UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DISH NETWORK L.L.C. AND
DISH TECHNOLOGIES L.L.C.
Petitioners,
V.
DIGITAL BROADCASTING SOLUTIONS, LLC,
Patent Owner.

Case IPR2023-00977
U.S. Patent No, 9,538,122
- - -
April 25, 2024
- - -

Oral deposition of IMMANUEL FREEDMAN, Ph.D., held in the offices of Esquire Deposition Solutions, 1835 Market Street, Suite 500, Philadelphia, Pennsylvania 19103, commencing at 9:06 a.m. on the above date, before Teresa M. Beaver, a Professional Court Reporter and Notary Public.

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- - -

I N D E X

WITNESS PAGE
IMMANUEL FREEDMAN Ph.D.
BY MR. WILLIAMS 5

E X H I B I T S

MARKED DESCRIPTION PAGE
None

DEPOSITION SUPPORT INDEX

Direction to Witness Not to Answer
Page Line Page Line
None

Request For Production of Documents
Page Line Page Line
None

Questions Marked
Page Line Page Line
None

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- - -
IMMANUEL FREEDMAN Ph.D., after having been duly sworn, was examined and testified as follows:
- - -
EXAMINATION
- - -
BY MR. WILLIAMS:
Q. Good morning. Can you state your full name, please?
A. Immanuel Freedman.
Q. And you've been deposed before; correct?
A. Correct.
Q. Do you know how many times?
A. Certainly more than ten.
Q. Do you recall the last time you were deposed? Well, when was the last time you were deposed?
A. A few months ago.
Q. All right. Is there any reason you can't testify truthfully or accurately today?
A. No.

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Q. If you don't understand any of my questions, you'll let me know. Otherwise I'm going to assume you understood them. Okay?
A. Fine.
Q. All right. I'm going to hand you what was previously marked as Exhibit 2008.
A. I could ask if you could please speak a little more loudly.
Q. Sure. While we're at it, I'm going to hand you what's been marked as Exhibit 2006.
Can you look over those documents and let me know if you recognize them?
A. Yes, I recognize them.
Q. Okay. Starting with exhibit, the one that's marked Exhibit 2006, can you just tell me what that one is?
A. It's titled Declaration of Immanuel Freedman in Support of Digital Broadcasting Solutions, LLC's Patent Owner Response.

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Q. And this declaration was submitted in IPR 2023-00976. Is that correct?
A. According to the document.
Q. The front of the document references patent number 8,929,710.
Do you see that?
A. I see that in the header of the document.
Q. Are you familiar with that patent?
A. I have reviewed that patent.
Q. During today's deposition, I may refer to that as the '710 patent.
Do you understand what I'm talking about if I do so?
A. Yes.
Q. Okay. Great.
This is your declaration; correct?
A. This is a declaration that I have made.
Q. On the last page, Page 68, there's a signature there. Is that your

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signature?
A. That appears to be my signature.
Q. Do you have any reason to believe that's not your signature?
A. No.
Q. Do you recall signing this document?
A. Yes.
Q. Is this document, to the best of your recollection, truthful and accurate?
A. May I ask a clarification question? Do you mean are the contents truthful and accurate or do you mean that it is a truthful and accurate copy of my document?
Q. Fair question. Are the contents truthful and accurate?
A. To the best of my knowledge.
Q. When is the last time you reviewed this document?
A. I reviewed the document yesterday evening.
Q. Was there anything in the document you noticed that you'd like to

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1 change?
2 A. No.
3 Q. Let me ask you to look at the
4 document that's been marked as Exhibit 2008.
5 This bears the same title,
6 Declaration of Immanuel Freedman in Support
7 of Digital Broadcasting Solutions Patent
8 Owner Response; correct?
9 A. Yes.
10 Q. And this document that was
11 captioned in IPR 2023-00977; correct?
12 A. According to the front of the
13 document, yes.
14 Q. And then under that there's a
15 patent number listed 9,538,122.
16 Do you see that?
17 A. Yes, according to the header.
18 Q. Are you familiar with that
19 patent?
20 A. I've reviewed that patent.
21 Q. And today I may refer to this as
22 the '122 patent and you'll understand what
23 I'm talking about?
24 A. Yes.

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1 Q. I'm going to ask you again, is
2 this your declaration?
3 A. It's a declaration that I have
4 made.
5 Q. And on the last page there's a
6 signature. Does that appear to be your
7 signature?
8 A. That appears to be my signature.
9 Q. And any reason to think that's
10 not your signature?
11 A. No.
12 Q. Do you recall signing this
13 document?
14 A. Yes.
15 Q. And when is the last time you
16 reviewed this document?
17 A. Last night.
18 Q. Is there anything in the
19 document that you think needs to be changed?
20 A. No.
21 Q. And again, do you believe the
22 contents of this document are truthful and
23 accurate?
24 A. I believe they are truthful and

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1 accurate to the best of my knowledge.
2 Q. So I'm going to ask you to turn
3 in Exhibit 2006 to Paragraph 22.
4 A. Yes. I'm at Paragraph 22.
5 Q. This paragraph identifies a few
6 documents that you reviewed. The list you
7 identify here as the '710 patent, the
8 prosecution history of the '710 patent and
9 various prior art and technical references
10 from the time of the invention.
11 Do you see that?
12 A. Yes.
13 Q. And the next paragraph you say
14 you reviewed all of the papers and exhibits
15 in the record for IPR proceeding 2023-00976.
16 Do you see that?
17 A. Yes, I do.
18 Q. Okay. Other than the things
19 that are identified in those two paragraphs,
20 was there anything else that you considered
21 in preparing these declarations?
22 A. Not that I recall.
23 Q. And the various prior art and
24 technical references that you mentioned, are

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1 those all documents that are exhibits or
2 papers in the proceeding or would it include
3 other materials?
4 A. It's intended to cover the
5 materials that are exhibits in the
6 proceedings and no other documents.
7 Q. Thank you. What about in the
8 other exhibit, 1008? You have similar
9 paragraphs in that declaration.
10 A. May I correct the record,
11 Counsel?
12 Q. Okay.
13 A. You said Exhibit 1008. It is
14 2008.
15 Q. It is 2008, yes. You have
16 similar language in Paragraphs 22 and 23.
17 Do you see that?
18 A. I see that.
19 Q. Again I guess the question I
20 would ask is: Were there any other prior art
21 and technical references that you reviewed or
22 sorry, that you considered in preparing your
23 declaration besides the ones that are of
24 record in the IPR proceeding?

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A. No.
Q. Can you describe for me, without revealing any communications you had with counsel, the process for reviewing these declarations?
A. Yes. It was a collaborative effort in which counsel provided some information. I reviewed it. I provided further information. Counsel reviewed it again.
Q. Did you have conversations with counsel before you saw an initial draft of the declaration?
A. I seem to recall that the conversation with counsel that were held previous to that included interview, that to me being retained and the drafting of the engagement letter and some preliminary. And counsel outlined their general theory of the case. I commented on the general theory of the case after having read the -- after having read the patents-in-suit.
I reviewed whatever counsel provided. I cannot recall if counsel

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provided a preliminary claims chart or not. But nonetheless, whatever there was, I reviewed. Retained counsel provided a draft. I reviewed it. And we worked back and forward until I was satisfied with it. I tell literally every counsel who retains me that I will only sign a document if I truly believe every word in it.
Q. Okay. Do you recall approximately how many hours you worked on this matter prior to signing these declarations?
A. I'm sorry, Counsel. I don't recall. I worked on a number of cases recently and I would have to look at my billing records to be sure.
Q. When did you begin preparing for today's deposition?
A. A couple of days ago.
Q. Can you describe for me generally what you did to prepare for today's deposition?
A. Oh, I had brief conversations with counsel and we agreed that I would

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primarily prepare by self-study.
Q. And what was the self-study that you did?
A. Self-study included rereading the patents-in-suit, rereading the declaration, rereading the patent owner, rereading the petition, rereading the prior art that had been referenced in the declaration.
Q. You said primarily prepared by self-study. Was there any other preparation that you did?
A. Brief conversation -- simply brief conversation with counsel in which we agreed that that would be the best approach.
Q. Okay. And you said brief. Less than an hour?
A. I think we're speaking about less than 15 minutes.
Q. Okay. Fair enough.
In your declaration, you say you're charging an hourly rate in this IPR.
Can you tell me what that is, approximately?

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A. Okay. For this type of work, and these type of clients, I'm currently billing $450 an hour for all hours associated with the case.
Q. Okay. Other than preparing -- the process of preparing these declarations and preparing for today's deposition, have you had any other work in connection with these IPR matters?
A. Sorry, I don't quite understand your question, Counsel.
Q. Yeah. I guess I'm just trying to figure out if you have spent time on these matters other than the time you spent preparing the declarations and then the time you spent preparing for today's deposition?
A. Oh, no.
Q. Prior to this matter, were you familiar with Digital Broadcasting Solutions?
A. You mean --
Q. The company.
A. The company, no, I had never encountered them before.
Q. What about Dish Network? Were

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1 you familiar with Dish Network?
2 A. Only by reputation.
3 Q. Prior to this matter, have you
4 ever done any expert consulting work in
5 matters involving Dish Network or Dish
6 Technologies?
7 A. I believe I haven't.
8 Q. Haven't. I assume that's true
9 of Digital Broadcasting Solutions. You
10 haven't worked for them before?
11 A. No, I haven't.
12 Q. I'm just going to hand you
13 what's been marked as Exhibit 2007 in the 976
14 IPR.
15 Do you recognize this document?
16 A. Yes.
17 Q. What is it?
18 A. It's appears to be my curriculum
19 vitae.
20 Q. Okay. I have a couple of
21 questions about it.
22 So, just looking at the
23 experience section of your -- I'm going to
24 call this a CV. Is that all right?

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1 A. That's fine.
2 Q. Look at the experience section
3 of your CV.
4 One of the entities you identify
5 as Freedman patent. And it's listed several
6 times in the document.
7 Can you explain what that is?
8 A. Yes. That is my consulting
9 company, a sole proprietorship.
10 Q. And in connection with that
11 consulting company, you do expert witness
12 work?
13 A. It's primarily been work serving
14 as an expert consultant or expert witness.
15 Historically, very long time
16 ago, I also prosecuted a small number of
17 patents in view of being a registered patent
18 agent, but I no longer do that kind of work.
19 Q. Okay. When did you first --
20 when was your first litigation expert
21 consulting project?
22 A. I seem to recall that it was
23 around the year 2000.
24 Q. And in general, what have the

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1 technologies been that you worked on this in
2 connection with your work as a litigation
3 expert consultant?
4 A. Nearly all of them have related
5 to image or imaging systems. Many of them
6 have related to co decs. Others have related
7 to the systems as a whole. There have been a
8 very small number of cases that have related
9 to other technologies, in particular, the
10 modeling of biological systems in
11 pharmacometrics. But nearly all of them have
12 related to imaging systems.
13 Q. Okay. And your formal
14 education, your bachelors and your Ph.D. were
15 in physics; correct?
16 A. Correct.
17 Q. So when did you first begin
18 working on image or video technologies?
19 A. If we take a broad, expansive
20 view of this, then I started interacting with
21 images at an advanced level during my
22 doctoral thesis in astrophysics, satellite
23 imagery.
24 If we take a more limited and

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1 restricted view of it, in terms of the focus
2 on digital television, that was in 1994 with
3 Optivision where I worked on their MPEG 2
4 encoder.
5 Q. You said Optivision was
6 developing an MPEG 2 video encoder at the
7 time?
8 A. Yes.
9 Q. According to the CV, you were,
10 at least at the time of this CV, you are
11 presently the clinical pharmacology director
12 for Takeda Pharmaceuticals. Is that still
13 the case?
14 A. Yes, I'm still employed by
15 Takeda Pharmaceuticals. My formal title is
16 director of clinical pharmacology. My work
17 is divided about 50 percent between
18 mathematical modeling and systems, many of
19 them biological and regulatory interaction
20 for documents intended for pharmaceutical
21 regulatory agencies.
22 Q. Can you tell me what -- I don't
23 know how to pronounce this company, it's
24 spelled A-N-U-G-R-A-H-A?

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A. This was a previous attempt by me at developing a sole proprietorship. The focus of that sole proprietorship was to produce fine art screen savers. I worked with a number of professional artists who would like their work showcased and sold through that technology. And my thrust there was to use state of the art adaptive quantitation techniques with JPEG imagery to provide very good quality to highly compressed images that would be of sufficient quality to satisfy the stringent requirements of professional artists.

Q. And how do you pronounce the name?

A. Anugraha.

Q. Does that have some meaning?

A. It's an Indonesian word. And I'm sorry, I cannot quite remember what its meaning was. I just thought it was a nice name.

Q. Okay. What city do you live in now?

A. Harleysville, in Pennsylvania.

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Q. Now, the address you have on the CV for Takeda is in Cambridge. Is that a remote position you have for Takeda?

A. Yes. My position is fully remote.

Q. In any of the prior industry experience you have, how much of that related to time shifting of video programming?

A. If you're speaking about how much related specifically in industry to time shifted programming, I would point primarily to my working as a consultant for Replay Networks.

Q. For which company?

A. Replay Networks.

Q. And what years was that? That was '99 and 2000?

A. Let us just check. Yes.

Q. And what was the project you were working on at that time?

A. The project related to resolving an issue with the streamers. In simple terms, to perform the time shifting, the input, MPEG stream, you know, the input video

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stream was encoded and then decoded in a time shifted fashion after delay. And for that particular set top box, it appeared to run for a fixed amount of time, then stop, which no one could clearly understand turned out to be a kind of race condition between the streamers and the embedded system, a sort of deadlock, which I was able to resolve.

At that time, my focus for them was embedded systems programming and this was essentially a real-time operating system problem.

Q. You used this word streamers. Can you just explain what that means?

A. The streamers for Replay Networks were -- were software functions that if I remember correctly, and this is a long time ago, encoded and decoded the video data in a form that could be continuously streamed.

Literally, they were streamed, written onto a disk, and written off a disk. I do not recall right now whether it was a physical disk, solid state or memory. It is

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just too long ago to recall.

Q. So, that product when you say involved continuous streaming, you're talking about a user experience of watching a video that's being delivered over a network?

A. It could be, yes. That's one interpretation of it. That's one of the uses of the Replay Network set top box.

Q. Is there a different usage that would involve continuous streaming, as you just described it?

A. Well, I think that when I say that networks is one use, I'm simply referring to the source of the video imagery.

So, in principal, it could come from another source, perhaps the owner's video surveillance system, perhaps the owner's stored imagery from some other source. But in general, the particular use was time shifting television.

I'm trying to recall whether it was delivered by a cable network or whether over the air digital broadcasting was prevalent at that time.

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1 More likely than not, in the
2 United States, it would have come from a
3 cable network.
4 Q. So your CV describes this work
5 as being for a digital video recorder.
6 Was that what the Replay product
7 was?
8 A. Yeah. Essentially, that's --
9 that's what it -- that's what it -- that's
10 how it worked. It was essentially an
11 additional device, additional to the cable
12 set top box that essentially stored and time
13 shifted the streaming video.
14 Q. And in terms of time shifting,
15 can you explain what that means or how you
16 understand that term at the time?
17 MR. CARR: Objection to the
18 form.
19 THE WITNESS: So, I think that
20 you're -- you're asking a large question.
21 I'll try to answer it in a focused manner for
22 that particular system.
23 So, the focus for that
24 particular system included things like

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1 receiving a broadcast program, storing it on
2 the disk, and watching it at a later time of
3 the user's convenience. And I'm trying to
4 recall what the typical delay was or whether
5 there was a range of delays and I'm sorry, I
6 can't recall those details.
7 BY MR. WILLIAMS:
8 Q. Okay. So, other than the work
9 at Replay, did you have any other industry
10 experience with time shifting video products?
11 A. I didn't have industry
12 experience, per se, as such. I did have some
13 designation experience later.
14 Q. By later, you're talking about
15 after you began your expert consulting work?
16 A. Yes.
17 Q. I'm going to ask you to turn to
18 Exhibit 2006. And in particular I want to
19 ask about Paragraph 21.
20 A. Yes.
21 Q. You there use this word POSITA,
22 P-O-S-I-T-A. Do you see that?
23 A. Uh-huh.
24 Q. And that's an acronym for Person

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1 of Ordinary Skill in the Art; correct?
2 A. Correct.
3 Q. You say based on your
4 professional experience, you understand the
5 capabilities of a POSITA, as such a POSITA is
6 defined by petitioner.
7 Do you see that?
8 A. Yeah.
9 Q. Do you recall what definition of
10 POSITA you were using to make that statement?
11 A. Let me first check if there's an
12 actual definition in my declaration.
13 I do not immediately see a
14 definition in the declaration. It's just
15 something I would normally put in there. It
16 does say it is defined by the petitioner.
17 So, may I view how petitioner
18 defined it to properly respond to this? I
19 will almost certainly have seen some
20 definition.
21 Q. Okay. We'll do that in one
22 second.
23 Before I do that, so, is it
24 correct to assume that in your declaration,

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1 when you talk about a POSITA, you're talking
2 about POSITA as defined in the petitioner's
3 documents?
4 A. That certainly was the
5 intention.
6 Q. Okay. Okay. I'm going to
7 show -- this doesn't have an exhibit number
8 on it, but it is a paper in the proceeding.
9 It's entitled Petition For Inter Parties
10 Review of U.S. Patent Number 8,929,710.
11 A. Uh-huh.
12 Q. Are you familiar with this
13 document?
14 A. It's a document I have seen.
15 Q. On Page 14 there was a heading
16 entitled Level of Ordinary Skill in the Art.
17 Do you see that?
18 A. Okay. I see it.
19 Q. So, is this the description on
20 Page 14 of the petition of the level of
21 ordinary skill in the art, is that the
22 description you used in your analysis?
23 A. It very probably was and it is a
24 reasonable definition.

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Q. Okay. Now, what is the time period that we're talking about in connection with your declaration's view of the POSITA?
A. Well, the appropriate time period really should be around the priority, earliest priority date of the patent. And I think I have somewhere in my declaration, perhaps I referred to that or perhaps in counsel's petition there should somewhere be a comment about the earliest priority date.
Q. So, if you -- do you have Exhibit 2006?
A. Yes.
Q. Could you turn to Paragraph 24, there should be a date?
A. Yes. I see it.
And so the time period that it discusses there is 2010.
Q. Okay. So, the definition of -- okay. By the way, let's clean up one other thing. The petition that I gave you defines this as a person of ordinary skill in the art and it abbreviates it P-O-S-A.
A. Uh-huh.

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Q. You used the abbreviation POSITA, but those two terms mean the same thing; correct?
A. They are intended to mean the same thing.
Q. So, you agree then that the definition of a POSITA or POSA given in the petition is a reasonable one to use as of 2010; is that correct?
A. It's reasonable -- if I had edited this document myself, I would have usually added that more -- that additional experience could substitute for education and vice versa. That statement is not present and I would normally add it to this. Otherwise, it is a reasonable statement.
Q. And did you qualify as a POSITA under this definition in 2010?
A. Yes.
Q. Okay. What was the two years of relevant industry experience you would have pointed to to satisfy this definition?
A. I think by that time I would have probably had close to ten years of

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experience.
In particular, I think I would have pointed out my time from Optivision in say 1995. I believe I mentioned 1994 earlier. It had slipped my memory specifically as to the date. 1995 through to certainly 2002.
And so by 2010, I would have had at least -- at least seven years' experience.
Now, I would add to this experience, I would add to this experience all of the subsequent experience I've had in working with images and imaging systems. But nonetheless, by 2010, looking at it in the narrowest possible way, I would have had no less than seven years' experience and I would have argued 15, taking into account my experience working with imaging.
Q. One of the years you answered in that answer was through 2002. It appears that in at least through October of 2002, you were working with a company called Media Logic Systems. Is that right?
A. That's correct.

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Q. And was the work at Media Logic Systems, you think, relevant to this definition of a POSITA?
A. Certainly.
Q. Can you just briefly explain what it is you were doing at Media Logic that you think would be relevant to this proceeding?
A. Okay. My role at Media Logic Systems was a chief systems engineer.
I was focused on designing and architecting a novel live interactive television system for video enabled call centers. This really required a knowledge of a cable company network and architectures.
I was also tasked with developing a similar project for a PC, which required knowledge of imaging, imaging, coding, delivering digital programs and network architectures.
And so that is the primary -- primary relevance.
Q. You said video enable call center. So would that be, the video that you

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were talking about here, would that be like a tele presence sort of video streaming?
A. Yes. It was -- it was essentially a tele presence approach to sales and providing information.
Q. Okay. Did that project involve time shifting of video?
A. Not that I recall.
Q. Okay. We just had a discussion about the level of skill in the art as you used that term in Exhibit 2006.
Were you applying the same understanding for your analysis as shown in Exhibit 2008?
A. As I said, that is my intention. I also said that if I had drafted that paragraph myself, I would have added the phrase that more experience -- that experience and education can substitute for each other or some paragraph to that effect.
Q. And the relevant time period that we're talking about for your analysis in Exhibit 2008 is still roughly the same, correct, in 2010 time period?

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A. Correct.
Q. All right. I want to talk about the '710 patent for a bit. And that is in your Exhibit 2006. Will you address that?
A. Sure.
MR. CARR: Just to clarify, I think he meant to say the '710 patent. It's not Dr. Freedman's '710 patent.
THE WITNESS: I think he's referring to the declaration related to the '710 patent. We can correct that on the record. Am I right in saying that you're thinking about Exhibit 2006?
BY MR. WILLIAMS:
Q. Yes. I'm thinking about Exhibit 2006 which is where you explained your analysis of the '710 patent; correct?
A. Correct.
Q. Okay. We should probably get you the '710 patent.
I'm going to hand you what's been previously marked as Exhibit 1001.
A. Uh-huh.
Q. Take a moment and just confirm

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you recognize that document.
A. It appears to be the document we have previously termed the '710 patent.
Q. Okay. And you're familiar with this patent; correct?
A. It's a document I've reviewed.
Q. The -- did you review it as part of your preparation for today's deposition?
A. Correct.
Q. Okay. Do you have an understanding of what is inventive about the '710 patent?
MR. CARR: Objection to form.
THE WITNESS: Well, to understand what's inventive, the best way is really to look at the claims.
So, what is claimed is an apparatus with independent claim one. Also a method independent claim nine. And an apparatus in independent claim 18.
And it relates to a DVR system for time shifting a portion of the transmitted video program. And among other things, refers to a first and second command

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that initiates playback of that video program or a portion of that video program, depending on the playback state and depending on a period of time.
BY MR. WILLIAMS:
Q. While we're here, why don't we mark the other patent or I should say hand you the other patent that's already been marked.
I'm handing you a document that's also been marked Exhibit 1001, but this one is patent 9,538,122.
Let me know if you recognize this document?
A. It appears to be the document we have previously referred to as the '122 patent.
Q. Okay. And you're familiar with this document then; correct?
A. It's a document I've reviewed.
Q. Again, is this a document you reviewed in preparing for today's deposition?
A. Yes.
Q. Okay. On the front page of the

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1 '122 patent, halfway down the left column
2 there's a section called Related U.S.
3 Application Data.
4 Do you see that?
5 A. Yes.
6 Q. It says this document is a
7 continuation of, and then it goes on to say
8 patent number 8,929,710.
9 Do you see that?
10 A. I see that.
11 Q. Do you have an understanding of
12 what that language means?
13 A. Only by virtue of being licensed
14 as a registered patent agent. The
15 continuations are continuations in part and
16 assuming that it is a continuation that after
17 '710 was filed, and perhaps even after it was
18 granted, there may have been additional
19 claims and I'm trying to recall. It is so
20 long ago that I thought of these things,
21 whether or not additional disclosure was
22 permitted.
23 Q. Have you compared the two patent
24 specifications to see if any disclosure was

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1 added in the '122 patent?
2 A. No, I haven't done that myself.
3 I would typically look for the patent's
4 prosecution history to see what was
5 different; if one was a continuation of the
6 other, there should be some record in the
7 prosecution history.
8 Q. Have you reviewed the
9 prosecution histories of these two patents?
10 A. I reviewed the prosecution
11 history at least superficially. The
12 prosecution histories tend to be very long
13 and detailed. I do not recall if I reviewed
14 every document in the history or not.
15 Q. What's your understanding of
16 what the difference is between the '710
17 patent and the '122 patent?
18 MR. CARR: Objection to form.
19 MR. WILLIAMS: Let me withdraw
20 the question.
21 What differences, if any, exist
22 between the '122 and the '710 patent?
23 THE WITNESS: Again, the best
24 place, in my view, to look at these

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1 differences is first to focus on the claims
2 and any differences between the claims.
3 So, whether it's the preamble of
4 claim one in '710 refers to time shifting, at
5 least a portion of transmitting video program
6 in '122 refers to time shifting, at least one
7 video program, said video program transmitted
8 over data distribution system.
9 And I'm not going to at this
10 time discuss whether it's limiting or not.
11 But it seems to refer to more details of the
12 claims -- the claims seem to refer to more
13 details of the system with elements such as a
14 tuner, which does not appear to be -- oh,
15 yes. There is indeed an element in claim one
16 of '710.
17 So, '122 also discusses
18 auxiliary and time-shifted data. And the
19 time shifting of both the -- both the
20 video -- both the video program and
21 auxiliary -- auxiliary and time shifted data
22 and auxiliary seems here to relate to
23 additional information such as interstitial
24 commercial information or other information

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1 that is intended to be presented along with
2 the -- with the time-shifting video program.
3 I am looking at '710 to see if
4 the claims refer to the auxiliary data or
5 make any statement about an element of
6 auxiliary data.
7 I do see that dependent claim
8 three refers to primary and secondary video
9 content. And it's display with a DVR are in
10 various playback states.
11 So, there's not a lot of
12 difference between these two.
13 Q. When you said auxiliary data,
14 was that, were you referring to something in
15 the claims of the '122 patent?
16 A. I'm referring to statements that
17 are made in the disclosure and -- the claims
18 referred to a plurality of video programs.
19 And disclosure refers to auxiliary data,
20 auxiliary and time-shifted data.
21 I'm looking at the claim of '122
22 to see if the term auxiliary data is used as
23 an element everywhere -- I'm sorry, anywhere
24 in those claims.

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So, I see only the statements about plurality of video programs. This is clearly making claims about more than one -- more than one video program and perhaps some of those programs can be assigned to the auxiliary information.

Q. So, in the claims of the '122 patent, you saw a reference to plurality of video programs and you didn't see that in the claims of '710.

Do I have you right?

A. So far as I can see, the claims in '710 refers to a video program and doesn't appear to refer to a plurality of programs.

Q. But it's also correct that the '122 patent claims do refer to a plurality of video programs; correct?

A. Yes.

MR. WILLIAMS: We've been going for about an hour. Good time for a short break?

THE WITNESS: Good idea.

MR. WILLIAMS: Off the record.

- - -

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(Whereupon, there was a recess commencing at 10:08 a.m. and concluding at 10:18 a.m.)

- - -

BY MR. WILLIAMS:

Q. Are you aware that the parties to this inter parties review proceeding are also involved in a district court litigation?

A. I was informed by retaining counsel only yesterday.

Q. You learned that yesterday. Okay.

Have you reviewed any documents from that litigation?

A. I don't recall doing so.

Q. Have you been told that the parties have proposed various claim terms for construction in that litigation?

A. Not since I've reviewed no documents from that litigation, and I don't recall any conversation about it, except from simply being told it existed last night. I haven't heard that information.

Q. Okay. So, it's fair to say you

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didn't -- you haven't considered any information about that litigation in the course of preparing your opinions in this case. Is that correct?

A. That's correct.

Q. Okay. Okay.

In your Exhibit 2006, you have a section called claim construction that begins at Paragraph 46 that I want to ask you some questions about. Let me know when you find that.

A. Yes, I see it.

Q. Okay. Paragraph 87 you give an opinion about the meaning of the term first period of time; is that correct?

A. Let's take a look.

Q. Sorry. I might have misspoke. I see the court reporter wrote down 87. I meant Paragraph 47.

A. I see that.

Q. What's your understanding of what the term first period of time is used in the claims means?

MR. CARR: Objection to form.

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THE WITNESS: Paragraph 47 makes a statement that in my opinion, a POSITA would interpret the first period of time to start after transmission of the entire video program to the DVR based on the claim language.

BY MR. WILLIAMS:

Q. One of the basis you have for that statement, you put towards the end of this paragraph, I'll just read it, In order to provide said video program in its entirety from said memory device, the entire video program must be stored in the memory device, which is only possible after transmission of the entire video program to the DVR.

Do you see that sentence?

A. I see that sentence.

Q. You believe that to be true, that sentence; correct?

A. Correct.

Q. All right. Why do you say that's only possible after transmission of the entire video program?

A. Based on the plain reading of

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1 the claim language, the video program is
2 providing entirety from the memory device and
3 so if the entire program is provided from the
4 memory device, the simplest interpretation
5 from, according to my opinion, is that the
6 program must have been stored completely in
7 the memory device. And therefore, the only
8 way that the entire program can be stored in
9 memory device is if the entire video program
10 was -- has already been transmitted to the
11 DVR.
12 Q. So, in your view then this
13 claim -- claims that include this term
14 wouldn't cover a situation where the time
15 shifting is occurring during transmission of
16 the program. Is that correct?
17 MR. CARR: Objection to form.
18 THE WITNESS: In a sense, it's a
19 compound question. That relates to both time
20 shifting and the transmission and in my view
21 the simple answer is no, it doesn't relate to
22 the time shifting, not in the first period of
23 time.
24 In other words, the simplest

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1 reading of the claim language is that the
2 entire video program is stored in the memory
3 device and the entire video program has been
4 transmitted to the DVR and the time shifting
5 does not take place during that first period
6 of time.
7 Q. So when you say that first
8 period of time, you mean the period of time
9 during which the program is being transmitted
10 to the set top box and stored in its memory?
11 A. Paragraph 47 makes it very clear
12 that the first period of time starts after
13 the entire video program is transmitted to
14 the DVR.
15 So, the sequence of events is
16 the entire video programming is transmitted
17 to the DVR, stored in the memory device and
18 the first period of time that is referred to
19 in the claims starts after that time point.
20 Q. So, let me ask you a question
21 about the technical feasibility of a
22 different approach.
23 Is it possible to stream a
24 30-minute video program to a computer that

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1 has a buffer which stores only one minute of
2 video?
3 MR. CARR: Objection to form.
4 THE WITNESS: Could you please
5 explain -- Counsel, could you please explain
6 the relevance of this question?
7 BY MR. WILLIAMS:
8 Q. I'm asking if this opinion
9 you're reaching in 47, Paragraph 47 is based
10 on a technical infeasibility or if it's based
11 solely on the language of the claim. That's
12 what I'm trying to probe.
13 A. Okay. It's primarily focused on
14 the plain reading, plain and simple reading
15 of the claim language.
16 Q. So it's not that it's
17 technically infeasible to stream an entire
18 video program without storing the entire
19 program first in this memory; correct?
20 A. You're using the term stream.
21 And you really haven't defined that term
22 stream.
23 And so many types of -- many
24 types of systems are technically feasible,

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1 but for the system of -- of the '710 patent,
2 I believe that is the simplest and clearest
3 interpretation of the claim language and I
4 believe it is not appropriate for us to
5 speculate on alternative technical systems
6 that are not what is disclosed and
7 particularly not what is claimed in the
8 patent.
9 Q. Let me ask you about the
10 disclosure then.
11 Is it your view that the '710
12 patent doesn't disclose the system it's
13 capable of transmitting the entirety of the
14 program to a DVR without first storing the
15 entirety of that program in the memory of the
16 DVR?
17 MR. CARR: Objection to form.
18 THE WITNESS: So, let's look at
19 the actual disclosure of the '710 patent. We
20 can look at different parts of the
21 disclosure, starting with the abstract and
22 the abutments that are explicitly disclosed.
23 It discloses requiring data at
24 or around the time the time shifting data is

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1 displayed and an alternative abutment
2 disclosing a system with auxiliary data is
3 removed after the value has diminished.
4 So, I do not want to import
5 limitations from the specification into the
6 claims. Correct me if I'm wrong, but I
7 believe that that is not appropriate.
8 But in terms of what is
9 explicitly disclosed, Column 3 refers to an
10 embodiment in which data received by tuner is
11 provided by decoder where the data is
12 processed. The process data can be stored in
13 memory so it can be displayed at a future
14 time.
15 In another embodiment in the
16 same column, it refers to request to play
17 data in response to accessing program data
18 from memory. It also refers to alternate
19 embodiment which program data is written
20 purality of segments and axillary data is
21 played between the segments. Again starting
22 in Column 3, around Line 61, is description
23 of preferred embodiment of the invention.
24 And time shifted data that is accessed from

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1 memory.
2 In Column 5, it's disclosed a
3 DVR includes a buffer that buffers data that
4 can be reviewed -- viewed in real-time. Time
5 shifting made by a couple of seconds. It
6 refers also to auxiliary data that can be
7 received in real-time or received and stored.
8 So, in terms of the technical
9 disclosure, I think that the system does
10 not -- that the disclosure did not exclude
11 the display of real-time information that had
12 been buffered for a short period of time.
13 You referred to a 30-minute program with a
14 one-minute buffer. I think this is still
15 consistent with a disclosing embodiments.
16 Though one is speaking in the claims about
17 specific claims in which time-shifted data is
18 accessed from memory. And the information in
19 Paragraph 47 refers to the language of the
20 claims.
21 Counsel, does that answer your
22 question?
23 Q. I'm not sure.
24 A. More specifically, I'm stating

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1 that my reading of '710 suggests that it is
2 not inconsistent with a system that could
3 stream in real-time a 30-minute program with
4 a computer that has a computational system
5 that has a one-minute buffer, but that is not
6 what is being claimed in the claims.
7 Q. Okay. Thank you.
8 In Paragraph 49, you discuss the
9 prosecution history.
10 Do you see that?
11 A. Yes, I do.
12 Q. Can you explain to me what it is
13 about the prosecution history that you
14 believe supports your opinion?
15 A. So, the patentee explained to
16 the examiner that the invention is directed
17 to a DVR that stores a video program and
18 plays back at least a portion of the video
19 program at a later time.
20 And also, that if the video
21 program is being watched within the first
22 period of time, within a day or two of the
23 video program being transmitted to the DVR,
24 that is after it has been transmitted in its

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1 entirety to the DVR, then it will be played
2 back in its entirety including the program
3 data.
4 Therefore, the patentee clearly
5 intended the first period of time to start
6 after transmission of the entirety of the
7 program.
8 Q. So the first underlined passage
9 reads, Stores a video program and plays at
10 least a portion of the video program back at
11 a later time. (e.g., a time more convenient
12 to the user.)
13 Correct?
14 A. That's what it says.
15 Q. So, why does later time have to
16 mean after the program has been completely
17 recorded?
18 A. We should read the patentee's
19 explanation in full, rather than attempt to
20 dissect portions of this statement.
21 Only a few lines later, about
22 eight lines later, the patentee says, To this
23 end, the claimed invention provides that if
24 the video program is watched within the first

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period of time, e.g., within a day or two of the video program being transmitted to the DVR, then the video program will be played back in its entirety.

So, this clearly creates the nexus between the first period of time and a time period that is after the video program has been transmitted to the DVR.

So, taking this communication with the examiner as a whole, there's really no doubt that the first period of time starts after the entire video program has been transmitted.

Q. If you turn to Paragraph 51.

A. Yes.

Q. There you're discussing a first command. Is that right?

A. It does speak about a first command.

Q. And that command changes the DVR from a first playback state to a second playback state; correct?

A. Yes.

Q. Okay. What's your understanding

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of what playback state means in the context of the claims?

MR. CARR: Objection to form.

THE WITNESS: Well, we should really look to the patent for the term playback state.

So, it appears to me that playback state refers to the DVR as a state machine, for example, that it is executing a process of playing back. There seemed to be other disclosures that relate to rewinding or time shifting. And I believe that these correspond to the traditional states of a DVR where you may have a rewind, you may have a pause, you may have a state that is playing and possibly other states as well.

BY MR. WILLIAMS:

Q. In the context of these claims, what's your understanding of what the difference is between the first playback state and the second playback state?

MR. CARR: Objection to form.

THE WITNESS: Well, it's -- it seems that the second playback state most

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specifically refers to a state in which the DVR is playing the program. The first playback state may be a state in which the DVR is not playing the program.

BY MR. WILLIAMS:

Q. You're saying that the second playback state is one where it is playing and the first is one where it's not playing. Is that right?

A. That's my reading.

Q. Okay. If you could turn -- do you have Claim 1 of the '710 patent in front of you?

A. Yes.

Q. The bottom of Column 11, there's an element that begins, At least one processor configured to.

Do you see that?

A. Yes.

Q. There's two little Romanette -- well, in that, there's three Romanettes in that element. I want to ask about Number 2.

A. Correct.

Q. So, as I understand (ii), it's

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describing a first playback state where the video is being played back to the user.

Have I got that wrong?

A. My reading is that -- is that the DVR is providing the video program in its entirety to the display device, that is displaying it on a device; in response, during a second period of time where the DVR is in the first playback state, meaning that the action taken by the DVR when receiving the second command, or a second command, depends on the first playback state.

So, an example in my view could be that the DVR is not playing the program data. A second command is received and it starts -- it transitions to a second playback state in which it is playing the program in its entirety.

Q. So, that answer discussed a second command and suggested to me that the second command transitions the device between playback states. Is that how you understand this claim to work?

A. Yes.

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Q. So, what does the first command do?
A. I believe that was discussed in my declaration, again, 47. The first command sets the playback state of the DVR.
Q. I understood your last answer to say that the second command did that.
A. The first command sets a playback state. The second command causes the transitioning of the DVR from the first playback state to the second playback state. And then the second playback state the video program is being displayed.
Q. Can the video program be displayed in both the first and second playback states?
A. Well, reading the claim language, and referring to my declaration in Paragraph 51, the first command never initiates playback of the video program in independent Claim 1. Otherwise, the claim would be illogical.
So, the first playback state is, in my opinion, a state where the DVR is not

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playing. And the second playback state, in my view, is a state in which the DVR is playing.
Q. So, referring back to what I described as Romanette Number 2 then, how can the program be provided in its entirety to the display device in the first playback state if what you just said is true?
A. Let's be very careful how we read the claims. In Romanette 1 the process is configured to provide the video program in its entirety to a display device in response to receiving a second command regardless of the playback state, if a second command is received during the first period of time.
Meaning regardless of what the first playback state is, provided the second command is received during this first period of time, which we have been discussing, the video program would be displayed in its entirety.
But in my view, the consequences that although the first playback state is one where it is not playing, that if the second

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command is received during the first period of time, the DVR will change to a state in which it is playing.
Q. Is that state that you're describing still the first playback state?
A. In my view, it isn't.
On the -- on the other hand, the claim does say that if the second command is received during the first period of time, it doesn't matter what the playback state is of the DVR.
And what I'm -- I do not want to implicitly read any limitations into this that aren't present.
But for concrete example to fix our thinking, the first playback state may be one in which the DVR is stopped or where it is paused and a second playback state may be one in which the DVR is playing. And while those are not the only possible states of a DVR, it may fix our thinking a little more clearly, though those limitations cannot be imported into the claims.
Q. The first sentence of your

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Paragraph 51 discusses both the first command and a second command; correct?
A. Yes.
Q. And I think your next sentence, you state that, This requires two distinct commands.
Is that right?
A. Yes.
Q. Can you explain what you mean by distinct commands?
A. The commands must be distinct from each other in the plain being the work distinct.
Q. Does that mean, so for instance could a single command perform both the functions of the first command and the second command and be within the scope of this claim, in your view?
A. No.
Q. So, that is the sense you're using the word distinct, to mean that they have to be two entirely different interactions by the user?
A. We really can't, in my view,

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1 import interaction with the user into this.
2 We're not speaking about users anywhere in
3 this. We're speaking about commands and
4 we're speaking about states.
5 Q. It might help if you have the
6 claim language up next to your declaration of
7 the '710 patent.
8 I want you to look carefully at
9 the claim language element beginning A
10 controller.
11 A. Ah, yes. The commands are from
12 a user.
13 Q. Okay. So with that
14 understanding, looking back now on what you
15 say in Paragraph 51, then I want to confirm,
16 when you say it requires two distinct
17 commands, are you saying that those have to
18 be two separate user interactions?
19 A. In my view, yes.
20 Q. Okay. Now I want to ask you
21 about -- so, the claims use the term first
22 and second to describe the commands. In your
23 view, does that require a temporal
24 connection? In other words, does the first

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1 command have to come before the second
2 command?
3 MR. CARR: Objection to form.
4 THE WITNESS: I believe that a
5 strict reading of the claims does not
6 necessarily identify which is the first or
7 the second command in terms of temporal
8 relationship; just that they are different
9 commands.
10 However, if we think about the
11 operation of the device, the first command is
12 one that sets the playback state and the
13 second command is the one that initiates the
14 playback and the first and second periods of
15 time are relevant to the consequences of the
16 first and the second command.
17 BY MR. WILLIAMS:
18 Q. What do you mean there by
19 initiates playback?
20 A. The command that initiates
21 playback provided by user may be something as
22 simple as pressing -- pressing a play button
23 or providing that command to the system
24 through some other means of interaction with

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1 it.
2 Q. What if the user is required to
3 take some further action after pressing that
4 button but before playback commences, would
5 you still say that that button push you've
6 described is initiating playback?
7 MR. CARR: Objection to form.
8 THE WITNESS: I believe in the
9 context of these patent claims, the
10 initiation of the playback process is
11 contemporaneous with the system receiving
12 that second command from the user.
13 BY MR. WILLIAMS:
14 Q. Did you say contemporaneous?
15 A. It starts when -- when that
16 command is received.
17 Q. So essentially simultaneous --
18 close to simultaneous as possible? Is that
19 what you're suggesting by contemporaneous?
20 A. From the perspective of the
21 user, he pushes that button or presses
22 something on a remote control and playback
23 starts.
24 From the perspective of the

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1 system developer, there may be other
2 technical processes that happen on a scale of
3 milliseconds or microseconds that happen
4 inside the system.
5 Q. Getting back to this temporal
6 aspect we were getting back to a moment ago,
7 I'm not entirely sure I understand your
8 answer. I want to get clarification.
9 Is it -- so is it possible to be
10 within the scope of this claim if what's
11 described in the claims is the first command
12 comes second and what's described as the
13 second command comes first?
14 MR. CARR: Objection to form.
15 THE WITNESS: These are two --
16 these are two separate, really two separate
17 questions.
18 One is a question of labeling of
19 the commands and the second is a question of
20 the ordering of the commands.
21 BY MR. WILLIAMS:
22 Q. What I'm trying to focus on is
23 the ordering. The claim labels the commands,
24 first commands and second commands.

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A. Yes.
Q. I'm sort of stuck with using those labels in describing the question I'm trying to put to you.
The question is fairly straightforward in focusing on the temporal aspect.
Can what the patent describes as the first command come second and what it describes as the second command come first?
MR. CARR: Objection.
BY MR. WILLIAMS:
Q. And still be within the scope of the claims?
A. Well, let's think about the operation of the DVR or what a POSITA would think is reasonable for the operation of the DVR.
The DVR, initially in this state of not playing and it's been placed by a command, a user command, it then transitions to a state of playing, where the playback is initiated by another user command. And it appears to me that what is labeled with a

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second command must be temporally later than the first command.
MR. WILLIAMS: Why don't we take a break.
- - -
(Whereupon, there was a recess commencing at 11:04 a.m. and concluding at 11:11 a.m.)
- - -
BY MR. WILLIAMS:
Q. Turn in Exhibit 2006 to your Paragraph 69. Let me know when you find that paragraph.
A. Yes, I found the paragraph.
Q. Okay. In this paragraph, you state in the last sentence that a POSITA would understand that the DVR must determine whether the second command initiating playback was received during the first period of time in order to determine whether the user is restricted from skipping the claimed second portion during playback.
Is that correct?
A. That's what's stated.

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Q. Do you agree with that sentence?
A. I agree that that is what that states.
Q. Do you agree that what you state in that sentence is true?
A. Yes.
Q. Is it your view that the claims say that the DVR must determine whether the second command was received during the first period of time?
A. Well, if the DVR does not determine whether, example, the second command was received during the first period of time, how can its state be definite? How can it be known what it does? Otherwise, the state of the DVR and indeed the claim would be indefinite.
Q. So, this determination that you're suggesting is required, can you explain what that would require of the processor?
MR. CARR: Objection to form.
THE WITNESS: It would require some determination of time relative to --

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relative to the timing of the first command at the very least. How a first period of time could -- could be predefined such as five minutes, 20 minutes, something like that, in my view it would be defined relative to the timing of the first command and so the processor would need some type of clock to make that determination. And of course most processor have some kind of clock.
BY MR. WILLIAMS:
Q. Let me ask you to turn to Paragraph 79.
A. I see Paragraph 79. You're referring to Exhibit 2006; correct?
Q. Correct, yes. Here you're discussing Russ. Is that right?
A. Well, Paragraph 79 discusses Russ, but it also makes statements about Casagrande. Sure.
Q. Russ is one -- Russ is one of the prior references you reviewed; right?
A. Correct.
Q. You say that in Russ, it's the tag that determines whether a commercial can

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be skipped.
Is that right?
A. Yes.
Q. Then in the last sentence you say, Thus, like Casagrande, the determination of whether a commercial can be skipped is not based on time, but on the specific commercial or the tag associated therewith.
Is that correct?
A. Yes, I made that statement.
Q. So, the tag, as you say, has an expiration date; correct?
A. Yes, it does.
Q. And so why is what -- why is the description in Russ, that this tag with an expiration date, not sufficient to meet the claims, in your opinion?
A. Well, it's not specifically based on time since the first command.
It's an absolute expiration date, which in principle could be never.
So, the difference here, in my view and to provide a concrete example, just to focus our thinking, and not as a

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limitation, is in Russ, the commercial can be skipped after May the 1st at midnight, but the claims refer to -- that refer to time relate to time since the first command.
So, is that first command given 11:55 on May the 1st? Was it given on April the 1st? So, the principle is different. Russ relates to an absolute date and '710, in my reading, appears to be based on time since the first command was given.
Q. In the first command, you're talking about is the claimed first command; correct?
A. Correct.
Q. Let me ask you to turn to Paragraph 101 of your declaration, 2006.
A. Yes. I have that.
Q. Okay. The first sentence is that Dow is fundamentally different than the claimed invention of the '710 patent.
Do you see that?
A. Yes.
Q. Can you explain how?
A. So, Dow discloses, it's more

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clearly explained in Paragraph 103, that Dow discloses a simple toggle for whether the commercial advance feature is enabled.
When the feature is enabled, the commercials will be skipped regardless of the play mode selected.
So, this does not disclose first or second commands or playback states or even time; just the commercial content is labeled as to whether by a toggle as to whether it can be skipped or not.
And when it's enabled, commercials that it detects with its luminance based algorithm get skipped.
Q. Now, you agree with me that Dow would not be able to skip a commercial if a user was watching the program in real-time; correct?
A. Do you have a copy of the Dow patent?
Q. Sure. I'll just point out that you also discuss it at Paragraph 111 of your declaration.
A. I understand that. I prefer to

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look directly at the patent before I answer.
Q. I'm handing you what's been marked as Exhibit 1007 which is Patent Number 7,251,413.
A. So, if I recall your question related to whether the disclosure of Dow supported skipping commercials during playback. Is that correct?
Q. What -- the question I was asking -- I'll reask the question.
Do you agree with me that Dow would not enable a user to skip a commercial if they were watching a program in real-time?
A. Well, real-time itself is a concept that may need further definition, however, from the user's standpoint, if they are watching a streamed program, my impression is that if Dow's commercial advance toggle is toggled on, then the detection of the commercial events can take place in real-time or at a time that is appropriate for that detection.
And the user would be able to skip the commercials while it is being played

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1 back in inverted quotes, real-time.
2 Q. So, what do you make of this
3 section of Dow on 24, line -- Column 24, Line
4 43, you reproduce it in your declaration in
5 Paragraph 11, that the commercial skip is
6 always inactive in live view mode or delayed
7 view mode where there is insufficient time to
8 buffer and process events for identifying
9 commercial groups?
10 A. I see it and I understand it.
11 Then again, this comes down to
12 the definition of real-time.
13 Typically a POSITA would think
14 of real-time as an appropriate level of time
15 that has unfortunately no numerical
16 limitation on how real the time has to be.
17 The statement that is stated
18 there relates to buffers of less than two
19 minutes because presumably the capabilities
20 of Dow's -- Dow's system.
21 But that two-minute buffer could
22 be considered liable real-time by the user,
23 if that's appropriate for the user.
24 As to when a user would feel

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1 that it is not real-time, colloquially we
2 might imagine days or weeks or even hours or
3 tens of minutes as to not feel like
4 real-time, but that is entirely subjective
5 and there is no formal definition of
6 real-time.
7 Q. Well, would Dow be able to skip
8 a commercial that hasn't been transmitted to
9 the user yet?
10 A. It depends where the tagging is
11 taking place. If the tagging is taking place
12 in Dow's -- in Dow's user premises DVR, then
13 the answer I think is no.
14 Q. Just to follow up on that, when
15 you say tagging, you're talking about
16 detection of the commercial?
17 A. I'm talking -- I'm talking about
18 the detection of the commercials -- the
19 detection of the commercial that's being
20 performed by processes that's occurring
21 within Dow's disclosed DVR at the user
22 premises, that if a commercial had not yet
23 been transmitted, then it couldn't be
24 detected.

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1 Q. Do you have an understanding of
2 what Dow meant by live view?
3 MR. CARR: Objection to form.
4 THE WITNESS: My reading is that
5 the term live view has the same meaning as
6 real-time for that purpose.
7 This is opposed to where the
8 program is stored for an appreciable length
9 of time and then played back from the DVR at
10 a later time and as to exactly what that time
11 period is, is not precisely specified, but
12 according to Dow's disclosure, a two-minute
13 buffer appears to be adequate.
14 And so I will contend that short
15 periods -- short delays of up to two minutes
16 or two minutes or slightly more than two
17 minutes would be considered both real-time
18 and live view, according to Dow's disclosure.
19 BY MR. WILLIAMS:
20 Q. Now, Dow describes the
21 commercial or commercial groups being skipped
22 by the user.
23 Is that right?
24 A. Well, Dow describes the command

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1 from the user to enable commercial skipping.
2 So, it's a good question of when that command
3 is initiated. Could that command in Dow's
4 system be provided by the user before the
5 video program is received? I don't see
6 anything in Dow's disclosure that would lead
7 me to believe that that command could not be
8 given before the commercial content or before
9 the video program was received.
10 So, the user can say skip
11 commercials on Monday and on Wednesday the --
12 when the video program is received, the
13 commercial program is skipped just to provide
14 a concrete example to fix our imagination.
15 Q. What would the user experience
16 be of skipping the commercial in Dow? What
17 would they be presented with on the
18 television screen, on the display?
19 A. In my view, they would, if the
20 commercials were skipped, they would receive
21 video that they would perceive as continuous.
22 Now, the word continuity itself can be a
23 challenge because as it's common knowledge,
24 not only of POSITA's, but all users, there

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are scene changes in video streams and the perception of continuity does include the user comprehending scene changes or changes of camera angle and so forth, but nonetheless, the user may perceive the display program to entirely relate to the video content and not to extrinsic commercial content.

Q. Let's turn to the -- your other declaration for a moment, Exhibit 2008.

A. Okay.

Q. This is your declaration relating to the '122 patent you have in front of you now; correct?

A. It appears to be.

Q. Here I want to ask you a question about Miller.

A. Uh-huh.

Q. Why don't we just give him a copy of Miller.

A. I would like to take a very short break, a bio break.

MR. WILLIAMS: Sure. We can do that now. Let's go off the record.

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(Whereupon, there was a recess commencing at 11:42 a.m. and concluding at 11:48 a.m.)

- - -

BY MR. WILLIAMS:

Q. Okay. So, I was going to ask you about Paragraph 61 of your declaration, Exhibit 2008.

A. Yes.

Q. And during the break, I put in front of you a copy of the document marked Exhibit 1009, which is a publication, 2009/0165057 from the U.S. Patent Office. You've got that in front of you now.

I want to ask you about the sentence on Paragraph 61 where you say Miller discloses recording only one program, not a plurality, i.e., more than one.

Do you see that?

A. I see that.

Q. Okay. Now, in Miller, if you turn to Paragraph 44.

A. I see Paragraph 44.

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Q. Unfortunately, it's a relatively long paragraph and we don't have line numbers. But I'm down over halfway through that paragraph and it just above the page where Paragraph 48 appears. The sentence says some embodiment.

Do you see that?

In some embodiments, multiple additional programs may be concurrently recorded or otherwise utilized while recording the first program is being presented.

Did I read that accurately?

A. Yes.

Q. Okay. So, in view of that, why is it that you conclude Miller disclose only recording one program?

A. That, from this exposure, Figure 5 in Miller, where it says initiate recording of received program content corresponding to a second program of the plurality of programs.

So, one of these plurality programs is recorded according to the flow

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chart in Figure 5.

Looking at now at 44 -- to the plurality video programs are required to be transmitted in the same time, and received by received, that contains a tuner.

So, if we look at Paragraph 44, it does say that multiple additional programs may be concurrently recorded, but it doesn't specifically disclose that they are obtained by a tuner that on a single channel that receives them.

So, maybe there could be multiple tuners that receive or tuner cans that receive multiple.

(Reporter clarification.)

This is a term of art; referring to tuner devices that can be tuned to different frequencies and receive multiple programs. But it doesn't specifically explicitly disclose that the additional programs are received on a single channel, single frequency by a single tuner.

Q. But you don't disagree that Russ has -- I'm sorry, that Miller has a tuner

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that can receive multiple programs simultaneously or do you?
A. Well, let's see precisely how this is worded. It does refer here to residual bandwidth of a carrier signal.
So, your question really relates to the way television tuners work and normally, they are tuned primarily to a signal -- single channel or single frequency and they receive information on that single channel.
There is a concept of multi-plexing and I don't see a clear, explicit disclosure that relates to multi-plexing the programs on or -- on a single channel of defined frequency.
Q. Can you turn to Paragraph 29 of Miller for a moment?
A. I see it.
Q. First two sentences read, as noted above, the signal received by the receiving device 118 may include a plurality of multi-plexed programs. In particular, a plurality of programs may be communicated as

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a plurality of program content streams that are multi-plexed upon a single carrier signal.
Do you see that?
A. I see that.
Q. In your view, is that a disclosure of a multi-plexing of multiple programs onto a single channel?
A. Onto a single carrier signal.
Now, the distinction here is what we mean by channel. And channel usually refers to a specific frequency. So, the carrier signal may span a range of frequencies, and indeed almost always does, if programs can be multi pledged onto it, but the tuner is typically -- we're not speaking about receiver here. We're speaking about the tuner specifically, is typically tuned to a single one of those frequencies, a single channel at any time; even though there may be multiple programs broadcast on the carrier signal at different frequency to which the tuner can be tuned at a later time.
Q. The sentences that I read, the

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discussion of a single carrier signal, that would suggest one channel; correct?
A. Not necessarily, no.
And this relates more to the technology of signal transmission.
So, there are many ways to do this. I don't want to go into many details, spread spectrum is one of them, as is used in many telephony devices.
There are other ways of multi-plexing the signal in terms of not only frequency but phase, the so-called quadrature amplitude modulation, constellation and so on.
But typically, the tuner selects one of those at one time to view or record.
Q. In your view, what does the term single channel in the claims of the '122 patent mean?
A. To me, it means the selection of a specific frequency from the carrier signal and a specific element of the multi-plex constellation of signals.
Q. And do you agree with me that

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the disclosure of Miller discloses transmitting a plurality of video program on a single channel?
A. It is transmitting plurality of video programs on a single carrier signal and we're distinguishing here between a carrier single, which literally has bandwidth, meaning covers many frequencies and multi-plexing typically means, in digital television, it typically refers to using different phases, that is, temporal relationships within the signal, within the carrier signal, to be modulated to carry information, corresponded to channels.
So the carrier signal that you receive in your cable television set top box, to fix our imagination again with a concrete example is you may find perhaps a Disney ABC, ESPN and Fox all transmitted in one constellation on a single carrier signal that you receive from the cable system; yet each of these would be described as different channels.
Q. Is it your view then that that

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1 view of multi-plexing is what is being
2 disclosed in Miller?
3 A. It is my view.
4 Q. Let me ask you to look at
5 Paragraph 32 of Miller.
6 A. I see it.
7 Q. I think it's the third sentence
8 of that paragraph reads, a content stream
9 selector may comprise, for example, a tuner
10 configured to tune a particular -- tune to a
11 particular frequency that is used to carry
12 program content.
13 Do you see that?
14 A. Yes, I see that.
15 Q. Is that the type of tuner that
16 you think is within the scope of the claims
17 of the '122 patent?
18 MR. CARR: Objection to form.
19 THE WITNESS: In my view, that
20 would be how a POSITA would read it.
21 BY MR. WILLIAMS:
22 Q. Okay. Now, I have one more
23 series of questions, but I'm going to be
24 finished.

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1 A. Uh-huh.
2 Q. I don't know whether we'll be
3 able to accomplish it before lunch, but let's
4 try.
5 Your declaration, Exhibit 2008,
6 covers Miller but it also obviously addresses
7 Casagrande, Russ and Dow that we spoke about
8 earlier this morning.
9 Do you recall that?
10 A. Yes.
11 Q. I guess my question to you is:
12 Is there anything in your analysis in Exhibit
13 2008 regarding Casagrande, Russ and Dow that
14 is subjectively different in your analysis of
15 those references in your declaration
16 regarding the '710 patent?
17 A. I'm not sure I understand the
18 question. Please could you clarify what you
19 mean by substantially different? They -- the
20 analyses refer to different patents.
21 Q. Right. So, what I'm asking is,
22 is your -- is your analysis of those three
23 references we spoke about, Russ, Casagrande
24 and Dow, substantively different between

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1 these two declarations?
2 A. If you're asking whether they
3 are -- whether they are consistent, I believe
4 they are consistent, but they are tailored to
5 the specific -- to the -- to the specific
6 patent '122. And to the specific combination
7 of the prior art.
8 Q. What's your understanding of the
9 difference in the combinations of prior art
10 between the two proceedings?
11 A. Well, it is driven -- it's
12 driven by the claims of the patents.
13 We were discussing some hours
14 ago about the distinction between the claims
15 of the '122 and '710 patents, if I recall.
16 And one of the things that we
17 discussed is the question of plurality of
18 programs.
19 Q. Right. And I certainly agree
20 with you that that is a distinction.
21 Are there any other distinctions
22 between the two declarations that you recall?
23 A. Well, I would -- I don't like to
24 do these things from memory. I would have to

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1 compare the -- so, Page 23 in Exhibit 2006
2 and Page 25 in Exhibit 2008 speak about the
3 claim first command.
4 So far as I can tell, according
5 to the box on those pages, the only
6 difference that I see is in Exhibit 2006, the
7 audio interface 1518 is explicitly mentioned
8 and it is not mentioned or cited at all in
9 the corresponding box on Page 25 of Exhibit
10 2008. But they are nonetheless technically
11 consistent.
12 And indeed we could go through
13 the declarations page by page and analyze
14 whether there are differences.
15 But in my view, the analysis
16 is -- was intended to be and is consistent
17 with them and also consistent with the goal
18 of -- of -- of supporting the claims of the
19 respective patents.
20 Q. In terms of your testimony this
21 morning, regarding the different commands in
22 the claims of the '710 patent, do you believe
23 that testimony would apply as well to the
24 claims of the '122 patent?

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A. Let's look at the claims of the '122 patent in detail. In particular, in looking at Column 10, Column 12 around Line 10, the statements about the first and second command appear to apply equally to both patents.

Q. And I have the same question about the time periods.

Do you think the testimony you gave this morning regarding the various time periods and the claims of the '710 patent would be equally applicable to the time periods that were cited in the claims of the '122?

A. Yes, I do.

And the claim explicitly states, Claim 1 explicitly states that the second period of time is a period of time after the first period of time.

Q. That's true in both patents; correct?

A. I think it is. Let me just check to be sure. I just want to be absolutely sure of the statements I make.

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Yes, indeed. It is present in Claim 1 or both. So, yes, the analysis applies.

Q. All right. And part of that analysis that we talked about this morning in the '710 patent had to do with your view of -- your view that the claims of the '710 patent require a determining to be performed. Would that testimony you gave apply equally to the claims of the '122 patent?

A. Yes.

Q. At any time today did you discuss the substance of your testimony with anyone?

A. Absolutely not.

MR. WILLIAMS: Give me one minute.

No further questions.

MR. CARR: Nothing from patent owner.

THE COURT REPORTER: Would you like a copy of the transcript?

MR. CARR: Yeah. Rough and regular, please.

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MR. CARTER: I would say rough and seven-day delivery.

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C E R T I F I C A T E

I hereby certify that the proceedings and evidence noted are contained fully and accurately in the notes taken by me on the deposition of the above matter, and that this is a correct transcript of the same.

Teresa M. Beaver

Teresa M. Beaver

DATE: April 29, 2024

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