UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC.,

Petitioners,

vs.

MULTIMEDIA TECHNOLOGIES PTE. LTD.,

Patent Owner.

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IPR2024-00353

U.S. Patent No. 9,055,254 B2

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Remote Deposition of

RAJEEV SURATI, Ph.D.

December 4, 2024
9:19 a.m. EST

Denise M. Munguia, RDR, CRR, CRC
California CSR #14033
Michigan CSR #15974

Ex.1026 / IPR2024-00353 / Page 1 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

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I N D E X

EXAMINATION OF RAJEEV SURATI, Ph.D.

BY MR. HUH 4
BY MR. SCHREINER 107
BY MR. HUH 115

EXHIBITS MARKED

(No Exhibits Were Marked)

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THE COURT REPORTER: My name is Denise Munguia. 09:19:23
I'm a Certified Shorthand Reporter licensed in 09:19:27
California, Michigan, I'm also a notary in Ohio and 09:19:32
Michigan. 09:19:38
At this time do all parties agree to waive any 09:19:40
objection, now or in the future, to me swearing in the 09:19:42
witness remotely? 09:19:45
MR. HUH: For Petitioner, we do. 09:19:51
MR. SCHREINER: On behalf of Patent Owner we 09:19:53
consent. 09:19:55
THE COURT REPORTER: Thank you. 09:20:09
RAJEEV SURATI, Ph.D., of lawful age, called for 09:20:09
examination, as provided by the Federal Rules of Civil 09:20:09
Procedure, being by me first duly sworn, as hereinafter
certified, deposed and said as follows:
EXAMINATION OF RAJEEV SURATI, Ph.D.
BY MR. HUH:
Q Good morning, Dr. Surati. 09:20:13
A Good morning. How are you? 09:20:15
Q Great. Thank you for asking. 09:20:16
So I know you have been deposed before. I 09:20:18
believe you and I had a deposition maybe a few weeks 09:20:26
ago, correct? 09:20:30
A That's correct. 09:20:30
Q So I'm going to try to go a little faster 09:20:31

through some of the formalities, but I'll still go through some of the things, just so that way the record is clear. 09:20:40 09:20:44 09:20:46

A Okay. 09:20:46

Q Okay. So, for the record, how many times have you been deposed so far? 09:20:47 09:20:50

A Like over 30 probably by now. 09:20:51

Q Okay. And you understand that you are under oath today, correct? 09:20:56 09:20:59

A I do. 09:21:00

Q And you understand that I'll be asking you questions? 09:21:01 09:21:04

A I do. 09:21:05

Q And do you understand that the oath that you have taken requires that you answer my questions truthfully and completely? 09:21:08 09:21:10 09:21:12

A I do. 09:21:15

Q And do you agree to answer my questions truthfully and completely? 09:21:17 09:21:19

A I do. 09:21:21

Q Great. Thank you. 09:21:24

Just logistically, do you have any other device that may be used to communicate with counsel during today's deposition? 09:21:26 09:21:32 09:21:35

A I have my phone, which I'll put on Air -- I 09:21:37

guess on Do Not Disturb. And Airplane Mode, I guess. 09:21:42

Q Do you have any other means for communications, as, for example, a chat window or anything else? 09:21:55 09:21:59

A No. 09:22:03

Q Okay. And I know you probably have access to your e-mail, correct? 09:22:04 09:22:07

A I do. 09:22:08

Q Okay. And I would just ask that, during the deposition, that you not confer with counsel -- 09:22:09 09:22:13

A Uh-huh. 09:22:16

Q -- via e-mail regarding this testimony. 09:22:16

A Sure. Of course. 09:22:19

Q Just to confirm, you are aware that you can't consult with counsel about your testimony during the breaks, correct? 09:22:22 09:22:25 09:22:30

A Of course. 09:22:30

Q And do you agree not to communicate with counsel during this deposition? 09:22:32 09:22:42

A Yeah, not in any -- not about the deposition. If I have some nondeposition-related thing, I might, but I don't have any plan to. 09:22:44 09:22:47 09:22:52

MR. SCHREINER: Just an objection to clarify that communications are permitted after the close of cross-examination. 09:22:55 09:22:58 09:23:02

BY MR. HUH: 09:23:08

Q Right. But during, during the cross-examination, Dr. Surati, you agree to not communicate with counsel, correct? 09:23:08 09:23:12 09:23:14

A Is the cross-examination the first part? 09:23:18

Q As long as I'm asking questions. 09:23:21

A Oh, okay. Yeah, that's, that's what I will do. 09:23:23

Q Thank you. 09:23:26

So with respect to your engagement for the IPR, are you engaged by MultiMedia Technologies in connection with the '254 patent IPR? 09:23:35 09:23:45 09:23:51

A I believe so. 09:23:54

Q And when did that engagement take place? 09:23:54

A For the IPR, it was later than when I was engaged for the civil litigation, so I think five or six months ago I started working on IPRs. 09:23:56 09:24:02 09:24:07

Q And when were you engaged for the civil litigation? 09:24:11 09:24:13

A I think earlier in the year, like January. 09:24:14

Q Okay. So we're here to talk about your declaration, correct? 09:24:23 09:24:48

A I understand that. 09:24:50

Q And you submitted a declaration in the IPR for the '254 patent? 09:24:51 09:24:55

A I did. 09:24:57

Q Okay. So in preparation for your deposition 09:24:58

today, have you reviewed any documents? 09:25:03

A I have. 09:25:09

Q What documents have you reviewed? 09:25:11

A So just in terms of prepping for this deposition, I reviewed the primary prior art references, I reviewed the declaration, I looked at parts of Dr. Lippman's declaration and testimony -- and deposition. I looked at -- I'm just trying to think. Yeah, I would say that's as much as I can remember at the moment. But obviously I have a section of my report that goes over what was used as a reference, as references to, to -- right through. 09:25:12 09:25:18 09:25:25 09:25:30 09:25:36 09:25:46 09:25:49 09:25:55 09:26:00

Q Right, but if we just focus on what you did to prepare for your deposition, if we would, please. You said you reviewed the primary references, correct? 09:26:09 09:26:13 09:26:16

A Uh-huh. Yeah. 09:26:19

Q Did you review the Kim reference? 09:26:21

A I did. 09:26:23

Q Did you review the Kim reference in its totality. 09:26:24 09:26:29

A I believe so. 09:26:29

Q You don't know? 09:26:29

A No, no, I do. I did. 09:26:32

Q Did you review the Bae reference? 09:26:41

A I did. 09:26:44

Q And did you review that reference in its totality? 09:26:46 09:26:49

A Yep. 09:26:50

Q There's also the WD Manual. Did you review that reference in its totality? 09:26:55 09:26:59

A Yes, I reviewed all three exhibits. 09:27:00

Q Did you review the WD Manual in its totality? 09:27:07

A I believe, as long as those three things that were exhibited as exhibits, I looked at all three of them. So yes. 09:27:12 09:27:17 09:27:21

Q Just to be clear, when I'm asking in totality, you have read the entirety of the reference, correct? 09:27:23 09:27:26

MR. SCHREINER: I caution the witness not to speculate. 09:27:30 09:27:31

THE WITNESS: Yeah, I don't -- 09:27:31

MR. SCHREINER: It's a 300-page WD -- 09:27:34

MR. HUH: Stephen, Stephen, please do not interrupt. That's not an objection. That's a speaking objection. That's improper. 09:27:36 09:27:39 09:27:41

THE WITNESS: Okay. I told you -- 09:27:43

MR. SCHREINER: I maintain the objection. 09:27:45

MR. HUH: That wasn't an objection. That was a comment. Improper. 09:27:46 09:27:47

THE WITNESS: Yeah, I looked, I looked at all three documents from front to back of all pages. 09:27:49 09:27:52

BY MR. HUH: 09:27:57

Q So just to be clear, for the Kim reference, you have read every page in the Kim reference, correct? 09:27:57 09:28:01

A I have. 09:28:06

Q For the Bae reference, you read every page of the Bae reference, correct? 09:28:09 09:28:11

A Yes. 09:28:13

Q In preparation for today's deposition? 09:28:14

A I believe so. 09:28:17

Q The WD Manual, you read every page of the WD Manual in preparation for today's deposition, correct? 09:28:19 09:28:22

MR. SCHREINER: Same objection. 09:28:25

THE WITNESS: Yeah, I mean, look, I looked at them. I don't know that I read every single word over, but I did read through it, and, you know, that's what I did, I looked at it, I looked at every page. I don't know what, what else I -- 09:28:27 09:28:28 09:28:31 09:28:38 09:28:42

BY MR. HUH: 09:28:44

Q Did you read every page or just flip through it? 09:28:44

A I -- 09:28:46

MR. SCHREINER: Same objection. 09:28:48

MR. HUH: Stephen. 09:28:48

MR. SCHREINER: Same objection. 09:28:49

THE WITNESS: Yeah, look, I read the, I read the document. 09:28:51 09:28:53

BY MR. HUH: 09:28:55

Q You're not answering my question, Doctor. I'm 09:28:55
asking you a very simple question. Did you read every 09:28:56
page of the reference, the WD Manual? 09:28:59

A Look -- 09:29:02

MR. SCHREINER: Objection. Objection. Asked 09:29:02
and answered. 09:29:04

BY MR. HUH: 09:29:09

Q You can answer, Doctor. 09:29:09

**A I mean I have answered your question. I said 09:29:11
that I looked at the three documents that were part of 09:29:13
the exhibit. If that's the totality of the WD 09:29:15
reference, that's what I used for the document, I have 09:29:19
looked at it and read through it.** 09:29:21

Q Okay. I'm asking you a very specific question. 09:29:23
Did you read every page of the WD Manual? 09:29:26

MR. SCHREINER: Objection. Asked and answered. 09:29:29

BY MR. HUH: 09:29:41

Q Did you read every page of the WD Manual, sir? 09:29:41

MR. SCHREINER: Objection. Asked and answered 09:29:44
for the third time. 09:29:45

MR. HUH: He hasn't answered it. 09:29:47

MR. SCHREINER: Yes, he has. 09:29:50

MR. HUH: Stephen, please stop talking. 09:29:51

MR. SCHREINER: You just addressed me. I 09:29:53

answered you. 09:29:55

THE WITNESS: So I -- as far as I'm concerned, I answered your question. I told you what I looked at, read it, you know, I think I read it. 09:29:58 09:30:01 09:30:04

BY MR. HUH: 09:30:08

Q Did you read every page of the WD Manual, sir? 09:30:09

A I already answered that. 09:30:13

MR. SCHREINER: Objection. Objection. Asked and answered for the fourth time. 09:30:14 09:30:15

BY MR. HUH: 09:30:18

Q And what is the answer? 09:30:19

A I just said I think I read it. 09:30:20

Q Okay. We'll come back to that. 09:30:30

And you reviewed your declaration in preparation for today's deposition, correct? 09:30:32 09:30:41

A I did. 09:30:42

Q And you reviewed the entirety of it? 09:30:43

A From front to back, yes. 09:30:52

Q Did you review the Board's decision in preparing for today's deposition? 09:30:55 09:31:03

A I don't believe I did. I could go back and look at it. 09:31:04 09:31:07

Q Did you review anything else to prepare for today's deposition? 09:31:09 09:31:10

A I don't believe so. But, again, I did write a 09:31:16

document and I referenced in my, I referenced in my document the basis of what the document's based on. 09:31:21 09:31:30

Q How much time did you spend preparing for today's deposition? 09:31:40 09:31:43

A About twelve hours. 09:31:44

Q And did you meet with anyone to prepare for today's deposition? 09:31:49 09:31:51

A I did. 09:31:53

Q Who did you meet with? 09:31:54

A I met with Mr. Schreiner. 09:31:57

Q Anyone else? 09:31:59

A No. Oh, no, I did meet with Robert Pickens in the same call. 09:32:01 09:32:10

Q And who is Robert Pickens? Is he an attorney? 09:32:10

A He's an attorney. 09:32:12

Q And when did you meet with these gentlemen? 09:32:21

A Yesterday. 09:32:24

Q And how long was that meeting? 09:32:27

A I would say 3 hours and 30 minutes. 09:32:29

Q And your 12 hours includes that 3 hours 30 minutes, or is that something separate and apart from the 12 hours that you prepared for today's deposition? 09:32:41 09:32:46 09:32:49

A It includes it. 09:32:52

Q Let's turn to your declaration. For today's deposition, do you have access to electronic documents 09:33:16 09:33:22

that were filed in the IPR proceeding? 09:33:25

A I do. 09:33:27

Q And are those in PDF form? 09:33:29

A They are. 09:33:33

Q Are they also in Word form? 09:33:34

A I'd have to look. I mean I downloaded things from the docket, so whatever form the docket has, that's what I've got. 09:33:36 09:33:44 09:33:49

Q Okay. But I'm just asking do you have your own local working version, a Word version of, for example, your declaration? 09:33:49 09:33:52 09:33:58

A I -- I believe so, but I don't know for sure. I think so. 09:34:00 09:34:06

Q Okay. But -- 09:34:07

MR. SCHREINER: Just one moment, please. I caution the witness not to disclose or share any working versions or drafts of your declarations that were prepared leading up to the final declaration that was submitted. Privilege, work product. 09:34:07 09:34:08 09:34:14 09:34:17 09:34:21

BY MR. HUH: 09:34:30

Q Okay. So I just want to make sure that we're working from the same versions. So when I'm referring to a document, the ones that you will be looking at are the ones -- the version of the documents that were filed with the USPTO, correct? 09:34:31 09:34:33 09:34:37 09:34:40 09:34:44

A Yes, I downloaded them from the docket, from the docket directly, so I have what was filed. 09:34:46 09:34:49

Q Okay. And your Exhibit 2008 is a declaration, correct? 09:34:54 09:35:04

A Just let me check and bring it up. 09:35:05

Okay. So 2008 is my declaration, yes. 09:35:29

Q So on the front of it it should say Exhibit 2008 and it's for case IPR2024-00353, or the Patent Number is 9,055,254, correct? 09:35:36 09:35:43 09:35:51

A That's correct. 09:35:55

Q Okay. And, again, you reviewed the totality of the declaration, correct? 09:35:56 09:36:01

A I did. 09:36:02

Q And are there any errors in your declaration that you would like to correct? 09:36:02 09:36:06

A I think the only thing that, that -- just give me one second. Just a second. 09:36:07 09:36:18

So -- so I think I used the plain and ordinary meaning defined on -- oh, actually let me check one thing. 09:36:27 09:37:10 09:37:27

So there's some word definitions in the, in the body of the patent, which I used the plain and ordinary meaning that they provided. 09:37:27 09:37:48 09:37:53

Just a moment. Sorry. I have to -- someone is knocking on my door, I need to like tell them to go 09:37:56 09:37:58

away. Just one second. 09:38:01

Q I'm asking about errors. What error is there in 09:38:26

your dec -- Doctor, you're on mute. 09:38:29

A So I just wanted to say that, to clarify, 09:38:34

there's a section about claim construction, and I just 09:38:37

wanted to clarify, in that section I did not say 09:38:41

something about how I used -- 09:38:44

Q Okay. So my question is about errors. 09:38:46

MR. SCHREINER: Please let the witness answer, 09:38:49

finish his answer. 09:38:52

BY MR. HUH: 09:38:52

Q This is not a time to supplement declarations. 09:38:52

I'm asking about an error. Are there errors in your 09:38:56

declaration? 09:38:59

MR. SCHREINER: Please allow the witness to 09:38:59

answer the question. You interrupted him. 09:39:00

MR. HUH: I'm letting him answer. My question 09:39:02

is about errors, not about supplementing testimony. 09:39:03

MR. SCHREINER: You interrupted him. He's 09:39:06

allowed to finish his answer. 09:39:08

BY MR. HUH: 09:39:09

Q It's about errors. What errors are there in the 09:39:09

declaration, Doctor? 09:39:12

A Okay. I'd like to finish what I'm saying, so 09:39:13

let me finish what I'm saying. 09:39:15

Q Sure. Go ahead. 09:39:16

A So, like I said, if it's an error, I think it's an error that I did not say that I was using the terms that are in the patent that are defined, explicitly they are used in the claims, and that I used what I thought were their plain and ordinary meanings, they include things like remote control and television, et cetera. Those are there. I used what the patent says those are. If it's unclear, I want to make sure I correct that so that it's on the record that that's how I understood the words in the claim and that that is -- that's how I construed the claims. 09:39:23 09:39:28 09:39:32 09:39:34 09:39:37 09:39:41 09:39:43 09:39:47 09:39:50 09:39:57

Q Anything else? 09:40:01

A If there are any spelling errors, I'd correct them, but I saw one, but I can't recall what it was. That's it. 09:40:03 09:40:09 09:40:12

Q Okay. If you turn to your declaration at the last page where it says "Signature Page," page 126. Let me know when you're there, please. 09:40:15 09:40:55 09:41:06

A Sure. 09:41:08

I'm on page 126. Yes. 09:41:09

Q And is that your signature? 09:41:18

A It is. 09:41:20

Q And did you sign that on September 16th? 09:41:22

A I believe I did. 09:41:27

Q Were there any edits made after the signature? 09:41:29

A I don't believe so. 09:41:34

Q Okay. Let's turn to your declaration paragraph 9, please. 09:41:46 09:41:48

A Okay. 09:42:00

Q And in paragraph 9 you list materials considered in preparing your declaration, correct? 09:42:01 09:42:07

A That's correct. 09:42:08

Q Were any other materials from Petitioner considered in preparing your declaration? Other than the ones listed here. 09:42:14 09:42:17 09:42:22

A Meaning in this section before Section II, I think, paragraph 12. 09:42:26 09:42:30

Q I'm sorry. Again? 09:42:33

A I was just saying, so I believe this is what I reviewed, as described in paragraphs 9, 10 and 11 and 12, and if there's some reference that I referred to that I didn't include where I say that I reviewed it, then, then I reviewed that, but other than that, that's it. 09:42:36 09:42:43 09:42:55 09:43:05 09:43:09 09:43:14

Q Okay. So just -- let's just step through these paragraphs just for clarity. 09:43:18 09:43:22

A Uh-huh. 09:43:23

Q So in paragraph 9, there's a list of Petitioner Materials Considered. Do you see that? 09:43:24 09:43:27

A Yes. 09:43:29

Q Are there any other materials submitted by 09:43:31

Petitioner that you considered? 09:43:35

A I don't think so, other than having read through 09:43:49

and looked at the references. 09:43:52

Q So in this, your answer, what do you mean by 09:44:07

"the references"? 09:44:10

A The things that are referred to in the petition 09:44:11

or the -- sorry, the declaration, in the petition, then 09:44:16

these are direct references, but sometimes I might look 09:44:23

at things that were -- just one second -- like -- so an 09:44:26

example would be, I don't think I have listed the patent 09:44:38

1001, but all of those things are referring to the 09:44:45

patent, and so I did review the patent. 09:44:49

Q Okay. Did you review anything else that's not 09:44:53

part of Petitioner's Materials Considered list? 09:44:56

A I don't believe so, but there's a big list of 09:45:02

references that I feel like this document is based on, 09:45:05

so if there's references there that I felt were 09:45:08

relevant, I looked at -- I did look at those, but I 09:45:11

don't know that -- this is what I would consider what I 09:45:14

considered. 09:45:18

Q So the list on paragraph 9 is what you 09:45:24

considered? In addition to that, you have also 09:45:27

considered the Exhibit 1001, which is the '254 patent, 09:45:30

correct? 09:45:37

A Sure. Yeah. And -- just one second. 09:45:38

I mean there are a number of exhibits in the petition and declaration, you know, 1001 through 1024, but I consider these to be the main, the main things. So these are what I think are what I really referenced to, to answer your questions, but I also considered, in reading through the petition and the other things, those other references. 09:46:20 09:46:25 09:46:33 09:46:38 09:46:43 09:46:48 09:46:50

Q So did you read those other references? 09:47:09

A I looked at them and decided whether they were relevant to do, so, yeah, I read through a number of them, sure. 09:47:13 09:47:16 09:47:20

Q All of them? 09:47:22

A I've looked at them. I don't know read, but the pertinent pieces that I wanted to look at, I have looked at. 09:47:26 09:47:30 09:47:32

Q Okay. So you mentioned 1024. 09:48:01

A Uh-huh. 09:48:05

Q How did you consider 1024? 09:48:06

MR. SCHREINER: Objection. Vague. 09:48:10

BY MR. HUH: 09:48:15

Q Did you consider Exhibit 1024? 09:48:15

A I mean there's reference to the B&H website and that's referenced in some of the documents and we talk 09:48:35 09:48:46

about it in terms of downloading stuff and things like that, so sure. 09:48:49 09:48:52

Q Do you have access to Exhibit 1024? 09:49:03

A Uh-huh. 09:49:07

THE COURT REPORTER: I'm sorry, Doctor, I believe you said "uh-huh." If you could just remember to say "yes" or "no" rather than "uh-huh" or "huh-uh." Thank you. 09:49:19 09:49:19 09:49:19 09:49:19

THE WITNESS: I do. 09:49:19

BY MR. HUH: 09:49:26

Q So if you open up 1024, please. 09:49:27

A Uh-huh. 09:49:30

Q What in Exhibit 1024 did you consider? 09:49:31

MR. SCHREINER: Objection. Vague. 09:49:36

THE WITNESS: I mean it's referenced. It shows the product. It describes the product. It's provided as part of the petition to explain things. I can look at it. Just one second. 09:49:42 09:49:45 09:49:49 09:49:54

So in page -- paragraph 193, I describe the sales webpage on the B&H photo website references the ability to access many popular websites, including Facebook, YouTube, and Flickr, without making any reference to downloading software applications or the storage of preinstalled applications. 09:50:48 09:50:54 09:50:59 09:51:03 09:51:03 09:51:12

BY MR. HUH: 09:51:14

Q Do you know what Exhibit 1024 is? 09:51:14
MR. SCHREINER: Objection. Vague. 09:51:23
THE WITNESS: Just one second. 09:51:31
MR. HUH: Stephen, vague is an improper 09:51:33
objection. Please stop making those kind of objections. 09:51:36
THE WITNESS: Just a second here. 09:51:46
So I believe it's the purchase page for the 09:51:53
Western Digital WTV Live Hub Network Media Event on 09:52:00
archive.org for B&H photo video, which is a well-known 09:52:06
provider of video/AV hardware products. 09:52:12
BY MR. HUH: 09:52:31
Q Do you recognize that this exhibit shows that 09:52:31
the Western Digital TV Live Hub was available for 09:52:36
purchase as of April 17th, 2011? 09:52:44
MR. SCHREINER: Objection. Scope. 09:52:48
THE WITNESS: Yeah, I'm not sure, I mean I don't 09:52:58
render an opinion on that. 09:53:01
MR. HUH: Stephen, that's within the scope 09:53:09
because this is what his testimony is about. 09:53:10
MR. SCHREINER: He didn't give an opinion on 09:53:14
that, that issue that you posed in your question, Greg. 09:53:16
MR. HUH: It's within the scope of his 09:53:22
testimony. 09:53:24
MR. SCHREINER: I respectfully disagree. He 09:53:25
didn't give an opinion on that issue. 09:53:27

MR. HUH: And, by the way, scope is also an improper objection in the PTAB. 09:53:30 09:53:33

MR. SCHREINER: No, it's not. 09:53:34

MR. HUH: Yes, it is. 09:53:35

MR. SCHREINER: Well, we'll have to respectfully disagree. 09:53:38 09:53:40

MR. HUH: Just for the record, if you continue making improper objections, I will take this up with the Board. 09:53:55 09:53:57 09:54:00

MR. SCHREINER: Feel free. 09:54:00

BY MR. HUH: 09:54:14

Q So, Doctor, let's go back to your declaration. 09:54:14

A Okay, sir. Okay. 09:54:26

Q Now, in your declaration, you also identify at paragraph 10 materials filed by Patent Owner, correct? 09:54:43 09:54:48

A That's what paragraph 10 says, so yes. 09:55:09

Q Did you consider any other materials filed by Patent Owner in rendering your opinions in your declaration? 09:55:18 09:55:22 09:55:26

A Just a second. Sorry. 09:55:33

I mean I guess I could say Exhibit 2009, my CV. 09:55:36

Q Okay. 09:56:45

A But I don't recall anything else. 09:56:49

Q So when you prepared your declaration, other than the materials listed at paragraphs 9 and 10, what 09:57:06 09:57:09

else did you consider? 09:57:14

A Well, in paragraph 11 I say I've also considered other materials, such as websites and text material in doing background research on the issues presented in this IPR. 09:57:18 09:57:20 09:57:24 09:57:27

Q So what websites did you consider in rendering your opinions? 09:57:29 09:57:33

A I'm just trying to think. 09:57:34

So I'd just say that I may have looked up some words using Google. I don't recall what those were. And just generally looking at, you know, what, what kinds of set-top boxes there were, you know, that kind of stuff that I would either know or just to refresh my memory. 09:58:06 09:58:10 09:58:15 09:58:22 09:58:26 09:58:29

Q What set-top boxes did you know already? 09:58:58

MR. SCHREINER: Objection. Form. 09:59:03

THE WITNESS: You know, there's like, I don't know whether Xfinity was there, but there was stuff from maybe MediaOne, Comcast, Bell, there's a company Cisco bought that made a lot of these in Atlanta, but just, you know, those are the kinds of things I was just trying to refresh my memory about. 09:59:07 09:59:12 09:59:16 09:59:27 09:59:31 09:59:34

BY MR. HUH: 09:59:37

Q Did you know of the Western Digital set-top box? 09:59:38

A I think I may have. But I didn't personally own 09:59:43

one.

But, oh, I think the name of the company I was referring to was Scientific-Atlanta. Sorry.

Q Right. Yeah. Thank you.

So you also considered text materials, correct?

MR. SCHREINER: Objection. Form.

THE WITNESS: Yeah.

BY MR. HUH:

Q So what text materials did you consider in doing your background research?

A I have some books on cable and stuff like that that I looked at a little bit, but just, again, about set-top boxes.

Q Those books related to set-top boxes?

A Yeah, TV tuners, set-top boxes, that kind of thing, you know?

Q Do you recall the books' authors or the names of the books?

A If I was at home I could, but I can't really. Like these are books on transmission and things like that that are kind of general.

Q Got it.

So who wrote your declaration?

A So --

MR. SCHREINER: Objection. Objection. Form.

THE WITNESS: Sorry. 10:01:47

So I worked with counsel looking at the petition 10:01:49
and the, and the -- well, the petition and the, you 10:01:55
know, the supporting references, like Dr. Lippman's 10:02:06
declaration and deposition, et cetera, all these 10:02:13
documents, and we came up with a response together, and 10:02:17
I can't say -- I would just say that there are a lot of 10:02:23
opinions in here. Ultimately the opinions are all mine. 10:02:30
But we had a lot of discussion back and forth. 10:02:33
BY MR. HUH: 10:02:39
Q Did you perform any experiments? 10:02:43
A I don't recall doing any explicit experiments. 10:03:04
Q Any experiments whatsoever? 10:03:10
A I'm just trying to think, because there's so 10:03:23
many patents that I have done work on. 10:03:26
In this particular case, I don't recall doing an 10:03:29
explicit experiment. 10:03:39
Q Do you have the Western Digital set-top box? 10:03:44
A I do not. 10:03:49
Q Did you ever have it in your possession and do 10:03:54
experiments on it? 10:03:59
A I have not. 10:03:59
Q Did you review any results from any experiments 10:04:00
on the Western Digital set-top box? 10:04:15
A So outside of looking at the manual, which does 10:04:28

have people -- pictures of it being used, I don't believe I have.

Q Did anybody do experiments at your request on the Western Digital set-top box?

A For this IPR, no.

Q Okay. So let's turn to your declaration on page 7.

A Okay.

Q It's on --

A Sure. I'm on page 5, 6, now 7. Yes. Are you saying --

Q No, actually, actually let's turn to -- let's skip forward to page 14 where we discuss -- where you discuss the level of ordinary skill in the art, which is Section IV. Do you see that?

A Section IV, Level of Ordinary Skill in the Art and Priority Date.

Q Okay. And then paragraph 40 you address the priority date of the '254 patent, correct?

A Yes.

Q Setting aside whether it's entitled to the earliest claimed priority, you testify in your declaration, I'll read it into the record, "For purposes of this declaration, I have been instructed to use August 17th, 2012, as the time of invention," open

parentheses, "priority date," close parentheses. Do you see that? 10:06:37 10:06:41

A I do. 10:06:41

Q Okay. And your testimony regarding the level of skill in the art is as of August 17th, 2012, correct? 10:06:42 10:06:48

A Yes. 10:06:55

Q Then from paragraph 41 to 43 you address the level of skill in the art. Do you see that? 10:07:01 10:07:07

A Uh-huh. 10:07:15

Q And then at paragraph 44 you state that "I was at the time of invention," which would be the date that we just discussed -- 10:07:15 10:07:18 10:07:22

A Yes. 10:07:24

Q -- August 17th, 2012, "and am currently one of more than ordinary skill in the art through my education, research, and work experience." Do you see that? 10:07:24 10:07:30 10:07:34 10:07:35

A Yes. 10:07:36

Q What do you mean by that? 10:07:40

A Well, I would say that I have more than a bachelor's degree in electrical engineering, software engineering or computer engineering or equivalent training, and over two years of experience working in the field of television systems, networking, and human-computer interaction or related technologies. 10:07:45 10:07:50 10:07:53 10:07:56 10:07:59 10:08:04

Q So are you an expert on the subject matter of the '254 patent? 10:08:10 10:08:14

MR. SCHREINER: Objection. Form. Objection. Form. 10:08:18 10:08:19

THE WITNESS: In paragraph 43 it says in this case I'm asserting that I'm more than a POSITA with regard to what Dr. Lippman sets forth as the level of ordinary skill in the art. 10:08:21 10:08:24 10:08:31 10:08:34

BY MR. HUH: 10:08:37

Q So you are not an expert in the '254 patent, correct? 10:08:37 10:08:40

MR. SCHREINER: Objection. Form. 10:08:41

THE WITNESS: I don't know. I mean I'm -- I'm not sure what you mean by that, but I'm an expert with respect to providing the opinion of a POSITA according to the skills of Dr. Lippman has set forth as the minimum requirement. 10:08:44 10:08:48 10:08:52 10:08:58 10:09:01

BY MR. HUH: 10:09:09

Q So you have met the minimum requirement, but you are not an expert, correct? 10:09:09 10:09:14

MR. SCHREINER: Objection. Mischaracterizes. 10:09:15

THE WITNESS: I didn't say that. 10:09:17

BY MR. HUH: 10:09:21

Q Okay. So my question is very simple. Are you an expert in the subject matter of the '254 patent, 10:09:22 10:09:26

Doctor? 10:09:31

A I'm an expert in the subject matter of the '254 patent as defined by Dr. Lippman's that I -- I'm sorry, Dr. Lippman's assertion based on paragraph 43 in that I meet those qualifications and have more than those qualifications. 10:09:31 10:09:35 10:09:43 10:09:48 10:09:51

Q So what are your areas of expertise, Doctor? 10:10:06

MR. SCHREINER: Objection. Objection. Form. 10:10:11

THE WITNESS: At least electrical engineering, at least software engineering, at least computer engineering, and I've spent more than two years working on television systems, networking, and human-computer interaction. 10:10:14 10:10:16 10:10:19 10:10:25 10:10:31

Q So are you an expert in intelligent televisions as of August 17th, 2012? 10:10:32 10:10:35

MR. SCHREINER: Objection. Scope. 10:10:38

THE WITNESS: I didn't make an opinion on that. I made an opinion in paragraph 44 where I say "I believe that Dr. Lippman's definition of the POSITA is reasonable and I have applied it in my analysis. I was at the time of invention, and am currently, one of more than ordinary skill in the art through my education, research, and work experience. As of the date of the invention, I was very familiar with the types of problems encountered in the field. Indeed, I am very 10:10:40 10:10:43 10:10:47 10:10:50 10:10:53 10:10:55 10:10:58 10:11:02 10:11:05

familiar with people having this level of skill in the area of user interfaces in the field of television systems and networking and human-computer interaction." 10:11:07 10:11:09 10:11:12

BY MR. HUH: 10:11:16

Q Okay. So to be clear, I have testimony from your previous deposition where you testified that you were an expert in intelligent televisions as of August 17th, 2012. And my question to you is, which is it, are you an expert in intelligent televisions as of August 17th 2012 or are you not? 10:11:17 10:11:20 10:11:23 10:11:26 10:11:30 10:11:35

A In this, in this document, I have said that. In the prior IPR I would say that has a different set of things. It's similar specifications, so I think that's fair. 10:11:43 10:11:46 10:11:49 10:11:53

Q Let's go back to the last page of your declaration, if we don't mind, please. 10:11:58 10:12:01

A Sure. 10:12:02

Q Where your signature page is. 10:12:03

A Yep. Uh-huh. 10:12:05

Q And in paragraph -- 10:12:06

A All right. Just give me a second. 10:12:09

Q Sure. 10:12:11

A The page is not at the end, it's 126. Okay. 10:12:12

Q And at paragraph 242 you made an oath. Do you see that? 10:12:19 10:12:23

A I do. 10:12:40

Q Do you understand that when you are under oath 10:12:40

under Section 1001 of Title 18, false statements are 10:12:45

punishable by fine or imprisonment? 10:12:55

A Sure. 10:12:58

Q And you understand that the oath you gave today 10:12:58

is under the same scope? 10:13:01

A I do. 10:13:03

Q So I'm going to just ask you questions, and I 10:13:04

would just appreciate it if you would just directly 10:13:14

answer my questions. 10:13:16

A Okay. 10:13:17

MR. SCHREINER: Objection. Form. 10:13:18

BY MR. HUH: 10:13:19

Q Thank you. 10:13:19

So to be clear, you are an expert in intelligent 10:13:20

televisions as of August 17th, 2012, correct? 10:13:33

A I believe so. 10:13:41

And in that, when we spoke about this in the 10:13:48

prior deposition, it was under the context of what that 10:13:52

meant in the context of a similar specification. 10:13:57

Q Doctor, the '254 patent pertains to smart TVs, 10:14:11

correct? 10:14:17

MR. SCHREINER: Objection. Form. 10:14:17

THE WITNESS: So I think in paragraph 46 I say, 10:14:29

"In the art, the trend of consolidation and convergence led to the so-called Smart TVs, Intelligent TVs, and other enhanced TVs," so if you are asking whether I have an opinion with regard to whether it has to do with smart TVs, there it is. 10:14:37 10:14:41 10:14:46 10:14:49 10:14:51

BY MR. HUH: 10:14:57

Q You didn't answer my question, Doctor. 10:14:58

MR. SCHREINER: Objection. Objection form. 10:15:02

MR. HUH: The '2 -- Stephen, I didn't make -- I didn't present a question. 10:15:04 10:15:07

THE WITNESS: Yeah, I'm not sure what it is. 10:15:09

MR. SCHREINER: Then I withdraw my objection. 10:15:10

BY MR. HUH: 10:15:13

Q The '254 patent pertains to smart TVs, correct? 10:15:14

MR. SCHREINER: Objection. Form. 10:15:18

THE WITNESS: I think it pertains to at least smart TVs, intelligent TVs, and other enhanced TVs. 10:15:20 10:15:22

BY MR. HUH: 10:15:27

Q Okay. 10:15:27

A And then I talk about it as hereinafter smart TV or enhanced television. 10:15:30 10:15:34

Q And where do you talk about it, in what paragraph? 10:15:39 10:15:41

A Paragraph 46. 10:15:41

Q Got it. 10:15:45

Smart TVs utilize graphical user interfaces, correct? 10:15:46 10:15:57

MR. SCHREINER: Objection. Form. 10:15:59

THE WITNESS: I think I -- I think I describe it in sections -- just a moment. 10:16:18 10:16:21

In my declaration we talk about graphical user interfaces and smart TVs have graphical user interfaces. 10:16:27 10:16:31

BY MR. HUH: 10:16:39

Q Okay. So smart TVs utilized graphical user interfaces, correct? 10:16:42 10:16:49

MR. SCHREINER: Objection. Form. 10:16:50

THE WITNESS: So as I said before, I answered it yes, they do, smart TVs have graphical user interfaces, so they have -- they use graphical user interfaces. 10:16:53 10:16:57 10:17:02

BY MR. HUH: 10:17:07

Q Just to be clear, the reason I asked the question was because you didn't say yes, you actually just said I said something in my declaration, so I didn't have a yes in the previous answer. 10:17:08 10:17:09 10:17:11 10:17:15

A But I did say yes. Right? 10:17:17

Q No. No. You just discussed your declaration without saying yes. 10:17:20 10:17:23

MR. SCHREINER: Objection. That's not a question. 10:17:24 10:17:25

THE WITNESS: Oh, yeah, but the second time I 10:17:26

said yes. 10:17:29

BY MR. HUH: 10:17:30

Q Right. Just now, yes. 10:17:30

A Okay. 10:17:32

Q Okay. 10:17:32

A Okay. 10:17:34

Q Are you an expert in graphical user interfaces for smart TVs? 10:17:43 10:17:46

MR. SCHREINER: Objection. Scope. 10:17:47

THE WITNESS: I mean I think the same answer that I gave before about having answered that question in a prior IPR regarding a similar specification, I believe I did, and I still think so. 10:17:54 10:17:56 10:18:00 10:18:05

BY MR. HUH: 10:18:18

Q Now, the home screen is an example of a graphical user interface, correct? 10:18:19 10:18:22

MR. SCHREINER: Objection. Form. 10:18:24

THE WITNESS: I think that's fair. 10:18:28

BY MR. HUH: 10:18:29

Q I believe that maybe the '254 patent calls it a global screen. It uses the word "home" and "global" interchangeably. 10:18:31 10:18:36 10:18:42

A Sure. 10:18:43

So at some point can we take a break? 10:18:58

MR. HUH: Sure. Whenever you would like. 10:19:02

THE WITNESS: How about now? 10:19:04
MR. HUH: Sure. No problem. 10:19:06
THE WITNESS: All right. Thank you. 10:19:06
MR. HUH: How long would you like, Doctor? 10:19:13
THE WITNESS: About ten minutes? 10:19:15
MR. HUH: Very good. 10:19:16
THE WITNESS: Thank you. 10:19:17
(Recess taken.) 10:19:19
BY MR. HUH: 10:35:12
Q Welcome back, Dr. Surati. 10:35:13
Have you spoke with anybody during the break? 10:35:16
A Just over the, over -- just like when we were talking just now. That's it. 10:35:19 10:35:23
Q Oh, got it. 10:35:25
So we just, before we had the break, we were discussing a smart TV global panel. Do you recall that? Or a home screen. 10:35:27 10:35:31 10:35:40
And do you recall when you first worked with smart TVs that had home screens? 10:35:50 10:35:53
MR. SCHREINER: Objection. Objection. Form. 10:36:00
THE WITNESS: I'm just trying to remember. I mean I think it's more in the -- you know, generally speaking, I would say, you know, I started working with set-top boxes earlier, and then TVs got better, but they were still not that great. You know, kind of like what 10:36:01 10:36:10 10:36:16 10:36:22 10:36:26

I described, so maybe 2012ish, 2013. I don't recall exactly. 10:36:30 10:36:34

BY MR. HUH: 10:36:36

Q So are you saying that you, as of August 17th, 2012, you were not an expert in smart TVs? 10:36:37 10:36:39

A No, I was just saying that you asked me the first time I worked with them with global home screens, and global home screens are something that, you know, you could kind of say might have been on a set-top box, but it's all -- it depends on how you define things and what was there, et cetera. So no, I'm not saying that. 10:36:44 10:36:47 10:36:51 10:36:56 10:36:59 10:37:02

Q Okay. So when is the first time you worked with a set-top box that had a graphical user interface with a home screen? 10:37:07 10:37:13 10:37:17

MR. SCHREINER: Objection. Form. 10:37:19

THE WITNESS: So generally speaking, when we talk about a global settings or home screen, maybe 2000 -- I don't know, actually, let me think about that. Maybe 2005. Maybe earlier than that. I don't know. 10:37:20 10:37:23 10:37:32 10:37:35

BY MR. HUH: 10:37:40

Q Okay. 10:37:44

A You know, I've used things like Chromecast, I've used things like Apple TV, I've used things like -- so yeah, that's kind of where I put when those products were coming out, et cetera. 10:37:44 10:37:46 10:37:53 10:37:57

Q Okay. So this is all -- so August -- so 2005 is prior to the August 17th, 2012 date. 10:38:00 10:38:04

A That's fair. 10:38:09

Q Okay. So is it fair to say that a POSITA would have known how to implement a home screen graphical user interface as of August 17, 2012? 10:38:10 10:38:25 10:38:28

A Yeah, generally speaking, sure. 10:38:32

Q A graphical user interface home screen was known to have various types of information on it, correct? 10:38:38 10:38:46

MR. SCHREINER: Objection. Form. 10:38:51

THE WITNESS: I think that's fair. 10:38:53

BY MR. HUH: 10:38:56

Q What type of information was known to be located on a home screen? 10:39:00 10:39:02

MR. SCHREINER: Objection. Scope. 10:39:05

THE WITNESS: I mean with regard to this IPR, I would have to look at my -- I don't know that I rendered a particular opinion about home screens in it. I show several, so -- what was the as-of date? As of the date of the patent you're asking? 10:39:09 10:39:14 10:39:15 10:39:21 10:39:27

BY MR. HUH: 10:39:30

Q Right. You just testified that a POSITA would have known how to implement a home screen graphical user interface as of August 17, 2012. And my question is what type of information would have been located on such 10:39:31 10:39:33 10:39:37 10:39:40

a home screen? 10:39:42

A Okay. 10:39:46

MR. SCHREINER: Objection. Form. Scope. 10:39:46

THE WITNESS: I mean so in this general sense, 10:39:50

if we look at -- just hold on. 10:40:06

So Figure, Kim Figure 22, there's kind of a home 10:40:18

screen that has a lot of stuff on it, that's in that, in 10:40:20

that genre, that's fair. 10:40:23

BY MR. HUH: 10:40:28

Q Right. So it was known to utilize and present 10:40:29

applications on a home screen, correct? 10:40:32

MR. SCHREINER: Objection. Form. 10:40:35

THE WITNESS: I mean -- 10:40:37

MR. SCHREINER: Scope. 10:40:39

THE WITNESS: Yeah, I don't -- is there -- just 10:40:41

a second here. 10:40:51

So in Figure, in Figure 22, there's like an App 10:40:52

Store which shows applications you could buy. 10:41:05

BY MR. HUH: 10:41:14

Q All right. So those would be applications that 10:41:14

could be downloaded to a TV, correct? 10:41:16

A Yeah, potentially. 10:41:19

Q It was known to present to the user channel 10:41:22

selection information, correct? 10:41:26

MR. SCHREINER: Objection. Form. 10:41:30

THE WITNESS: Yeah, so for example, there's TV Guide in that figure. 10:41:33 10:41:38

BY MR. HUH: 10:41:40

Q There's also a channel browser? 10:41:41

A Yes, there is. 10:41:44

Q Were you an expert in displaying applications on a home screen as of August 17, 2012? 10:41:53 10:41:55

MR. SCHREINER: Objection. Form. Scope. 10:42:00

THE WITNESS: I don't -- I don't recall rendering an opinion like that. Is there something that makes you think I said that? 10:42:06 10:42:08 10:42:11

BY MR. HUH: 10:42:15

Q I'm asking you. Are you an expert in displaying applications on a home screen? 10:42:16 10:42:22

MR. SCHREINER: Objection. Form. Scope. 10:42:24

THE WITNESS: Yeah, I mean I haven't rendered that opinion in this particular IPR. 10:42:37 10:42:38

BY MR. HUH: 10:42:42

Q Okay. So my question is this IPR pertains to displaying applications on a home screen, right? 10:42:42 10:42:48

A There's an aspect of it that does that, yes. 10:42:51

Q Okay. So then what weight should the Board give your testimony if you are not an expert as to displaying applications on a home screen? 10:42:53 10:42:59 10:43:03

MR. SCHREINER: Objection. 10:43:05

THE WITNESS: No. 10:43:07

MR. SCHREINER: Form. Argumentative. 10:43:07

THE WITNESS: Yeah, I mean, you know, your -- 10:43:09

the expert of LG holds that you need to have a certain 10:43:14

minimum set of qualifications. I meet those and I'm 10:43:19

above those that were provided in paragraph forty -- 10:43:23

sorry. Just a second. 10:43:27

BY MR. HUH: 10:43:32

Q Did you ever implement the system prior to 10:43:32

August 17, 2012? 10:43:35

A Just, just a second. 10:43:38

Q Sorry. I thought you were done. 10:43:39

A I'm not done, sir. 10:43:41

Q Oh, okay. 10:43:42

A Let me finish. 10:43:43

Q Sure. 10:43:44

A So in paragraphs 40 through 43 -- I'm sorry, 43 10:43:47

through 44 I set forth what Dr. Lippman says is required 10:44:03

to have merit. If -- so that's -- I finished your 10:44:07

answer. Now what was your question? 10:44:15

Q Did you ever personally implement a system that 10:44:17

provided applications on a home screen? 10:44:20

MR. SCHREINER: Objection. Form. 10:44:24

THE WITNESS: So I implemented a system that 10:44:29

used -- that pushed the set-top box content onto a 10:44:32

screen, I think we discussed before, on a scalable player, but I didn't personally write the code that did the user interface for that. I had a different set of user interface code that incorporated that information of a set-top box screen on such a system. 10:44:40 10:44:43 10:44:49 10:44:53 10:44:57

BY MR. HUH: 10:45:15

Q So do you have an understanding of how smart televisions have applications that are fully integrated with their web-based counterparts? 10:45:15 10:45:18 10:45:23

MR. SCHREINER: Objection. Form. Scope. 10:45:27

THE WITNESS: Yeah, I don't think I rendered an opinion on that, but I -- is there a place that I rendered such an opinion? 10:45:33 10:45:35 10:45:41

BY MR. HUH: 10:45:43

Q So I'm not asking if you rendered an opinion, I'm asking if you have an understanding of that. 10:45:43 10:45:45

MR. SCHREINER: Objection. Form. Scope. 10:45:48

THE WITNESS: I mean, again, I don't -- I set forth what I think a POSITA would understand about that type of issue at the time a number of places here. So I think with regard to that -- 10:45:53 10:46:01 10:46:05 10:46:15

BY MR. HUH: 10:46:28

Q I'm asking if you have an understanding, Doctor. Do you understand that? 10:46:28 10:46:30

A No, I understand. 10:46:31

MR. SCHREINER: Objection. Objection. 10:46:32
Objection. Form. Scope. Asked and answered. 10:46:35
BY MR. HUH: 10:46:43
Q Do you have an understanding how smart 10:46:43
televisions integrate applications that are fully -- 10:46:45
strike that. 10:46:50
Do you have an understanding of how smart 10:46:51
televisions implement applications that are fully 10:46:53
integrated with their web-based counterparts? 10:46:57
MR. SCHREINER: Objection. Form. Scope. 10:47:00
THE WITNESS: Yeah, so when you say that, I mean 10:47:06
so -- so you mean as webpages as their web-based 10:47:11
counterparts; is that what you mean? 10:47:19
BY MR. HUH: 10:47:21
Q So you agree with me that smart televisions have 10:47:21
applications, correct? 10:47:24
A They can. 10:47:26
Q Okay. And those applications interface with a 10:47:27
web-based counterpart, correct? 10:47:33
MR. SCHREINER: Objection. Form. Scope. 10:47:35
THE WITNESS: Yeah, I mean I didn't opine on 10:47:36
that, but they can. 10:47:38
BY MR. HUH: 10:47:40
Q I mean like one example would be Netflix, right? 10:47:40
A Okay. 10:47:45

Q So Netflix, for example, has -- you may have a smart television with a Netflix application, correct? 10:47:46 10:47:49

MR. SCHREINER: Objection. Form. Scope. 10:47:52

THE WITNESS: Yeah, I didn't -- I don't believe that -- 10:47:56 10:47:58

MR. SCHREINER: Actually, I withdraw the scope objection. 10:47:59 10:48:01

THE WITNESS: I would just say, with Netflix, it depends. 10:48:01 10:48:04

BY MR. HUH: 10:48:07

Q How so? 10:48:07

A Well, you said, if I recall your question, it limited the smart TV only being able to use an application, but you could, you could implement things on a smart TV using a webpage interface that renders a, renders a Netflix TV image that's independent, like the browser would be independent of the -- or, I'm sorry, the browser would be independent of the, of the -- an application, per se. 10:48:08 10:48:14 10:48:17 10:48:21 10:48:33 10:48:42 10:48:45 10:48:51

Q Do you have an understanding of how applications work on a smart TV? 10:48:53 10:48:55

MR. SCHREINER: Objection. Form. 10:48:58

THE WITNESS: Yeah, I think so. 10:49:00

BY MR. HUH: 10:49:01

Q What is your understanding? 10:49:01

MR. SCHREINER: Objection. Form. 10:49:04

THE WITNESS: That a user can see how -- can, you know -- so let's take for example some of the services. Services like Netflix, they can be implemented as software applications, they can be implemented as a browse to a particular webpage. Just depends. 10:49:06 10:49:12 10:49:15 10:49:19 10:49:24 10:49:27

BY MR. HUH: 10:49:36

Q So is an application on a smart TV piece of software located on a smart TV? 10:49:36 10:49:40

MR. SCHREINER: Objection. Form. 10:49:44

THE WITNESS: I think with regard to -- you know, I just want to distinguish between things that are downloaded as software applications that are written specifically for a particular service or whatever versus going to a webpage and running, and running the code that the webpage provides you to render things, so -- so if you are implementing things on a smart TV, you could do either. Implement a way to talk to that service. 10:49:46 10:49:55 10:49:57 10:50:01 10:50:06 10:50:11 10:50:17 10:50:20

BY MR. HUH: 10:50:27

Q Okay. So I'm not asking about whether you may have an Internet browser on a smart TV that you can access websites and view content. Right? I'm asking about an application that is written specifically for a particular service. 10:50:27 10:50:31 10:50:35 10:50:39 10:50:42

A Okay. 10:50:44

Q Okay? 10:50:45

MR. SCHREINER: Objection. Form. 10:50:48

THE WITNESS: So if it's written specifically for a service, I would expect the type of application you just described, if it's written specifically for it to be something that you could download. Or it could be on the TV. Some smart TVs might not be updatable easily. 10:50:50 10:50:52 10:50:58 10:51:01 10:51:06 10:51:12

BY MR. HUH: 10:51:12

Q Okay. But safe to say that's some software that's local on the smart TV, correct? 10:51:12 10:51:15

A Right. But just to be clear, sometimes things that users see that they might interpret as an application, a thing they can click on, may or may not be an application in real life. That's all I'm trying to say. 10:51:20 10:51:24 10:51:27 10:51:31 10:51:33

Just to be clear, I'm trying to basically say applications are that way, but just because you see it on a screen, you see a Netflix thing, doesn't mean that it is an application. It could be. But it could also be a link to a webpage. 10:51:35 10:51:38 10:51:40 10:51:44 10:51:46

Q Okay. So you are saying when you see a thumbnail or something; is that, is that what I'm understanding your discussion here? 10:51:51 10:51:55 10:51:59

A Well, I'm just saying like you could create a user interface that links to a -- like earlier in time when there wasn't as great of a need, like earlier in the, you know, time of smart TVs and other things to get Netflix or something like that to display, it could have been done by just saying here's a web browser control, let's talk to these six different things and make buttons on the screen that go to those web browser controls and just, you know, put a URL in and it shows it. That's all I'm saying. 10:52:00 10:52:03 10:52:07 10:52:14 10:52:18 10:52:19 10:52:24 10:52:27 10:52:31 10:52:36

Q Okay. So I'm asking you to step aside from the web browser implementation. I'm asking, I'm trying to understand what is your understanding of an application? 10:52:45 10:52:49 10:52:51

A Oh, yeah. So I just wanted to make that distinction so that you understood what I meant, but yes, an application is, as we are discussing it here, would be something that could be downloaded, you know, or installed or come in firmware or whatever. And it's, you know, special C code for that particular service or application. Or maybe a better way to say it is special computer code for that application. 10:52:53 10:52:56 10:52:58 10:53:04 10:53:08 10:53:15 10:53:18 10:53:24

Q Okay. So if I have -- if you have an application that's a specific computer code for a particular service, how does that application obtain content? 10:53:34 10:53:48 10:53:55 10:53:59

MR. SCHREINER: Objection. Form. Scope. 10:54:01

THE WITNESS: I mean I think I -- so you're saying how does -- you are asking about applications that have content not on the TV? Like Netflix. 10:54:15 10:54:28 10:54:31

BY MR. HUH: 10:54:41

Q I mean how does a specific application obtain content from its provider? 10:54:41 10:54:44

A Okay. So like -- 10:54:47

MR. SCHREINER: Objection. Objection. Form. Scope. 10:54:49 10:54:51

THE WITNESS: Yeah, I mean there's lots of ways. I mean I don't know that I opine on how that happens, but, yeah, I mean is there a particular example that you want to ask particularly how it does it? Because there's lots of ways that it could do it. 10:54:53 10:54:54 10:54:58 10:55:03 10:55:05

BY MR. HUH: 10:55:07

Q Sure. If I have a set-top box or a smart TV with a YouTube application. 10:55:07 10:55:11

A Okay. 10:55:13

Q How does that application obtain content from YouTube? 10:55:14 10:55:17

MR. SCHREINER: Objection. Objection. Form. Scope. 10:55:18 10:55:20

THE WITNESS: So generally it would get the content from the content provider. Often that might be 10:55:27 10:55:32

done through some web mechanism. But I don't necessarily talk about that in my declaration. But to answer your question, that's, that's how it would do it. 10:55:37 10:55:41 10:55:46

BY MR. HUH: 10:55:50

Q So if I have a YouTube-specific software on my set-top box or smart TV, that specific software obtains content from the YouTube service provider through the Internet, correct? 10:55:50 10:55:59 10:56:06 10:56:12

MR. SCHREINER: Objection. Scope. Form. 10:56:14

THE WITNESS: I mean it can do that, but again, I didn't render an opinion on how it does it. I just know that that's a typical use case. 10:56:23 10:56:29 10:56:33

BY MR. HUH: 10:56:35

Q Is there any other use case? 10:56:35

MR. SCHREINER: Objection. Form. Scope. 10:56:42

THE WITNESS: Yeah, there might be. But I don't know that that's -- you know, I didn't opine on that in here about other use cases, but sure. 10:56:44 10:56:54 10:57:02

BY MR. HUH: 10:57:04

Q What other use case is there, then, other than the Internet? 10:57:04 10:57:08

MR. SCHREINER: Objection. Form. Scope. 10:57:09

THE WITNESS: I mean I -- I'd have to -- I mean I would have to think about that. There may be -- there probably are cases, but I don't want to give you an 10:57:12 10:57:17 10:57:19

off-the-fly opinion on something I didn't opine on. 10:57:23
BY MR. HUH: 10:57:26
Q Do you know, do you know any other way right now 10:57:26
how a YouTube application on a smart TV or a set-top box 10:57:29
would obtain content other than going through the 10:57:34
Internet? 10:57:36
A Well, there might be a cache on the client where 10:57:38
it's getting it. Like, say, the second time you view 10:57:43
it. 10:57:47
Q But my question was going from a content 10:57:48
provider. 10:57:51
A Well, if you are saying -- 10:57:55
MR. SCHREINER: Objection. Form. Scope. 10:57:56
THE WITNESS: Yeah, I mean I don't know -- I 10:57:58
won't like -- I don't know for sure and I don't want to 10:58:00
speculate, but to say for sure that's the only way, and 10:58:03
that's part of the reason I'm saying that. 10:58:06
BY MR. HUH: 10:58:08
Q Okay. Understood. 10:58:08
But generally speaking, if I have specific 10:58:09
implemented software on a smart TV or a set-top box, 10:58:14
such as a YouTube software, that software would obtain 10:58:18
content from a content provider via the Internet, 10:58:25
correct? 10:58:29
MR. SCHREINER: Objection. Scope. 10:58:29

THE WITNESS: So specific to your YouTube example, sure. 10:58:36 10:58:39

BY MR. HUH: 10:58:47

Q And just so I understand, when you testified that an application is specific software for a service, you're distinguishing that specific software from a web browser; is that correct? 10:58:47 10:58:50 10:58:57 10:59:01

A That's correct. 10:59:04

Q So a smart TV or set-top box application is software on the smart TV that is integrated with the web-based counterpart, which is a service provider, correct? 10:59:34 10:59:49 10:59:55 11:00:01

MR. SCHREINER: Objection. Form. Scope. 11:00:02

THE WITNESS: I don't know that I rendered a specific opinion on that, and I don't want to give you an off-the-cuff answer without some consideration. 11:00:04 11:00:22 11:00:30

BY MR. HUH: 11:00:42

Q I mean is that a false statement? 11:00:42

MR. SCHREINER: Objection. Form. Scope. 11:00:46

THE WITNESS: Yeah, I don't see why it isn't at the moment, but I don't want to commit to something. I could say that it could be a false statement if, say, the media provider is somehow accessible to the TV, not over the Internet, but directly through some cache provider that picks it up from, say, the cable provider. 11:00:49 11:00:51 11:00:55 11:01:01 11:01:08 11:01:13

That could be an example where something happens like what you described and it actually never enters the, quote, Internet. 11:01:19 11:01:22 11:01:25

BY MR. HUH: 11:02:02

Q Okay. But, generally speaking, the specific software application on the smart TV or set-top box integrates with the web-based counterpart, correct? 11:02:02 11:02:07 11:02:20

MR. SCHREINER: Objection. Form. I object to this whole line of questioning, Greg. You are asking him -- 11:02:23 11:02:25 11:02:29

MR. HUH: Stephen, Stephen, you could object all you want. Stop talking. 11:02:29 11:02:31

MR. SCHREINER: Let me, let me state my objection. 11:02:32 11:02:33

MR. HUH: No. No, you cannot do a speaking objection, Stephen. 11:02:33 11:02:37

MR. SCHREINER: I'm allowed to state my objection. 11:02:37 11:02:37

MR. HUH: You are not allowed to say a speaking objection, Stephen. 11:02:37 11:02:37

MR. SCHREINER: You can take it up with the Board if you want. 11:02:38 11:02:39

MR. HUH: Stephen, stop speaking. 11:02:39

MR. SCHREINER: You're asking him questions -- 11:02:41

MR. HUH: You're done. You're done. 11:02:43

MR. SCHREINER: You are not asking him any questions about the references -- 11:02:44 11:02:45

MR. HUH: Stop interrupting. 11:02:46

MR. SCHREINER: -- he opined upon. And you are trying to confuse the man. And it's unfair. 11:02:48 11:02:49

MR. HUH: Stephen, stop speaking. 11:02:52

THE WITNESS: Okay. So I -- so you asked a question. I kind of have forgotten what the question was. Maybe you could restate it. 11:03:06 11:03:09 11:03:11

BY MR. HUH: 11:03:16

Q I mean I don't think -- these are just general very simple questions about what an application and how it interacts with the web-based service provider. I mean if you can't answer them, which is fine, just tell me "I don't know, I can't answer that," and I'll move on. But I think it's a very general fundamental question of how an application interacts and what it is with respect from a TV and its service provider. And my question was, and I'll repeat it -- 11:03:16 11:03:21 11:03:23 11:03:27 11:03:29 11:03:31 11:03:36 11:03:41 11:03:46

A Yes, please repeat it. 11:03:48

Q -- and if you don't know, just say you don't know, generally speaking, the specific software application on the smart TV or set-top box integrates with the web-based counterpart, correct? 11:03:51 11:03:53 11:03:56 11:04:01

MR. SCHREINER: Objection. Scope. Form. 11:04:04

THE WITNESS: Yeah, so what I would say is, within the constraints of a service provider providing an Internet service that this application is integrated within, you would use the Internet to connect the two and download content. 11:04:07 11:04:09 11:04:12 11:04:18 11:04:22

BY MR. HUH: 11:04:36

Q And like an example, that would have been a YouTube application software on the smart TV that obtains content from the web-based counterpart, right? 11:04:36 11:04:40 11:04:45

MR. SCHREINER: Objection. Another question beyond the scope. 11:04:51 11:04:52

BY MR. HUH: 11:05:01

Q Did you answer that, Doctor? 11:05:01

A Not yet. 11:05:03

So within the constraint of YouTube providing an Internet-capable media providing an application designed to interface with it, you would expect that it would connect over the Internet to download the media. But, again, the application has to be designed that way. And the service provider needs to typically provide such interface over the web, which, by definition, would be the case for that web-based provider. 11:05:05 11:05:12 11:05:24 11:05:29 11:05:34 11:05:37 11:05:41 11:05:44

Q Did you ever write an application for a set-top box or a smart TV? 11:06:25 11:06:28

A I don't believe I have. 11:06:31

Q Do you have an understanding of how applications are written for a set-top box or a smart TV? 11:06:52 11:06:55

A I think so. 11:07:00

Q Do you have an understanding of the software stack for a smart TV or a set-top box? 11:07:03 11:07:06

MR. SCHREINER: Objection. Form. Scope. 11:07:10

THE WITNESS: So I think in paragraph 204 there's a discussion of Figure 12 which describes what an application could, could require. 11:07:31 11:07:46 11:07:52

BY MR. HUH: 11:08:04

Q You're speaking to your declaration at paragraph 204? 11:08:04 11:08:06

So what is your understanding of Figure 12 at your paragraph 204? 11:08:20 11:08:26

A Just that Kim has a figure that shows this idea of an application potentially using this framework and middleware driver and OS kernel. 11:08:36 11:08:41 11:08:47

Q And do you know what an OS kernel is? 11:08:51

A I believe so. 11:08:54

Q What is an OS kernel? 11:08:55

A It's like the basic operating system that has things like threads and realtime scheduling, that type of stuff. 11:08:57 11:09:02 11:09:10

Q And do you have an understanding of a driver? 11:09:12

A I think so. 11:09:18

Q What is a driver? 11:09:18

A A driver is code written to interface the kernel with particular hardware. 11:09:19 11:09:25

Q Then in Figure 12 at your paragraph 204 there's middleware. Do you see that? 11:09:30 11:09:34

A Yes. 11:09:36

Q And what is middleware? 11:09:39

A Well, it's sort of software that you might have talk to drivers and other things that aren't the drivers themselves. So an application through a framework could talk to the middleware that then talks to the driver. 11:09:40 11:09:47 11:09:53 11:10:00

Q And you just mentioned framework. What is a framework? 11:10:06 11:10:09

A It's, you know, something that you can write your application on top of. So a general application framework. 11:10:10 11:10:12 11:10:20

Q And then the application in Figure 12, what is that? 11:10:21 11:10:26

A That's the actual application. 11:10:26

Q So would those be, for example, in the context of Kim, the applications that the user may interact with? 11:10:34 11:10:36 11:10:40

MR. SCHREINER: Objection. Form. 11:10:41

THE WITNESS: They could be. 11:10:53

BY MR. HUH: 11:10:54

Q Could that application include additional things? 11:10:54 11:10:56

MR. SCHREINER: Objection. Form. 11:10:56

THE WITNESS: I'm not sure what you mean. Sorry. 11:11:11 11:11:13

BY MR. HUH: 11:11:13

Q Okay. So in Figure 12 that you have identified in paragraph 204, you have an application layer 550. I think you called it application layer 550. 11:11:13 11:11:18 11:11:24

A Right. 11:11:27

Q And what is application layer 550? 11:11:28

A One second. 11:11:32

It says it's a place where applications may be categorized into user-undeletable applications that are stored in -- 11:11:40

THE COURT REPORTER: I'm sorry, sir, can you speak up, please? Can you say that again and speak louder, please? Thank you.

THE WITNESS: All right. Can you hear me now?

THE COURT REPORTER: Yes.

THE WITNESS: "In the application layer 550, applications may be categorized into user-undeletable applications that are stored in the image display apparatus and user-installable or user-deletable applications that are downloaded from an external device 11:11:55 11:12:00 11:12:01 11:12:04 11:12:07

or a network and stored in the image display apparatus." 11:12:09
BY MR. HUH: 11:12:21
Q So application layer 550 can include all the 11:12:21
applications for the smart TV, correct? 11:12:25
A It could. 11:12:29
Q Application layer, based on your testimony -- 11:12:35
strike that. 11:12:40
Based on your testimony, application layer 550 11:12:40
includes user-installable applications, correct? 11:12:44
MR. SCHREINER: Objection. Form. Scope. 11:12:52
THE WITNESS: So I would just say that the 11:12:53
application layer could include that, sure. 11:12:55
BY MR. HUH: 11:13:07
Q If a user downloads an application, where else 11:13:07
would it be placed other than application layer 550? 11:13:11
MR. SCHREINER: Objection. Form. Scope. 11:13:18
THE WITNESS: So you're asking if an application 11:13:35
that gets downloaded would have to conform to this 11:13:51
particular application layer? 11:13:55
BY MR. HUH: 11:13:57
Q Right. I mean you said that it could include 11:13:57
that, and my question is if I'm downloading an 11:14:00
application and utilizing a downloaded application, 11:14:03
isn't it within the application layer 550? 11:14:07
A So it would depend on how many things are on the 11:14:12

system in terms of, if it's a multicore system, there may be a separate thing for a different core, and how many chips are running on the system. But for a single CPU, that could be true.

Q And the same thing, same logic would apply to applications that were preinstalled, correct?

MR. SCHREINER: Objection. Scope.

THE WITNESS: So I don't know that I considered -- you know, I have an opinion where I explain -- well, I would just say if an application happened to be preinstalled, then it could end up conforming to this application stack that you're talking about.

BY MR. HUH:

Q That's generally how it's implemented, right, in the art?

MR. SCHREINER: Objection. Scope. Form.

THE WITNESS: I'd just say that it's a way to do it and a lot of people do it that way.

BY MR. HUH:

Q So -- so your testimony, you initially started reading your declaration and you stated that the application layer 550 includes applications stored in the image display apparatus and user-installable or user-deletable applications that are downloaded from an

external device or network and stored in the image display apparatus. Examples of such downloadable applications would include the applications illustrated on Kim's Figure 19, correct? 11:17:12 11:17:15 11:17:21 11:17:29

A So I stated up until the image display apparatus, and then you're asking a question about whether those could be such applications that are in Kim, and so I would say yes to that. 11:17:34 11:17:39 11:17:44 11:17:51

Q So let's focus a little bit on channel selection because smart TVs have ways to select a specific channel, right? 11:18:16 11:18:19 11:18:26

A Generally, yes, you can switch channels on a smart TV with the presumption that a TV's idea is that it accepts broadcast info. 11:18:28 11:18:34 11:18:38

Q Okay. And you previously identified some ways to select channels with a smart TV, for example, via the channel guide card object, right? 11:18:46 11:18:55 11:19:03

A So within the Kim reference on Figure 14 -- sorry. No, that wasn't what I meant. It's funny that Kim and -- 11:19:06 11:19:29 11:19:31

So I'm just trying to find that picture. Sorry. Yeah, so Kim Figure 19 shows both a channel browser and a TV Guide, and both of those allow you to select a channel. 11:19:44 11:19:48 11:20:13 11:20:17

Q And what other ways were known in the art to 11:20:28

select a channel? 11:20:30

A You could, you could, on a remote control, type in a number, with a keypad. And then the '254 patent talks about using a nonnumeric keypad using the remote control to select a channel. 11:20:34 11:20:42 11:20:49 11:21:01

Q Okay. So if you have a remote control with a -- 11:21:02

A You there? 11:21:13

Q Yes. If you have a remote control with number keypad -- 11:21:14 11:21:17

A Uh-huh. 11:21:18

Q -- why would you use those number keypads? 11:21:19

MR. SCHREINER: Objection. Form. 11:21:26

THE WITNESS: Well, it's an input device and it's a TV, and so the presumption would be that you might want to switch to a particular channel, and you could enter a number to do that. That's a little cumbersome, because you would need to know what the number was for the thing you were looking for. 11:21:34 11:21:37 11:21:39 11:21:42 11:21:50 11:21:52

BY MR. HUH: 11:22:03

Q If you are watching, for example, channel 2, and you want to go to channel 100, the remote control implementation with the number keypad would give you a direct way to get there, correct? 11:22:03 11:22:06 11:22:12 11:22:15

A That's true. 11:22:18

Q So by selecting those specific numbers that you 11:22:22

know the channel of, you reduce pressing channel up or down in order to get there, right? 11:22:25 11:22:35

MR. SCHREINER: Objection. Form. 11:22:38

THE WITNESS: So directly entering a number can be a more efficient way, depending upon the context, to select a particular channel that you desire to be shown. 11:22:41 11:22:49 11:22:54

BY MR. HUH: 11:23:02

Q And then you mentioned the graphical number input, right? 11:23:02 11:23:08

A Yes, sir. 11:23:11

Q And you presented that in the context of the '254 patent. 11:23:12 11:23:18

A Uh-huh. 11:23:20

Q But it was known in the art to utilize the graphical number input, right? 11:23:21 11:23:23

MR. SCHREINER: Objection. Form. Scope. 11:23:26

THE WITNESS: So I think it was known to have a on-screen numeric keypad, and there are some examples in Coburn and Bae that show such an example where you can use an on-screen keypad to select a channel. 11:23:34 11:23:40 11:23:50 11:23:55

BY MR. HUH: 11:24:31

Q Is it fair to say that an alternative to a number keypad on the remote is to utilize the graphical number input? 11:24:31 11:24:37 11:24:40

A I didn't quite understand that. So is it 11:24:45

fair -- can you repeat it again? Sorry. 11:24:48

Q Yeah. So is it fair to say that an alternative to utilizing a remote with a number keypad is to utilize the graphical number keypad? 11:24:51 11:24:56 11:25:00

A It can be. 11:25:06

Q And by using the graphical number input keypad, you allow the user to enter a specific channel number and get that channel directly? 11:25:08 11:25:20 11:25:25

A It can be. 11:25:30

Q And in some instances that would be helpful, correct? 11:25:34 11:25:37

MR. SCHREINER: Objection. Form. 11:25:38

THE WITNESS: It could be helpful. 11:26:10

BY MR. HUH: 11:26:30

Q Let's turn to Kim, 1005, if you would, please. 11:26:30

A Okay. 11:26:35

Q So we -- you know, you have discussed it in your declaration, including Figure 19. Let's turn to Kim. And you can see Figure 19. You have already mentioned it today. 11:26:35 11:26:38 11:26:45 11:26:48

Do you understand Figure 19, Dr. Surati? 11:27:00

A I'm trying to get to it here. Flip it. Because you are probably going to ask me more questions, so -- I mean I read the patent, I looked at this. I think I do. 11:27:05 11:27:17 11:27:21 11:27:24

Q I promise I'm not going to ask you a question. 11:27:28
You can look at the spec if you want. 11:27:31
A I have it now. I'm sorry. 11:27:37
Q Okay. So I was at the actual figure, but you 11:27:40
can look at the spec, whatever. 11:27:43
A Are you showing it to me or you are just -- 11:27:45
Q No, no, I was just saying to look at Figure 19. 11:27:47
A Yeah, I'm looking directly at it right now. You 11:27:50
asked whether I understood it, and I said I think I do. 11:27:53
Q Great. So in the context of Kim, it describes a 11:27:56
card object area. Do you know what that area is? 11:28:01
MR. SCHREINER: Objection. Form. 11:28:07
THE WITNESS: I'm going to go to -- 11:28:10
BY MR. HUH: 11:28:14
Q You can turn to paragraph 214. 11:28:14
A Yeah. Just on second. 11:28:16
Q Which mentions that. 11:28:20
A I'll get it in a sec. 11:28:25
Sure. So that's card object area 1300. So how 11:28:32
do I do this? So -- let's see here. And let's see. 11:28:40
Let's do a preview. 11:29:09
Okay. And that's good. 11:29:18
Q Are you, are you answering a question, Doctor, 11:29:43
or -- 11:29:46
A I'm trying to get something so that I can answer 11:29:47

all your questions easily. Just give me a second here. 11:29:49

Q Sure. 11:29:52

A Okay. So 1300. 11:29:57

Q So my question is what is your understanding of 11:30:09
Kim's card object area? 11:30:12

A Well -- that's terrible. 11:30:16

It's two -- oh, sorry. Where did that go? 11:30:25

Okay. So there was a paragraph you referred to 11:30:42
me that was 216? 11:30:59

Q Oh, 214. 11:31:01

A 214. Okay. Sorry about that. I'm having 11:31:03
trouble. 11:31:08

Okay. So as shown in Figure 19, the card 11:31:10
objects 1310, 1320 and 1330 may be shown in the card 11:31:21
object area 1300, and -- 11:31:26

So that appears to be that little box that 11:31:47
includes the broadcast area and the NetCast and the App 11:31:51
Store. That whole square. 11:31:59

Q So is it fair to say that the card object area 11:32:03
is effectively the majority of the television viewing 11:32:07
area? 11:32:12

A In this figure? 11:32:12

Q In Figure 19? 11:32:14

A In Figure 19, yes. 11:32:14

Q And Kim's card object area includes multiple 11:32:16

objects, correct? 11:32:30

A Yes. 11:32:32

Q Do you have an understanding of whether Kim's card object area may display fewer or less objects, depending on the object size? 11:32:39 11:32:42 11:32:48

A I believe so. 11:32:53

Q And what is your understanding? 11:32:54

A I'm not sure I gave an opinion in this IPR on not. Is there, is there a -- I don't think we talked about size in this, in this patent, so I'm not sure how to answer that. 11:32:59 11:33:02 11:33:12 11:33:15

MR. SCHREINER: Objection. Scope, Greg. 11:33:17

BY MR. HUH: 11:33:21

Q So I'm asking a very simple question. Kim's card object area has multiple objects, right? 11:33:21 11:33:24

A Yeah. So just let me see here. Just a second. 11:33:30

So like there's a whole section 0277 that I think talks about this. When a card object 1320 is selected that represents CPs, content providers, on home screen, e.g. NetCast card, additional CP objects may be displayed on the display, it goes on, and then it says, number of CP objects listed on single screen may be changed. For example, the size of the CP objects may be made smaller to display a greater number of CP objects on a single display. Is that what you are asking about? 11:34:29 11:34:32 11:34:37 11:34:41 11:34:47 11:34:52 11:34:55 11:34:59 11:35:02

Q Sure, that's part of it. I'm just trying to -- so right now if you look at Figure 19, it shows you identified -- there's multiple objects, but you identified two of them. You identified NetCast object and App Store object. Do you recall that? 11:35:07 11:35:15 11:35:17 11:35:21 11:35:24

A Sure. 11:35:27

Q There's other objects at the bottom, there's also an object area 1305, and there's some other objects at the top, a login, help, and exit. And -- and you also have object 1310, which is the show someone is currently watching, right? So card object area is configured to display multiple objects, right? 11:35:28 11:35:30 11:35:35 11:35:44 11:35:50 11:35:55

A Okay. 11:36:01

Q And my question is, based on Kim's disclosure, card object area may display more or less objects, depending on the size of the objects, right? 11:36:02 11:36:09 11:36:14

MR. SCHREINER: Objection. Scope. 11:36:17

THE WITNESS: So are you -- you're not thinking about what I was saying where you had two card objects like the App Store and you can change the size of the objects inside the App Store? 11:36:29 11:36:32 11:36:36 11:36:38

BY MR. HUH: 11:36:40

Q I mean, you know, those could change, the items at the App Store, but, for example, go to paragraph of Kim 198. 11:36:40 11:36:43 11:36:49

A Okay. Sure. 11:36:51

Q And you can read that paragraph where it 11:36:54

describes changing the size of the -- of 1315. 11:36:56

A Okay. Moreover, the broadcast image may be 11:37:12

scaled or resized. Okay. 11:37:15

So I don't know that I made an opinion about 11:37:20

this, but it appears that it says you can resize the 11:37:24

broadcast image. 11:37:31

Q And when you resize the broadcast image, you may 11:37:32

present additional -- 11:37:38

A Card objects. 11:37:40

Q -- card objects, right? So you can change 11:37:41

the -- 11:37:44

A I see that. 11:37:45

Q You do see that, correct? 11:37:46

A Yes. 11:37:47

Q So even though the current card object area 11:37:49

illustrates, for example, two objects, NetCast and App 11:37:53

Store, it may present three, for example, correct? 11:37:59

A That's what it appears to say. 11:38:07

Q And the card object area although in the current 11:38:31

illustration in Figure 19 shows NetCast and App Store, 11:38:35

you may end up, for example, at Figure 23, presenting 11:38:40

channel browser and TV Guide in the card object area, 11:38:46

correct? 11:38:49

A Figure 23 shows a channel browser and TV Guide, yes. 11:39:04 11:39:07

Q Right. So you can -- 11:39:11

A And this parts of the reservation net rec. 11:39:12

Q Right, there's a way to scroll to the right and show different card objects, depending on whatever you choose, right? 11:39:19 11:39:21 11:39:25

A That's what I understood. 11:39:26

Do you think we could take a break? It's 11:39. 11:39:39

MR. HUH: Sure. Were you thinking lunch break or just a regular break? 11:39:43 11:39:46

THE WITNESS: I think I might like to take a 45-minute break, if that's okay. Is that going to be a problem? 11:39:49 11:39:52 11:39:54

MR. HUH: No, it's not a problem. You want to come back at -- at what time would you like, Doctor? 11:39:54 11:39:58

THE WITNESS: Well, let's just do -- will 12:40 work? 11:40:03 11:40:08

MR. HUH: So one-hour break? 11:40:09

THE WITNESS: I changed my mind. Sorry. Sometimes I'm overly ambitious. All right. 12:40? 11:40:11 11:40:19

MR. HUH: That's fine. One hour it is. 11:40:23

THE WITNESS: Thank you, sir. 11:40:26

MR. HUH: Thank you. 11:40:27

MR. SCHREINER: Thank you. 11:40:29

(Recess taken.) 11:40:29

BY MR. HUH: 12:41:32

Q Welcome back, Dr. Surati. 12:41:32

A Hi. 12:41:35

Q So just before the break, we were discussing Kim's Figure 19 and 23. Do you recall that? 12:41:35 12:41:43

A Yep. 12:41:47

Q I just want to complete that line of questioning. 12:41:47 12:41:51

A Uh-huh. 12:41:51

Q It's fair to say that Kim's card object area -- 12:41:53

A Uh-huh. 12:42:06

Q -- illustrated at Figure 19 and 23 is configurable to display additional objects, correct? 12:42:06 12:42:11

MR. SCHREINER: Object. Form. 12:42:16

THE WITNESS: So just based on the paragraphs we read, I would say so. 12:42:18 12:42:27

BY MR. HUH: 12:42:29

Q Okay. And persons skilled in the art would have known how to implement a home screen per Kim's disclosure, correct? 12:42:31 12:42:40 12:42:44

MR. SCHREINER: Objection. Scope. 12:42:48

THE WITNESS: So I don't, I don't know that I directly said that in my, in my -- or directly made that claim in my, in my declaration. 12:42:55 12:42:58 12:43:08

BY MR. HUH: 12:43:13

Q Do you dispute that a person skilled in the art would have known how to implement Kim's home screen, including card object area and the various objects? 12:43:19 12:43:22 12:43:26

A I mean I think so. 12:43:32

Q You dispute that? 12:43:37

A No, I think, I think they could. 12:43:38

Q Let's -- and we talked about this in our previous deposition a few weeks ago, but do you recall our discussion regarding, for example, in Figure 19, item 1305? 12:44:03 12:44:10 12:44:14 12:44:20

A It's been quite a while. I have had a lot of depositions. I -- I vaguely recall it. 12:44:25 12:44:28

Q Okay. You can take a look at the Kim reference, if you would like, but what is 1305 in Figure 19? 12:44:30 12:44:37

A I think it's an application menu. 12:44:51

Q And where did you get that from? 12:44:55

A So there's a page 15 of the patent, and I'm looking at it in like -- one, two, three, four, five, six, seven, eight, nine, ten, eleven -- eleven lines down from the top on the left-hand side, it says, "An application menu 1305 may include a plurality of application menu items." 12:45:06 12:45:16 12:45:21 12:45:25 12:45:29 12:45:32

Q Are you reading the Kim reference? 12:45:37

A Oh. You know what? I am reading 1005. Is that 12:45:40

the -- isn't that the Kim reference? 12:45:50

Q Are you reading a specific paragraph? 12:45:54

A Yeah. Sorry. Thirteen -- 12:45:57

Q What paragraph are you looking at, if you don't mind me asking? 12:46:00 12:46:02

A Oh. Oh, that's a better way to refer to it. 215. 12:46:04 12:46:07

Q Okay. Thank you. 12:46:07

Do you have an understanding of the applications illustrated in application menu item 1305? 12:46:17 12:46:26

A Just a second. 12:46:39

So I think there's an -- in paragraph 40 I say these are optional applications, such as Music, Book, Amazon -- well, Mazon and SNS. And -- and then I say that Kim discloses that the home screen in Figure 19 may have an application menu that includes mandatory application menu items 1306, 1307 and 1309, and optional application menu items 1308, e.g., Music, Book, Mazon and SNS. 12:46:40 12:47:17 12:47:22 12:47:39 12:47:42 12:47:45 12:47:51 12:47:57

Q And optional menu items 1308 represent applications downloaded by the user, right? 12:48:07 12:48:13

A So -- so the optional application menu items are optional application menu items. Just a second here. 12:48:23 12:48:42

As to how they got on the, on the, on the device, I'm not sure I know for sure. But -- 12:48:53 12:49:06

Q You don't recall? 12:49:11

A -- if you downloaded them, you could download them. 12:49:11 12:49:15

Q So you don't recall -- you don't know if they could be downloaded? 12:49:36 12:49:38

A So I don't know for sure if they are downloaded, but they definitely show up on the screen, so they got there somehow. 12:49:41 12:49:46 12:49:50

Q Would it surprise you to find out that you previously testified that those were downloaded by the user after logging in? 12:49:54 12:49:56 12:49:59

A It wouldn't surprise me just because I may have been answering that in that context, in the -- I don't know what the line of questioning was, but it is a way for them to get there. I'm not disputing that. 12:50:12 12:50:14 12:50:18 12:50:21

Q And we discussed this before, but the other items in application menu 1305 represent applications that were not downloaded, right? 12:50:37 12:50:44 12:50:50

A If you're talking about -- 12:50:54

MR. SCHREINER: Objection. Form. Scope. 12:50:55

THE WITNESS: You're talking about which ones? 12:51:02

BY MR. HUH: 12:51:05

Q Items other than 1308. 12:51:05

A Oh, so like 1306, 1307, and 1309? 12:51:07

So you are asking if the mandatory ones were not 12:51:14

downloaded or they were downloaded or both or what? I just -- can you restate it so I'm clear?

Q Right. So we had previous testimony on this, but the other items, the mandatory items in 1305 represent applications that were not downloaded by the user, right?

MR. SCHREINER: Objection. Form. Scope. I object to referring to unspecified previous testimony from a different IPR.

MR. HUH: We'll submit it.

THE WITNESS: What does that mean, "We'll submit it"?

BY MR. HUH:

Q We'll submit it later in the record.

A Oh, you're going to -- oh, maybe you could show me what it says.

Q I don't, I don't have it in front of me right now, the actual transcript, but we'll submit it.

MR. SCHREINER: Again, I object on that basis.

MR. HUH: Sure.

THE WITNESS: Yeah, I -- I mean I would just go back to what I said, which is -- so when you are saying the user downloaded -- didn't have to download it, you're saying they didn't have to explicitly download it, that's what you mean?

BY MR. HUH: 12:53:13

Q Right, the mandatory application menu items, 12:53:13

1306, 1307, 1309, represent applications that were not 12:53:15

downloaded by the user. 12:53:22

MR. SCHREINER: Objection. Scope. 12:53:25

THE WITNESS: Yeah, I didn't -- I don't think I 12:53:29

opined on that particular thing in my, in my, in my 12:53:34

declaration. So I can't -- I mean they can be 12:53:42

downloaded, and I assume that a user isn't the one doing 12:53:50

it, that's all I can say. I couldn't tell you if they 12:53:54

were preinstalled or they got downloaded when the thing 12:53:57

got turned on. 12:54:04

BY MR. HUH: 12:54:16

Q Can you identify for me anywhere in Kim where it 12:54:16

teaches that application menu items which are mandatory 12:54:19

were downloaded? 12:54:22

A So -- 12:54:29

MR. SCHREINER: Objection. Scope. 12:54:29

THE WITNESS: I don't know that Kim necessarily 12:54:31

says that, but it's a way that a POSITA would understand 12:54:34

that there's a way to cause that to happen. And there 12:54:40

are good reasons for it. 12:54:44

BY MR. HUH: 12:54:56

Q Can you identify any passage where it teaches 12:54:56

that mandatory application items 1306, 1307 were 12:54:58

downloaded by the user? 12:55:04

A No, I didn't say that. I just said that they could be downloaded. And I said that it wouldn't be by a user. 12:55:07 12:55:12 12:55:18

Q Let's look at Kim Figure 34, please. Let me know when you're there. 12:55:57 12:56:12

A So Figure 34 is the -- is a -- yeah, I'm here. 12:56:49

Q And what is Figure 34? 12:56:58

A Figure 34 is -- so it says that Figure 34, 35 and 36 show views of the image display apparatus to illustrate the method of Figure 33. 12:57:38 12:57:55 12:58:02

Q Okay. And how does Figure 34 come about? 12:58:03

A I believe it's -- just double check this.

I believe it's the -- when you press that button on that tab menu items thing, but let me double check.

So this is -- it depicts a full screen display of the application menu 1305 when it is selected from the home screen of Figure 19. I think that might be -- just a moment.

To the right.

So anyways that's, that's what -- that's what I said in my report. 12:58:47 12:59:00 12:59:04 12:59:13 12:59:41 12:59:46 12:59:55 12:59:56 13:00:36 13:00:43

Q So is it fair to say, if you're at Figure 19 and you press the plus sign, 1309, you will be presented on a television the applications per Figure 34? 13:00:45 13:00:49 13:00:55

A I think so. 13:01:19

Q And rather than a plus sign, at the top of 13:01:26

Figure 34, there's a minus sign, 2109; do you see that? 13:01:30

A Yep. 13:01:42

Q The top portion 2110 in Figure 34 are the same 13:01:48

installed applications that were illustrated at Figure 13:01:57

19, correct? 13:01:59

A They appear to be. 13:02:01

Q And do you see the larger area, 2150? 13:02:06

A Uh-huh. 13:02:12

Q Those are application items installed, correct? 13:02:17

A Just one second. 13:02:27

You're saying what's in -- 13:02:28

Q 2150. 13:02:37

A 2150. Just a second. So I'm looking at -- oh, 13:02:39

that's Figure 35. Sorry. And you're saying -- right. 13:02:48

So 2150 is sort of that area -- and you're saying those 13:02:57

are installed. Just a second. 13:03:02

Okay. So -- give me one second. Let me read 13:03:05

something else. 13:04:08

So those are definitely installed, installed 13:04:09

items. Like in paragraph 261 that says the extended 13:04:34

application menu 2150 may include among applications 13:04:39

items installed in the display apparatus that are not 13:04:43

displayed in Figure 19. And the extended application 13:04:46

menu may further include an object which may be -- may represent deletion of an application item and an object that represents the current page number with rec to total number of pages for the full screen. 13:04:55 13:05:00 13:05:04 13:05:07

So was the question whether it was downloaded or not? 13:05:13 13:05:16

Q The question was whether they were installed. 13:05:20

A Oh. I think I answered that. Based on paragraph 261. 13:05:23 13:05:28

Q And in order for those items to be installed, somehow they were downloaded, correct? 13:05:32 13:05:38

A I think that's fair. Unless they were there already. In the firmware. 13:05:42 13:05:46

Q Even in the firmware, somehow they must have gotten downloaded by the manufacturer, correct? 13:05:57 13:06:01

MR. SCHREINER: Objection. Form. Scope. 13:06:05

THE WITNESS: Yeah, I don't know, I mean when I think of that, I just think of -- I mean I don't -- I don't know that I opine that the manufacturer downloads firmware, but I would just say when you download the firmware, the firmware already has -- when the manufacturer, sorry, the manufacturer installs firmware, it will have that application in it. It got there by them installing the firmware on the system, maybe on the factory line, or in the factory line. 13:06:09 13:06:11 13:06:16 13:06:20 13:06:24 13:06:27 13:06:31 13:06:35 13:06:37

BY MR. HUH: 13:06:41

Q Okay. Now, Kim ties Figure 34 with the 13:06:41

applications illustrated at Figure 19, correct? 13:06:50

A It does. 13:06:53

Q So the applications at Figure 19 are installed, 13:06:55

correct? 13:07:00

MR. SCHREINER: Objection. Form. 13:07:05

THE WITNESS: So the applications in Figure 19 13:07:07

that include what they -- Figure 19 of like the 13:07:15

twenty -- I don't know, is it 1905? I think that's how 13:07:23

they're tied together, right? So this, this 34 is tied 13:07:29

to that thing, so as far as that's concerned, it's an 13:07:38

extension of it, and so those must also be installed in 13:07:42

the way we described. 13:07:46

BY MR. HUH: 13:07:47

Q Okay. So let's take for example -- 13:07:47

A I just want to be, I just want to be clear, like 13:07:50

I don't tie it to the rest of that drawing, other than 13:07:52

just that link, what it ties back to. 13:07:56

Q Okay. So if I'm on Figure 19. 13:07:59

A Okay. 13:08:02

Q Let's look at Figure 19 together. 13:08:02

A Just give me a second. 13:08:05

Q I just want to follow the logic. 13:08:09

A Yeah. 13:08:16

Q Okay. So in Figure 19, for example, we have App Store. Do you see that? 13:08:16 13:08:20

A Yeah. I meant to say 1305. 13:08:22

Q Okay. 13:08:25

A That's what I was trying to say, not 1905. Does that make sense? 13:08:26 13:08:29

Q Right. I mean I get what you're saying, that 1305 is at the top, but 2150 are the installed applications. You just confirmed that, right, in Figure 34? 13:08:32 13:08:34 13:08:40 13:08:42

A You were asking whether in Figure 19 it has 1305, right? And then when you press down for the plus, it expands to what's shown in Figure -- oh, Figure -- I was confused -- Figure 19, right, you press the plus button, and then the -- the other extension comes up with all the installed applications. 13:08:42 13:08:51 13:08:54 13:09:03 13:09:07 13:09:14

Q Right. So -- and my only -- just a simple point, my example was, for example, in Figure 34, the additional applications that are installed illustrate, for example, Angry Birds in 34. Do you see that? If you can go to Figure 34, you can see Angry Birds. 13:09:16 13:09:20 13:09:24 13:09:27 13:09:35

A Sorry. Is there Angry Birds? 13:09:38

Q It would be the third row down, the third column. 13:09:40 13:09:44

A Oh, yeah. Yeah. That would be. 13:09:44

Q So as one example, Angry Birds is installed, illustrated in Figure 34? 13:09:47 13:09:52

A Right. 13:09:54

Q And that's also illustrated on Figure 19 home screen in the App Store. Do you see that? 13:09:54 13:09:57

A Okay. 13:10:00

Q So at the very least, Angry Birds, if perhaps even other common applications in Figure 34 are also installed and illustrated in Figure 19, correct? 13:10:03 13:10:06 13:10:12

A I think that's reasonable. 13:10:17

Q There's other applications beyond Angry Birds, right, that are common to both figures, correct? 13:10:31 13:10:33

A I'll need to verify that. Let's see. So -- went the wrong way. Let's see here. So -- so the App Store has -- just zoom in here. The App Store has Angry Birds, Calspur, Zero Rock, Sage Weed and COCOPD. I can't read those. And -- 13:10:39 13:11:06 13:11:21 13:11:34 13:11:46

Q For example -- 13:12:05

A Catspin, is that one? That looks like one that's there on both. 13:12:07 13:12:11

Q Okay. But just for example, if you go to Figure 34, the first column going down vertically, you have Doodle with a star, Bejeweled 2, and Catspin. 13:12:12 13:12:15 13:12:17

A Yes. 13:12:21

Q That corresponds to the first column in the App 13:12:22

Store. Do you see that? 13:12:26

A Yeah, I think that's right. 13:12:26

Q And then the third column in Figure 34 is Brook, I'm not sure what that is, some kind of whatever triangle and a square and a circle, Angry Birds, and then Zombie, those three applications correspond to the second column of the App Store. Do you see that? 13:12:27 13:12:30 13:12:35 13:12:39 13:12:41

A So -- yeah. I do. 13:12:51

Q Okay. So all of the applications in the App Store illustrated at Figure 19 are installed, correct? 13:12:58 13:13:03

A It appears to be the case. 13:13:07

Q Okay. One more thing. Then if you look at -- go to Figure 25, please. 13:13:09 13:13:33

A Uh-huh. 13:13:40

Q And do you see that the Hot Items, the same ones are also illustrated in Figure 25, the installed applications, the star one, Doodle Bounce, Bejeweled 2, and Catspin? 13:13:42 13:13:47 13:13:50 13:13:54

A Okay. 13:13:57

Q And then, and then, and then at Figure 25, you also have Angry Birds is there as well, and there's other ones that are also common with Figure, with Figure 34 that are not illustrated in Figure 19, right? There's numerous applications in Figure 25 that are installed in common with Figure 34, right? 13:13:58 13:14:03 13:14:10 13:14:15 13:14:17 13:14:20

A Figure 34. Put these next to each other. 13:14:29

Q Do you want to walk through one by one so we can just check them off? 13:14:52 13:14:56

A Yeah. Sorry. 13:14:57

Q No problem. 13:14:58

A Figure -- 13:14:59

Q So let's just start with the Weekly Hot in Figure 25. And then if you can have Figure 25 and Figure 34 open. So I just want to go back and forth between them. 13:15:00 13:15:03 13:15:06 13:15:10

A So I've got Figure -- what figure is this? Figure 25 open. And I agree that Doodle Bounce, Bejeweled 2 and Catspin are part of the extended world. 13:15:11 13:15:15 13:15:18

Q In Figure 34, right? 13:15:23

A Yeah. And then I wanted to bring up -- 13:15:26

Q And then the other one, Feel IM with the exclamation point, that's also in Figure 34, column 2, right? Do you see that? 13:15:29 13:15:33 13:15:36

A Yeah. 13:15:52

Q Okay. So all of the items, all the applications in the Weekly Hot row for Figure 25 are installed. 13:15:53 13:15:58

A Right. 13:16:06

Q Now let's go to the next row, which is the New row. 13:16:07 13:16:09

A Uh-huh. 13:16:10

Q Fun Calc is also illustrated in Figure 34, correct? That's in the second column all the way down. 13:16:15 13:16:20

A Yep. 13:16:24

Q Angry Birds, we have already discussed, is illustrated in Figure 34, correct? 13:16:25 13:16:28

A Uh-huh. 13:16:30

Q The World Map, I see that also in the second column, second one down in Figure 34. Do you see that? 13:16:35 13:16:39

A Yep. 13:16:43

Q And then I guess I don't see the Frame application in Figure 34, so that was not installed. 13:16:47 13:16:52

A Okay. 13:16:55

Q And then if we go to the bottom row in Figure -- so just to confirm, in Figure 25, of the New applications in the New row, Fun Calc, Angry Birds, and World Map are installed in the device, correct? 13:16:57 13:17:04 13:17:09 13:17:14

A I think that's correct. 13:17:18

Q Now, if we go to the last row in Figure 25. 13:17:21

A Uh-huh. 13:17:29

Q I don't see Switch. I don't know if you see it. 13:17:29

A I don't. 13:17:34

Q Okay. And then SNA, I don't see SNA in Figure 24. 13:17:35 13:17:42

A No. 13:17:42

Q And SMS, Fun SMS is not present and Smile is 13:17:42

not -- so basically whoever is installing apps here doesn't like the free ones. 13:17:47 13:17:51

A Yeah. 13:17:52

Q That's what I think. Okay. But at least in Figure 25, the Weekly Hot, all of them are installed, illustrated in Figure 25, and then the New row, of the New applications, Fun Calc, Angry Birds and World Map are installed, correct? 13:17:53 13:17:57 13:18:03 13:18:07 13:18:11

A Yeah. Yeah. 13:18:12

Q And these are the users' applications that the user installed, right? 13:18:13 13:18:31

A These are user applications that user installed, is that what you just asked? 13:18:34 13:18:38

Q Right, the user installed these applications. 13:18:39

MR. SCHREINER: Objection. Form. 13:18:42

THE WITNESS: So I guess they're on the machine. I don't know if it was the user or the factory that installed them, but if they required purchase, presumably the user installed them. But I guess I can't say for sure that it wasn't installed and somehow it was purchased when you opened it, but it could have been installed beforehand. That's all I can say for sure. I mean all that I can say is that I know it's on the machine, it could have been downloaded, or it could have been preinstalled. But there's -- it's definitely 13:18:43 13:18:56 13:18:58 13:19:00 13:19:16 13:19:22 13:19:29 13:19:33 13:19:36 13:19:39

installed, no question. 13:19:43

BY MR. HUH: 13:19:45

Q Okay. So I want to get an understanding of, you mentioned this phrase now, preinstalled. 13:19:45 13:20:04

A Uh-huh. 13:20:06

Q And what is preinstalled, based on your understanding? 13:20:07 13:20:11

A Just that it might have been in the firmware. When you open it up, that software application's in the system already. Available through whatever mechanisms that it might have so that it doesn't need to be downloaded. 13:20:16 13:20:21 13:20:25 13:20:31 13:20:35

Q Let me, let me help you with your definition, if you look to your declaration at paragraph 186, where you interpret this term. 13:20:37 13:20:40 13:20:46

A Right. So it says, "As discussed in Section V above, I interpret 'preinstalled...software applications' pursuant to its definition in the '254 Patent as meaning preinstalled software applications that 'cannot be removed by the user and manually updated.'" Okay. 13:21:04 13:21:07 13:21:10 13:21:13 13:21:16 13:21:19

Q Okay. And so I want -- go ahead, I'm sorry. Were you saying? 13:21:20 13:21:23

A By that definition, some of those could not be -- it appears that the ability to delete them or 13:21:24 13:21:27

manually update them isn't, isn't something you can do. 13:21:37

Q Okay. So there are, there are two items here 13:21:43

that I want to understand, "cannot be removed by the 13:21:51

user" or "manually updated." 13:21:54

A Uh-huh. 13:21:57

Q And the word "or" is there. Do I have to -- it 13:22:01

cannot be deleted and it cannot be somehow changed by 13:22:06

the user? Is it an "and" or is it an "or"? What do you 13:22:09

mean by "or"? Are both requirements, I guess is what 13:22:13

I'm asking you? 13:22:19

A I think both are requirements. 13:22:20

Q Okay. So based on your interpretation of 13:22:22

preinstalled software application, the software 13:22:25

application cannot be deleted by the user; is that 13:22:32

correct? 13:22:36

A Yeah. 13:22:36

Q And then the additional requirement, based on 13:22:38

your interpretation, is that a preinstalled software 13:22:41

application means that the user cannot modify the 13:22:45

application? 13:22:51

A Right. In the sense that they can't say, oh, 13:22:53

you need to update yourself by clicking on it and saying 13:22:58

update it. 13:23:04

Q But a software application with both of those 13:23:20

characteristics, under your interpretation, would be a 13:23:24

preinstalled software application? 13:23:27

A If it were cannot be removed by the user and -- nor manually updated, yes. 13:23:32 13:23:36

Q Give me one minute. I'm sorry. I'm just reading. 13:24:35 13:24:39

Okay. Let's switch gears and go to the Exhibit 1006, the Western Digital Manual, if you would, please. 13:24:39 13:25:07

A Okay. So you want me to open up the exhibit directly? 13:25:10 13:25:18

Q Sure, you can. 13:25:19

A Okay. 13:25:24

Q The exhibit has three parts. Do you see that? 13:25:25

A Yeah, so I'm wondering which -- I have part one. Do you want to start with that one? 13:25:28 13:25:32

Q Sure, we can start with part one. That's fine. 13:25:33

A Okay. 13:25:36

Q So let's just start with part one, page 1, then. We'll walk through the thousands of pages together. 13:25:36 13:25:43

Okay. Part one, page 1. 13:25:49

A Okay. 13:25:52

Q So if we look at, if we look at this document. 13:25:53

A Uh-huh. 13:25:59

Q What is, what is this document? 13:26:02

A It's the user manual for the WTV Live Hub Media Center provided as prior art by the Petitioner. 13:26:10 13:26:15

Q And why is this called "media center"? 13:26:24

A I mean I think I'd be -- I don't know exactly why, but it has -- I mean I'd be speculating to tell you exactly why. They made up that name, but it has to do with media, and I guess it's a center. 13:26:30 13:26:35 13:26:42 13:26:46

Q Okay. And I looked and I want to -- and you're free to go through all of, all of the three portions. 13:26:50 13:27:02

A Sure. 13:27:05

Q Can you identify for me anywhere where this media center has a web browser? 13:27:07 13:27:11

A Oh. I could say that it has -- so I can't identify for you a place where what maybe a mainstream user would identify as a browser, but I could identify for you cases where a POSITA would understand, looking at the manual, that such a -- some of the services could have been implemented using a web browser control without browsing -- without the ability to enter browse where it's going, et cetera. 13:27:16 13:27:27 13:27:33 13:27:36 13:27:43 13:27:49 13:27:51 13:27:58

Q What do you mean by that? 13:28:21

A So -- so you can start -- like browsers don't have like -- sorry. Browser control can be something that just shows you what the webpage shows. It doesn't mean that it has to have like a place that you can type in a URL or go backwards on. It could just be here's the -- go to this webpage and just show me what you see, 13:28:23 13:28:29 13:28:34 13:28:38 13:28:43 13:28:48

and all you can interact with is the webpage itself and there's no extra stuff on the screen, that's all. 13:28:51 13:28:55

Q Okay. So where, where would that be? 13:29:08

A Well, I mean all of the, all of the Internet services, because they're Internet services, a POSITA would understanding, looking at them, that they could be accessed by going to their website by instantiating, like instantiating a control or a browser with that URL with the configuration that I just described, and then you would be able to use the system that way to see content, et cetera, in a normal web-based way. 13:29:11 13:29:17 13:29:21 13:29:24 13:29:29 13:29:33 13:29:37 13:29:39

Q Okay. But applications are Internet-based as well, right? 13:29:46 13:29:50

A Sure. 13:29:51

Q So I'm just trying to understand. I looked for the word "browser," I couldn't find it, and I looked for anything that resembled an Internet browser, I couldn't find it, and just the fact that there's content obtained from the Internet doesn't render the prior art a browser, does it? 13:29:54 13:30:02 13:30:05 13:30:08 13:30:19 13:30:24

A That last sentence -- 13:30:24

MR. SCHREINER: Objection. Form. 13:30:26

THE WITNESS: That last sentence I didn't understand, Greg. Sorry. 13:30:26 13:30:27

BY MR. HUH: 13:30:28

Q Just the fact that you're obtaining content from the Internet doesn't render the device obtaining the content a browser, does it? 13:30:28 13:30:31 13:30:38

A I'm really sorry. The last sentence, is there a way -- 13:30:40 13:30:41

Q Sure. 13:30:42

A I'm really sorry because I couldn't -- 13:30:42

Q Sure. Let me rephrase it. 13:30:43

A device that's obtaining content from the Internet does not de facto make that device a browser, does it? 13:30:47 13:30:49 13:30:54

MR. SCHREINER: Objection. Form. 13:30:55

THE WITNESS: Yeah, so I would just say that it doesn't de facto make it a browser, but it doesn't rule it out, and an example I would give you is you can put a browser control in an application that you run on your, on your web app -- I mean, sorry, you could run a web app, you can write a react web app that shows up on your smartphone and you can download it as an application, but it's rendering it inside of a web browser control, but you can also just have a web browser that is, you know, instantiated without all these extra features you would see when you normally browse, and you wouldn't be able to tell the difference. Just looking at it. 13:30:58 13:31:04 13:31:07 13:31:11 13:31:19 13:31:23 13:31:28 13:31:32 13:31:35 13:31:40 13:31:46 13:31:49

And you probably wouldn't see an operations 13:32:04

manual that does that referring to that as a browser. 13:32:06
They'd just say it's an application. 13:32:09
BY MR. HUH: 13:32:20
Q Well, I mean Kim has a browser, doesn't it? 13:32:20
A It does. 13:32:22
Q And he calls it a browser? 13:32:25
A Sure. 13:32:27
Q Can you identify anywhere where this, the WD 13:32:28
Manual, refers to anything inside as a browser? 13:32:32
MR. SCHREINER: Objection. 13:32:37
THE WITNESS: No, but -- 13:32:38
MR. SCHREINER: Asked and answered. 13:32:39
THE WITNESS: No, but a POSITA looking at that 13:32:39
wouldn't be able to tell you one way or the other. 13:32:42
BY MR. HUH: 13:32:46
Q But you can't tell one way or the other by 13:33:00
looking at the WD Manual whether or not it has a 13:33:02
browser? Is that correct? 13:33:05
MR. SCHREINER: Objection. Mischaracterizes. 13:33:08
THE WITNESS: Yeah, I can't tell how the 13:33:10
services menu things are implemented. They could be 13:33:17
implemented with a browser control or they could be 13:33:22
implemented with specific applications that are written 13:33:25
specifically to run on top of the WD operating system. 13:33:27
BY MR. HUH: 13:33:54

Q Okay. We will come back to that, but let's go to page 11 of the WD Manual, if you would, please. 13:33:54 13:33:57

A Okay. 13:34:03

Q And I'm speaking to the actual numbering on the reference itself, not the labeled page numbers. 13:34:06 13:34:10

A Oh. One second. There's features and functions dash-7 and then there's dash-8. So you mean the dash numbers? So I'm on dash-11, it shows remote control. Is that what you're referencing? 13:34:16 13:34:25 13:34:27 13:34:34

Q Yes, that's correct. Yeah, the actual pages on the document, the original pages, page numbering, not the Bates labeled page numbering. 13:34:36 13:34:39 13:34:43

A Uh-huh. 13:34:45

Q So here the WD Manual illustrates a remote control, right? You just said that. 13:34:49 13:34:53

A Sure. 13:34:55

Q And do you have an understanding how the remote works? 13:35:00 13:35:03

A Sure. I think it uses infrared to transmit whatever is pressed to the CD. 13:35:06 13:35:13

Q And what are the items on the left side going from 1 through 18? 13:35:16 13:35:18

A They appear to be labels of the function of those buttons that are on the remote control. And -- or in the case of one -- well, it is a function that -- 13:35:19 13:35:22 13:35:29

yeah. Although one is not a button. Sorry. 13:35:34

Q Which one is not a button? 13:35:38

A The infrared transmitter. 13:35:40

Q Got it. 13:35:42

So if we look, for example, at item 17, what is 13:35:48
item 17? 13:35:50

**A The A, B, C, and D represents shortcut function 13:35:54
keys, as indicated on the left-hand side.** 13:35:59

Q And what's the purpose of the shortcut function 13:36:05
keys A, B, C, D? 13:36:08

**A They're shortcuts to do things with the remote 13:36:15
control.** 13:36:21

Q Are they intended to be assigned by the user to 13:36:21
whatever function or keys they would like? 13:36:24

MR. SCHREINER: Objection. Form. 13:36:28

THE WITNESS: I think generally what you're 13:36:31
saying is correct, but I think there are limitations on 13:36:33
what it can actually do based on the user interface 13:36:36
provided by the WD digital folks as to what precisely 13:36:40
those things can be assigned to, so there's some 13:36:44
limitations. 13:36:46

BY MR. HUH: 13:36:49

Q Do you have an understanding of what the 13:36:57
shortcut function keys can be assigned to? 13:37:02

A Yeah. Just a moment. One moment. 13:37:07

So in 106, where I first talk about default functions, so at least those are assignable, so when you are in the videos, music or photos menu, there's a context, right? Pressing A activates the sort and filter menu, pressing B activates the select contents first menu, pressing C activates the change view menu, and pressing D activates the dashboard menu. And that can be reprogrammed to different functions, such as display mode, filter menu, music, video, service, setup. The WD Manual describes the "shortcut function keys A-D can be reprogrammed by first calling up Remote Settings while the Operations menu screen is displayed." 13:37:37 13:37:51 13:37:56 13:38:01 13:38:09 13:38:13 13:38:18 13:38:22 13:38:26 13:38:33 13:38:40 13:38:44

Q What did you just read right now? 13:38:48

A Paragraph 107. Of my declaration. 13:38:50

Q Okay. So if I, if I read this correctly, what you just read, the shortcut function keys A, B, C, D could be reprogrammed to be assigned to display mode, correct? 13:38:57 13:39:04 13:39:15 13:39:22

A That's what it says, yep. 13:39:23

Q Shortcut function keys A, B, C, D can be reprogrammed to filter menu, correct? 13:39:25 13:39:31

A Yeah. 13:39:35

Q The shortcut function keys A, B, C, D can be reprogrammed to music, correct? 13:39:36 13:39:43

A Uh-huh. 13:39:46

Q The shortcut function keys A, B, C, D can be reprogrammed to video, correct? 13:39:48 13:39:54

A Yes. 13:40:01

Q The shortcut function keys A, B, C, D can be reprogrammed to services, correct? 13:40:02 13:40:06

A Right. 13:40:08

Q The shortcut function keys A, B, C, D can be reprogrammed to setup, correct? 13:40:10 13:40:13

A I think so. I think I have a picture of that in paragraph 109 of my report. 13:40:16 13:40:19

Q Okay. So the intent of those function keys is to allow the user to reprogram them to whatever they would like within the scope of display mode, filter menu, music, video, services, setup, correct? 13:40:22 13:40:27 13:40:29 13:40:34

A Yeah, I'm not sure what you mean by "scope," but those are limitations and we would have to look at particularly what those things could be in the actual interface, but sure. 13:40:38 13:40:41 13:40:46 13:40:48

Q Well, I mean those keys are designed to be reprogrammed to different functions, correct? 13:40:51 13:40:53

A Yeah. Different functions that will allow you to say go to a particular display mode, open up a particular filter menu, select the music, the music thing or the video thing, the services thing or the setup thing. At least. 13:40:57 13:41:00 13:41:05 13:41:11 13:41:14

Q So Western Digital -- 13:41:17

A These are menu screens, like the services menu screen, et cetera. 13:41:21 13:41:26

Q Right. So you can, within the teachings of Western Digital Manual, you can program any of A, B, C, D to go to the services screen, if you would like to do that, right? 13:41:27 13:41:33 13:41:37 13:41:44

A I think that's fair, but I don't believe the Petitioner explicitly said that. 13:41:45 13:41:47

Q But that's the teaching in the Western Digital Manual, correct? 13:41:54 13:41:59

A It certainly -- I would interpret that, that that's taught there, yes. 13:41:59 13:42:04

Q Now, the Western Digital Manual allows for local files to be played, correct? 13:42:23 13:42:33

MR. SCHREINER: Objection. Form. 13:42:37

THE WITNESS: I think the Western Digital Manual describes how to use the Western Digital system to play local content. I think that's what you mean. 13:42:38 13:42:42 13:42:44

BY MR. HUH: 13:42:52

Q Well, the media center has local files that may be played, right? 13:42:58 13:43:05

A I agree with that. 13:43:07

Q For example, at 48, page 48 of the Western Digital Manual, it discloses various supported audio 13:43:09 13:43:18

formats which are file formats, correct? 13:43:27

A Just a second. 13:43:33

Play music. 13:44:06

Yes, that's fair. 13:44:08

Q And you can see this, which is item number 2, it states that the screen displays available music files and folders in the media center's local drive by default, right? 13:44:12 13:44:16 13:44:20 13:44:24

So the Western -- 13:44:35

THE COURT REPORTER: I'm sorry. I'm sorry, sir. Your hand was over your mouth. I did not hear your answer. 13:44:35 13:44:35 13:44:35

THE WITNESS: Oh, I'm sorry. I said yes, I think. I said an affirmative to the question. 13:44:35 13:44:35

THE COURT REPORTER: I will just read it and then you can answer. How is that? 13:44:35 13:45:09

(Record read.) 13:45:09

THE WITNESS: Yes. 13:45:10

BY MR. HUH: 13:45:34

Q Play those music files. The Western Digital Media Center has a media player, correct? 13:45:34 13:45:44

MR. SCHREINER: Objection. Scope. 13:45:49

THE WITNESS: So it has the capability to play back music, so it has codecs and therefore some sort of mechanism to play back content, and if you want to call 13:45:52 13:45:56 13:46:01

that a media player, then sure. 13:46:04

BY MR. HUH: 13:46:06

Q Well, if you would look at the, at the figure 13:46:36
underneath item 2, it displays various musics available 13:46:38
that you can choose from, correct? 13:46:47

A So you are talking about the picture? 13:46:57

Q Yes. 13:47:07

A Yeah, I think that's right. 13:47:10

Q So it shows internal storage, music all, and 13:47:12
then it has various, from what it appears, artists' 13:47:14
names with music files, correct? 13:47:23

A Yes, I agree. 13:47:26

Q And you can choose from those available music 13:47:27
files to play them with the player of the Western 13:47:30
Digital Media Center, correct? 13:47:36

A Yes. 13:47:36

Q Do you have an understanding of the types of 13:47:42
media players that were available at the time? 13:47:53

A I mean there were many codecs that were out, and 13:48:01
I don't know the operating system Western Digital's 13:48:11
based on, so I wouldn't be able to tell you whether 13:48:13
something like VLC or MPEG Play, or -- I think those 13:48:16
were out at that time, but I can't be a hundred percent. 13:48:21
Yeah, they were out at that time. There were a number 13:48:24
of systems that were programs that could play music 13:48:26

back, sure. 13:48:29

Q They were media players, right? 13:48:34

A Yeah, they were, they were -- as long as we say a media player is something that can play back music on a computer, then sure. 13:48:38 13:48:43 13:48:46

Q It's local software installed that can play back music, right? 13:48:47 13:48:50

A Yeah. But it may already be on the system, it may be part of the operating system, but sure. 13:48:51 13:48:55

Q A media player software in the Western Digital Media Center allowed for reorganizing the music, correct? 13:49:47 13:49:56 13:50:04

A You mean like showing it differently on the screen or -- 13:50:04 13:50:06

MR. SCHREINER: Objection. Scope. 13:50:07

BY MR. HUH: 13:50:09

Q Right. 13:50:09

A I don't know that I opined on that in my report, but, yeah, I mean I'm not sure how this is -- how my opinions in my report about meeting claim limitations have to do with music being reorganized. 13:50:11 13:50:21 13:50:26 13:50:31

Q Well, we can see in page 48 that we have just been discussing under that image. 13:50:37 13:50:40

A Yeah. 13:50:42

Q It says that you can choose to navigate using 13:50:43

sorting, alphabetical, date, ratings, recently viewed, and filter options, and it goes on. Do you see that? 13:50:46 13:50:51

A Yeah. 13:50:54

Q So you can organize and look at whatever you want in whatever order you want, right? 13:50:55 13:50:57

A That seems to be what it says. 13:51:00

Q So you can play the music, organize the music; that's within the scope of the media player of the Western Digital Media Center, right? 13:51:14 13:51:18 13:51:22

A Sort and filter? Yes, as described in this manual. 13:51:29 13:51:33

Q And to be clear, the Western Digital Media Center can obtain files from different sources, correct? 13:51:41 13:51:44

A Sure. And then they get put into the drive. 13:51:53

Q And then they are played via the media player, which is software installed on the Western Digital Media Center, correct? 13:51:58 13:52:01 13:52:05

A It's -- yeah, it's a software that's installed on that system, sure. 13:52:08 13:52:11

MR. HUH: Let's take a five-minute break. 13:52:48

THE WITNESS: Okay. 13:52:51

MR. HUH: Thank you. 13:52:51

(Recess taken.) 13:52:58

BY MR. HUH: 14:08:12

Q Dr. Surati, have you had any communication with 14:08:28

counsel during the break? 14:08:31

A Just with regard to some corrections with Denise that we did online. 14:08:32 14:08:37

Q Got it. But nothing just between -- okay. 14:08:39

So I'm trying to understand the delineation between a web browser and an application, and is it fair to say that an application includes a web browser? 14:08:45 14:08:52 14:08:59

MR. SCHREINER: Objection. Form. 14:09:07

THE WITNESS: I mean -- 14:09:09

MR. SCHREINER: Scope. 14:09:12

THE WITNESS: Yeah, I don't -- I mean I think, as far as my opinion, I can't tell, looking at the screen, whether something's a web browser or an application containing a web browser or an application. 14:09:14 14:09:16 14:09:21 14:09:25

BY MR. HUH: 14:09:30

Q All right. So my question is what is your understanding of an application? Does an application in the context of the '254 patent include a web browser? 14:09:31 14:09:34 14:09:38

A It can. 14:09:43

Q So then in the instance where Western Digital is implemented with a web browser, then that's an application, correct? 14:09:45 14:09:49 14:09:51

A It could be, or it could be a web browser that's been instructed to go to a particular URL, in which case it's a generic web browser being told to go to a 14:09:54 14:09:58 14:10:01

particular URL. 14:10:05

Q Is it your opinion that a generic web browser is not an application? 14:10:10 14:10:13

A Well, if it's an application that -- I guess when I think of these particular services, an application, I would think of it as a specific application for that specific service. And then if I think about a Internet browser that's a generic application that's being -- like Internet Explorer on your desktop, you can tell Internet Explorer to go a particular URL and pop up, but -- and tell it to go to a particular URL and it will show that and you can instruct it not to show you anything other than the window, no additional things. And you wouldn't be able to easily tell that from that kind of application I referred to before where it was just a web browser that was -- that was embedded inside of a specific application that then went to a particular URL, or it could be an application that you wrote that does all its own rendering and it, you know, has no web browser. It just uses http as a communication window, but as far as like rendering, it's just rendering the video and it has its own UI separate from HTML. 14:10:16 14:10:22 14:10:26 14:10:30 14:10:34 14:10:41 14:10:44 14:10:47 14:10:53 14:10:55 14:11:00 14:11:05 14:11:10 14:11:15 14:11:18 14:11:22 14:11:25 14:11:31 14:11:36 14:11:40

Q Do you dispute that Western Digital Media Center has applications installed? 14:11:58 14:12:02

A I don't. 14:12:05

Q Why? 14:12:22

A Why don't I dispute it? So if we're talking about the applications in that -- do I dispute it? 14:12:27 14:12:31

MR. SCHREINER: Objection. Objection. Form. 14:12:38

THE WITNESS: Let me go back to the question. So am I disputing that applications could be installed on the, on the web -- I'm sorry, on the Western Digital system, is that what you're asking? 14:12:41 14:12:43 14:12:46 14:12:50

Q Well, you said you don't dispute that Western Digital Media Center has applications installed, and my question is why don't you dispute it? What's your basis for asserting that applications are installed on Western Digital Media Center? 14:12:59 14:13:03 14:13:05 14:13:08 14:13:10

A What I'm saying is that -- 14:13:12

MR. SCHREINER: Sorry. Objection. Form. 14:13:14

THE WITNESS: I guess let me back up, and I misheard your question, Greg, so let me correct what I said. 14:13:16 14:13:19 14:13:22

MR. SCHREINER: And also, sorry, objection, scope. 14:13:22 14:13:23

THE WITNESS: Okay. So -- just a second here. 14:13:25

What I would say -- 14:13:53

So -- one second. 14:15:35

BY MR. HUH: 14:15:38

Q Let me ask it this way just to make things easier for you: Do you have any basis to dispute that Western Digital Media Center has applications installed? 14:15:38 14:15:41 14:15:46

A Ah. Okay. So -- so when I look at Figure -- I think it's page 77 of the Western Digital Manual, it shows a service menu, that picture, I can't tell whether those renderings refer to a browser being called in the way I describe before where a URL is being set up and it's just not showing any browser controls or if it's an application that has a browser control installed inside of it that renders that or if it's an application that is explicitly written using the GUI of the operating system that doesn't use a browser control, but might use a rest API to talk to the content provider or the web server. So when I look at that as a POSITA, I can't tell, looking at that, which of those three things it is. 14:15:49 14:16:09 14:16:15 14:16:28 14:16:31 14:16:34 14:16:41 14:16:43 14:16:50 14:16:57 14:17:02 14:17:06 14:17:09 14:17:13

Q So do you have any basis to dispute that Western Digital has applications installed? 14:17:13 14:17:16

A Yeah, that's my basis. My basis is, as a POSITA looking at this, I can't tell. It could have applications installed or it could have the thing that I said installed, and I can't tell either way. 14:17:20 14:17:23 14:17:26 14:17:28

Q And what did you say would be installed? A browser? 14:17:31 14:17:33

A That a browser application -- or a browser would be installed, right, on the system, and each of those things it's referring to might have a URL associated with it, and that that browser is configured to go to that URL and not show its browser controls. 14:17:33 14:17:37 14:17:40 14:17:43 14:17:48

Q Is it your position that a browser is not an application? 14:17:52 14:17:54

A Well, I think in the way that we were trying to distinguish between service, each service having its own application, it would be an application that runs across several services, so I'm not sure how to distinguish between the two. And so I want to distinguish between them because they're not particular applications specific to a particular user service, it's the URL that's making them particular. 14:17:57 14:18:02 14:18:05 14:18:10 14:18:13 14:18:14 14:18:18 14:18:21

Q But it does have an application, at least by way of a browser, right? 14:18:23 14:18:27

A Sure, but that may or may not have been downloaded and it would -- and it probably would have been preinstalled. 14:18:30 14:18:33 14:18:39

And, you know, this doesn't have like that download this extra service and suddenly it works, at least as far as I can tell. Or download an application like the App Store in Kim. 14:18:48 14:18:51 14:18:57 14:19:00

MR. HUH: Petitioner will rest here. 14:19:41

MR. SCHREINER: Okay. Yeah, why don't we take five minutes, and I have probably just a couple followup questions. 14:19:45 14:19:47 14:19:54

MR. HUH: Very good. 14:20:00

MR. SCHREINER: Thanks. 14:20:01

(Recess taken.) 14:20:02

EXAMINATION OF RAJEEV SURATI, Ph.D. 14:20:02

BY MR. SCHREINER: 14:30:41

Q I'd like to start, Dr. Surati, with page 76 of the WD Manual that you testified shows the services menu. Do you recall that? 14:30:41 14:30:49 14:30:56

A Yes. 14:30:59

Q And do you have that up on your screen? 14:31:01

A I'm getting it. 14:31:09

Q Uh-huh. 14:31:10

A Yep. I've got it. 14:31:21

Q And is that -- 14:31:25

A 77. 14:31:25

Q You're saying -- do you see -- 14:31:28

A Right? 14:31:28

Q I'm sorry? 14:31:30

A Page 77, right? 14:31:30

Q Yeah, I said page 76. 14:31:33

A Uh-huh. 14:31:37

Q Yeah, page 77, thank you. 14:31:38

And do you see there's a number 2 at the top of the page? 14:31:46 14:31:49

A Yes. 14:31:49

Q And it indicates, it refers to it as the list of Internet services? 14:31:50 14:31:53

A Uh-huh. 14:31:54

Q Does it say anything about a list of applications? 14:32:02 14:32:04

A No. 14:32:05

Q Okay. But it shows a series of icons, right, like Blockbuster, Facebook, Netflix, Pandora, right? 14:32:08 14:32:14

A It does. 14:32:20

Q Is there anything in the WD Manual indicating that these icons represent installed software applications? 14:32:22 14:32:25 14:32:29

A Nothing. 14:32:31

Q Is there anything in the WD Manual indicating that any of these icons represent downloaded software applications? 14:32:34 14:32:37 14:32:42

A Nothing. 14:32:43

Q And you mentioned, you mentioned URLs before in your discussion with Mr. Huh; do you recall that? 14:32:49 14:33:05

A Yes. 14:33:09

Q Is it -- would a POSITA -- strike that. 14:33:10

Given that your testimony is that the WD Manual 14:33:13

doesn't disclose anything about these icons representing installed software applications -- 14:33:19 14:33:23

A Uh-huh. 14:33:26

Q -- would -- is it your testimony in your declaration that a POSITA would understand these icons as representing URLs that would be used by a browser to go to the respective websites? 14:33:27 14:33:29 14:33:35 14:33:38

MR. HUH: Objection. Leading. 14:33:43

THE WITNESS: I think I said it during my testimony that these are -- these could be, these could be what you just described. And it's what I said in my, in my, in my, in my declaration. 14:33:44 14:33:46 14:33:49 14:33:56

BY MR. SCHREINER: 14:34:10

Q If these icons actually represented downloaded software applications, would you have expected the WD Manual to discuss something about them as being downloadable -- 14:34:11 14:34:19 14:34:24 14:34:27

MR. HUH: Objection. Leading. 14:34:27

BY MR. SCHREINER: 14:34:27

Q -- as being downloadable software applications? 14:34:27

MR. HUH: Objection. Leading. 14:34:31

THE WITNESS: I mean I imagine it could -- would have, yeah. 14:34:39 14:34:45

BY MR. SCHREINER: 14:34:50

Q I mean the manual is -- it's two or three 14:34:50

hundred pages, right? 14:34:53

A Right. 14:34:53

Q Would you say it's an extremely detailed user manual? 14:34:53 14:34:56

MR. HUH: Objection. Form. 14:34:57

THE WITNESS: I feel it's very detailed. 300 pages. 14:34:59 14:35:03

BY MR. SCHREINER: 14:35:04

Q So let's take the Netflix icon on page 77. If, if that Netflix icon represented a downloadable software application, would you have expected the WD Manual to discuss something about downloading the -- this, the Netflix application? 14:35:04 14:35:11 14:35:15 14:35:20 14:35:26

MR. HUH: Objection. Form. Leading. 14:35:28

THE WITNESS: I would have expected the system to talk about updating a downloaded application, if that were the case. 14:35:30 14:35:36 14:35:39

BY MR. SCHREINER: 14:35:42

Q The claim limitations that are pertinent here relate to the application center button which is limitation 1.5.2. Do you agree with that? 14:35:58 14:36:06 14:36:11

A I do. 14:36:15

Q And is it fair to say, paraphrasing it, it talks about a button that will display information about both preinstalled software applications and downloaded 14:36:19 14:36:24 14:36:28

software applications? 14:36:30

A Yes. 14:36:33

Q So looking again at the WD Manual Internet 14:36:37

services menu on page 77 -- 14:36:42

A Uh-huh. 14:36:45

Q Or strike that. 14:36:46

Do you recall agreeing with Mr. Huh that a 14:36:49

browser is a form of an application? 14:36:55

A I do. 14:36:58

Q Okay. So then let's look at the Internet 14:36:59

services menu on page 77 of the WD menu. 14:37:02

A Okay. 14:37:06

Q WD Manual, excuse me. 14:37:07

A Uh-huh. 14:37:09

Q Let me just restate that. So let's look at the 14:37:10

Internet services menu on page 77 of the WD Manual. 14:37:13

A Right. 14:37:18

Q Is there, is there the display of any icon for a 14:37:19

browser? That represents a browser? 14:37:25

A No, there isn't. 14:37:31

Q Okay. I'd like to turn now to Figure 34 of Kim, 14:37:32

Exhibit 1005. 14:37:43

A Okay. 14:38:00

Q And do you recall having discussion with Mr. Huh 14:38:02

about the claim term "preinstalled applications"? 14:38:07

A Sure. 14:38:11

Q And I'm going to, I'm going to read you a passage from your declaration in paragraph 56. "The '254 Patent defines," quote, "preinstalled applications," close quote, "in contrast to 'downloaded applications,' as being stored applications that," quote, "cannot be removed by the server or manually updated." 14:38:16 14:38:19 14:38:27 14:38:29 14:38:33 14:38:38 14:38:40

A Right. 14:38:42

Q Do you recall that? 14:38:42

A "Cannot be removed by the user or manually updated." I wasn't clear what you said. 14:38:44 14:38:48

Q Is it correct that preinstalled applications, as defined in the '254 patent, has three requirements: It must be a preinstalled application, and it's one that can't be removed by the user, and it's one that can't be manually updated by the user? 14:38:52 14:38:56 14:39:01 14:39:03 14:39:06

A Right. 14:39:08

Q So referring to Figure 34 of Kim -- 14:39:11

A Uh-huh. 14:39:18

Q -- do you recall the discussion with Mr. Huh about the mandatory applications marked as 2110? 14:39:18 14:39:20

A Uh-huh. 14:39:26

Q Search, App Store, music, and so forth, do you see that, mandatory applications, 2110? 14:39:28 14:39:33

A Uh-huh. 14:39:37

Q Does Kim disclose anywhere that those are preinstalled applications? 14:39:38 14:39:41

A It doesn't say. 14:39:47

Q Would a POSITA understand that those applications could be downloaded? 14:39:52 14:39:59

A Yes. 14:40:00

Q Does Kim say anywhere that those mandatory applications cannot be manually updated by the user? 14:40:00 14:40:03

A I don't believe it does. 14:40:11

Q Okay. Are you familiar with, in ordinary PCs, when the operating system and other software needs an update, that sometimes you get, the user gets a notification requesting permission to update the software? 14:40:14 14:40:38 14:40:40 14:40:44 14:40:51

A I am. 14:40:53

MR. HUH: Objection. Form. Scope. Leading. 14:40:54

BY MR. SCHREINER: 14:40:58

Q You have experienced that with your own use of personal computers? 14:41:00 14:41:03

MR. HUH: Objection. Form. Scope. Leading. 14:41:04

THE WITNESS: Yeah, and, and with other things that I have built using Linux or using other operating systems on different microcontrollers that would be used to create Internet of Things displays or that type of 14:41:08 14:41:11 14:41:17 14:41:25

thing, sure. 14:41:29
BY MR. SCHREINER: 14:41:43
Q Would a POSITA expect that the Kim system would update the mandatory applications periodically to keep them current? 14:41:45 14:41:51 14:41:55
MR. HUH: Objection. Form. Scope. Leading. Calls for speculation. 14:41:55 14:41:57
THE WITNESS: I think a POSITA would think that's reasonable. 14:41:59 14:42:03
BY MR. SCHREINER: 14:42:06
Q And would a POSITA understand that a user might be given a prompt, like we just talked about, in order to permit the system to update the mandatory applications in Figure 34 of Kim? 14:42:12 14:42:14 14:42:21 14:42:24
MR. HUH: Objection. Form. Scope. Leading. Calls for speculation. 14:42:27 14:42:32
THE WITNESS: I think that's -- I think so, yes. 14:42:34
BY MR. SCHREINER: 14:42:40
Q Is there any opinion in your declaration that, based on Mr. Huh's cross-examination, that you believe is now incorrect? 14:42:42 14:42:45 14:42:50
A No. 14:42:55
Q Do you stand by the opinions set forth in your declaration? 14:42:57 14:43:01
A I do. 14:43:01

MR. SCHREINER: Pass the witness. 14:43:02

EXAMINATION OF RAJEEV SURATI, Ph.D. 14:43:02

BY MR. HUH: 14:43:02

Q Dr. Surati, did you have a conversation with 14:43:10
counsel during the break prior to his redirect? 14:43:12

A I did. 14:43:16

Q Did you discuss the contents of the redirect? 14:43:16

A We discussed -- 14:43:20

MR. SCHREINER: I instruct, I instruct the 14:43:22
witness not to answer as to the content of any 14:43:23
communications. He can testify as to whether we spoke 14:43:25
during the break. 14:43:28

MR. HUH: Regarding substance of his testimony 14:43:31
on redirect. 14:43:33

MR. SCHREINER: He can answer yes or no to that 14:43:34
question. 14:43:36

THE WITNESS: I can answer yes or no to that 14:43:39
question, Steve? 14:43:41

MR. SCHREINER: Yes. Yes, you can answer yes or 14:43:42
no to that question. 14:43:45

THE WITNESS: Yes. 14:43:46

BY MR. HUH: 14:43:46

Q But just to be clear, during the break you 14:43:57
discussed the contents of the redirect, correct? 14:44:02

MR. SCHREINER: I instruct the witness not to 14:44:08

answer. That's getting into the content, the actual content of the communications, Greg. 14:44:10 14:44:12

THE WITNESS: I'm going to follow my -- what Steve says. 14:44:20 14:44:22

BY MR. HUH: 14:44:37

Q Okay. During the break prior to redirect, did you discuss with counsel the substance of your testimony? 14:44:37 14:44:40 14:44:43

MR. SCHREINER: You can answer that. 14:44:47

THE WITNESS: I thought I answered that, but yes, before this redirect, I discussed the substance of my testimony. 14:44:48 14:44:53 14:44:56

MR. HUH: Okay. We'll rest here. 14:44:59

MR. SCHREINER: Okay. Thank you. 14:45:03

(Deposition adjourned at 2:45 p.m. EST.)

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CERTIFICATE

The State of Ohio,)
SS:
County of Cuyahoga.)

I, Denise M. Munguia, RDR, CRR, CRC, California CSR #14033, Michigan CSR #15974, a Notary Public within and for the State of Ohio, duly commissioned and qualified, do hereby certify that the within named witness, RAJEEV SURATI, Ph.D., was by me first duly sworn to testify the truth, the whole truth and nothing but the truth in the cause aforesaid; that the testimony then given by the above-referenced witness was by me reduced to stenotypy in the presence of said witness; afterwards transcribed, and that the foregoing is a true and correct transcription of the testimony so given by the above-referenced witness.

I do further certify that this deposition was taken at the time and place in the foregoing caption specified and was completed without adjournment.

I do further certify that I am not a relative, counsel or attorney for either party, nor am I under a contract, as defined in Civil Rule 28(D), or otherwise interested in the event of this action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at North Olmsted, Ohio, on this 5th day of December, 2024.



Denise M. Munguia, Notary Public
Within and for the State of Ohio

My commission expires May 23, 2025.

Ex.1026 / IPR2024-00353 / Page 117 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

A
A-D 95:10
a.m 1:20
ability 21:21 86:25 89:17
able 44:13 90:10 91:24 92:14 99:21 103:14
above-refere... 117:7,9
accepts 60:14
access 6:5 13:25 21:3 21:21 45:23
accessed 90:7
accessible 51:23
action 117:12
activates 95:4 95:5,6,7
actual 56:19 64:4 74:18 93:4,10 96:17 116:1
addition 19:24
additional 57:1 66:20 68:10 70:14 80:19 87:17 103:14
address 27:18 28:7
addressed 11:25
adjourned 116:15
adjournment 117:10
affirmative 98:14
affixed 117:13
aforesaid 117:6
age 4:12
ago 4:23 7:15 71:9
agree 4:5 5:18 6:17 7:2 43:15 83:12 97:23 99:12 110:21
agreeing 111:7
Ah 105:4
ahead 17:1 86:22
Air 5:25
Airplane 6:1
allow 16:15 60:23 63:7 96:12,21
allowed 16:20 52:17,19 100:11
allows 97:14
alphabetical 101:1
alternative 62:22 63:2
Amazon 72:14
ambitious 69:21
analysis 30:20
Angry 80:20 80:21,22 81:1,7,11,15 82:5,21 84:4 84:15 85:7
answer 5:15 5:18 11:9 12:11 16:9 16:10,16,17 16:20 19:6 20:7 32:11 33:7 34:19 35:10 41:20 49:3 51:16 53:14,15 54:13 64:25 66:11 98:12 98:16 115:10 115:15,17,19 116:1,9
answered 11:7 11:10,17,20 11:22 12:1,3 12:7,9 34:12 35:11 43:2 78:8 92:12 116:10
answering 11:2 64:23 73:13
anybody 27:3 36:11
anyways 76:21
apart 13:21
API 105:14
app 39:17 65:17 67:5 67:20,21,24 68:18,22 80:1 81:5,14 81:15,25 82:7,9 91:17 91:18,18 106:24 112:24
apparatus 57:24 58:1 59:24 60:2,6 76:10 77:24
APPEAL 1:3
appear 77:8 93:23
APPEARAN... 2:1
appears 65:16 68:7,20 82:11 86:25 99:10
Apple 37:23
application 44:2,14,19 45:9,24 46:5 46:15,16,21 47:13,16,20 47:21,23,24 48:6,18,20 50:4 51:5,9 52:6 53:12 53:17,23 54:3,8,16,19 54:23 55:9 55:16 56:10 56:15,15,17 56:19 57:1,8 57:9,11,21 58:3,6,8,12 58:14,15,17 58:19,23,23 58:24 59:10 59:12,23 71:16,22,23 72:10,16,17 72:18,22,23 73:17 75:2 75:15,25 76:17 77:11 77:23,25 78:2,23 84:11 87:13 87:14,19,20 87:24 88:1 91:16,19 92:2 102:6,7 102:14,14,17 102:17,22 103:3,4,6,7,9 103:15,18,19 105:10,11 106:1,7,10 106:10,16,23 110:11,13,16 110:20 111:8 112:15
application's 86:9
applications 21:23,24 39:11,18,20 40:6,14,20 40:24 41:22 42:8 43:5,8 43:16,18 44:20 45:5 45:14 46:19 48:3 55:1 56:21 57:13 57:14,22,23 57:25 58:4,9 59:6,23,25 60:3,3,7 72:9 72:13,21 73:17 74:5 75:3 76:25 77:6,23 79:3 79:5,8 80:9 80:16,19 81:8,11 82:6 82:9,17,24 83:20 84:15 85:7,10,12 85:14 86:19 90:12 92:23 103:25 104:4 104:7,11,13 105:3,19,22 106:13 108:8 108:15,19 109:2,15,20 110:25 111:1 111:25 112:5 112:6,13,22 112:25 113:3 113:6,9 114:4,14
applications' 86:18

applications,' 112:6
applied 30:20
apply 59:5
appreciate 32:10
apps 85:1
April 22:14
archive.org 22:9
area 31:2 64:11,11,19 65:5,15,17 65:19,21,25 66:4,15 67:8 67:11,15 68:17,21,24 70:11 71:4 77:9,17
areas 30:7
Argumentati... 41:2
art 8:5 27:14 27:16 28:5,8 28:15 29:8 30:22 33:1 59:16 60:25 62:14 70:19 71:2 88:25 90:19
artists' 99:10
as-of 38:19
aside 27:21 47:11
asked 11:6,17 11:20 12:8 34:16 37:6 43:2 53:7 64:9 85:13 92:12
asking 4:20 5:11 7:5 9:11 11:3,15 14:9 16:2,13 33:3 38:20 40:13 42:15,16,23 45:21,23 47:11,12 48:3 52:9,24 53:1 58:17 60:6 66:14 66:25 72:5 73:25 80:11 87:10 104:9
aspect 40:21
asserting 29:6 104:13
assertion 30:4
assignable 95:2
assigned 94:13,20,24 95:17
associated 106:3
assume 75:9
Atlanta 24:20
attorney 13:14 13:15 117:11
audio 97:25
August 27:25 28:5,14 30:15 31:7,9 32:17 37:4 38:1,2,6,24 40:7 41:10
authors 25:17
available 22:13 86:10 98:6 99:4,13 99:18
aware 6:13

B

B 94:7,10 95:5 95:16,20,23 96:1,4,7 97:5
B&H 20:24 21:20 22:9
B2 1:13
bachelor's 28:21
back 9:25 12:13,18,21 23:12 26:9 31:15 36:10 69:16 70:3 74:22 79:19 83:9 93:1 98:24,25 100:1,4,6 104:6,17
background 24:4 25:10
backwards 89:24
Bae 8:24 10:5 10:6 62:19
based 13:2 19:18 30:4 58:6,8 67:14 70:16 78:8 86:6 87:12 87:17 94:18 99:21 114:20
basic 55:21
basically 46:18 85:1
basis 13:2 74:19 104:12 105:2,18,20 105:20
Bates 93:12
behalf 2:2,6 4:9
Bejeweled 81:23 82:17 83:13
believe 4:22 7:11 8:21 9:8 10:9 12:21 12:25 14:12 17:25 18:2 18:15 19:17 21:6 22:7 27:2 30:18 32:18 35:13 35:20 44:4 54:25 55:19 66:6 76:13 76:14 97:8 113:10 114:20
Bell 24:19
better 36:24 47:20 72:6
beyond 54:11 81:11
big 19:17
Birds 80:20,21 80:22 81:1,7 81:11,16 82:5,21 84:4 84:15 85:7
bit 25:12 60:9
Blockbuster 108:11
Board 1:3 23:9 40:22 52:22
Board's 12:19
body 15:22
Book 72:13,18
books 25:11 25:14,18,20
books' 25:17
Boone 2:6
bottom 67:7 84:13
bought 24:20
Bounce 82:17 83:12
box 24:24 26:18,24 27:4 37:9,13 41:25 42:5 48:17 49:6 50:4,21 51:9 52:6 53:23 54:24 55:2,5 65:16
boxes 24:12 24:15 25:13 25:14,15 36:24
break 35:24 36:11,15 69:9,10,11 69:13,19 70:5 101:20 102:1 115:5 115:12,23 116:6
breaks 6:15
bring 15:5 83:15
broadcast 60:14 65:17 68:4,8,9
Brook 82:3
browse 45:6 89:17 91:23
browser 40:4 44:17,18 45:22 47:6,8 47:12 51:7 60:23 68:24 69:1 89:10 89:13,16,21 90:8,16,17 90:20 91:3 91:10,14,16 91:20,21 92:1,4,6,9,18 92:22 102:6 102:7,13,14 102:18,21,23 102:25 103:2 103:8,16,20 105:7,9,10 105:13,25

Ex.1026 / IPR2024-00353 / Page 120 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

106:1,1,4,5,6 106:17 109:6 111:8,19,19
browsers 89:20
browsing 89:17
built 113:23
button 76:14 80:15 94:1,2 110:20,24
buttons 47:8 93:24
buy 39:18

C

C 47:19 94:7 94:10 95:6 95:16,20,23 96:1,4,7 97:5
cable 25:11 51:25
cache 50:7 51:24
Calc 84:1,15 85:7
California 1:23 4:3 117:3
call 13:13 98:25
called 4:12 57:9 89:1 105:7
calling 95:11
calls 35:20 92:6 114:7 114:16
Calspur 81:16
capability 98:23
caption 117:10
card 60:17 64:11,19 65:5,13,14 65:19,25 66:4,15,18 66:20 67:11 67:15,19 68:11,12,17 68:21,24 69:6 70:11 71:4
Carmichael 2:2
case 15:8 26:16 29:6 49:12,14,20 54:22 82:11 93:25 102:24 110:17
cases 49:18 49:25 89:14
categorized 57:14,22
Catspin 81:19 81:23 82:18 83:13
cause 75:21 117:6
caution 9:13 14:16
CD 93:20
center 2:3 88:25 89:1,5 89:10 97:21 98:21 99:15 100:11 101:9 101:13,17 103:24 104:11,14 105:3 110:20
center's 98:7
certain 41:4
certainly 97:12
CERTIFICATE 117:1
certified 4:2 4:15
certify 117:5,9 117:11
cetera 17:7 26:5 37:11 37:25 89:18 90:11 97:3
change 67:20 67:23 68:12 95:6
changed 66:23 69:20 87:7
changing 68:3
channel 39:23 40:4 60:9,11 60:17,22,24 61:1,5,15,20 61:21 62:1,1 62:6,20 63:7 63:8 68:24 69:1
channels 60:12,16
characteristi... 87:25
chat 6:3
check 15:5,19 76:13,15 83:3
chips 59:3
choose 69:7 99:5,13 100:25
Chromecast 37:22
circle 82:5
Cisco 24:19
civil 4:13 7:14 7:16 117:12
claim 16:5 17:11 70:25 100:20 110:19 111:25
claimed 27:22
claims 17:5,12
clarify 6:22 16:4,6
clarity 18:22
clear 5:3 9:11 10:2 31:5 32:16 34:16 46:13,18 74:2 79:17 101:12 112:12 115:23
click 46:15
clicking 87:22
client 50:7
close 6:23 28:1 112:5
Coburn 62:19
COCOPD 81:16
code 42:2,4 45:16 47:19 47:21,23 56:2
codecs 98:24 99:19
column 80:24 81:22,25 82:3,7 83:17 84:2,8
Comcast 24:19
come 12:13 47:18 69:16 76:12 93:1
comes 80:15
coming 37:25
comment 9:23
commission 117:18
commission... 117:4
commit 51:21
common 81:8 81:12 82:22 82:25
communicate 5:23 6:17 7:3
communicat... 101:25 103:21
communicat... 6:2,23 115:11 116:2
company 24:19 25:2
complete 70:8
completed 117:10
completely 5:16,19
computer 28:22 30:10 47:21,23 100:5
computers 113:20
concerned 12:2 79:12
confer 6:9
configurable 70:14
configuration 90:9
configured 67:12 106:4
confirm 6:13 84:14
confirmed 80:9
conform 58:18
conforming 59:12
confuse 53:5
confused 80:14
connect 54:4 54:18

Ex.1026 / IPR2024-00353 / Page 121 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

connection 7:9
consent 4:10
consider 19:21 20:5 20:20,23 21:13 23:17 24:1,6 25:9
consideration 51:16
considered 18:6,10,25 19:3,16,22 19:24,25 20:7 24:2 25:5 59:9
consolidation 33:1
constraint 54:15
constraints 54:2
construction 16:5
construed 17:12
consult 6:14
containing 102:14
content 41:25 45:23 47:25 48:4,7,20,25 48:25 49:7 50:5,10,23 50:23 54:5,9 66:19 90:11 90:18 91:1,3 91:9 97:19 98:25 105:14 115:10 116:1 116:2
contents 95:5 115:7,24
context 32:20 32:21 56:20 62:5,11 64:10 73:13 95:4 102:18
continue 23:7
contract 117:12
contrast 112:5
control 17:7 47:6 61:2,5,6 61:8,21 89:16,21 90:8 91:16 91:20 92:22 93:8,15,24 94:12 105:10 105:13
controls 47:9 105:9 106:5
convergence 33:1
conversation 115:4
core 59:2
correct 4:23 4:24 5:9 6:6 6:15 7:3,20 8:15 9:12 10:3,6,11 12:15 14:25 15:4,9,10,12 15:15 17:9 17:14 18:7,8 20:1 23:15 25:5 27:19 28:5 29:11 29:20 32:17 32:23 33:14 34:2,10 35:16 38:9 39:11,21,24 43:16,19 44:2 46:12 49:8 50:24 51:7,8,12 52:7 53:24 58:4,9 59:6 60:4 61:23 63:11 66:1 68:15,19,25 70:14,21 77:7,11 78:11,15 79:3,6 81:9 81:12 82:10 84:2,5,16,17 85:8 87:15 92:18 93:10 94:17 95:18 95:21,24 96:2,5,8,14 96:20 97:11 97:15 98:1 98:21 99:5 99:11,15 100:12 101:13,17 102:22 104:18 112:13 115:24 117:8
corrections 102:2
correctly 95:15
correspond 82:6
corresponds 81:25
counsel 5:23 6:9,14,17 7:3 26:2 102:1 115:5 116:7 117:11
counterpart 43:19 51:11 52:7 53:24 54:9
counterparts 42:9 43:9,13
County 117:2
couple 107:2
course 6:12,16
COURT 4:1,11 21:5 57:16 57:20 98:10 98:15
CP 66:20,22 66:23,24
CPs 66:19
CPU 59:4
CRC 1:23 117:3
create 47:1 113:25
cross-exami... 6:24 7:2,4 114:20
CRR 1:23 117:3
CSR 1:23,24 117:3,4
cumbersome 61:17
current 68:17 68:21 78:3 114:5
currently 28:14 30:21 67:11
Cuyahoga 117:2
CV 23:21

D

D 3:1 94:7,10 95:7,16,20 95:23 96:1,4 96:7 97:6
dash 93:7
dash-11 93:8
dash-7 93:7
dash-8 93:7
dashboard 95:7
date 27:17,19 28:1,11 30:23 38:2 38:19,19 101:1
day 117:14
de 91:10,14
dec 16:3
December 1:19 117:14
decided 20:11
decision 12:19
declaration 7:20,22 8:6,7 12:14 13:24 14:11,18 15:3,6,12,14 16:14,23 17:17 18:3,7 18:10 19:9 20:4 23:12 23:14,19,24 25:23 26:5 27:6,23,24 31:16 34:6 34:18,21 49:2 55:11 59:22 63:18 70:25 75:8 86:14 95:14 109:5,12 112:3 114:19 114:24
declarations 14:17 16:12
default 95:1 98:8
define 37:10
defined 15:19 17:4 30:3 112:14

Ex.1026 / IPR2024-00353 / Page 122 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

117:12
defines 112:4
definitely 73:7 77:21 85:25
definition 30:19 54:21 86:13,18,24
definitions 15:21
degree 28:21
delete 86:25
deleted 87:7 87:14
deletion 78:2
delineation 102:5
Denise 1:23 4:1 102:2 117:3,17
depend 58:25
depending 62:5 66:5 67:16 69:6
depends 37:10 44:9 45:7
depicts 76:16
deposed 4:15 4:21 5:6
deposition 1:16 4:22 5:24 6:9,18 6:19 7:25 8:5 8:8,14 10:8 10:11 12:15 12:20,24 13:4,7,22,25 26:5 31:6 32:20 71:9 116:15 117:9
depositions 71:13
describe 21:19 34:4 105:8
described 18:16 37:1 46:6 52:2 79:14 90:9 101:10 109:11
describes 21:16 55:8 64:10 68:3 95:10 97:18
designed 54:16,19 96:19
desire 62:6
desktop 103:10
detailed 110:3 110:6
device 5:22 57:25 60:1 61:13 72:25 84:16 91:2,9 91:10
difference 91:24
different 31:12 42:3 47:7 59:2 69:6 74:9 95:8 96:20,21 101:13 113:24
differently 100:13
digital 22:8,13 24:24 26:18 26:24 27:4 88:7 94:19 97:1,5,10,14 97:17,18,25 98:20 99:15 100:10 101:9 101:12,16 102:20 103:24 104:8 104:11,14 105:3,5,19
Digital's 99:20
direct 19:10 61:23
directly 15:2 32:10 51:24 62:4 63:8 64:8 70:24 70:24 88:9
disagree 22:24 23:6
disclose 14:16 109:1 113:2
discloses 72:15 97:25
disclosure 67:14 70:21
discuss 27:13 27:14 109:16 110:12 115:7 116:7
discussed 28:12 34:21 42:1 63:17 73:16 84:4 86:16 115:8 115:24 116:11
discussing 36:16 47:16 70:5 100:23
discussion 26:9 46:25 55:8 71:10 108:22 111:24 112:21
display 47:5 57:23 58:1 59:24 60:2,5 66:4,21,24 66:25 67:12 67:15 70:14 76:10,16 77:24 95:9 95:17 96:13 96:22 110:24 111:18
displayed 66:21 77:25 95:12
displaying 40:6,13,20 40:23
displays 98:6 99:4 113:25
dispute 71:2,6 103:24 104:3 104:4,10,12 105:2,18
disputing 73:15 104:7
distinction 47:15
distinguish 45:13 106:9 106:11,12
distinguishing 51:6
Disturb 6:1
docket 14:7,7 15:1,2
Doctor 11:2,9 16:3,23 21:5 23:12 30:1,7 32:22 33:7 36:4 42:23 54:13 64:23 69:16
document 10:25 11:13 13:1,2 14:23 19:18 31:11 88:21,23 93:11
document's 13:2
documents 8:1,3 9:25 11:11 13:25 14:24 20:25 26:6
doing 24:4 25:9 26:12 26:16 75:9
Doodle 81:23 82:17 83:12
door 15:25
double 76:13 76:15
download 46:7 54:5,18 73:2 74:23,24 78:20 91:19 106:22,23
downloadable 60:2 109:17 109:20 110:10
downloaded 14:6 15:1 39:21 45:14 47:17 57:25 58:18,23 59:25 72:21 73:2,5,6,10 73:18 74:1,1 74:5,23 75:4 75:9,11,16 76:1,3 78:5 78:11,15 85:24 86:12 106:19 108:18 109:14 110:16,25 112:5 113:6
downloading 21:1,23 58:22 110:12
downloads

58:14 78:19
Dr 4:18 7:2 8:7 26:4 29:7,16 30:3,4,19 36:10 41:18 63:21 70:3 101:25 107:9 115:4
drafts 14:17
drawing 79:18
drive 2:3,7 98:7 101:14
driver 55:17 55:24 56:1,2 56:11
drivers 56:9,9
duly 4:14 117:4,5

E

E 3:1
e-mail 6:6,11
e.g 66:20 72:18
earlier 7:18 36:24 37:19 47:2,3
earliest 27:22
easier 105:2
easily 46:9 65:1 103:15
edits 18:1
education 28:16 30:22
effectively 65:20
efficient 62:5
eight 71:20
either 24:13 45:19 105:23 117:11
electrical 28:21 30:9
electronic 13:25
ELECTRONI... 1:6,6
eleven 71:20 71:20
embedded 103:17
encountered 30:25
engaged 7:9 7:14,16
engagement 7:8,12
engineering 28:21,22,22 30:9,10,11
enhanced 33:3 33:17,21
enter 61:16 63:7 89:17
entering 62:4
enters 52:2
entirety 9:12 12:17
entitled 27:21
equivalent 28:22
error 16:2,13 17:2,3
errors 15:14 16:2,8,13,18 16:22,22 17:14
ESQ 2:3,7
EST 1:20 116:15
et 17:7 26:5 37:11,25 89:18 90:11 97:3
event 22:8 117:12
exactly 37:2 89:2,4
examination 3:2 4:13,16 107:7 115:2
example 6:3 14:10 19:12 35:15 40:1 43:24 44:1 45:3 48:13 51:2 52:1 54:7 56:20 60:16 61:20 62:19 66:23 67:24 68:18 68:19,23 71:10 79:16 80:1,18,18 80:20 81:1 81:18,21 91:15 94:5 97:24
examples 60:2 62:18
exclamation 83:17
excuse 111:13
exhibit 11:12 15:3,7 19:25 20:23 21:3 21:13 22:1 22:12 23:21 88:6,8,12 111:22
exhibited 9:9
exhibits 3:5,6 9:6,9 20:3
exit 67:9
expands 80:13
expect 46:5 54:17 114:3
expected 109:15 110:11,15
experience 28:16,23 30:23
experienced 113:19
experiment 26:17
experiments 26:11,12,13 26:21,23 27:3
expert 29:1,10 29:14,20,25 30:2,14 31:7 31:9 32:16 35:7 37:5 40:6,13,23 41:4
expertise 30:7
expires 117:18
explain 21:17 59:10
explicit 26:12 26:17
explicitly 17:4 74:24 97:9 105:12
Explorer 103:9 103:10
extended 77:22,25 83:13
extension 79:13 80:15
external 57:25 60:1
extra 90:2 91:22 106:22
extremely 110:3

F

Facebook 21:22 108:11
fact 90:18 91:1
facto 91:10,14
factory 78:25 78:25 85:17
fair 31:14 35:18 38:3,4 38:11 39:8 62:22 63:1,2 65:19 70:11 76:23 78:12 97:8 98:4 102:6 110:23
false 32:3 51:18,22
familiar 30:24 31:1 113:11
far 5:6 12:2 79:12 102:12 103:21 106:23
faster 4:25
features 91:22 93:6
Federal 4:13
feel 19:18 23:10 83:16 110:6
felt 19:19
fewer 66:4
field 28:24 30:25 31:2
figure 39:6,6 39:17,17 40:2 55:8,13 55:15 56:4 56:17 57:7 60:4,18,22 63:18,19,21 64:4,7 65:13 65:22,23,24 67:2 68:22 68:23 69:1 70:6,13 71:10,15 72:15 76:5,7 76:8,9,9,11

Ex.1026 / IPR2024-00353 / Page 124 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

76:12,18,23 76:25 77:3,5 77:6,16,25 79:2,3,5,8,9 79:20,22 80:1,9,11,13 80:13,14,18 80:21 81:2,4 81:8,9,21 82:3,10,13 82:16,20,22 82:22,23,24 82:25 83:1,6 83:8,8,9,11 83:11,12,14 83:17,21 84:1,5,8,11 84:13,14,18 84:22 85:5,6 99:3 105:4 111:21 112:19 114:14
figures 81:12
file 98:1
filed 14:1,24 15:2 23:15 23:17
files 97:15,21 98:6,20 99:11,14 101:13
filter 95:5,9,21 96:13,23 101:2,10
final 14:18
find 60:21 73:9 90:16,18
fine 32:4 53:14 69:22 88:15
finish 16:10,20 16:24,25 41:15
finished 41:19
firmware 47:18 78:13 78:14,20,21 78:21,22,24 86:8
first 4:14 7:4 36:18 37:7 37:12 81:22 81:25 95:1,6 95:11 117:5
five 7:14 71:19 107:2
five-minute 101:20
Flickr 21:22
flip 10:19 63:22
focus 8:13 60:9
folders 98:7
folks 94:19
follow 79:24 116:3
follows 4:15
followup 107:2
foregoing 117:8,10
forgotten 53:8
form 14:3,5,7 24:16 25:6 25:25 29:3,4 29:12 30:8 32:13,24 33:8,15 34:3 34:11 35:17 36:20 37:15 38:10 39:3 39:12,25 40:8,15 41:2 41:23 42:10 42:17 43:2 43:10,20 44:3,22 45:1 45:11 46:3 48:1,9,22 49:9,15,22 50:13 51:13 51:19 52:8 53:25 55:6 56:23 57:3 58:10,16 59:17 61:12 62:3,16 63:12 64:12 70:15 73:20 74:7 78:16 79:7 85:15 90:22 91:12 94:15 97:16 102:8 104:5 104:16 110:5 110:14 111:8 113:17,21 114:6,15
formalities 5:1
formats 98:1,1
forth 26:9 29:7 29:16 41:18 42:19 83:9 112:24 114:23
forty 41:6
forward 27:13
four 71:19
fourth 12:9
Frame 84:10
framework 55:16 56:10 56:12,13,16
free 23:10 85:2 89:7
front 9:25 12:18 15:7 74:17
full 76:16 78:4
fully 42:8 43:5 43:8
Fun 84:1,15,25 85:7
function 93:23 93:25 94:7,9 94:14,24 95:10,16,20 95:23 96:1,4 96:7,11
functions 93:6 95:2,8 96:20 96:21
fundamental 53:16
funny 60:19
further 78:1 117:9,11
future 4:6

G

gears 88:6
general 25:21 39:4 53:11 53:16 56:15
generally 24:11 36:22 37:16 38:7 48:24 50:20 52:5 53:22 59:15 60:12 94:16
generic 102:25 103:2,8
genre 39:8
gentlemen 13:16
getting 50:8 107:14 116:1
give 15:16 22:20,25 31:21 40:22 49:25 51:15 61:22 65:1 77:19 79:23 88:4 91:15
given 108:25 114:12 117:6 117:8
global 35:21 35:21 36:16 37:7,8,17
go 4:25 5:1 12:21 15:25 17:1 23:12 31:15 47:8 61:21 64:13 65:7 67:24 74:21 80:21 81:21 82:13 83:9,23 84:13,18 86:22 88:6 89:7,24,25 93:1 96:22 97:6 102:24 102:25 103:10,11 104:6 106:4 109:7
goes 8:11 66:21 101:2
going 4:25 32:9 45:16 50:5,10 63:23 64:1 64:13 69:13 74:15 81:22 89:18 90:7 93:21 112:2 112:2 116:3
good 4:18,19 36:6 64:22 75:22 107:4
Google 24:10
gotten 78:15
graphical 34:1 34:6,7,9,13 34:14 35:7 35:16 37:13 38:5,8,23

Ex.1026 / IPR2024-00353 / Page 125 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

62:8,15,23 63:4,6
great 4:20 5:21 36:25 47:3 64:10
greater 66:24
Greg 22:21 52:9 66:12 90:24 104:18 116:2
GREGORY 2:7
gregory.huh... 2:9
guess 6:1,1 23:21 84:10 85:16,19 87:9 89:5 103:4 104:17
GUI 105:12
guide 40:2 60:17,23 68:24 69:1

H

hand 98:11 117:13
happen 75:21
happened 59:11
happens 48:12 52:1
hardware 22:10 56:3
Haynes 2:6
Headquarters 2:7
hear 57:19 98:11
help 67:9 86:13
helpful 63:10 63:13
hereinafter 4:14 33:20
hereunto 117:13
Hi 70:4
hold 39:5
holds 41:4
home 25:19 35:15,21 36:17,19 37:7,8,14,17 38:5,8,14,18 38:23 39:1,6 39:11 40:7 40:14,20,24 41:22 66:19 70:20 71:3 72:15 76:18 81:4
Hot 82:15 83:7 83:21 85:5
hour 69:22
hours 13:5,19 13:20,20,22
HTML 103:23
http 103:21
Hub 22:8,13 88:24
Huh 2:7 3:3,4 4:8,17 6:25 9:17,22 10:1 10:18,22 11:1,8,18,22 11:24 12:5 12:10 14:20 16:11,17,21 20:22 21:10 21:25 22:4 22:11,18,22 23:1,4,7,11 24:23 25:8 26:10 29:9 29:18,23 31:4 32:14 33:6,9,13,18 34:8,15 35:2 35:14,19,25 36:2,4,6,9 37:3,20 38:12,21 39:9,19 40:3 40:12,18 41:8 42:6,14 42:22 43:3 43:14,23 44:10,24 45:8,20 46:10 48:5 48:16 49:4 49:13,19 50:2,18 51:3 51:17 52:4 52:11,15,19 52:23,25 53:3,6,10 54:6,12 55:10 56:25 57:6 58:2,13 58:20 59:14 59:20 61:19 62:7,21 63:14 64:14 66:13 67:22 69:10,15,19 69:22,24 70:2,18 71:1 73:22 74:10 74:13,20 75:1,13,23 79:1,15 86:2 90:25 92:3 92:15,25 94:22 97:20 98:19 99:2 100:16 101:20,22,24 102:15 104:25 106:25 107:4 108:22 109:8 109:18,21 110:5,14 111:7,24 112:21 113:17,21 114:6,15 115:3,13,22 116:5,13
Huh's 114:20
huh-uh 21:7
human-com... 28:25 30:12 31:3
hundred 99:23 110:1

I

icon 110:9,10 111:18
icons 108:10 108:14,18 109:1,5,14
idea 55:15 60:13
identified 57:7 60:15 67:3,4 67:4
identify 23:14 75:14,24 89:9,12,13 89:13 92:8
II 18:12
illustrate 76:11 80:19
illustrated 60:3 70:13 72:10 77:6 79:3 81:2,4,9 82:10,16,23 84:1,5 85:6
illustrates 68:18 93:14
illustration 68:22
IM 83:16
image 44:16 57:23 58:1 59:24 60:1,5 68:4,8,9 76:10 100:23
imagine 109:22
implement 38:5,23 41:9 41:21 43:8 44:14 45:19 70:20 71:3
implementat... 47:12 61:22
implemented 41:24 45:5,6 50:21 59:15 89:16 92:21 92:22,23 102:21
implementing 45:18
imprisonment 32:4
improper 9:19 9:23 22:4 23:2,8
include 17:6 18:18 57:1 58:3,12,21 60:3 71:22 77:23 78:1 79:9 102:18
includes 13:20 13:23 58:9 59:23 65:17 65:25 72:16 102:7
including 21:21 63:18 71:4
incorporated 42:4

Ex.1026 / IPR2024-00353 / Page 126 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

incorrect 114:21
independent 44:16,17,18
indicated 94:8
indicates 108:4
indicating 108:13,17
info 60:14
information 38:9,13,25 39:24 42:4 110:24
infrared 93:19 94:3
initially 59:21
input 61:13 62:9,15,24 63:6
inside 67:21 91:20 92:9 103:17 105:10
installed 47:18 77:6,11,18 77:21,21,24 78:7,10 79:5 79:13 80:8 80:16,19 81:1,9 82:10 82:16,25 83:21 84:11 84:16 85:5,8 85:11,12,14 85:18,19,20 85:22 86:1 100:6 101:16 101:18 103:25 104:7 104:11,13 105:3,10,19 105:22,23,24 106:2 108:14 109:2
installing 78:24 85:1
installs 78:22
instance 102:20
instances 63:10
instantiated 91:22
instantiating 90:7,8
instruct 103:13 115:9 115:9,25
instructed 27:24 102:24
integrate 43:5
integrated 42:8 43:9 51:10 54:3
integrates 52:7 53:23
intelligent 30:14 31:7,9 32:16 33:2 33:17
intended 94:13
intent 96:11
interact 56:21 90:1
interaction 28:25 30:13 31:3
interacts 53:13,17
interchange... 35:22
interested 117:12
interface 35:16 37:13 38:6,8,24 42:3,4 43:18 44:15 47:2 54:17,21 56:2 94:18 96:18
interfaces 31:2 34:1,7,7 34:10,13,14 35:7
internal 99:9
Internet 45:22 49:8,21 50:6 50:23 51:24 52:3 54:3,4 54:18 90:4,5 90:17,19 91:2,10 103:8,9,10 108:5 111:3 111:10,16 113:25
Internet-bas... 90:12
Internet-cap... 54:16
interpret 46:14 86:15,17 97:12
interpretation 87:12,18,25
interrupt 9:18
interrupted 16:16,19
interrupting 53:3
invention 27:25 28:11 30:21,24
IP 2:2
IPR 7:8,10,13 7:22 14:1 24:5 27:5 31:12 35:12 38:16 40:17 40:19 66:8 74:9
IPR2024-003... 1:12 15:8
IPRs 7:15
issue 22:21,25 42:20
issues 24:4
item 71:11 72:10 78:2 94:5,6 98:5 99:4
items 67:23 71:23 72:17 72:18,20,22 72:23 73:17 73:23 74:4,4 75:2,15,25 76:15 77:11 77:22,24 78:10 82:15 83:20 87:2 93:21
IV 27:15,16

J

January 7:18

K

keep 114:4
kernel 55:17 55:18,20 56:2
keypad 61:3,4 61:9,22 62:18,20,23 63:3,4,6
keypads 61:11
keys 94:8,10 94:14,24 95:10,16,20 95:23 96:1,4 96:7,11,19
Kim 8:17,19 10:2,3 39:6 55:15 56:21 60:8,18,20 60:22 63:15 63:18 64:10 67:25 71:14 71:24 72:1 72:15 75:14 75:19 76:5 79:2 92:4 106:24 111:21 112:19 113:2 113:8 114:3 114:14
Kim's 60:4 65:5,25 66:3 66:14 67:14 70:6,11,20 71:3
kind 22:5 24:12 25:15 25:21 36:25 37:9,24 39:6 53:8 82:4 103:15
kinds 24:12,21
knocking 15:25
know 4:21 6:5 8:22 10:14 10:15,17 12:4 14:12 17:19 19:21 20:4,15 22:1 24:11,12,13 24:15,17,18 24:21,24 25:16 26:4 29:13 36:22 36:23,25 37:8,18,19 37:22 38:17 41:3 45:3,13 47:4,9,17,19

48:12 49:12 49:17,17 50:3,3,14,15 51:14 53:15 53:21,22 55:18 56:14 59:8,9 61:17 62:1 63:17 64:11 67:23 68:6 70:23 71:25 72:25 73:4,6,14 75:19 76:6 78:17,19 79:10 84:20 85:17,23 89:2 91:22 99:20 100:18 103:20 106:21
known 38:5,8 38:13,23 39:10,23 60:25 62:14 62:17 70:20 71:3

L

labeled 93:5 93:12
labels 93:23
larger 77:9
lawful 4:12
layer 57:8,9,11 57:21 58:3,6 58:8,12,15 58:19,24 59:23
leading 14:18 109:8,18,21 110:14 113:17,21 114:6,15
led 33:2
left 93:21
left-hand 71:21 94:8
let's 13:24 18:3,21 23:12 27:6 27:12,12 31:15 45:3 47:7 60:9 63:15,18 64:20,20,21 69:17 71:8 76:5 79:16 79:22 81:13 81:14 83:7 83:23 88:6 88:17 93:1 101:20 110:9 111:10,15
letting 16:17
level 27:14,16 28:4,8 29:7 31:1
LG 1:6,6 41:4
licensed 4:2
life 46:16
limitation 110:21
limitations 94:17,21 96:16 100:20 110:19
limited 44:13
line 52:9 70:8 73:14 78:25 78:25
lines 71:20
link 46:22 79:19
links 47:2
Linux 113:23
Lippman 29:7 29:16 41:18
Lippman's 8:7 26:4 30:3,4 30:19
list 18:6,24 19:16,17,23 108:4,7
listed 18:11 19:12 23:25 66:22
litigation 7:14 7:17
little 4:25 25:12 60:9 61:16 65:16
Live 22:8,13 88:24
LLP 2:6
local 14:10 46:12 97:14 97:19,21 98:7 100:6
located 38:13 38:25 45:10
logging 73:11
logic 59:5 79:24
login 67:9
logistically 5:22
long 7:5 9:8 13:18 36:4 100:3
look 10:13,24 11:5 12:21 14:6 19:10 19:20 20:16 21:17 38:17 39:5 64:2,5,7 67:2 71:14 76:5 79:22 82:12 86:14 88:21,21 94:5 96:16 99:3 101:4 105:4,15 111:10,15
looked 8:6,8 9:9,24,24 10:13,16,16 11:11,14 12:3 19:5,20 20:11,15,16 24:9 25:12 63:24 89:6 90:15,16
looking 14:23 24:11 26:2 26:25 61:18 64:8 71:19 72:4 77:15 89:14 90:6 91:24 92:13 92:17 102:12 105:16,21 111:3
looks 81:19
lot 24:20 26:7 26:9 39:7 59:19 71:12
lots 48:11,15
louder 57:18
lunch 69:10

M

M 1:23 117:3 117:17
machine 85:16 85:24
main 20:5,5
mainstream 89:12
maintain 9:21
majority 65:20
making 21:22 22:5 23:8 106:15
man 53:5
mandatory 72:16 73:25 74:4 75:2,15 75:25 112:22 112:25 113:8 114:4,13
manual 9:4,7 10:10,11 11:4,16,19 12:6 26:25 88:7,24 89:15 92:1,9 92:17 93:2 93:14 95:10 97:5,11,14 97:17,25 101:11 105:5 107:10 108:13,17,25 109:16,25 110:4,11 111:3,13,16
manually 86:20 87:1,4 88:3 112:7 112:11,17 113:9
manufacturer 78:15,19,22 78:22
Map 84:7,16 85:7
marked 3:5,6 112:22
material 24:3
materials 18:6 18:9,25 19:2 19:16 23:15 23:17,25 24:3 25:5,9
matter 29:1,25 30:2
Mazon 72:14 72:18
mean 10:13 11:10 14:6

Ex.1026 / IPR2024-00353 / Page 128 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

19:6 20:3,24 21:15 22:16 23:21 28:19 29:13,14 35:10 36:22 38:16 39:4 39:13 40:16 41:3 42:18 43:11,12,13 43:21,24 46:20 48:2,6 48:11,12,13 49:10,23,23 50:14 51:18 53:11,14 57:4 58:21 63:24 67:23 71:5 74:11 74:21,25 75:8 78:17 78:18 80:7 85:23 87:9 89:2,3,19,23 90:4 91:17 92:4 93:7 96:15,19 97:19 99:19 100:13,19 102:9,11 109:22,25
meaning 15:19 15:23 18:12 86:19
meanings 17:6
means 6:2 87:19
meant 32:21 47:15 60:19 80:3
mechanism 49:1 98:25
mechanisms 86:10
media 22:8 51:23 54:16 54:18 88:24 89:1,5,10 97:21 98:7 98:21,21 99:1,15,18 100:2,4,10 100:11 101:8 101:9,12,15 101:16 103:24 104:11,14 105:3
MediaOne 24:19
meet 13:6,9,12 13:16 30:5 41:5
meeting 13:18 100:20
memory 24:14 24:22
mentioned 20:18 56:12 62:8 63:19 86:4 108:21 108:21
mentions 64:17
menu 71:16,22 71:23 72:10 72:16,17,18 72:20,22,23 73:17 75:2 75:15 76:15 76:17 77:23 78:1 92:21 95:3,5,6,6,7 95:9,12,21 96:14,23 97:2,2 105:6 107:11 111:4 111:11,11,16
merit 41:19
met 13:10 29:19
method 76:11
Michigan 1:24 4:3,4 117:4
microcontro... 113:24
middleware 55:17 56:5,7 56:11
mind 31:16 69:20 72:5
mine 26:8
minimum 29:17,19 41:5
minus 77:3
minute 88:4
minutes 13:19 13:21 36:5 107:2
Mischaracte... 29:21 92:19
misheard 104:18
mode 6:1 95:9 95:17 96:13 96:22
modify 87:19
moment 8:10 14:15 15:24 34:5 51:21 76:19 94:25 94:25
months 7:15
morning 4:18 4:19
mouth 98:11
move 53:15
MPEG 99:22
multicore 59:1
MultiMedia 1:9 7:9
multiple 65:25 66:15 67:3 67:12
Munguia 1:23 4:1 117:3,17
music 72:13 72:18 95:3,9 95:24 96:14 96:23,23 98:3,6,20,24 99:9,11,13 99:25 100:4 100:7,11,21 101:7,7 112:24
musics 99:4
mute 16:3

N

N 3:1
name 4:1 25:2 89:4
named 117:5
names 25:17 99:11
navigate 100:25
necessarily 49:2 75:19
need 15:25 41:4 47:3 61:17 81:13 86:11 87:22
needs 54:20 113:12
net 69:4
NetCast 65:17 66:20 67:4 68:18,22
Netflix 43:24 44:1,2,8,16 45:4 46:20 47:5 48:4 108:11 110:9 110:10,13
network 22:8 58:1 60:1
networking 28:24 30:12 31:3
never 52:2
New 83:23 84:14,15 85:6,7
nine 71:20
nondepositi... 6:20
nonnumeric 61:4
normal 90:11
normally 91:23
North 117:13
notary 4:3 117:4,17
notification 113:14
number 15:8 20:3,12 42:20 61:3,8 61:11,16,18 61:22 62:4,8 62:15,23,24 63:3,4,6,7 66:22,24 78:3,4 98:5 99:24 108:1
numbering 93:4,11,12
numbers 61:25 93:5,8
numeric 62:18
numerous 82:24

O

oath 5:9,14 31:24 32:2,6
object 52:8,11 60:17 64:11

Ex.1026 / IPR2024-00353 / Page 129 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

64:19 65:5 65:15,19,25 66:4,5,15,18 67:4,5,8,10 67:11,15 68:17,21,24 70:11,15 71:4 74:8,19 78:1,2
objection 4:6 6:22 9:18,19 9:21,22 10:12,21,23 11:6,6,17,20 12:8,8 20:21 21:14 22:2,5 22:15 23:2 24:16 25:6 25:25,25 29:3,3,12,21 30:8,8,16 32:13,24 33:8,8,12,15 34:3,11,23 35:9,17 36:20,20 37:15 38:10 38:15 39:3 39:12,25 40:8,15,25 41:23 42:10 42:17 43:1,1 43:2,10,20 44:3,7,22 45:1,11 46:3 48:1,9,9,22 48:22 49:9 49:15,22 50:13,25 51:13,19 52:8,14,16 52:18,20 53:25 54:10 55:6 56:23 57:3 58:10 58:16 59:7 59:17 61:12 62:3,16 63:12 64:12 66:12 67:17 70:22 73:20 74:7 75:5,18 78:16 79:7 85:15 90:22 91:12 92:10 92:19 94:15 97:16 98:22 100:15 102:8 104:5,5,16 104:20 109:8 109:18,21 110:5,14 113:17,21 114:6,15
objections 22:5 23:8
objects 65:14 66:1,4,15,20 66:22,23,24 67:3,7,8,12 67:15,16,19 67:21 68:11 68:12,18 69:6 70:14 71:4
obtain 47:24 48:6,20 50:5 50:22 101:13
obtained 90:18
obtaining 91:1 91:2,9
obtains 49:6 54:9
obviously 8:10
off-the-cuff 51:16
off-the-fly 50:1
office 1:1 117:13
oh 7:6 13:12 15:19 25:2 34:25 36:14 41:14 47:14 65:7,10 71:25 72:6,6 73:24 74:15 74:15 77:15 78:8 80:13 80:25 87:21 89:11 93:6 98:13
Ohio 4:3 117:1 117:4,13,17
okay 5:4,5,8 6:5,8 7:6,19 7:25 9:20 11:15 12:13 14:9,14,21 15:3,6,11 16:8,24 17:17 18:3,5 18:21 19:15 20:18 23:13 23:13,22 27:6,8,18 28:4 29:24 31:5,23 32:12 33:19 34:9 35:4,5,6 37:12,21 38:1,4 39:2 40:19,22 41:14 43:18 43:25 45:21 46:1,2,11,23 47:11,22 48:8,19 50:19 52:5 53:7 57:7 60:15 61:6 63:16 64:4 64:22 65:3,8 65:11,13 67:13 68:1,4 68:5 69:13 70:19 71:14 72:8 76:12 77:19 79:2 79:16,20,21 80:1,4 81:6 81:21 82:9 82:12,19 83:20 84:12 84:22 85:4 86:3,21,22 87:2,12 88:6 88:8,11,16 88:19,20 89:6 90:3,12 93:1,3 95:15 96:11 101:21 102:4 104:22 105:4 107:1 108:10 111:10,12,21 111:23 113:11 116:6 116:13,14
Olmsted 117:13
on-screen 62:18,20
one-hour 69:19
ones 14:23,24 18:11 73:21 73:25 82:15 82:22 85:2
online 102:3
open 21:11 27:25 83:9 83:12 86:9 88:8 96:22
opened 85:21
operating 55:21 92:24 99:20 100:9 105:12 113:12,23
operations 91:25 95:12
opine 43:21 48:12 49:17 50:1 78:19
opined 53:4 75:7 100:18
opinion 22:17 22:20,25 29:15 30:17 30:18 33:4 38:18 40:10 40:17 42:12 42:13,15 49:11 50:1 51:15 59:9 66:8 68:6 102:12 103:2 114:19
opinions 23:18 24:7 26:8,8 100:20 114:23
optional 72:13 72:17,20,22 72:23
options 101:2
order 62:2 78:10 101:5 114:12
ordinary 15:18 15:22 17:6 27:14,16 28:15 29:8 30:22 113:11
organize 101:4 101:7
original 93:11
OS 55:17,18

55:20
outside 26:25
overly 69:21
Owner 1:10 2:6 4:9 23:15 23:18

P

p.m 116:15
page 10:3,5,10 10:16,19 11:4,16,19 12:6 17:18 17:18,18,21 21:19 22:7 27:6,10,13 31:15,18,23 71:18 78:3 88:17,19 93:2,5,11,12 97:24 100:22 105:5 107:9 107:22,23,25 108:2 110:9 111:4,11,16
pages 9:25 78:4 88:18 93:10,11 110:1,7
Pandora 108:11
panel 36:16
paragraph 18:3,6,13,24 19:23 21:19 23:15,16 24:2 27:18 28:7,10 29:5 30:4,18 31:20,24 32:25 33:23 33:24 41:6 55:7,11,14 56:4 57:8 64:15 65:8 67:24 68:2 72:2,4,12 77:22 78:9 86:14 95:14 96:10 112:3
paragraphs 18:16,22 23:25 41:17 70:16
paraphrasing 110:23
parentheses 28:1,1
part 7:4 11:11 19:16 21:17 50:17 67:1 83:13 88:13 88:15,17,19 100:9
particular 26:16 38:18 40:17 45:6 45:15,25 47:19,24 48:13 56:3 58:19 61:15 62:6 75:7 96:22,23 102:24 103:1 103:5,11,12 103:18 106:13,14,15
particularly 48:14 96:17
parties 4:5
parts 8:6 69:4 88:12
party 117:11
Pass 115:1
passage 75:24 112:3
patent 1:1,3,10 1:13 2:6 4:9 7:10,23 15:8 15:22 17:4,8 19:12,14,14 19:25 23:15 23:18 27:19 29:2,10,25 30:3 32:22 33:14 35:20 38:20 61:3 62:12 63:24 66:10 71:18 86:19 102:18 112:4,14
patents 26:15
PCs 113:11
PDF 14:3
people 27:1 31:1 59:19
percent 99:23
perform 26:11
periodically 114:4
permission 113:14
permit 114:13
permitted 6:23
person 71:2
personal 113:20
personally 24:25 41:21 42:2
persons 70:19
pertains 32:22 33:14,16 40:19
pertinent 20:16 110:19
petition 19:8,9 20:4,8 21:17 26:2,3
Petitioner 4:8 18:9,24 19:3 88:25 97:9 106:25
Petitioner's 19:16
Petitioners 1:7 2:2
Ph.D 1:17 3:2 4:12,16 107:7 115:2 117:5
phone 5:25
photo 21:20 22:9
photos 95:3
phrase 86:4
Pickens 13:12 13:14
picks 51:25
picture 60:21 96:9 99:6 105:6
pictures 27:1
piece 45:9
pieces 20:16
place 7:12 42:12 57:13 89:12,23 117:10
placed 58:15
places 42:20
plain 15:18,22 17:6
plan 6:21
Plano 2:8
play 97:18 98:3,20,23 98:25 99:14 99:22,25 100:4,6 101:7
played 97:15 97:22 101:15
player 42:2 98:21 99:1 99:14 100:4 100:10 101:8 101:15
players 99:18 100:2
please 8:14 9:17 11:24 14:15 16:9 16:15 17:19 18:4 21:11 22:5 31:16 53:20 57:17 57:18 63:15 76:5 82:13 88:7 93:2
PLLC 2:2
plurality 71:22
plus 76:24 77:2 80:12 80:14
point 35:24 80:18 83:17
pop 103:11
popular 21:21
portion 77:5
portions 89:7
posed 22:21
POSITA 29:6 29:15 30:19 38:4,22 42:19 75:20 89:14 90:5 92:13 105:15 105:20 108:24 109:5 113:5 114:3 114:8,11
position 106:6
possession 26:20
potentially 39:22 55:16
precisely 94:19
preinstalled

21:24 59:6 59:11 75:11 85:25 86:4,6 86:17,19 87:13,18 88:1 106:20 110:25 111:25 112:4 112:13,15 113:3
preparation 7:25 10:8,11 12:14
prepare 8:14 12:23 13:6
prepared 13:22 14:18 23:24
preparing 12:19 13:3 18:7,10
prepping 8:4
presence 117:7
present 33:10 39:10,23 68:10,19 84:25
presented 24:4 62:11 76:24
presenting 68:23
press 76:14,24 80:12,14
pressed 93:20
pressing 62:1 95:4,5,6,7
presumably 85:19
presumption 60:13 61:14
preview 64:21
previous 31:6 34:19 71:9 74:3,8
previously 60:15 73:10
primary 8:5,15
prior 8:5 31:12 32:20 35:12 38:2 41:9 88:25 90:19 115:5 116:6
priority 27:17 27:19,22 28:1
Privilege 14:19
probably 5:7 6:5 49:25 63:23 91:25 106:19 107:2
problem 36:2 69:14,15 83:5
problems 30:25
Procedure 4:14
proceeding 14:1
product 14:19 21:16,16
products 22:10 37:24
program 97:5
programs 99:25
promise 64:1
prompt 114:12
provide 54:20
provided 4:13 15:23 21:16 41:6,22 88:25 94:19
provider 22:10 48:7,25 49:7 50:11,23 51:11,23,25 51:25 53:13 53:18 54:2 54:20,22 105:14
providers 66:19
provides 45:17
providing 29:15 54:2 54:15,16
PTAB 23:2
PTE 1:9
Public 117:4 117:17
punishable 32:4
purchase 22:7 22:14 85:18
purchased 85:21
purpose 94:9
purposes 27:23
pursuant 86:18
pushed 41:25
put 5:25 37:24 47:9 83:1 91:15 101:14

Q

qualifications 30:5,6 41:5
qualified 117:4
question 11:2 11:3,10,15 12:3 16:8,16 16:17 22:21 29:24 31:8 33:7,10 34:17,24 35:11 38:24 40:19 41:20 44:12 49:3 50:10 53:8,8 53:17,19 54:10 58:22 60:6 64:1,23 65:4 66:14 67:14 78:5,7 86:1 98:14 102:16 104:6 104:12,18 115:16,18,20
questioning 52:9 70:9 73:14
questions 5:12,15,18 7:5 20:7 32:9 32:11 52:24 53:2,12 63:23 65:1 107:3
quite 62:25 71:12
quote 52:3 112:4,5,7

R

RAJEEV 1:17 3:2 4:12,16 107:7 115:2 117:5
ratings 101:1
RDR 1:23 117:3
react 91:18
read 9:12 10:3 10:5,10,14 10:15,19,24 10:24 11:3 11:14,16,19 12:4,4,6,12 19:4 20:10 20:12,15 27:23 63:24 68:2 70:17 77:19 81:17 95:13,15,16 98:15,17 112:2
reading 20:8 59:22 71:24 71:25 72:2 88:5
real 46:16
really 20:6 25:19 91:4,7
realtime 55:22
reason 34:16 50:17
reasonable 30:20 81:10 114:9
reasons 75:22
rec 69:4 78:3
recall 17:15 23:23 24:10 25:17 26:12 26:16 36:16 36:18 37:1 40:9 44:12 67:5 70:6 71:9,13 73:1 73:4 107:11 108:22 111:7 111:24 112:10,21
Recess 36:8 70:1 101:23 107:6
recognize 22:12
record 5:2,5 17:10 23:7 27:23 74:14 98:17
redirect 115:5

Ex.1026 / IPR2024-00353 / Page 132 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

116:6,11
reduce 62:1
reduced 117:7
refer 72:6 105:7
reference 8:11 8:17,19,24 9:1,5,12 10:2 10:3,5,6 11:4 11:13 18:17 20:24 21:23 60:18 71:14 71:24 72:1 93:5
referenced 13:1,1 20:6 20:25 21:15
references 8:5 8:12,15 19:5 19:7,10,18 19:19 20:9 20:10 21:20 26:4 53:2
referencing 93:9
referred 18:17 19:8 65:8 103:16
referring 14:22 19:13 25:3 74:8 92:1 106:3 112:19
refers 92:9 108:4
refresh 24:13 24:22
regard 29:7 33:4 38:16 42:21 45:12 102:2
regarding 6:11 28:4 35:12 71:10 115:13
regular 69:11
relate 110:20
related 25:14 28:25
relative 117:11
relevant 19:20 20:12
remember 8:9 21:6 36:21
remote 1:16 2:1 17:7 61:2 61:4,6,8,21 62:23 63:3 93:8,14,17 93:24 94:11 95:11
remotely 4:7
removed 86:20 87:3 88:2 112:7 112:11,16
render 22:17 45:17 49:11 90:19 91:2
rendered 38:17 40:16 42:11,13,15 51:14
rendering 23:18 24:6 40:10 91:20 103:20,22,22
renderings 105:7
renders 44:15 44:16 105:11
reorganized 100:21
reorganizing 100:11
repeat 53:19 53:20 63:1
rephrase 91:8
report 8:10 76:22 96:10 100:18,20
Reporter 4:1,2 4:11 21:5 57:16,20 98:10,15
represent 72:20 73:17 74:5 75:3 78:2 108:14 108:18
represented 109:14 110:10
representing 109:1,6
represents 66:19 78:3 94:7 111:19
reprogram 96:12
reprogramm... 95:8,11,17 95:21,24 96:2,5,8,20
request 27:3
requesting 113:14
require 55:9
required 41:18 85:18
requirement 29:17,19 87:17
requirements 87:9,11 112:14
requires 5:15
research 24:4 25:10 28:16 30:23
resembled 90:17
reservation 69:4
resize 68:7,9
resized 68:5
respect 7:8 29:15 53:18
respectfully 22:24 23:5
respective 109:7
response 26:6
rest 79:18 105:14 106:25 116:13
restate 53:9 74:2 111:15
results 26:23
review 8:17,19 8:24 9:1,4,7 12:19,23 19:14,15 26:23
reviewed 8:1,3 8:5,6,15 9:6 12:14,17 15:11 18:16 18:18,19
right 7:1 8:12 8:13 25:4 31:21 34:20 35:3 36:3 38:22 39:10 39:20 40:20 43:24 45:23 46:13 50:3 54:9 57:10 57:19 58:21 59:15 60:11 60:17 62:2,9 62:15 64:8 66:15 67:2 67:11,12,16 68:12 69:3,5 69:5,7,21 72:21 73:18 74:3,6,17 75:2 76:20 77:16 79:11 80:7,9,12,14 80:17 81:3 81:12 82:2 82:23,25 83:14,18,22 85:11,14 86:16 87:21 90:13 93:15 95:4,13 96:6 97:4,7,22 98:8 99:8 100:2,7,17 101:5,9 102:16 106:2 106:17 107:20,22 108:10,11 110:1,2 111:17 112:9 112:18
Robert 13:12 13:14
Rock 81:16
row 80:23 83:21,23,24 84:13,15,18 85:6
rule 91:14 117:12
Rules 4:13
run 91:16,17 92:24
running 45:16 45:16 59:3
runs 106:10

S

safe 46:11
Sage 81:16
sales 21:20
saw 17:15

saying 16:24 16:25 18:15 27:11 34:22 37:4,6,11 46:23 47:1,6 47:10 48:3 50:12,17 64:7 67:19 74:22,24 77:13,16,17 80:7 86:23 87:22 94:17 104:15 107:19
says 17:8,18 23:16 29:5 41:18 57:13 66:21 68:7 71:21 74:16 75:20 76:9 77:22 86:16 95:19 100:25 101:6 116:4
scalable 42:1
scaled 68:5
scheduling 55:22
Schreiner 2:3 3:3 4:9 6:22 9:13,16,21 10:12,21,23 11:6,17,20 11:23,25 12:8 13:10 14:15 16:9 16:15,19 20:21 21:14 22:2,15,20 22:24 23:3,5 23:10 24:16 25:6,25 29:3 29:12,21 30:8,16 32:13,24 33:8,12,15 34:3,11,23 35:9,17 36:20 37:15 38:10,15 39:3,12,14 39:25 40:8 40:15,25 41:2,23 42:10,17 43:1,10,20 44:3,6,22 45:1,11 46:3 48:1,9,22 49:9,15,22 50:13,25 51:13,19 52:8,13,17 52:21,24 53:1,4,25 54:10 55:6 56:23 57:3 58:10,16 59:7,17 61:12 62:3 62:16 63:12 64:12 66:12 67:17 69:25 70:15,22 73:20 74:7 74:19 75:5 75:18 78:16 79:7 85:15 90:22 91:12 92:10,12,19 94:15 97:16 98:22 100:15 102:8,10 104:5,16,20 107:1,5,8 109:13,19,24 110:8,18 113:18 114:2 114:10,18 115:1,9,15 115:19,25 116:9,14
schreiner@... 2:5
Scientific-At... 25:3
scope 22:15 22:18,22 23:1 30:16 32:7 35:9 38:15 39:3 39:14 40:8 40:15 42:10 42:17 43:2 43:10,20 44:3,6 48:1 48:10,23 49:9,15,22 50:13,25 51:13,19 53:25 54:11 55:6 58:10 58:16 59:7 59:17 62:16 66:12 67:17 70:22 73:20 74:7 75:5,18 78:16 96:13 96:15 98:22 100:15 101:8 102:10 104:21 113:17,21 114:6,15
screen 35:15 35:21 36:17 37:14,17 38:5,8,14,23 39:1,7,11 40:7,14,20 40:24 41:22 42:1,5 46:20 47:8 66:20 66:22 70:20 71:3 72:15 73:7 76:16 76:18 78:4 81:5 90:2 95:12 97:3,6 98:6 100:14 102:13 107:13
screens 36:19 37:7,8 38:18 97:2
scroll 69:5
se 44:19
seal 117:13
Search 112:24
sec 64:18
second 15:17 15:17 16:1 19:11 20:2 21:18 22:3,6 23:20 31:21 34:25 39:16 41:7,11 50:8 57:12 64:16 65:1 66:16 72:11,23 77:12,15,18 77:19 79:23 82:7 84:2,7,8 93:6 98:2 104:22,24
section 8:10 16:5,6 18:12 18:12 27:15 27:16 32:3 66:17 86:16
sections 34:5
see 18:25 27:15 28:2,8 28:16 31:25 45:2 46:14 46:19,20,23 51:20 56:5 63:19 64:20 64:20 66:16 68:14,15 77:3,9 80:2 80:20,21 81:5,13,14 82:1,7,15 83:18 84:7,8 84:10,20,20 84:22 88:12 89:25 90:10 91:23,25 98:5 100:22 101:2 107:19 108:1 112:25
select 60:10 60:16,24 61:1,5 62:6 62:20 95:5 96:23
selected 66:19 76:17
selecting 61:25
selection 39:24 60:9
sense 39:4 80:6 87:21
sentence 90:21,23 91:4
separate 13:21 59:2 103:23
September 17:24
series 108:10
server 105:15 112:7
service 45:15 45:19,25 46:5 47:19 47:24 49:7 51:5,11 53:13,18

54:2,3,20 95:9 103:7 105:6 106:9 106:9,14,22
services 45:4 45:4 89:15 90:5,5 92:21 96:5,14,24 97:2,6 103:5 106:11 107:10 108:5 111:4,11,16
set 29:16 31:12 41:5 41:18 42:3 42:18 105:8 114:23 117:13
set-top 24:12 24:15,24 25:13,14,15 26:18,24 27:4 36:24 37:9,13 41:25 42:5 48:17 49:6 50:4,21 51:9 52:6 53:23 54:23 55:2,5
sets 29:7
Setting 27:21
settings 37:17 95:11
setup 95:9 96:8,14,25
seven 71:20
share 14:16
shortcut 94:7 94:9,24 95:10,16,20 95:23 96:1,4 96:7
shortcuts 94:11
Shorthand 4:2
show 38:18 62:19 67:10 69:6 73:7 74:15 76:10 89:25 103:12 103:13 106:5
showing 64:6 100:13 105:9
shown 62:6 65:13,14 80:13
shows 21:15 22:12 39:18 47:9 55:15 60:22 67:2 68:22 69:1 89:22,22 91:18 93:8 99:9 105:6 107:10 108:10
side 71:21 93:21 94:8
sign 17:24 76:24 77:2,3
signature 17:18,22 18:1 31:18
similar 31:13 32:21 35:12
simple 11:3 29:24 53:12 66:14 80:17
single 10:14 59:3 66:22 66:25
sir 11:19 12:6 23:13 41:13 57:16 62:10 69:23 98:10
six 7:14 47:7 71:20
size 66:5,10,23 67:16,20 68:3
skill 27:14,16 28:5,8,15 29:8 30:22 31:1
skilled 70:19 71:2
skills 29:16
skip 27:13
smaller 66:24
smart 32:22 33:2,5,14,17 33:20 34:1,7 34:9,13 35:8 36:16,19 37:5 42:7 43:4,7,15 44:2,13,15 44:21 45:9 45:10,18,22 46:8,12 47:4 48:17 49:6 50:4,21 51:9 51:10 52:6 53:23 54:8 54:24 55:2,5 58:4 60:10 60:13,16
smartphone 91:19
Smile 84:25
SMS 84:25,25
SNA 84:22,22
SNS 72:14,19
so-called 33:2
software 21:23 28:21 30:10 45:5,10,14 46:11 49:5,6 50:21,22,22 51:5,6,10 52:6 53:22 54:8 55:4 56:8 86:9,17 86:19 87:13 87:13,18,24 88:1 100:6 100:10 101:16,18 108:14,18 109:2,15,20 110:10,25 111:1 113:12 113:15
something's 102:13
sorry 15:24 18:14 19:9 21:5 23:20 25:3 26:1 30:3 41:7,12 41:17 44:17 57:5,16 60:19,21 63:1 64:3 65:7,11 69:20 72:3 77:16 78:22 80:22 83:4 86:22 88:4 89:21 90:24 91:4,7,17 94:1 98:10 98:10,13 104:8,16,20 107:21
sort 56:8 77:17 95:4 98:24 101:10
sorting 101:1
sources 101:13
speak 57:17 57:17
speaking 9:18 36:23 37:16 38:7 50:20 52:5,15,19 52:23 53:6 53:22 55:11 93:4
spec 64:2,5
special 47:19 47:20
specific 11:15 47:23 48:6 49:6 50:20 51:1,5,6,15 52:5 53:22 60:10 61:25 63:7 72:2 92:23 103:6 103:7,17 106:14
specifically 45:15,24 46:4,6 92:24
specification 32:21 35:12
specifications 31:13
specified 117:10
speculate 9:14 50:16
speculating 89:3
speculation 114:7,16
spelling 17:14
spend 13:3
spent 30:11
spoke 32:19 36:11 115:11
square 65:18 82:5
SS 117:2
stack 55:5 59:12
stand 114:23
star 81:23

82:17
start 83:7 88:14,15,17 89:20 107:9
started 7:15 36:23 59:21
state 28:10 52:13,17 117:1,4,17
stated 59:22 60:5
statement 51:18,22
statements 32:3
states 1:1 98:6
stenotypy 117:7
step 18:21 47:11
Stephen 2:3 9:17,17 10:22 11:24 22:4,18 33:9 52:11,11,16 52:20,23 53:6
Steve 115:18 116:4
stop 11:24 22:5 52:12 52:23 53:3,6
storage 21:24 99:9
Store 39:18 65:18 67:5 67:20,21,24 68:19,22 80:2 81:5,15 81:15 82:1,7 82:10 106:24 112:24
stored 57:15 57:23 58:1 59:23 60:1 112:6
strike 43:6 58:7 108:24 111:6
stuff 21:1 24:13,18 25:11 39:7 55:23 90:2
subject 29:1 29:25 30:2
submit 74:10 74:11,14,18
submitted 7:22 14:19 19:2
substance 115:13 116:7 116:11
suddenly 106:22
Suite 2:3,7
supplement 16:12
supplementi... 16:18
supported 97:25
supporting 26:4
Surati 1:17 3:2 4:12,16,18 7:2 36:10 63:21 70:3 101:25 107:7 107:9 115:2 115:4 117:5
sure 6:12 14:12,21 17:1,9,20 20:2,13 21:2 22:16 27:10 29:14 31:17 31:22 32:5 33:11 35:23 35:25 36:2 38:7 41:16 48:17 49:18 50:15,16 51:2 57:4 58:12 64:19 65:2 66:8,10 67:1,6 68:1 69:10 72:25 72:25 73:6 74:20 82:4 85:20,22 88:10,15 89:8 90:14 91:6,8 92:7 93:16,19 96:15,18 99:1 100:1,5 100:9,19 101:14,19 106:11,18 112:1 114:1
surprise 73:9 73:12
swearing 4:6
switch 60:12 61:15 84:20 88:6
sworn 4:14 117:5
system 41:9 41:21,24 42:5 55:21 59:1,1,3 78:24 86:10 90:10 92:24 97:18 99:20 100:8,9 101:19 104:9 105:13 106:2 110:15 113:12 114:3 114:13
systems 28:24 30:12 31:3 99:25 113:24

T

tab 76:15
take 7:12 23:8 35:24 45:3 52:21 69:9 69:12 71:14 79:16 101:20 107:1 110:9
taken 5:15 36:8 70:1 101:23 107:6 117:9
talk 7:19 20:25 33:20,22 34:6 37:17 45:19 47:7 49:2 56:9,11 95:1 105:14 110:16
talked 66:9 71:8 114:12
talking 11:24 36:13 52:12 59:12 73:19 73:21 99:6 104:3
talks 56:11 61:4 66:18 110:23
taught 97:13
teaches 75:15 75:24
teaching 97:10
teachings 97:4
technologies 1:9 7:9 28:25
television 17:7 28:24 30:12 31:2 33:21 44:2 65:20 76:25
televisions 30:14 31:7,9 32:17 42:8 43:5,8,15
tell 15:25 53:14 75:10 89:3 91:24 92:14,16,20 99:21 102:12 103:10,11,15 105:6,16,21 105:23 106:23
ten 36:5 71:20
term 86:15 111:25
terms 8:4 17:3 21:1 59:1
terrible 65:6
testified 31:6 38:22 51:4 73:10 107:10
testify 27:22 115:11 117:5
testimony 6:11 6:14 8:7 16:18 22:19 22:23 28:4 31:5 40:23 58:6,8 59:21 74:3,8 108:25 109:4 109:10 115:13 116:8 116:12 117:6 117:8
Texas 2:8
text 24:3 25:5 25:9
thank 4:11,20 5:21 7:7 21:8 25:4 32:15 36:3,7 57:18

Ex.1026 / IPR2024-00353 / Page 136 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

69:23,24,25 72:8 101:22 107:25 116:14
Thanks 107:5
They'd 92:2
thing 6:20 15:16,20 25:16 46:15 46:20 59:2,5 61:18 75:7 75:11 76:15 79:12 82:12 96:24,24,24 96:25 105:22 114:1
things 5:2 9:8 14:6 17:7 19:8,11,13 20:5,8 21:1 21:17 24:21 25:20 31:13 37:10,22,23 37:23 44:14 45:13,17,18 46:13 47:4,7 55:22 56:9 57:2 58:25 92:21 94:11 94:20 96:17 103:14 105:1 105:16 106:3 113:22,25
think 7:14,18 8:8 12:4,12 14:13 15:16 15:18 17:2 18:13 19:4 19:12 20:6 24:8,25 25:2 26:14 31:13 32:25 33:16 34:4,4 35:10 35:13,18 36:22 37:18 38:11 40:11 42:1,11,19 42:21 44:23 45:12 48:2 49:24 53:11 53:16 55:3,7 55:25 57:9 62:17 63:25 64:9 66:9,18 69:9,12 71:5 71:7,7,16 72:12 75:6 76:18 77:1 78:8,12,18 78:18 79:10 81:10 82:2 84:17 85:4 87:11 89:2 93:19 94:16 94:17 96:9,9 97:8,17,19 98:14 99:8 99:22 102:11 103:5,6,8 105:5 106:8 109:9 114:8 114:8,17,17
thinking 67:18 69:10
third 11:21 80:23,23 82:3
Thirteen 72:3
thought 17:5 41:12 116:10
thousands 88:18
threads 55:22
three 9:6,8,9 9:25 11:11 68:19 71:19 82:6 88:12 89:7 105:16 109:25 112:14
thumbnail 46:24
tie 79:18
tied 79:11,11
ties 79:2,19
time 4:5 11:21 12:9 13:3 16:12 27:25 28:11 30:21 34:25 37:7 37:12 42:20 47:2,4 50:8 69:16 99:18 99:23,24 117:10
times 5:5
Title 32:3
today 5:9 8:1 32:6 63:20
today's 5:24 10:8,11 12:15,20,24 13:4,7,22,24
told 9:20 12:3 102:25
top 56:15 67:9 71:21 77:2,5 80:8 92:24 108:1
total 78:4
totality 8:20 9:2,5,7,11 11:12 15:11
TRADEMARK 1:1
training 28:23
transcribed 117:7
transcript 74:18
transcription 117:8
transmission 25:20
transmit 93:19
transmitter 94:3
trend 33:1
TRIAL 1:3
triangle 82:5
trouble 65:12
true 59:4 61:24 117:8
truth 117:6,6,6
truthfully 5:16 5:19
try 4:25
trying 8:8 24:8 24:22 26:14 36:21 46:16 46:18 47:12 53:5 60:21 63:22 64:25 67:1 80:5 90:15 102:5 106:8
tuners 25:15
turn 13:24 17:17 18:3 27:6,12 63:15,18 64:15 111:21
turned 75:12
TV 22:13 25:15 33:20 36:16 37:23 39:21 40:1 44:13 44:15,16,21 45:9,10,18 45:22 46:8 46:12 48:4 48:17 49:6 50:4,21 51:9 51:10,23 52:6 53:18 53:23 54:8 54:24 55:2,5 58:4 60:13 60:16,23 61:14 68:24 69:1
TV's 60:13
TVs 32:22 33:2 33:2,3,5,14 33:17,17,17 34:1,7,9,13 35:8 36:19 36:24 37:5 46:8 47:4 60:10
twelve 13:5
twenty 79:10
two 28:23 30:11 54:4 65:7 67:4,19 68:18 71:19 87:2 106:12 109:25
type 38:13,25 42:20 46:5 55:22 61:2 89:23 113:25
types 30:24 38:9 99:17
typical 49:12
typically 54:20
Tysons 2:4

U

U.S 1:13
U.S.A 1:6
uh-huh 6:10 8:16 18:23 20:19 21:4,6 21:7,12 28:9 31:19 61:10 62:13 70:10 70:12 77:10 82:14 83:25 84:6,19 86:5

Ex.1026 / IPR2024-00353 / Page 137 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

87:5 88:22 93:13 95:25 107:15,24 108:6 109:3 111:5,14 112:20,23 113:1
UI 103:23
Ultimately 26:8
unclear 17:9
underneath 99:4
understand 5:8,11,14 7:21 32:2,6 42:19,24,25 47:13 51:4 62:25 63:21 75:20 87:3 89:14 90:15 90:24 102:5 109:5 113:5 114:11
understandi... 42:7,16,23 43:4,7 44:20 44:25 46:25 47:13 55:1,4 55:13,24 65:4 66:3,7 72:9 86:3,7 90:6 93:17 94:23 99:17 102:17
understood 17:10 47:15 50:19 64:9 69:8
unfair 53:5
UNITED 1:1
unspecified 74:8
updatable 46:8
update 87:1,22 87:23 113:13 113:14 114:4 114:13
updated 87:4 88:3 112:8 112:12,17 113:9
updated.' 86:21
updating 110:16
URL 47:9 89:24 90:8 102:24 103:1 103:11,12,18 105:8 106:3 106:5,14
URLs 108:21 109:6
use 27:24 34:14 44:13 49:12,14,18 49:20 54:4 61:11 62:20 90:10 97:18 105:13,13 113:19
user 31:2 34:1 34:6,7,9,13 34:14 35:7 35:16 37:13 38:5,8,23 39:23 42:3,4 45:2 47:2 56:21 58:14 63:7 72:21 73:11 74:6 74:23 75:4,9 76:1,4 85:11 85:12,12,14 85:17,19 86:20 87:4,8 87:14,19 88:2,24 89:13 94:13 94:18 96:12 106:14 110:3 112:11,16,17 113:9,13 114:11
user-deletable 57:24 59:25
user-installa... 57:24 58:9 59:24
user-undelet... 57:14,22
users 46:14
users' 85:10
uses 35:21 93:19 103:21
USPTO 14:25
utilize 34:1 39:10 62:14 62:23 63:3
utilized 34:9
utilizing 58:23 63:3

V

V 86:16
vague 20:21 21:14 22:2,4
vaguely 71:13
various 38:9 71:4 97:25 99:4,10
verify 81:13
version 14:10 14:10,24
versions 14:17 14:22
versus 45:15
vertically 81:22
video 22:9 95:9 96:2,14 96:24 103:22
video/AV 22:10
videos 95:3
view 45:23 50:8 95:6
viewed 101:1
viewing 65:20
views 76:10
Virginia 2:4
VLC 99:22
vs 1:8

W

waive 4:5
walk 83:2 88:18
want 14:21 17:9 45:13 48:14 49:25 50:15 51:15 51:21 52:12 52:22 61:15 61:21 64:2 69:15 70:8 79:17,17,24 83:2,9 86:3 86:22 87:3 88:8,14 89:6 98:25 101:5 101:5 106:12
wanted 16:4,6 20:16 47:14 83:15
wasn't 9:22 47:3 60:19 85:20 112:12
watching 61:20 67:11
way 5:2 23:1 45:19 46:19 47:20 50:3 50:16 54:19 59:18,19 61:23 62:5 69:5 72:6 73:14 75:20 75:21 79:14 81:14 84:2 90:10,11 91:5 92:14 92:16 105:1 105:8,23 106:8,16
ways 48:11,15 60:10,15,25
WD 9:4,7,16 10:10,10 11:4,12,16 11:19 12:6 92:8,17,24 93:2,14 94:19 95:10 107:10 108:13,17,25 109:15 110:11 111:3 111:11,13,16
we'll 12:13 23:5 74:10 74:11,14,18 88:18 116:13
we're 7:19 14:21 104:3
web 47:6,8,12 49:1 51:6 54:21 89:10 89:16 91:17 91:17,18,20 91:21 102:6 102:7,13,14 102:18,21,23 102:25 103:2 103:16,20 104:8 105:14
web-based 42:9 43:9,12

Ex.1026 / IPR2024-00353 / Page 138 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

43:19 51:11 52:7 53:13 53:24 54:9 54:22 90:11
webpage 21:20 44:15 45:6,16,17 46:22 89:22 89:25 90:1
webpages 43:12
website 20:24 21:20 90:7
websites 21:21 24:3,6 45:23 109:7
Weed 81:16
Weekly 83:7 83:21 85:5
weeks 4:22 71:9
weight 40:22
Welcome 36:10 70:3
well-known 22:9
went 81:14 103:18
Western 22:8 22:13 24:24 26:18,24 27:4 88:7 97:1,5,10,14 97:17,18,24 98:9,20 99:14,20 100:10 101:9 101:12,16 102:20 103:24 104:8 104:10,13 105:3,5,18
Westwood 2:3
whatsoever 26:13
WHEREOF 117:13
window 6:3 103:14,21
withdraw 33:12 44:6
witness 4:7 9:13,15,20 9:24 10:13 10:24 12:2 14:16 16:9 16:15 21:9 21:15 22:3,6 22:16 24:17 25:7 26:1 29:5,13,22 30:9,17 32:25 33:11 33:16 34:4 34:12,25 35:10,18 36:1,3,5,7,21 37:16 38:11 38:16 39:4 39:13,15 40:1,9,16 41:1,3,24 42:11,18 43:11,21 44:4,8,23 45:2,12 46:4 48:2,11,24 49:10,16,23 50:14 51:1 51:14,20 53:7 54:1 55:7 56:24 57:4,19,21 58:11,17 59:8,18 61:13 62:4 62:17 63:13 64:13 67:18 69:12,17,20 69:23 70:16 70:23 73:21 74:11,21 75:6,19 78:17 79:8 85:16 90:23 91:13 92:11 92:13,20 94:16 97:17 98:13,18,23 101:21 102:9 102:11 104:6 104:17,22 109:9,22 110:6,15 113:22 114:8 114:17 115:1 115:10,17,21 115:25 116:3 116:10 117:5 117:7,7,9,13
wondering 88:13
word 10:14 14:5,10 15:21 35:21 87:6 90:16
words 17:11 24:10
work 14:19 26:15 28:16 30:23 44:21 69:18
worked 26:2 36:18 37:7 37:12
working 7:15 14:10,16,22 28:23 30:11 36:23
works 93:18 106:22
world 83:13 84:7,16 85:7
wouldn't 73:12 76:3 91:23 91:25 92:14 99:21 103:14
write 12:25 42:2 54:23 56:14 91:18
written 45:14 45:24 46:4,6 55:2 56:2 92:23 105:12
wrong 81:14
wrote 25:23 103:19
WTV 22:8 88:24

X

X 3:1
Xfinity 24:18

Y

yeah 6:19 7:6 8:9,16 9:15 9:24 10:13 10:24 20:2 20:12 22:16 25:4,7,15 33:11 34:25 37:24 38:7 39:15,22 40:1,16 41:3 42:11 43:11 43:21 44:4 44:23 47:14 48:11,13 49:16 50:14 51:20 54:1 60:22 63:2 64:8,16 66:16 72:3 74:21 75:6 76:7 78:17 79:25 80:3 80:25,25 82:2,8 83:4 83:15,19 85:3,9,9 87:16 88:13 91:13 92:20 93:10 94:1 94:25 95:22 96:15,21 99:8,24 100:3,8,19 100:24 101:3 101:18 102:11 105:20 107:1 107:23,25 109:23 113:22
year 7:18
years 28:23 30:11
yep 9:3 31:19 70:7 77:4 84:3,9 95:19 107:16
Yesterday 13:17
YouTube 21:22 48:18 48:21 49:7 50:4,22 51:1 54:8,15
YouTube-sp... 49:5

Z

Zero 81:16
Zombie 82:6
zoom 81:15

0

0277 66:17

1

1 88:17,19

Ex.1026 / IPR2024-00353 / Page 139 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

93:22
1.5.2 110:21
10 18:16 23:15 23:16,25
100 61:21
1001 19:13,25 20:4 32:3
1005 63:15 71:25 111:22
1006 88:7
1024 20:4,18 20:20,23 21:3,11,13 22:1
106 95:1
107 3:3 95:14
109 96:10
11 18:16 24:2 93:2
11:39 69:9
115 3:4
12 13:20,22 18:13,17 55:8,13 56:4 56:17 57:7
12:40 69:17,21
126 17:18,21 31:23
1300 64:19 65:3,15
1305 67:8 71:11,15,22 72:10 73:17 74:4 76:17 80:3,8,12
1306 72:17 73:24 75:3 75:25
1307 72:17 73:24 75:3 75:25
1308 72:18,20 73:23
1309 72:17 73:24 75:3 76:24
1310 65:14 67:10
1315 68:3
1320 65:14 66:18
1330 65:14
14 27:13 60:18
14033 1:23 117:4
15 71:18
15974 1:24 117:4
16th 17:24
17 38:6,24 40:7 41:10 94:5,6
17th 22:14 27:25 28:5 28:14 30:15 31:8,10 32:17 37:4 38:2
18 32:3 93:22
186 86:14
19 60:4,22 63:18,19,21 64:7 65:13 65:23,24 67:2 68:22 70:6,13 71:10,15 72:15 76:18 76:23 77:7 77:25 79:3,5 79:8,9,20,22 80:1,11,14 81:4,9 82:10 82:23
1905 79:10 80:5
193 21:19
198 67:25

2

2 33:9 61:20 81:23 82:17 83:13,17 98:5 99:4 108:1
2:45 116:15
200 2:7
2000 37:18
2005 37:19 38:1
2008 15:3,6,7
2009 23:21
2011 22:14
2012 27:25 28:5,14 30:15 31:8 31:10 32:17 37:5 38:2,6 38:24 40:7 41:10
2012ish 37:1
2013 37:1
2024 1:19 117:14
2025 117:18
204 55:7,12,14 56:4 57:8
2109 77:3
2110 77:5 112:22,25
214 64:15 65:10,11
215 72:7
2150 77:9,14 77:15,17,23 80:8
216 65:9
22 39:6,17
22182 2:4
23 68:23 69:1 70:6,13 117:18
24 84:23
242 31:24
25 82:13,16,20 82:24 83:8,8 83:12,21 84:14,18 85:5,6
254 7:10,23 19:25 27:19 29:2,10,25 30:2 32:22 33:14 35:20 61:3 62:12 86:18 102:18 112:4,14
261 77:22 78:9
270 2:3
28(D) 117:12

3

3 13:19,20
30 5:7 13:19 13:20
300 110:6
300-page 9:16
33 76:11
34 76:5,7,8,9,9 76:12,25 77:3,5 79:2 79:11 80:10 80:18,20,21 81:2,8,22 82:3,23,25 83:1,9,14,17 84:1,5,8,11 111:21 112:19 114:14
35 76:9 77:16
36 76:10

4

4 1:19 3:3
40 27:18 41:17 72:12
41 28:7
43 28:7 29:5 30:4 41:17 41:17
44 28:10 30:18 41:18
45-minute 69:13
46 32:25 33:24
48 97:24,24 100:22

5

5 27:10
550 57:8,9,11 57:21 58:3,8 58:15,24 59:23
56 112:3
5th 117:14

6

6 27:10
6000 2:7

7

7 27:7,10
703.646.9250 2:4
75024 2:8
76 107:9,23
77 105:5 107:18,22,25 110:9 111:4 111:11,16

8

8607 2:3

9

9 18:4,6,16,24 19:23 23:25
9,055,254 1:13 15:9
9:19 1:20
972.739.6900

Ex.1026 / IPR2024-00353 / Page 140 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.

2:8

Ex.1026 / IPR2024-00353 / Page 141 of 142
LG Electronics, Inc. et al v. Multimedia Technologies PTE. LTD.