,
8 right?

9 A. Yeah. But one second, it's
10 still -- I don't know if it opens when I do
11 that. There, I have it. Okay.

12 Q. Let's look at the technical field
13 of McClellan.

14 A. Yes.

15 Q. Please turn to lines 25 through 30
16 in column 1?

17 A. Yes.

18 Q. Okay. You see Technical Field,
19 right?

20 A. Yep.

21 Q. Can you read that paragraph?

22 A. The present invention relates
23 generally to set top boxes for use in an
24 interactive television system and more
25 particularly to an improved operating system

1 J. Paradiso

2 which accommodates system upgrades in real
3 time.

4 Q. So you agree that McClellan is
5 directed at set boxes, correct?

6 A. Yes, it is.

7 Q. And you also agree that it's
8 directed to improving operating system which
9 accommodates system upgrades in real time,
10 correct?

11 A. McClellan discloses a system to do
12 that after it discloses its set top box and
13 the fact that it could be put into a
14 television.

15 MR. GODO: Okay. No further
16 questions. This is it. Thank you.
17 Thank you very much, Dr. Paradiso.

18 THE WITNESS: Okay. Thank you,
19 sir.

20 MR. WOLFE: Can we just break for
21 20 minutes just so I can confer with
22 co-counsel?

23 MR. GODO: Sure. 20 minutes, you
24 said?

25 MR. WOLFE: Yes, 20 minutes.

1 J. Paradiso

2 MR. GODO: Hold on, let me check
3 something.

4 MR. MINUTOLI: Hopefully not that
5 long.

6 MR. WOLFE: Hopefully not that
7 long.

8 THE COURT REPORTER: Do you want
9 to stay on the record?

10 MR. GODO: We can go off the
11 record.

12 THE COURT REPORTER: We're off the
13 record.

14 (Off the record from 2:36 p.m. to
15 3:05 p.m.)

16 THE COURT REPORTER: We're back on
17 the record.

18 EXAMINATION BY

19 MR. WOLFE:

20 Q. Dr. Paradiso, I just have a few
21 questions for you. Can you please turn to
22 paragraph 70 of your declaration?

23 A. Sure, one second. Paragraph 70.

24 Q. And do you recall when Mr. Godo
25 asked you about a first controller?

1 J. Paradiso

2 A. One minute. I recall him asking
3 about that, yes.

4 Q. And what did you include in the
5 parenthetical following a first controller?

6 A. Collectively, video processing unit
7 103, video processing unit 104, mobile
8 information terminal management unit 106.

9 Q. And can you scroll down to the next
10 page? It's PDF page 45. There's a Figure 1
11 reproduced from Shindo.

12 A. Yes, I see it.

13 Q. In Figure 1 does Shindo include a
14 video processing unit 103?

15 A. No, it does not.

16 Q. What is element 103 in Figure 1?

17 A. That is the metadata interpretation
18 unit.

19 Q. And does Shindo include video
20 processing unit 104?

21 A. It has an accumulation video
22 processing unit 104.

23 Q. And then does Figure 1 show mobile
24 information terminal unit 106?

25 A. Yes, it shows that.

1 J. Paradiso

2 Q. Can you please scroll down to
3 paragraph 73 of your declaration?

4 A. Yes.

5 Q. And again, let's look at the first
6 controller, specifically the parenthetical
7 that follows it.

8 A. Yep.

9 Q. What components did you define as
10 the first controller?

11 A. Here it's the metadata
12 interpretation unit 103, video processing
13 unit 104, and mobile information terminal
14 management unit 106.

15 Q. And as you said before Figure 1 of
16 Shindo includes metadata interpretation unit
17 103, correct?

18 A. It does.

19 Q. Now let's move down to
20 paragraph 76.

21 A. Yes.

22 Q. And again we're gonna look at the
23 parenthetical following the first controller.
24 Can you please recite how or what components
25 are included as the first controller here?

1 J. Paradiso

2 A. Yeah. Collectively, the metadata
3 interpretation unit 103, video processing
4 unit 104, mobile information terminal
5 management unit 106.

6 Q. Thank you. And can you please
7 scroll down to paragraph 78?

8 A. Yes.

9 Q. And one more time, can you please
10 look at the parenthetical following first
11 controller? What components of Shindo is
12 defined as the first controller?

13 A. Metadata interpretation unit 103,
14 video processing unit 104, mobile information
15 terminal management unit 106.

16 Q. And then can you please look at
17 paragraph 76? Please let me know when you're
18 there.

19 A. I'm there.

20 Q. Okay. And do you see the
21 subheading number 8 above paragraph 76?

22 A. Oh, yes, I do. The claim element.

23 Q. And claim element 1g, that
24 describes an operation performed by the first
25 controller, correct?

1 J. Paradiso

2 A. Yes.

3 Q. Can you please scroll down to
4 paragraph 77 under the image that's provided
5 which is Figure 6?

6 A. Yes.

7 Q. And here you recited Shindo's
8 metadata interpretation unit 103 stores the
9 index information in HDD 105, correct?

10 MR. GODO: Objection.

11 A. Right after the -- it's citing to
12 paragraph 26 of Shindo metadata
13 interpretation. I'm sorry, can you repeat
14 your question again? I want to make sure I
15 see the right place where I mention that.

16 Q. Of course.

17 So in limitation 1g where you
18 describe an operation performed by the first
19 controller --

20 A. Yes.

21 Q. -- there is an operation performed
22 by the metadata interpretation unit 103,
23 correct?

24 MR. GODO: Objection.

25 A. Yes.

1 J. Paradiso

2 Q. Understood. And can you read that
3 sentence please? Start Shindo's --

4 A. Yeah.

5 Shindo's metadata interpretation
6 unit 103 stores the index information in HDD
7 105.

8 And then it goes on.

9 Q. And then scrolling back up to right
10 above paragraph 72 of your declaration.
11 Please let me know when you're there, we're
12 gonna look at Figure 1.

13 A. Yep, I'm there.

14 Q. And here you've highlighted
15 video -- strike that.

16 Here you've highlighted video
17 accumulation processing unit 4, correct?

18 A. Yes.

19 Q. Now please scroll down to the next
20 page and the figure on that page. Please let
21 me know when you're there.

22 A. I'm there.

23 Q. And here you've highlighted mobile
24 information terminal management unit 106,
25 correct?

1 J. Paradiso

2 A. That's correct.

3 Q. And then scroll down to page 34,
4 PDF page 51. There's another Figure 1
5 reproduction. Please let me know when you're
6 there?

7 A. I'm there.

8 Q. Okay. And here you've highlighted
9 metadata interpretation unit 103, correct?

10 A. That's correct.

11 Q. And do these three highlighted
12 components represent what you consider the
13 first controller?

14 A. Yes, they do.

15 Q. So now let's go back up to
16 paragraph 70. Please let me know when you're
17 there.

18 A. I'm there.

19 Q. And referring back to the
20 parenthetical after the first controller the
21 video processing unit 103 is a typographical
22 error, correct?

23 A. Yes.

24 MR. WOLFE: No further questions.

25 I pass the witness.

1 J. Paradiso

2 MR. GODO: No further questions.

3 Thank you.

4 THE COURT REPORTER: We're off the
5 record.

6 (Concluded at 3:14 p.m. Eastern Time)

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J. Paradiso

J U R A T

I, JOSEPH PARADISO, do hereby
certify under penalty of perjury that
I have read the foregoing transcript
of my deposition taken on the 13th of
March, 2026; that I have made such
corrections as appear noted herein in
ink, initialed by me; that my
testimony as contained herein, as
corrected, is true and correct.

JOSEPH PARADISO

Subscribed and sworn to before me
This _____ day of _____, 20__.

NOTARY PUBLIC

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J. Paradiso

-----I N D E X-----

WITNESS: JOSEPH PARADISO

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-----E X H I B I T S-----

PREVIOUSLY MARKED EXHIBITS INTRODUCED

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J. Paradiso

C E R T I F I C A T E

STATE OF NEW YORK)
 : SS.:
COUNTY OF RICHMOND)

I, CANDIDA BORRIELLO, a Stenographic
Court Reporter and Notary Public for and
within the State of New York, do hereby
certify:

That the witness, JOSEPH PARADISO,
whose examination is hereinbefore set forth
was duly sworn and that such examination is a
true record of the testimony given by that
witness.

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

IN WITNESS WHEREOF, I have hereunto
set my hand this 13th day of March, 2026.


CANDIDA BORRIELLO

1 J. Paradiso

2 ERRATA SHEET FOR THE TRANSCRIPT OF:

3 Case Name: Samsung v. Maxell
4 Dep. Date: March 13, 2026
5 Deponent: Joseph Paradiso

6	Pg.	Ln.	Now Reads	Should Read	Reason
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20 _____
21 JOSEPH PARADISO

22 SUBSCRIBED AND SWORN BEFORE ME,
23 This____ day of_____, 20____.

24 _____
25 Notary Public

My Commission Expires:_____

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