UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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VOLKSWAGON GROUP OF AMERICA, INC.,

Petitioner,

v.

STRATOSAUDIO, INC.,

Patent Owner.

----------x

IPR2021-00720

U.S. Patent No. 9,355,405

----------x

January 6, 2022

12:03 p.m.

VIRTUAL DEPOSITION of TIM A. WILLIAMS, PhD, taken by counsel for Patent Owner, via Zoom, before Amy Klein Campion, a Shorthand Reporter and Notary Public within and for the State of New York.

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U.S. Patent No. 8,166,081

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- T.A. Williams -

T I M A R T H U R
W I L L I A M S, P h D.,
having been first duly sworn via Zoom by the Notary Public (Amy Klein Campion), was examined and testified as follows:

EXAMINATION BY
MS. KIERNAN:

Q. Good morning, Dr. Williams. How are you?

A. Good morning.

Q. Have you been deposed before?

A. Yes.

Q. Roughly, how many times would say you have been deposed?

A. Somewhere around 200 times.

Q. Okay. So you're quite familiar with it then?

A. Yes.

Q. Have you been deposed by Zoom?

A. Yes.

Q. And so you're familiar with how the deposition will proceed via Zoom today?

A. I assume so.

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Q. And if you have any difficulties or technology difficulties that may arise during the proceedings, please be sure to let us know as soon as possible.

A. Yes. Can I ask that you speak up a little bit? It's kind of hard to hear you.

Q. I apologize. Hopefully that's better.

A. Okay.

Q. I'll ask that you speak clearly and slowly, especially as you see right now, there could be some issues with sounds, for the reporter to hear as well, and for you to understand a question.

Does that seem fair?

A. Yes.

Q. And we'll try to each give the other an opportunity to finish their statement before answering and asking another question, does that seem fair?

A. Yes.

Q. And if you have any difficulty hearing my question or I become muffled,

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again, please let me know as soon as you realize it and I will make a correction as I've already done.

If you don't understand a question, please ask for a clarification.

If you don't ask for clarification, I will assume that you understood the question.

Does that seem fair to you?

A. Yes.

Q. And unless counsel instructs you not to answer, you should answer despite an objection.

Do you understand that?

A. Yes.

Q. I'll do my best to take periodic breaks throughout the day but for any reason you need to take a break, please let me know. All I ask is that we don't take a break while a question is pending. Please complete the question and answer before we take a break.

Does that seem fair to you?

A. Yes.

- T.A. Williams -

Q. Wonderful, thank you. Did you prepare for this deposition today?

A. Yes.

Q. For how long did you prepare?

A. Ten hours and -- with the attorneys.

Q. With the attorneys, thank you.

Was anyone besides attorneys present at your preparation session?

A. No.

Q. Did you review any documents in preparing for today's deposition?

A. Yes.

Q. What documents did you review?

A. In general, the documents associated with the case.

Q. And by that you mean the exhibits and your declaration and petition?

A. Yes.

(720 IPR Exhibit 1003 previously marked for identification, multiple-page document, titled, "DECLARATION OF TIM A. WILLIAMS, PhD,

- T.A. Williams -

IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 9,355,405.")

BY MS. KIERNAN:

Q. I am going to start by sharing an exhibit that was previously marked in these proceedings. It is the 720 IPR Exhibit 1003.

You should be able to see that in your Exhibit Share folder.

Please let me know if you do not see it.

(The witness reviewing computer screen.)

A. So I need to go somewhere else for the Exhibit Share. Hold on.

Q. Yes.

A. Is that right?

Q. Yes. There should be a separate Exhibit Share link.

A. Let me find it. Hang on.

(The witness reviewing computer screen.)

A. It would have come from

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Veritext.

Q. Yes.

A. Exhibit Share instructions.

(The witness reviewing computer screen.)

A. Exhibit Share.

(The witness reviewing computer screen.)

A. Sorry about this. I didn't know there was a separate page. Usually people just put them in the Chat.

Q. I apologize.

(The witness reviewing computer screen.)

A. It's loading...

(The witness reviewing computer screen.)

A. Okay. I'm in.

Q. Wonderful. Are you in the document?

A. I see the document.

(The witness reviewing computer screen.)

A. Okay.

- T.A. Williams -

Q. Great. Apologies for not making sure you had that ready.

So can you please go to paragraph 15 -- before we do that. Have you seen this document before?

A. Stand by.

The question is, have I seen this document before? Yes, I have seen this document before.

Q. Great. And this document is "DECLARATION OF TIM A. WILLIAMS PH.D., IN SUPPORT OF PETITION FOR INTER PARTES REVIEW U.S. PATENT 9,355,405"; is that correct? Is that what you see?

A. Yes.

Q. And this is Case Number IPR2021-00720.

A. It is.

Q. So if I were to refer to IPR2021-00720 as the 720 IPR moving forward, Dr. Williams, would you understand that I am referring to IPR2021-00720?

A. Yes.

- T.A. Williams -

Q. And that's the IPR related to the Patent Number 9,355,405, correct?

A. Yes.

Q. And would you similarly understand that when we're referring to the '405 Patent, that that is the shorthand for that patent number I just read to you?

A. Yes.

Q. So could you please turn to paragraph 15 of this exhibit which is on page 7.

A. I'm sorry, you said 16?

Q. 15.

A. One-six?

Q. One-five.

A. Okay, one-five. Okay, good.

Q. It said you considered the '405 Patent and its prosecution history, the exhibits listed in the Exhibit List files with the petition as well as any materials referenced in this declaration when forming your opinions; is that correct?

A. Yes, that's correct.

- T.A. Williams -

Q. And, to your knowledge, did you consider any other material that is not included in those documents?

A. Not that I recall.

Q. Thank you. How many hours did you spend preparing this declaration?

A. I don't recall.

Q. Did you speak with anyone other than the attorneys in this matter when preparing this declaration?

A. No.

Q. I'm now going to share with you a second exhibit which is the 721 IPR Exhibit 1003. It will similarly appear in your Exhibit Share folder. When you have it, please let me know.

(721 IPR Exhibit 1003 marked for identification, "DECLARATION OF TIM A. WILLIAMS, PhD, IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 8,166,081.")

BY MS. KIERNAN:

Q. You may need to refresh your Exhibit Share for it to show up. I just

- T.A. Williams -

had that issue.

A. I have it. I see the document. I'm downloading it now.

(The witness reviewing computer screen.)

A. I have the document.

Q. Wonderful. And this document is titled, "DECLARATION OF TIM A. WILLIAMS Ph.D. IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NUMBER 8,126,081," correct?

A. Yes.

Q. And this is in case number IPR2021-00721, correct?

A. Yes.

Q. And if I refer to the 721 IPR moving forward, you will understand that I'm referring to this case number; is that okay with you?

A. Yes.

Q. And similarly with Patent Number 8,166,081, if I refer to it as the '081 Patent, will you understand that?

A. Yes.

- T.A. Williams -

Q. Thank you. How many hours did you spend preparing this declaration?

A. I don't recall.

Q. And did you speak with anyone other than attorneys in preparing this declaration?

A. No.

Q. Thank you. What is your experience with respect to transmission of information on subcarrier signals using methods known as radio broadcast data systems or RBDS, Dr. Williams?

A. In the late eighties I worked at Motorola and we designed radio systems for Bosch, and that radio system included reception of radio data signals in Europe. Our RBDS is the U.S. version of that standard.

Q. What was the standard called in Europe?

A. RBDS.

Q. So have you ever designed a system or components thereof that utilize RBDS?

- T.A. Williams -

A. No.

Q. But you did design a system or component that utilized RBDS?

A. Correct.

Q. Before this case, did you have any knowledge of the National Radio Systems Committee?

A. Don't recall.

Q. Did you have any knowledge of the National Association of Broadcasters before this case?

A. Yes.

Q. What was your knowledge of the National Association of Broadcasters before this case?

A. That they existed; that they were an industry group; that they were concerned with broadcast information.

I think you have to be more specific if you want more specific answers.

Q. Thank you. I think that's helpful. Before this case, did you have any knowledge of the United States RBDS

- T.A. Williams -

Standard?

A. I knew it existed.

Q. And beyond knowing that it existed, you didn't have any knowledge of any specific standards?

A. I'm sorry this is a specific standard. So I don't understand the question.

Q. Beyond knowing that the RBDS Standard existed, did you have any specific knowledge of its contents?

MR. LUCAS: Objection; vague.

A. To the extent that it's -- it's a modification of the RDS from Europe, yes.

(720 IPR Exhibit 1001 previously marked for identification, 35-page document, United States Patent, Patent No. 9,355,405 B2.)

BY MS. KIERNAN:

Q. Okay. Thank you.

I'd like to show you now a document that was previously marked in the 720 IPR proceeding as Exhibit 1001. It

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should be -- should appear in your Exhibit Share after refreshing.

(The witness reviewing computer screen.)

A. Still refreshing.

(The witness reviewing computer screen.)

A. Okay. Exhibit 1001, right?

Q. Correct. Right. Do you recognize this document?

(The witness reviewing computer screen.)

A. Yes.

Q. This is a copy of the '405 Patent, correct?

A. It is.

Q. Could you please turn to page 35 of the exhibit number that's shown on the bottom right-hand corner. Let me know when you're there.

A. I'm there.

Q. Do you see claim 12?

A. Yes.

Q. Do you recognize claim 12?

- T.A. Williams -

A. Yes.

Q. It is in fact one of the challenged claims, correct?

A. Yes.

Q. I am looking at the beginning of claim 12, "A method for combining multiple media obtained from a broadcast stream."

What is your understanding of a "broadcast stream"?

(The witness reviewing computer screen.)

A. Broadcasts are in the -- are signals that are transmitted from one location -- typically one location to multiple locations, so one to many type of transmissions.

Q. And is there anything different from a broadcast stream?

A. The stream can be either analogue or digital information so it's just the -- the continuing set of information that's being broadcast.

Q. Were you reviewing something just now on your computer as you were

- T.A. Williams -

thinking about the question?

A. Exhibit 1.

Q. And only Exhibit 1001?

A. Correct. No. Sorry. Exhibit 1, not Exhibit 1001. My '405 report.

Q. You're referring to Exhibit 1003 from the first document we looked at today, right?

A. Yes, Exhibit 1 to this deposition.

Q. Okay. Thank you for that clarification. And what in Exhibit 1003 were you look at exactly?

(The witness reviewing computer screen.)

A. Paragraph 27.

Q. What particularly in paragraph 27 were you looking at?

A. The broadcast, page 11, second line, fourth word.

Q. Beginning with, "In one example, 'a radio station transmits'"?

A. No. Fourth word, "broadcast."

- T.A. Williams -

Q. Okay. Thank you.

How did that word help you to recall what a "broadcast stream" is?

A. It didn't.

Q. So your answer with respect to "broadcast stream" was your own recollection?

A. It's my opinion based on industry experience.

Q. Thank you.

Turning back to Exhibit 1001, page 35, that same line -- let me know when you're there, please.

A. Yes.

Q. It says, "multiple media." What is your understanding of "media" in the claim?

A. "Media" is any -- "media" would be content to be consumed by the user.

Q. Thank you. On that same page, if you could look to the next line that begins "receiving." "...receiving, using an electronic receiving device."

A. Yes.

- T.A. Williams -

Q. What is your understanding of an "electronic receiving device"?

A. Electronic receiving device is a device capable of bringing information that's been modulated onto a carrier in -- down into a form that's presentable to a human for any system that needs to interpret that information.

Q. And in the '081 Patent, what would be an example of an "electronic receiving device," in your opinion?

MR. LUCAS: Objection. Which patent are we talking about here?

MS. KIERNAN: The '405 Patent.

MR. LUCAS: So is your question with regard to the '405 or the '081 Patent? Because you said the '081 Patent.

MS. KIERNAN: I apologize. I'll rephrase the question for the witness.

BY MS. KIERNAN:

Q. With respect to the '405 Patent, what would be an example of an "electronic receiving device"?

- T.A. Williams -

A. You're asking about as disclosed within the...

Q. Yes.

A. ...the '405 Patent; is that correct?

Q. Yes.

(The witness reviewing computer screen.)

MR. LUCAS: Maybe you can point to at paragraph in his declaration about this.

A. Can I have my question again, please?

Q. With respect to the '405 Patent, what would be an example of an "electronic receiving device"?

A. So that would be computer system 400 is one form of that and then also in figure -- Figure 2, the receiving device would be -- those elements within 400 and those elements within the -- within the label for the entire device. Those elements within the cellphone on the left that provide the functionality that I

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described earlier of a receiver.

Q. Just for --

A. Figure 3 shows itself -- I guess it's labeled "4," element "4" in the drawing.

Q. Thank you. Turning back to page 35, do you see the next line that begins with "receiving, using the electronic receiving device, at least a second media content"?

A. Sorry, you're breaking up there.

You were asking about the next element of claim 12?

Q. Yes, correct.

(The witness reviewing computer screen.)

A. Yes, I see it. I see the element.

Q. And at the end of that element it says, "the second media content received discretely from the first media content." Correct?

A. Yes.

Q. What is your understanding of

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"received discretely" as used in the claim there?

A. It's my understanding that "received discretely" means that the receiver is using resources that are not used by the first receiver. So that could be different antennas physically, it could be different RF front ends physically or it could just be different software modules within the -- within the computer itself to perform the reception.

So, for example, if the media 1 were modulated in one particular fashion and media 2 were modulated in a different fashion, those would be discrete receivers because the processing of those received streams would be discretely different.

Q. Thank you. Just to clarify, you stated at the beginning that the receiver is using resources that are not used by the first receiver. Is that correct?

A. Not entirely, yes.

Q. What did you mean when you said, "first receiver"?

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A. The receiver that is receiving the first media stream, first media content.

Q. And that is a different receiver than that receiving the second media content, in your opinion?

A. In this claim, the second media content received discretely from the first media content would require that different resources be applied to the reception of the second media content than the first media content and those resources can be hardware and/or software.

Q. And those hardware and/or software resources could be different receivers as well?

MR. LUCAS: Objection; form.

A. I don't understand the question.

Q. Well, you said that those resources that are used could be different hardware and/or software. What is an example of different hardware used for those resources?

A. I just gave some examples in my

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previous answer.

Q. I appreciate that. Could you give me another?

A. A different antenna, for example, it would be a different hardware resource.

Q. Turning back to the "received discretely," would a signal, a subcarrier signal be considered to be "received discretely" from a carrier signal?

A. Yes, there -- different modulations there are different resources used in the demodulating of that information and presenting it onto whatever system is going to interpret it, including a human.

Q. Maybe you can explain that a little bit more. What is your understanding of a "subcarrier signal"?

A. It's a signal that's broadcast in association with a main carrier signal.

Q. Are those signals combined?

A. Well, I don't -- I think your terminology is imprecise. There is a

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piece of information that is placed onto the main carrier, for example, a song, and there's a piece of information that's placed onto the -- the subcarrier, for example, the title of the song. And both of those pieces of information are modulated in different ways onto carriers that are RF carriers that are broadcast over the air and then the receiver receives that electromagnetic radiation and converts that electromagnetic radiation into electronic signals.

Those electronic signals are demodulated so the information is taken off a carrier wave in two different aspects, one being the song and the other being the song title. And that process of removing the information that's been modulated onto the RF carrier is different in these two cases.

Q. Okay, thank you. Just for clarification, you said that the carrier signal and the subcarrier signal are sent over R [reporter's error] carriers. Are

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they sent in the same carrier or separate ones?

A. R carriers?

MR. LUCAS: Objection to form.

A. I don't understand your question.

Q. I was trying to use the real-time. You had mentioned that the carrier and the subcarrier are then both sent to the receiver as an electronic signal, correct?

A. As an electronic magnetic signal.

Q. Okay, thank you. Is it one electromagnetic signal or two?

MR. LUCAS: Objection to form.

A. At what point? At the point of transmission?

Q. Yes. Let's start there. At the point of transmission is the subcarrier and carrier signals one electromagnetic signal?

A. Hmmm, depends on your philosophy, I guess.

- T.A. Williams -

Q. Okay --

A. It depends on your philosophy. I would think one POSITA would say it's a single signal and another POSITA would say it's multiple signals. The RF electrodynamic radiation itself is being transmitted from the transmitter, I would say -- I would say, it just depends on how you want to view that.

Q. And how do you view that, Dr. Williams?

A. It could be either way. It depends on what we're discussing. Again, I -- I think a POSITA could look at it either as a single signal or multiple signals.

Q. Okay. Going back to the '405 Patent, page 35, the next line in the claim 12 is "determining uniquely identifying data."

Let me know when you're there.

A. I'm there.

Q. What is "uniquely identifying data"?

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(The witness reviewing computer screen.)

MR. LUCAS: Objection to form.

A. Sorry, can I have the question again, please?

Q. Yes. The claim states, "determining uniquely identifying data."

What is "uniquely identifying data"?

A. The patent -- the '405 Patent discusses this in column 7 starting at line 51, "The terms 'unique event identifier' and 'unique identifier' as used herein are broad terms that refer to any means for identifying a specific instance of a broadcast stream transmission and/or media signal."

Q. And is that what you were reviewing while determining your answer?

A. Yes.

Q. And it's your understanding that "unique event identifier" or "unique identifier" is the same as "uniquely identifying data" in the patent?

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MR. LUCAS: Objection, form; misstates testimony.

A. Well, this entire paragraph in the spec discusses unique identifiers.

Q. And so it is your opinion that this paragraph discusses "uniquely identifying data" as well?

MR. LUCAS: Objection to form.

A. I'm sorry, I didn't hear the whole question.

Q. I will restate the question. Is it your opinion that the paragraph in the '405 Patent in column 7 beginning around line 51 also describes "uniquely identifying data"?

(The witness reviewing computer screen.)

A. Yes.

Q. What would be an example in your opinion of "uniquely identifying data" as used in this claim?

A. Well, the patent discusses at column 7, line 63 an advertise -- "advertisement, related media, associated

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media, device, language user of a device and/or first media signals."

Q. And it is your opinion that those are examples of "uniquely identifying data" in the patent?

A. Yes.

Q. Would a URL constitute "uniquely identifying data" described in this claim?

(The witness reviewing computer screen.)

A. Yes.

Q. And you were reviewing the patent on the screen as you were determining that answer, correct?

A. I was.

Q. Were you looking at any other documents?

A. No.

Q. Thank you.

Similarly, would an IP address be an example of "uniquely identifying data" under this claim?

A. It could.

Q. Would a user identification

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number be an example of "uniquely identifying data" under this claim?

A. Yes.

Q. Would a phone number be considered a "uniquely identifying data" under this claim?

A. Yes.

Q. Turning back to the '405 Patent, claim 12, moving to the element beginning with "presenting concurrently," can you let me know when you're there?

A. Yes. I'm there.

Q. Thank you. What is your understanding of "presenting concurrently" as used in claim 12 of the '405 Patent?

A. That the first media content and the second media content be presented to the user using an electronic output device.

Q. So if you present the first media signal for the user using the electronic device and then wait five minutes and then present the second media content for the user in that electronic

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device, would that meet this claim element, in your opinion?

A. Depends on the length of the first media content.

Q. So if the length of the first media content was 20 seconds, and there was still a delay by five minutes in presenting the second media content on the same user devise, would that meet the claim, in your opinion?

A. I have not opined on that particular situation.

Q. But sitting here today, would you say that that's the case -- or no?

A. Depends on the time resolution of concurrently.

Q. What do you mean by that?

A. Well, if your time resolution is a century, the First World War and the Second World War occurred concurrently.

If your time resolution is nanoseconds, the first bit of a data stream and a second bit of a data stream are not concurrent.

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Q. Did the '405 Patent talk about time resolution in your understanding?

A. I'm sorry, could I have the question again, please?

Q. Yes. Does the '405 Patent talk about time resolution as you understand it?

A. I think that -- not specifically. I think --

Q. And -- go ahead.

A. I think that a receiver receiving the '405 would interpret that concurrently in terms of the human scale of time perception.

Q. What's "the human scale of time perception"?

A. Depends on what you're doing.

Q. So if you were writing a paper in college, what would be the "human scale of time perception" there?

MR. LUCAS: Objection to form.

A. I don't understand the question.

Q. I am going to be honest, I'm not familiar with the "human scale of time

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perception," so I'm trying to understand your use of it.

A. Well -- well, a human can't distinguish microseconds as being not concurrent. But a human can distinguish centuries as being concurrent.

Q. Okay. And could a human distinguish minutes as being concurrent?

A. Yes. For example, this year I'm both 67 and 68 years old. That's concurrent. Concurrently this year I'm both ages.

Q. And so when the '405 Patent refers to "presenting concurrently," it's referring to the human scale of time perception and a person's ability to perceive the concurrent events; would that be a fair statement?

A. Yes.

Q. In the '405 Patent, can you please turn to column 3, line 42.

(The witness complies.)

A. I'm there.

Q. Okay. And the line begins, "As

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the user enabled-device is playing a song" -- it goes on to say -- "a song obtained from the first media signal, the user enabled-device displays the media content in the second media signal."

Do you see that?

A. Yes. This would be one embodiment of concurrent as described in the claims.

Q. And that's because the user enabled-device displays the second media signal as the user enabled-device is playing the song, correct?

A. That's one embodiment, yes.

Q. And that's because it's the same time or at least an overlap of time?

(The witness reviewing computer screen.)

A. I would read that sentence that way, yes.

Q. Thank you.

Going back to page 35, the claim language for claim 12 --

A. Yes.

- T.A. Williams -

Q. -- the last element talks about "transmitting electronically to a computer server a response message."

Do you see that element?

(The witness reviewing computer screen.)

A. Yes.

Q. What is your understanding of a "response message" as used in claim 12 of the '405 Patent?

(The witness reviewing computer screen.)

A. It's a piece of information that is to be transmitted and that piece of information has to at least include uniquely identifying data specific to the second media content -- to at least the second media content and -- as well as the location of the electronic device.

Q. So that would mean that -- going back to one of our earlier examples of a user identification number -- the response message would need to contain that user identification number, correct?

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A. In your hypothetical example, yes.

Q. Thank you.

A. Well, unless there were so many other uniquely identifying data but that would be an example of "uniquely identifying data."

Q. Okay. So if in the example, "uniquely identifying data" is the user identification number, the response message in claim 12 would need to include that user identification number, correct?

A. Yes. Or some other form of uniquely identifying data.

Q. Okay.

MS. KIERNAN: We have been going for about an hour and I'm going to turn to the '081 Patent next. Would you like to take a break now? It might be beneficial -- or we can keep going. Whatever you prefer, Dr. Williams.

THE WITNESS: Let's keep going.

(721 IPR Exhibit 1001 previously

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marked for identification, 35-page document, United States Patent, Patent No. 8,166,081 B2.)

BY MS. KIERNAN:

Q. Okay. I would like to show you a document that was previously marked in the 721 IPR, Exhibit 1001.

Let me know when it appears for you, please.

(The witness reviewing computer screen.)

A. So this is 1001 U.S. Patent '081?

Q. Correct.

A. Okay, I have it.

Q. Do you recognize this document?

A. Yes.

Q. And you reviewed this document in forming your opinions in the 721 IPR?

A. Yes.

Q. Can you please go to page 34 as marked on the bottom right-hand corner.

(The witness complies.)

A. Yes.

- T.A. Williams -

Q. And turning to claim 9, do you recognize this claim?

A. I do.

Q. And this is one of the claims that you opined on?

A. It is.

Q. Thank you.

And turning to the second line of the claim beginning with "a first receiver module configured to receive," do you see that line?

A. I do.

Q. And that line continues, "at least a first media content and data enabling the identification of a specific instance of the first media content," correct?

A. You read that correctly.

Q. Thank you.

What is your understanding of "data enabling identification of a specific instance" as used in claim 9 of the '081 Patent?

(The witness reviewing computer

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screen.)

A. Can I have the question again, please?

Q. Yes. What is your understanding of "data enabling identification of a specific instance," as used in claim 9 of the '081 Patent?

A. I believe a POSITA would read that disclosing information such as the -- the specific item number of the broadcast, the catalogue number, for example, of the song, the type of song, jazz, reggae, rock, that sort of thing.

Q. To clarify your response a little, would you say that each one of those items you listed is data enabling a specific instance or all of those items together is data enabling a specific instance?

A. Each individual.

Q. How would the catalogue number, for instance, identify a specific instance of the first media content?

A. It would identify that this

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broadcaster at this particular time broadcast catalogue number 1234.

Q. Okay. Is a "catalogue number" a term of art?

A. It is in my experience. You know, there are catalogue numbers of songs.

Q. So that would be a term used in the broadcasting industry, to your knowledge?

A. I would believe so, yes.

Q. Thank you. If you could look at the claim 9 of the '081 Patent again, looking at the next line it says, "a second receiver module configured to receive at least a second media signal content and uniquely identifying data specific to at least the second media content," do you see that?

A. Yes.

Q. What's the difference between the data enabling identification of a specific instance in the previous limitation in claim 9 than uniquely

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identifying data specific to the media content in this limitation, in your opinion?

A. The two types of data relate to different media streams. That's the difference.

Q. So the only difference in your opinion is that one data relates to the first media content and one data relates to the second media content?

A. (No response.)

Q. Is that correct?

MR. LUCAS: I'm going to object to form and also say that when you read the claim language you excluded the word "signal" after "media." In other words, "signal" is deleted from Claim 9, so I object to the form.

A. Can I have the question again, please?

Q. Absolutely. So in your answer, the only difference is that one data refers to the first media content and the other data refers to the second media

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content. Am I understanding that correctly?

A. In the claim, that's the only distinction.

Q. Okay. So in claim 9 of the '081 Patent, the only distinction between "data enabling identification of a specific instance" and "uniquely identifying data specific to" is the media that it's referring to, in your opinion?

A. And that the second identifying data be media content that's discretely received from the first media content.

So given the two media contents are discretely received, the difference between the uniquely identifying data is which data stream -- which media content that uniquely identifying data relates to.

Q. Okay. So turning back to the "data enabling identification of a specific instance," and your example of a catalogue number, if the same song is played on the same station, would it have a different catalogue number for each

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occurrence of the song?

MR. LUCAS: Objection to form.

A. No, but that -- that same song would have different data associated with it in terms of its time of broadcast.

Q. Okay. And so you would be able to differentiate between the same song being played -- the different occurrences because they are played at different times; is that correct?

A. You said, "you." I don't understand the question.

Q. Sorry. A person would be able to differentiate between playing one song and a second occurrence of that same song because the time data would be different, correct?

A. Yes. And there could be other indications such as the song that occurred before or the song that occurs after or the advertisement that occurs before and the advertisement that occurs after.

Q. Okay.

A. There would be several factors

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indicating the context in which that song was received.

Q. So one example would be that the different songs that are played before and after; is that correct?

MR. LUCAS: Objection to form.

A. What I'm saying, any context in which the user would perceive the second playing of the same song would be a different instance than the first song, would be indicative of a unique occurrence.

Q. Okay. Thank you.

The term, "specific instance," also appears in claim 13 of the '405 Patent.

Do you understand that to have a different meaning in the '405 Patent?

(The witness reviewing computer screen.)

A. No. Same meaning.

Q. Thank you. So going back to the second limitation, "a second receiver module configured to receive at least a

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second media content" --

A. We're back on the '081?

Q. Yes, I apologize.

A. Yes, go ahead, please.

Q. Thank you.

-- (continued) is that second receiver module distinct from the first receiver module in claim 9 of the '081 Patent?

MR. LUCAS: Calls for a legal opinion.

A. Claim 9 says that the second media content received discretely from the first media content and I testified earlier as to what "discretely" means. So I would think the same testimony applies here.

Q. And by that you mean that if it's received over different modulators or through a separate antenna, for example, is that the testimony you're referring to?

MR. LUCAS: Objection to form; misstates the testimony.

A. Yes, you misstated my testimony.

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You don't receive with a modulator.

Q. Okay. But that is the testimony that that -- earlier testimony that you're referring to when we discussed modulators and antennas.

MR. LUCAS: Objection to form.

A. And software and hardware processes to perform the process of receiving -- of taking that information that's been placed under the part of carrier and presenting it onto the user.

Q. Thank you.

Claim 12 of the '405 Patent similarly uses the term "uniquely identifying data specific to."

Do you understand that to mean the same thing as "uniquely identifying data specific" in claim 9 of the '081 Patent?

A. Yes.

Q. Thank you. I think you already said this, but just to clarify, you also understand "received discretely" in claim 9 of the '081 Patent to be the same thing

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as "received discretely" in claim 12 of the '405 Patent, correct?

(The witness reviewing computer screen.)

A. Yes.

Q. Thank you. Looking at the next, beginning with "an output system configured to present concurrently" -- and this is in claim 9 of the '081 Patent -- let me know when you're there.

A. I'm there.

Q. -- (continued) you also understand "present concurrently" to be the same as used in claim 12 of the '405 Patent?

A. That's my understanding.

Q. Okay. Thank you.

What do you understand an "output of the receiver module" to mean in claim 9 of the '081 Patent?

A. The information that was -- was communicated to either the first receiver module or the second receiver module.

Q. And by, "information," you mean

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the type of media content?

MR. LUCAS: Objection to form.

A. Information is information. So a song is information and an address of a restaurant is information. A catalogue number is information. An advertisement is information.

Q. Okay. So one example of "an output of a receiver module" would be a song, in your opinion?

A. Yes.

Q. And another example, like you said, would be an advertisement; is that correct?

A. Yes. Regardless of form.

Q. Turning back to the language of the claim it says, "presenting concurrently the first media content and the second media content."

Did I read that correctly?

A. It does.

MR. LUCAS: What claim are we talking about here and what patent?

MS. KIERNAN: Claim 9 of the

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'081 Patent.

A. It does.

Q. Thank you. And so that means that, as we discussed earlier, presenting both the first media content and the second media content, correct?

A. Yes.

Q. And it's presenting it concurrently in a way that a human could understand that it's being presented, correct?

A. That's one way to present, yes. I don't think that's a restriction of the claim.

Q. And why wouldn't it be a restriction of the claim?

A. I don't see a human in the claim.

Q. Well, when we previously discussed "presenting concurrently," we discussed it in terms of "the human scale of time perception"; is that correct?

A. Yes.

Q. Okay. So it being presented in

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such a way that under the human scale of time perception it's presented concurrently; would that be fair to say?

A. That's my opinion.

Q. And both the first media content and second media content are being presented on an output on the first receiver module or the second receiver module under claim 9 of the '081 Patent; isn't that correct?

A. You read that correctly.

Q. So there must be an output of the first receiver module or an output of the second receiver module; would that be your understanding?

A. So your question is, is this "or" or "and/or"?

Q. Yes.

MR. LUCAS: Objection to form.

A. I think that's a legal question.

Q. Well, when you're reading this, do you understand it to allow for presentation of both the first media content and second media content on an

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output of the first receiver module?

(The witness reviewing computer screen.)

A. I believe the claim construction is a legal question.

Q. I'm not asking for a claim construction. I'm asking for your understanding.

Do you believe that claim 9 allows for presentation of the first media content and the second media content on an output of the first receiver module?

MR. LUCAS: Objection to form.

A. I interpret this to be "and/or." The -- for example, the output of the first receiver module and the output of the second receiver module could be the same physical device to present information to the human.

Q. And by saying, "physical device," you mean what? Can you please give me an example?

A. For example, a computer display. Display screen.

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Q. So the display screen could present both the first media content and the second media content?

A. Yes. A physical device, the output of the first receiver module could be a portion of that screen and the output of the second receiver module could be another portion of that screen.

Q. Going back to the claim language of claim 9 of the '081 Patent, the last element says, "a transmitting module configured to transmit a response message." Correct?

A. You read that correctly.

Q. Thank you. And do you understand "response message" to have the same meaning in claim 9 of the '081 Patent as we discussed claim 12 of the '405 Patent?

A. Yes.

Q. Thank you.

Turning to claim 10 0f the '081 Patent --

A. Yes?

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Q. -- it reads: "The system of claim 9 further comprising an output selection module configured to limit the output of the first and second media content based on a criterion."

Did I read that correctly?

A. You did.

Q. What is an "output of the first and second media content," as you understand it in claim 10 of the '081 Patent?

(The witness reviewing computer screen.)

A. It's the information that is -- the information that is contained in the first and second media.

Q. Okay. So, for example, if the first media content was a song, an output of the first media content would be that song?

A. For example, yes.

Q. What is the difference in your opinion between "output of the first and second media content" in claim 10 of the

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'081 Patent and an "output of the first receiver module or the second receiver module" in claim 9 of the '081 Patent?

MR. LUCAS: Objection to form.

A. I don't understand the question.

Q. So we discussed in claim 10 that the output of a first media content could, for example, be a song. That's one example, correct?

A. Yes.

Q. Okay. And correct me if I am wrong, but we also said when talking about the output of a first receiver module that is -- an example could be a song; is that correct?

MR. LUCAS: Objection to form; misstates the testimony.

A. Well, I'll let you go on without affirming that. Please complete your question.

Q. Well, my question is: What's the difference between the output of a receiver module and an output of a media content as you understand it in the claim

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of the '081 Patent?

MR. LUCAS: Objection to form.

A. Well, they -- output of the receiver module can be manipulated for a presentation to the user to create the media content.

Q. And what do you mean by the "output of the receiver module can be manipulated"?

A. Exactly that.

Q. So what would be another way of saying that, the output of the receiver module can be altered and changed in some way to allow for presentation?

A. Yes, for an example which would be equalization of the audio.

Q. Whereas, an output of a first media content cannot be manipulated, would that be correct?

MR. LUCAS: Objection to form.

A. Could I have that question again?

Q. Yes. Whereas, an output of a first media content cannot be manipulated;

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would that be correct?

MR. LUCAS: Same objection.

A. Well, the -- the output of the first receiver module can be further processed to create the media content for presentation to the user. An example of which would be equalization. An example of which would be a first receiver module produces a digital data stream and a presentation to the user is via analogue wave forms presented to the speaker, so there would be some processing performed.

Q. Would there be any processing performed on the output of the first media content?

MR. LUCAS: Objection to form.

A. Depends on the -- at what point you would like to define "media content."

Q. How do you define "media content"?

A. Depends on at what point in the receiver in presentation of that content that -- would you like to discuss.

Q. Well, we're discussing the

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output of the first media content.

So at the time of output of first media content, how would you define a "first media content"?

MR. LUCAS: Maybe point him to the paragraphs in his declaration where he opines about the definition of separation.

A. Can I have the question again, please?

Q. Yes. In discussing the output of the first media content to the output of first media content, how would you define "first media content"?

A. Well, that's discussed in paragraphs 38 and 39 of my report which is Exhibit 2 to this deposition.

Q. Well, you told me that you could define "media content" depending at what part of the process we were talking about, correct?

A. Yes.

Q. Okay. So is there a different understanding of "media content" at the

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output of the media content as compared to paragraph 38 and 39 of your report?

A. Well, for example, paragraph 39 talks about sounds. I think that's an easy -- songs -- that would be the easy example.

So a song as it's presented to the user by a speaker is the output of -- of the media --

Q. And --

A. Let me finish.

-- (continued) is the output of the first media. For example, the -- that song may have been manipulated by the -- by the device that's presenting it from its received form by the receiver module, an example of which would be equalization, an example of which would be interpolation, an example of which would be conversion from digital to analogue.

So if we're talking about the media at various points in that processing before it's presented to the user, that media still exists. That media would be

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in different forms.

Q. Okay --

A. Certainly the output -- that the output as it's presented to the user, there is only one form.

Q. And what would be that form? For the song, for example?

A. The final -- the final form as it's presented to the speaker over the headset.

Q. So an example of the final form of a song would be the audio; is that fair to say?

A. No, I think that's imprecise.

Q. What would be more precise?

A. It would be the song as it's been processed.

Q. And so when the song is output on a speaker, for example, what would you consider that output of the song to be?

A. In terms of the claim terms?

Q. Just in your general understanding.

A. Music.

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Q. So it would be the music or the audio on the speaker that you would understand that song's output?

A. Yes. My brain would interpret that as music, yes.

Q. Okay. Would you consider the speaker, then, to be the output device for that song?

A. The speaker is part of the output process, yes.

Q. Okay, thank you.

MS. KIERNAN: I think this is a good time for a break, Dr. Williams.

MR. LUCAS: Sure.

MS. KIERNAN: Would 15 minutes be enough for you? Would you like less, more...?

THE WITNESS: If we could start around 11 that would be good.

MS. KIERNAN: 11, all right. Thank you.

(A recess was taken.)

BY MS. KIERNAN:

Q. Dr. Williams, I just wanted to

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go back to claim 9 of the '081 Patent for a minute and looking at the "data enabling identification of a specific instance" content. We had talked about that data may include a catalogue number, correct?

A. Yes.

Q. And when identifying a specific instance, you would include that catalogue number and some other context of when the song was played. Would that be a correct statement?

A. Maybe it would, maybe it wouldn't.

Q. Okay. When wouldn't you include the context?

A. When you didn't care about the context.

Q. Okay. So in the instance of the claim, claim 9 of the '081 Patent, when you're seeking "data enabling identification of a specific instance," would it be fair to say we care about the context in order to identify different instances of the same media?

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MR. LUCAS: Objection to form.

A. I don't see that in the claim.

Q. Correct, it's not. But I guess -- I'm trying to understand your interpretation of what a "specific instance" is based on your understanding of the '081 Patent. And so when looking at "data enabling identification of a specific instance," we talked about a few examples. One being catalogue number, the broadcast identification -- is that correct?

A. I believe you said that correctly.

Q. Okay. And when we talked about a catalogue number, we also talked about how to differentiate between different occurrences of the same song being played, for example. Is that correct?

A. We did.

Q. And when we talked about data identifying different occurrences of the same song, you mentioned that you could take the catalogue number and some other

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data such as time or the context in which the song is played; is that correct?

A. Yes.

Q. So in that instance, then, the data enabling and identification of a specific instance would be the catalogue number and that additional context data; is that fair to say?

A. It could be. Depends on what you were doing with it.

Q. Okay. Well, in the instance of claim 9 of the '081 Patent, it would be the catalogue number and that additional context number; is that fair to say?

A. In this patent, possibly. Depends on what you mean by "specific instance."

Q. Well, what's your understanding of a "specific instance"?

A. Depends on what you mean by that.

Q. When looking at claim 9 of the '081 Patent, it says, "data enabling the identification of a specific instance."

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What is your understanding of a "specific instance" in claim 9 of the '081 Patent?

A. So "specific instance" means that this song was played at this particular time. Then that's what you would need to design the system to understand if "specific instance" just means this song is played, then you wouldn't need to consider the time or the -- or the channel in which that song was played. So it kind -- it kind of depends on your design goals for that implementation.

So the claim itself doesn't restrict "specific instance" to a resolution -- I guess is the best way --

Q. What do you mean by "resolution"?

A. Time of day is an example of "resolution."

Q. What other examples would there be of "resolution"?

A. Day of the month.

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Q. But you do agree that "data enabling the identification of a specific instance of a first media content" has to be able to differentiate between two occurrences of the exact same media content, correct?

MR. LUCAS: Objection to form.

A. Depends on the system you're designing. Depends on the system you're looking at.

If the system doesn't care whether the song was played twice in a day, then you wouldn't care -- you wouldn't need to resolve the time of broadcast.

If the system cared about the time of broadcast, then you would need to record that information -- or that information may be transmitted as part of the identification information so this catalogue number at this time on this radio station could be data enabling the identification.

Q. Of a specific instance?

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A. Yes.

Q. In claim 9 of the '081 Patent, is it your opinion that the system does care about identifying between two different occurrences?

A. I don't see that in the claim.

I think the claim is broader to include both aspects.

Q. So would you agree that "specific instance" in the '081 Patent, claim 9, means a "specific occurrence"?

A. It could.

Q. And would you also then agree that "specific instance" in the '405 Patent means "specific occurrence"?

A. Sorry, ask that question again?

Q. Yes. Would you then also agree that "specific instance" in the '405 Patent claim means "specific occurrence"?

A. It could or it could not, just like the other patent.

Q. What do you mean by "it could not"?

A. On what we just discussed.

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If the system under consideration doesn't necessarily need to resolve the time of broadcast of a particular song, then there's no need to include that information either in the -- in the identifying information that was broadcast or the context in which that song was received.

Q. And that's relevant just to the time of broadcast?

A. I'm sorry, you faded out there.

Q. Sorry. I keep moving from the mike. That's relevant just to time of broadcast; is that what you're saying?

MR. LUCAS: I'm just going to object to the form of the question.

A. That's a hypothetical that we're discussing.

Q. So if we were, then, to look at the context of the song, for example, the song that came before and after it, as we spoke about earlier, it would also be your opinion that that doesn't matter unless the system specifically is designed to

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look for that information?

MR. LUCAS: Objection to form.

A. My testimony is that that is a mechanism to identify a specific instance to a greater resolution than just catalogue number in this hypothetical.

Q. So you would agree, then, that both catalogue number and the context of the song would be sufficient for "data enabling the identification of a specific instance" under claim 9 of the '081 Patent?

A. Are you asking if there's a system that includes the context information log with the catalogue number, would that system be infringing the use of claim 9, is that your question?

Q. No. I'm asking if you have a catalogue number and the context of the song as your other example, is that sufficient in your opinion to be "data enabling the identification of a specific instance"?

A. In -- in an accused infringing

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device?

Q. In general. Just looking specifically at "data enabling the identification of a specific instance."

A. Well, again, it depends on the resolution of a specific instance that is required by the system.

Q. "Specific instance" means "specific occurrence" in the context of the '081 and '405 Patents, correct?

MR. LUCAS: Objection to form.

A. Where do you see that? In my opinion?

Q. I'm asking for your opinion, Dr. Williams.

A. Where do you see that in my report?

Q. I'm asking for your opinion now, Dr. Williams.

A. I have not expressed that opinion.

Q. Okay. Then, in your opinion, the term "specific instance" means "specific occurrence" in the context of

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the '081 or '405 Patent?

MR. LUCAS: Objection to form; misstates testimony.

A. I have not expressed that opinion.

Q. Is it your opinion that the term "specific instance" means "specific occurrence" in the context of the '081 and '405 Patent?

A. I have not reached a conclusion on that subject.

Q. Okay. So you are unable to identify an opinion today of whether "specific instance" means "specific occurrence" in the context of the '081 or '405 Patent?

MR. LUCAS: Objection to form.

A. I've not expressed that opinion.

Q. What else can "instance" mean?

MR. LUCAS: Objection to form.

A. I don't understand the question.

Q. Well, what does "instance" mean in your opinion?

MR. LUCAS: Objection; vague.

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A. Well, we could bring out the dictionaries.

Q. I'm asking for your opinion, Dr. Williams.

MR. LUCAS: Same objection.

A. I have not expressed an opinion on that.

Q. So you have no opinion sitting here as to what "instance" means in the context of the '081 and '405 Patent?

A. I've not expressed a particular definition of the word "instance."

(721 IPR Exhibit 1004 previously marked for identification, 28-page document, titled, "United States Patent, Patent No. 6,349,329 B1.")

BY MS. KIERNAN:

Q. Okay. I would like to show you another document that is 721 IPR Exhibit 1004.

Please let me know when you see that in your Exhibit Share.

A. Say again, which one is it? Oh, 1004?

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Q. Yes.

(The witness reviewing computer screen.)

A. I have it.

Q. Do you recognize this document?

A. I do.

Q. And you reviewed this document in forming your opinions in your declaration for the '081 Patent, correct?

A. I did.

Q. And looking at -- well, let's just confirm. So in "identifying data enabling a specific instance" in this reference you identified the "cut code" and "station ID." Is that correct?

A. Yes.

Q. What is the "cut code"?

A. That would be the -- which -- it would be similar to a catalogue number. It would be the -- my understanding, it would be the -- whatever cut they played over the broadcast system.

Q. And what would be your understanding of a "cut"?

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A. Sorry, say again.

Q. What would be your understanding of a "cut"?

A. A portion of a video or a portion of an audio that was presented to the user.

Q. Okay. Thank you.

What are the "broadcast segments"?

MR. LUCAS: Objection to form.

A. Don't understand the question.

Q. Well, I would just like to know what your understanding of a "broadcast segment" is.

A. Well, Mackintosh discusses this at column line 57, 62, in column 10 line 32, 33 and column 22, 55 and 60 when he said "supplemental materials can also include advertising information that's provided to the user during particular segments of the broadcast material."

Q. So what is a "broadcast segment" then?

A. Well, we could look at column 2,

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line 43 to 56 --

(The witness reviewing computer screen.)

A. -- where Mackintosh describes segments as, for example, track or tracks.

Q. Okay. So your understanding of "broadcast segment," then, is consistent with the section in Mackintosh that you're pointing me to?

MR. LUCAS: Objection; lack of evidence.

A. That's an example of a "segment."

Q. Okay. What other examples of "segment" are you aware of?

MR. LUCAS: Objection; vague.

A. Well, Mackintosh says, "according to one embodiment, the broadcast materials delivered to the user in segments such as, for example, tracks of music, advertisements and promotional materials in a radio broadcast."

Q. So in your opinion, a "segment" would be a track of music in one example?

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MR. LUCAS: Objection to form.

A. That's what Mackintosh points to, yes.

Q. And do you agree with that statement in Mackintosh?

MR. LUCAS: Objection to form.

(The witness reviewing computer screen.)

A. Yes.

Q. And so what would be the difference, then, between a "cut" and a "segment"?

MR. LUCAS: Objection to form. What's the relevance of broadcast segment to this IPR?

MS. KIERNAN: I'm sorry, is that a question for me, Eric?

MR. LUCAS: It is.

MS. KIERNAN: Well, we're talking about "broadcast" and Mackintosh uses the word "segment," so we're trying to determine the significance of broadcast segment.

MR. LUCAS: Why are we trying to

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do that? Is that a claim term in the patent?

MS. KIERNAN: We don't have to explain this to you, Eric, in this point and time.

MR. LUCAS: If you're going to go beyond the scope of this IPR, I'm going to shut down the deposition.

If you can point me to the patent claims that we're challenging here then we can proceed.

MS. KIERNAN: You're telling me I cannot question him about broadcast segment in an IPR dealing with broadcasting?

MR. LUCAS: If you can't explain what the relevant term of broadcast segment is.

MS. KIERNAN: I'm going to continue, but if you would like to instruct him not to answer based on your relevance objection, you are welcome to do that, though.

MR. LUCAS: Also scope

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objection.

MS. KIERNAN: Okay. That's fine.

A. Is there a question pending?

Q. I don't believe there was.

A. Can I have the question, please?

Q. What would be the difference between a "cut" and a "segment"?

MR. LUCAS: Objection to form.

A. I don't believe I have ever opined on this subject.

Q. Okay. Sitting here today, what would be your opinion of the difference between "cut" and a "segment"?

MR. LUCAS: Objection to form.

A. I've not expressed that opinion on that.

Q. So you're unable to express an opinion sitting here today on the difference between a "cut" and a "segment"?

MR. LUCAS: Objection to form.

A. Well, I will note that Mackintosh in column 9, line 12 to 14

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talks about "cuts" or "segments" in the same context.

Q. And what is your understanding of using "cuts" and "segments" in the same context in Mackintosh?

A. I've not used that in the formation of my opinion.

Q. Okay. Well, sitting here today, since you pointed me to it, what is your understanding of "cuts" and "segments" as used in column 9, line 14 in Mackintosh?

A. I have not expressed an opinion on that.

Q. What is your opinion of "cuts" or "segments" as used in column 9, line 14 of Mackintosh?

MR. LUCAS: Objection to form.

A. I don't have one at this time.

(721 IPR Exhibit 1003 previously marked for identification, multiple-page document, titled, "DECLARATION OF TIM A. WILLIAMS, PhD IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO.

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8,166,081.")

BY MS. KIERNAN:

Q. Okay. Could you look at paragraph 68 of Exhibit 1003 in the 721 IPR, please. And let me know when you're there.

A. Paragraph number six-three.

Q. Six-eight.

A. Sixty -- I'm there.

Q. On page 30 is identified at the bottom of the page --

A. Wait. Page 30?

Q. Yes. -- paragraph 68.

A. Oh, 68.

Q. Yes.

(The witness complies.)

A. Okay. I'm there.

Q. Okay. And there is a line item that begins with "Mackintosh explains," do you see that?

(The witness reviewing computer screen.)

A. (No response.)

Q. It's about the fourth one down.

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A. On page 30?

Q. Yes.

A. Yes, I see it.

Q. Okay. And it says, "Mackintosh explains that the 'cut number can be a numeric or alphanumeric identification (ID) that identifies the particular cut,' and that each 'cut code correspond[s] to and uniquely identif[ies] a segment from the standpoint of the radio station.'"

Did I read that correctly?

A. You did.

Q. And you pointed me to column 9, line 14 of Mackintosh that used "cuts" and "segments" in the same instance previously, correct?

A. I did.

Q. But you did not form an opinion as the difference between "cut" and "segment" when identifying this particular quote in paragraph 68 of your declaration, correct?

MR. LUCAS: Objection to form.

A. That's correct. I didn't need

to.

Q. And why didn't you need to?

A. I didn't need to.

Q. Why not?

A. It doesn't -- it doesn't affect my opinion one way or the other.

Q. What does it mean to "identify a segment from the standpoint of a radio station," in your opinion?

(The witness reviewing computer screen.)

A. That the segment is identified as it relates to the radio station.

Q. Okay. And what does it mean to identify a segment as it related to a radio station?

A. Exactly that.

Q. Can you explain it to me, please. I'm missing the point.

A. I don't think I can explain it any clearer.

Q. Okay. Well, so is it identifying a segment of a specific radio station?

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MR. LUCAS: Objection to form.

A. Well, in this sentence, the "radio station" would be -- would be a specific radio station.

Q. Okay. So you stated that it would mean identifying -- "segment is identified as it relates to the radio station," correct?

A. Yes.

Q. And so the segment is identified as to a specific radio station?

A. That's my interpretation of this sentence, yes.

Q. So we were talking about what a segment was earlier and one example you gave was a track of music in Mackintosh; is that fair to say?

A. My example that Mackintosh points to is "(e.g., tracks)," column 2.

Q. Okay. You agree that that is an example of a segment?

A. That's my understanding from reading Mackintosh.

Q. So can more than one song be

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played in a segment?

(The witness reviewing computer screen.)

A. I've not opined on this. I have not opined on this.

Q. But sitting here today you wouldn't be able to say whether more than one song can be included in a segment?

A. How does this relate to my declarations?

Q. That's not the question, Dr. Williams. I'm asking you if sitting here today you would be able to say more than one song is included in a segment.

A. What part of my declarations would you like clarification on?

Q. I would like clarification on whether you believe that more than one song can be included in a segment.

A. And where do you see that in my declaration?

Q. It's irrelevant. The word "segment" appears in your declaration and I would like to know whether you believe

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that more than one song can be included in a segment.

A. And where do you see the expression of that opinion in my declarations?

Q. I'm asking for your opinion today whether more than one song can be included in a segment.

A. I've not expressed an opinion on that.

Q. You're unable to express an opinion sitting here today as to whether one song can be included in a segment?

A. I've not expressed an opinion on that subject.

Q. So, just to clarify, you are unable to express an opinion sitting here today as to whether more than one song can be included in a segment?

A. I've not expressed an opinion on that subject.

Q. Okay. How would Mackintosh's cut code differentiate between a first and second occurrence of a song?

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MR. LUCAS: Objection; vague.

(The witness reviewing computer screen.)

A. Can I have the question again, please?

Q. Yes. How would Mackintosh's cut code differentiate between a first and second occurrence in a song?

MR. LUCAS: Same objection.

A. As discussed previously, I don't believe that's a particular requirement of the claim. However, Mackintosh discusses other information that can be included in the communications along with cut numbers. So a -- context information as we have been discussing would uniquely identify the time of occurrence of the broadcast of a particular song.

Q. Can you point me to the section in Mackintosh that you're referring to?

A. Column 9 and 10.

Q. What specifically in column 9?

A. The entire column.

Q. So you're saying the entire

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column 9 of Mackintosh explains additional information that's provided with the cut code?

A. Yes.

Q. And what specific additional information provided with the cut code would identify the first and second occurrence of the song in column 9?

MR. LUCAS: Objection to form.

A. Well, again, I don't think that's a requirement of the claim. But the information about the -- the -- the cut can be included in the broadcast.

Q. And what information about the cut can be included in the broadcast?

A. The information discussed in column 9 and 10.

Q. What information discussed in column 9 and 10 differentiates between a first and second occurrence of the song?

MR. LUCAS: Objection to Form.

A. Again, I don't believe that's a requirement in the claim so I've not expressed an opinion on that.

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Q. Well, you pointed me to column 9 and 10. Where do column 9 and 10 describe the timing of when a song is played?

(The witness reviewing computer screen.)

A. What I said was, column 9 and 10 include descriptions of other information that can be transmitted along with the cut number in the broadcast.

Q. Okay. So what information and description that can be included along with the cut number and the broadcast would identify the difference between a first and second occurrence of the song?

A. Well, as we discussed many times, I don't believe that's a requirement in the claim and also we discussed the context in which the design would implement -- the infringing design would implement the claims if that -- if that resolution of the first and second occurrence of the song were necessary.

The POSITA would understand that the time and day would be an easy

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differentiation between the first and second occurrence of the song.

Q. Where does time and day occur in columns 9 and 10 in Mackintosh?

A. It would occur in the understanding of the POSITA reading Mackintosh.

Q. So time and day does not appear in columns 9 and 10 of Mackintosh as you understand it?

A. The POSITA would understand that the knowledge of the time and day would be one piece of information that would allow them to implement a system that potentially would infringe claim 9 and that would allow for the differentiation of the first and second occurrence of a song.

Q. I understand that's your exception of what a POSITA would say. I would like to know where in columns 9 and 10 that appears.

A. I don't understand the question.

Q. Well, Dr. Williams, you pointed

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me to columns 9 and 10 as identifying information that can be provided with the cut code to identify the difference between a first and second occurrence of a song.

You've now said that one way to do so would be if the system could be implemented and distinguished between it would be time and day.

I would like to know where in Mackintosh columns 9 and 10 time and day appears.

A. I have not told you the time and day. Time and day occurs in column 9 and 10 in Mackintosh so I don't understand your question.

Q. Does time and day appear in columns 9 and 10 of Mackintosh, to your knowledge?

(The witness reviews computer screen.)

A. Well, the columns say what they say.

Q. Okay. So going back to my

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earlier question, then, when you pointed me to columns 9 and 10 as identifying additional information that could be included in with the cut code to differentiate between a first and second occurrence of a song, what specific information in columns 9 and 10 are you referring to?

(The witness reviewing computer screen.)

A. Well, removing time and day, column 9, lines 9 to 11, "the cut number can include number or other alpha-numeric designations assigned by the radio station for recorded components that air on the station."

So a station could increment the cut number between the occurrence of the first and second transmission of the song.

Q. What do you mean "a station could implement a cut number"?

A. "Could increment the cut number."

Q. So what do you mean by "a

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station could increment the cut number between the occurrence of the first and second transmission of a song"?

A. Just that.

Q. Where does that appear in Mackintosh?

A. This would be understood by POSITA.

Q. So, to your knowledge, that does not appear that you can increment a cut number to differentiate between a first and second occurrence in Mackintosh?

A. Mackintosh specifically adds that "the cut number can include a number or other alpha-numeric designation assigned by the radio station for recorded components that air on" that station -- "on their station."

So they can easily include a cut number differentiation value in their transmissions if they cared to.

Q. So you'd agree to distinguishing two occurrences of the same song, you would have to include different cut

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numbers or a differentiation value of the cut number?

A. Well, something would have to be different. If you're strictly looking at the cut number, something would have to be different between the two occurrences of the cut number to find a differentiation. I think that's pretty clear.

Q. Okay. I'd like to move on to paragraph 104 of your expert declaration in 721 IPR. Would you let me know when you're there.

(The witness complies.)

A. 124?

Q. 104.

A. One-zero-four, I'm there.

Q. Thank you. So 104, paragraph 104 is discussing claim 10 of the '081 Patent; is that correct?

(The witness reviewing computer screen.)

Q. Or let me say that differently. It's affecting Mackintosh in relation to the claimed patent of the '081 Patent?

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A. It is.

Q. And claim 10 of the '081 Patent requires to limit the output of the first and second media content based on a criterion; is that correct?

A. It does.

Q. And you've identified Mackintosh's "tuner button or knob" as the output selection module; is that correct?

(The witness reviewing computer screen.)

A. Yes.

Q. Okay. And in your opinion, that tuner button or knob limits the output of both the first and second media content; is that correct?

A. Yes.

Q. What criteria does the tuner button or knob change?

A. It changes the station that it's being tuned to.

Q. And when it changes the station, it then changes what media content is output, correct?

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A. Yes.

Q. So as an example in Mackintosh, if you're listening to channel A and you change the channel to channel B, it would change both the song or advertisement being played as well as the buy now ticket sales or other secondary content, correct?

A. That's my understanding.

Q. Okay. Thank you.

The device that you've identified in Mackintosh is the, quote, "computer," which I understand you to mean the user terminal as well as "computer system 702"; is that correct?

A. What part are you asking that?

Q. I'm sorry, I saw it as a footnote in the petition but give me a moment and I will find it for you.

It's paragraph 61 of your declaration.

A. Six-one?

Q. Yes.

(The witness complies.)

A. Yes, I'm on 61.

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Q. So just to clarify, when you're referring to computer in your declaration in relation to Mackintosh, you're referring to both the "user terminal 212" and the "computer system 702," correct?

A. Yes.

Q. So in Mackintosh, if the computer is not capable of receiving and/or presenting one of the media contents, there's no other device that could be used to then receive and/or present that media content, correct?

MR. LUCAS: Objection to form.

A. In the hypothetical infringing device or in Mackintosh's disclosure?

Q. In Mackintosh's disclosure.

(The witness reviewing computer screen.)

A. So you're saying we are going to remove capabilities that are disclosed by Mackintosh?

Q. No.

A. Disable capabilities that are described by Mackintosh, is it still

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capable of performing its tasks? I don't understand the question.

Q. So I'm asking in the instance where Mackintosh is not capable for bandwidth reasons or location reasons of presenting a second media content or first media content, there is no other device in Mackintosh that could be used to present either one of those contents, correct?

MR. LUCAS: Objection to form.

A. I've not considered that question.

Q. So sitting here today, you're not able to identify whether or not Mackintosh has a second device that could be used to present media content if the computer in Mackintosh was incapable of presenting or receiving it?

A. My guess is way outside the scope of what I testified as to.

Q. Well, I'm asking today, sitting here today, whether or not you could identify a second device in Mackintosh that is capable of presenting or receiving

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media content when the computer in Mackintosh is incapable of doing so?

MR. LUCAS: Objection to form.

A. I understand -- I understand what you're asking. Again, I haven't expressed an opinion on that.

(721 IPR Exhibit 1005 previously marked for identification, 49-page document, titled, "United States Patent Application Publication," dated November 24, 2005.)

BY MS. KIERNAN:

Q. I am going to move on to another document. I'd like to show you Exhibit 1005 from the 721 IPR. Can you let me know when you receive it and have it downloaded?

(The witness complies.)

A. (Laughter.) Logged me out. Okay. It's surging.

Q. Thank you.

A. Okay. Which document again?

Q. It should say 721 IPR Exhibit 1005.

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A. DeWeese?
Q. Yes.
A. Okay, I have it.
Q. Do you recognize this document?
A. I do.
Q. And you reviewed this document in forming your opinions about the '081 Patent?
A. I did.
Q. Claim 9 of the '081 Patent, as we've discussed, requires receiving the second media content discretely from the first media content; is that correct?
(The witness reviewing computer screen.)
A. I believe you read that correctly.
Q. Okay, thank you.
And you've identified and believe the television programming as the first media content; is that correct?
(The witness reviewing computer screen.)
A. Yes.

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Q. And, similarly, you've identified the real-time communication and chat request in DeWeese as the second media content; is that correct?

A. Yes.

Q. Can you turn to paragraph 133 of your declaration for the 721 IPR, please.

A. I'm there.

Q. Okay. And the paragraph starts with, "In my opinion a POSITA would have understood that 'DOCSIS'" -- D-O-C-S-I-S -- "refers to the 'Data-Over-Cable-Service-Interface-Specification' and that the DOCSIS modem receives television and radio broadcasts over the same physical transmission medium with Internet Protocol ('IP'), data traffic, such as real-time communication."

Do you see that?

A. I do.

Q. Did I read that correctly?

A. You did.

Q. So am I correct in understanding that you're stating here that the DOCSIS

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modem received the television and radio broadcasts?

A. That's part of the receiver, yes.

Q. But the DOCSIS modem, as part of the receiver, receives the television and radio broadcasts?

A. The reception process is not complete at the output of the DOCSIS modem, if that's your implication.

Q. No. I think my question is a little bit simpler.

The DOCSIS modem receives the television and radio broadcasting; is that correct?

A. The DOCSIS modem is a part of the receiver that is receiving media over the same physical transmission medium.

Q. Okay. So what would be the larger receiver if the DOCSIS modem is a part of?

A. The last we discussed earlier today, the receiver is the thing -- hardware and software that takes

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information that's been modulated onto a carrier or a medium and allows that to be -- that information to be presented to the user. So the entire process of taking information off of that, in this case the cable, and demodulating it, depacketizing it, putting it into a format that can be used by the user, that's the receiver's tasks.

Those tasks are performed with the use of the DOCSIS modem and other hardware and software.

Q. So what in DeWeese would be the receiver that the DOCSIS modem is a part of?

(The witness reviewing computer screen.)

A. The set-top box 26 -- element 26.

Q. So this top box 26 is the receiver that receives the television and radio broadcasts in DeWeese?

(The witness reviewing computer screen.)

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A. Can I have the question again, please?

Q. Yes. So this top box 26 is the receiver that received the television and radio broadcasts in DeWeese, correct?

A. Yes.

Q. Turning back to paragraph 133, as you mentioned, and as I read, "The 'DOCSIS modem' receives television and radio broadcasts over the same physical transmission medium with Internet Protocols, data traffic, such as real-time communications."

Does the DOCSIS modem also receive real-time communications?

(The witness reviewing computer screen.)

A. Yes.

Q. And it receives the real-time communication as a part of the larger receiver at top box 26?

(The witness reviewing computer screen.)

A. Yes.

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Q. So is it fair to say, then, that the receiver that receives real-time communication is that top box 26?

MR. LUCAS: Objection to form.

A. It's those elements within set-top box 26 that caused the -- the information that's been modulated onto the cable to be demodulated and presented to the user. So hardware and software elements.

Q. So it's the hardware and software within that top box 26 that received the television programming and the real-time communication; is that fair to say?

A. Yes.

Q. Turning back to paragraph 133 in this declaration, in the declaration, you talk about the "DOCSIS standard requires that each packet include a 'header.'"

What is a "header"?

A. A header is well-understood in the art. It's -- it's a piece of address information -- is the easiest way to think

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about it -- it can include other things but typically it's -- it's -- you can think about it in terms of the -- the address that I put on the outside of an envelope; it includes where the information is going and includes the sender information.

Q. Okay. So the header, in a very generic sense, identifies where the information is going within the receiver or the device?

A. So they -- the received header includes the source of the information, includes the intended designation of the information and includes the type of payload, so that's the differential between -- as I show at the top of page 69 -- a designation when the payload is video or IPD information.

Q. So the header includes where it came from, where it's going and the payload?

A. Yes, the payload category, yes.

Q. Okay.

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A. The payload is included in the body but the payload category would be in the header.

Q. Okay. Thank you for that clarification.

Can you turn to paragraph 152 of your declaration, please. One-five-two.

A. I have it.

Q. At paragraph 152, you say that "a POSITA would have understood that DeWeese's 'set-top box' includes a channel tuner, which corresponds to the claimed 'output selection module.'"

Did I read that correctly?

A. You did.

Q. So it's your opinion that the channel tuner for set-top box 26 in DeWeese would be the output selection module?

A. It is.

Q. Okay. And going back to our discussion of claim 10 with Mackintosh, we discussed that claim 10 requires to limit the output of the first and second media

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content, correct?

A. Yes.

Q. How would the channel tuner limit the output of the first and second media content?

A. I discuss that in paragraph 151.

If the set-top box is changed to a particular channel, the user would experience the video that's provided on that channel as well as the chat associated with that video.

Q. And so the criteria that the channel tuner changes would be the channel; is that correct?

(The witness reviews computer screen.)

A. Yes. In this case -- example.

Q. Thank you. I'm sorry, Dr. Williams.

So similar to Mackintosh then, when DeWeese changes its channel, it is changing what media content is presented, correct?

A. Yes. As well as the chat

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information.

Q. So it's changing both the television programming, what television is presented and what chat is available?

A. You said "what television is presented." So what video is presented, yes.

Q. Yes, okay. Thank you.

So if the television in DeWeese is not capable of presenting either the television program or the real-time communication and chat requests, there is no other device in DeWeese capable of presenting that media content, correct?

MR. LUCAS: Objection to form.

(The witness reviewing computer screen.)

A. I've not expressed that opinion.

Q. So sitting here today, you're not able to offer an opinion as to whether there is a second device in DeWeese that would be capable of presenting media content that the television device in DeWeese is incapable of presenting?

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MR. LUCAS: Objection to form.

A. I've not opined on that question.

Q. Okay. I'd like to go back to the claim of the '081 Patent.

If you could pull that up onto the screen.

A. Yes.

Q. Okay. So claim 9 requires a first receiver module in the first element and the second element lists a second receiver module; is that correct?

A. It does.

Q. Is it your opinion that those receiver modules are different modules?

MR. LUCAS: Objection to form.

A. Don't understand the question.

Q. Okay. Is the first receiver module in claim 9 the same as the second receiver module in claim 9 of the '081 Patent?

MR. LUCAS: Objection to form.

A. You mean, physically?

Q. Yes.

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A. No.

Q. And so then they are separate devices physically?

MR. LUCAS: Objection to form.

A. No.

Q. Why not?

A. To the extent that you're thinking of separate metal boxes, not necessarily.

So the way to look at this is that first receiver module has a specific task to do which is to -- to receive -- which we talked about before which is bringing the -- the information that's been modulated down to the presentation level to the user of the first media content. And the second receiver has a job to do, which is bringing that information of the second media down to the point where it is presented to the user and involves -- both of these tasks involve hardware and software.

The hardware will be -- the hardware and software will be unique in --

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in these receivers. So different resources would be applied to -- to each receiver typically.

Q. Well, if you look at claim 9, the limitation beginning with an output system, "the output system is configured to present concurrently the first media content and the second media content on an output of the first receiver module or the second receiver module."

Doesn't that mean that the receiver module has to be separate devices?

MR. LUCAS: Objection to form.

A. No.

Q. Why not?

A. Because as we discussed before, a single display could display the output of a first receiver module and the second receiver module and physically be the same display but in terms of software the -- there's a distinction -- the software, there's a distinction between the regions of the display.

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Q. But the language uses "output of the first receiver module or the second receiver module," correct?

A. Yes.

Q. So it's differentiating between the output of the first receiver module and the output of the second receiver module?

A. Well, again -- I interpret that as "and/or," but even in the "or" case the -- the second receiver module could include a display and the first and second media content could be presented on that display to the user.

Q. And why do you interpret this as an "and/or"?

A. Because in the instance of playing a song over the speakers and viewing an advertisement on the display of a radio, those would be concurrently occurring and they would be on the outputs of both modules.

The media would be presented concurrently on the outputs that either

module -- but both modules at the same time.

But if you want to limit the claim to 4, then the straightforward example is that the second receiver includes a display in which both the first media content and the second media content are displayed.

Q. Does your report anywhere say that, that you're using "and/or" in this limitation of claim 9 of the '081 Patent?

A. Not that I recall. But I believe it's -- I believe I expressed my opinions regarding even -- even the situation in which is only "or."

Q. And so just to clarify, in the situation in which it's only "or," the second receiver module could have its own display that displays both the first and second media content, correct?

A. That's an example, yes.

Q. Another example would be that the second receiver module has its own display and speakers?

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A. Sorry, you faded.

Q. Another example would be that the second receiver module could have its own display and speakers, correct?

A. Yes.

Q. And the '081 Patent actually contemplates a second device with its own display and speakers, correct?

A. What are you referring to?

Q. The '081 Patent, column 14, beginning at line 27.

(The witness reviewing computer screen.)

Q. Let me know when you're there, please.

A. I'm there.

I'm there. Could I have the question?

Q. Yes. I might have given you the wrong numbers, just a second -- oh, no.

What does -- does your 27 say, "Validation is confirmed"?

A. 26 says, "Validation is confirmed."

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Q. So at the end of 27 beginning with the word "next" --

A. Yes.

Q. -- the '081 Patent reads, "Next, the primary device 4 and/or ancillary device 5 present the advertisement signal media signal 113 at the same time or nearly the same time as the first media signal 111 is presented to the user of primary device 4 and/or ancillary device 5."

Do you see that?

A. I do.

Q. So there's three ways in which a presentation can occur under this sentence. The first would be that the primary device 4 presents both media content, do you agree with that?

MR. LUCAS: Objection to form.

(The witness reviewing computer screen.)

A. Yes.

Q. Okay. And the second way to read that would be that the primary device

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receives one of the signals and presents it and the ancillary device presents the other content; is that correct?

(The witness reviewing computer screen.)

MR. LUCAS: Objection to form.

A. Well, it doesn't talk about perception. We're looking at the presentation here. So could you clarify your question, please?

Q. Yes, absolutely.

So the second reading of this sentence would be that the primary device presents one media signal and the ancillary device presents the other media signal, correct?

(The witness reviewing computer screen.)

A. That's the way I read the sentence, yes.

Q. Okay. But the third way of reading the sentence as well is that the ancillary device presents both the advertisement media signal and the first

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media signal, correct?

A. That's the way I read the sentence.

Q. Okay.

A. So this is an embodiment described in the spec.

Q. So the '081 Patent does contemplate a second device, the ancillary device, capable of presenting both the first and second media content, correct?

A. It discusses an embodiment in which that would be true, yes.

MS. KIERNAN: Eric, I'm going to be moving on to the '405 Patent. It sounds like this is a good stopping point for you and Dr. Williams.

MR. LUCAS: Okay. Sounds good.

THE WITNESS: Good time for lunch.

(Discussion off the record.)

MS. KIERNAN: We will come back at --

THE WITNESS: 1:15.

MS. KIERNAN: -- 1:15. Thank

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you, Dr. Williams.

(Time noted: 3:33 p.m.)

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AFTERNOON SESSION

4:19 p.m.

TIM ARTHUR WILLIAMS, PhD.,
resumed, having been previously duly sworn, was examined and testified further as follows:

(720 IPR Exhibit 1003 previously marked for identification, "DECLARATION OF TIM A. WILLIAMS, PhD, IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 9,355,405.")

CONTINUED EXAMINATION

BY MS. KIERNAN:

Q. Dr. Williams, can I have you open the 721 IPR Exhibit 1003 -- I'm sorry, 720 IPR your declaration, please.

A. Yes.

Q. And if you could turn to paragraph nine-six.

A. Yes.

Q. I would just like to clarify

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what you consider to be the second media content.

So paragraph 96 says, "In my opinion, a POSITA would have understood that the advertisement-related data sent by 'Internet gateway 30' represented by 'action button labels' and/or 'advertising logos' on the display of Lee's 'multimedia device 20' — correspond to the second media content."

Did I read that correctly?

A. You did.

Q. So I read this as having two kinds of options. The first would be the advertising logos; is that correct?

A. And/or, yes.

Q. And the second is the data represented by the "action button labels"; is that correct?

A. Yes.

Q. How is the data that represents the action button labels received in Lee?

A. So, for example, a POSITA would understand that you would receive a URL,

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for example, for a purchase indication and the software would -- in Lee's device would recognize that as a purchase process and put up the text on the display of "BUY" next to a button.

Q. And you said a POSITA would understand that. Where in Lee would indicate that to a POSITA?

A. Well, the display, for example, at 174 in Figure 2 would not have enough text capability to display an entire URL to the user. That URL would be confusing. But the text of "BUY," as I illustrate on page 40, would be more user-friendly. So that's a representative of the information that was received over the second media channel.

Q. And where is the second media channel, in your opinion?

(The witness reviewing computer screen.)

A. So the second media channel of the second media content is discussed in paragraph 97 of my report.

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Q. Where do you see it say, "second media channel" in paragraph 97 of your report?

A. The second media content would be communicated to the receiver over the second media channel.

Q. Okay. But "second media channel" does not itself verbatim appear in that paragraph, correct?

A. Correct. Correct.

Q. Okay.

A. But POSITA discuss channels.

Q. What is the second receiver channel, then, since it's not stated here in paragraph 97? Is there a portion of Lee that would identify that?

A. No. I use the word "channel" as a POSITA -- as a mechanism that caused the information of the second media content to be conveyed to the receiver -- to the user.

Q. Thank you for that clarification.

So what would be the mechanism

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in Lee that causes the data or the action button label to be conveyed to the user?

A. It is the transmission of that second media content and the reception of that second media content into the multimedia device 20 of Lee and the subsequent processing of that device to prepare for its presentation to the user which in my example on page 40 includes the word "BUY" next to a button on the display.

Q. Can you turn to paragraph 93 for me, please.

(The witness complies.)

A. Yes?

Q. And you see there that it says, beginning on the second line, "it is my opinion that a POSITA would have understood that data are sent by Lee's 'Internet gateway 30.'"

Did I read that correctly?

A. You did.

Q. So are you saying here that Lee's Internet gateway 30 is the mechanism

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that causes the multimedia device 20 to receive the data for the action button?

A. Yes.

(720 IPR Exhibit 1004 previously marked for identification, 15-page document, titled, "United States Patent, Patent No. 6,374,177 B1.")

BY MS. KIERNAN:

Q. I'd like to show you a document that was previously marked in these proceedings which is going to be the 720 IPR Exhibit 1004.

Will you please let me know when you receive that in your Exhibit Share folder.

(The witness reviewing computer screen.)

A. 720, Exhibit 1004 is Lee. Okay.

Q. Do you have that document opened, Doctor?

A. I do.

Q. Do you recognize this document?

A. I do.

Q. Did you review this document in

- T.A. Williams -

forming your opinion related to the '405 Patent?

A. I did.

Q. Can you please go to column 6 at line 9.

A. Yes.

Q. The paragraph starts, "The Internet gateway network 30 is designed to transmit and receive critical information to and from a multimedia device 20"; is that correct?

A. In the vehicle 184, Figure 3, yes.

Q. And then following that it explains a list of what the information preferably includes. Is that correct?

(The witness reviewing computer screen.)

A. Yes.

Q. And so data for illuminating the "BUY" and "INFO" button appear in this information preferably included on the Internet gateway network 30?

MR. LUCAS: Objection to form.

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A. These are just examples of information that can be provided by the gateway.

Q. Okay. But in these examples, data for illuminating the "BUY" and "INFO" button does not appear, correct?

A. It's not typed in that paragraph, no.

Q. Can you point me to somewhere in Lee that explains that the data for illuminating the "BUY" and "INFO" button is transmitted over the Internet gateway network 30?

A. That's not my opinion.

Q. I'm sorry, Dr. Williams, but in paragraph 93 you say that it's your opinion that a POSITA would have understood that data are sent by Lee's Internet gateway 30.

Can you point me to where in Lee it would suggest to a POSITA that a date for illuminating the "BUY" and "INFO" button is sent by Lee's Internet gateway 30?

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A. Well, I discuss that in the rest of this paragraph so I'm not sure what your confusion is.

Q. Well, I would like you to point it out to me in Lee sitting here today, please.

A. In Exhibit 1004, column 11, line 16 to 33.

Q. And what in column 11, line 16 to 33 suggests to a POSITA that the data for illuminating the "BUY" and "INFO" button is sent over Internet gateway 30?

A. Well, again, you're misrepresenting my opinion.

Q. And what is your opinion, Dr. Williams?

A. That the "BUY" and "INFO" buttons aren't -- the "BUY" text isn't necessarily transmitted from Internet gateway 30.

Q. Correct. It's the data for illuminating the "BUY" and "INFO" button that is transmitted over Internet gateway 30, correct?

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(The witness reviewing computer screen.)

A. Lee had contended in lines 20 to 30 -- it says, "action button labels and purpose may change from program to program." Above it indicates that its current function -- some examples of action buttons would include "INFO" or "BUY" to purchase an item being advertised.

Lee doesn't restrict where that text of "BUY" or "INFO" comes from so your questions imply that the text "BUY" and text "INFO" have to be projected by the Internet gateway 30 is not necessarily a restriction.

Q. So there's no restriction in Lee that the data for illuminating the "BUY" and "INFO" buttons come over or be sent by the Internet gateway 30, in your opinion?

MR. LUCAS: Objection to form.

(The witness reviewing computer screen.)

A. Can I have the question again,

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please?

Q. So there's no restriction in Lee that the data for illuminating the "BUY" and "INFO" button be sent by the Internet gateway 30, in your opinion?

MR. LUCAS: Objection to form.

A. That's not my opinion.

Q. Okay. Well, you pointed me to column 10 of Lee and stated that column 10 doesn't restrict how the data for the "INFO" and "BUY" button is received. Did I misunderstand that?

A. I don't believe so.

Q. So if -- if Lee does not restrict how the data illuminating the "INFO" and "BUY" button is received, then it does not have to come over Internet gateway 30; isn't that correct?

MR. LUCAS: Objection to form.

A. That's not my opinion. You could say data illuminating and what I'm saying is the text, B-U-Y, doesn't necessarily have to be transmitted from the Internet gateway 30 for each and every

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occurrence of a purchase -- purchase-capable action.

Q. Okay. So, then, where does the data that illuminates the "BUY" and "INFO" button come from in Lee?

A. You keep using the word "illuminate." What do you mean by "illuminate"?

Q. I meant the data that would make it possible for the "BUY" and "INFO" button to appear, but I will amend that to say the data represented by action button labels come from.

A. Can I have a clean question, please?

Q. Where does the data represented by the action button labels come from in Lee?

A. It is transmitted by the gateway network 30.

Q. And what in Lee suggests that it is transmitted by the gateway 30?

(The witness reviewing computer screen.)

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A. In paragraph 90 of my report I quote Lee saying at the very bottom of page 38, "gateway 30 is designed to provide wireless Internet access to multimedia device 20 in the vehicle, enhance regular audio broadcast with extended information, and provide personalized broadcast information and applications to the vehicle."

This explains that the information -- Internet gateway is the thing that's sending information to multimedia device 20.

Q. Doesn't multimedia device 20 also receive AM/FM and TV audio broadcast?

A. Yes.

Q. Is that similarly received over the Internet gateway network 30?

A. In Lee?

Q. Yes, in Lee.

A. Lee talks about -- if you scroll up to the top of page 38 -- Lee talks about AM and FM and TV, audio broadcasts and digital audio broadcasts in the Band

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III, L-Band and the S-Band in element 42. And those are received by the different processes than would be received by -- than would be received by an IP-capable receiver.

Q. Would it have been possible to send the advertising data on a subcarrier signal as the broadcast signal?

MR. LUCAS: Objection to form.

A. Well, subcarrier signals are very bandwidth limited so it depends on what type of information we're talking about. The characteristics of rich experience advertisement data would be difficult to provide over a subband carrier.

Q. Why do you say it's difficult to provide the rich experience advertisement data over a subband carrier? It's not impossible, is it?

MR. LUCAS: Objection to form.

A. Well, exactly what are we talking about in terms of advertising data?

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Q. Well, in the context of your declaration, you have identified the data that is represented by the "BUY" and "INFO" buttons.

Would you agree that the data causing the device's computer program to create or show the "BUY" or "INFO" button could be tasked to the device subcarrier signal?

MR. LUCAS: Objection to form.

(The witness reviewing computer screen.)

A. Well, the -- the subcarrier channel is capable of conveying information to the extent that the information received over that channel meets your criteria for your question. That information could be used in a variety of ways.

Q. And by the "information that meets the criteria" in my question, you mean the information or data that would cause the device to display or show the "BUY" or "INFO" button?

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(The witness reviewing computer screen.)

A. If I understand your hypothetical, that -- that could possibly occur.

Q. Okay.

A. But it's one example.

Q. So one example of data that could be carried over the subcarrier would be data causing the device's computer to display the "BUY" or "INFO" button, correct?

MR. LUCAS: Objection to form.

(The witness reviewing computer screen.)

A. If you build a system such that the uniquely identifying data were carried over the RBDS channel and would qualify a second media content, then you could build a system in which that second media channel caused the display of the "BUY" or "INFO" buttons on the display.

Q. Well, looking at the Lee system, there is -- there's nothing in Lee that

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says that the data that is represented by the "BUY" and "INFO" button could not be sent by the subcarrier signal, correct?

MR. LUCAS: Objection to form.

(The witness reviewing computer screen.)

A. Well, testifying as to what's not there is difficult. So I'm not sure I understand your question.

Q. To your knowledge, is there anything in Lee that says that the data that is represented by the "BUY" and "INFO" button could not be sent by the subcarrier signal?

MR. LUCAS: Objection to form.

A. So in your hypothetical how would the response transmission be correlated to the RBDS transmission?

Q. I'm not asking about the response transmission. I'm asking about the multimedia device receiving the data that causes the "BUY" or "INFO" button to be displayed. And I would like to know if there is anything in Lee, to your

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knowledge, that says that the data that is represented by the "BUY" and "INFO" button could not be sent by the subcarrier signal?

MR. LUCAS: Objection to form.

A. And my clarifying question is, it seems to me like your hypothetical system would not operate correctly because there would have to be a correlation between the transmission of the action button indication to the RBDS transmission. And I'm -- I'm not sure how that would occur. So I think your system would not perform correctly in your hypothetical.

Q. But just to clarify, Lee does not explicitly state that the data represented by the "BUY" and "INFO" button is sent by the Internet gateway 30, correct?

MR. LUCAS: Objection to form.

A. What part of Lee are you asking about?

Q. I'm asking about your opinion of

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Lee in general.

A. Well, saying what's not described in Lee is very difficult. But I consider in your hypothetical the -- I would say a POSITA would not seek to operate the system the way you're describing because I don't think it would work.

Q. Well, I'm not referring to my hypothetical. I'm referring to your opinion that the data represented by the "BUY" and "INFO" button is sent to the multimedia device by the Internet gateway. And I would like to ask you, does Lee explicitly state that that data is sent by the Internet gateway 30?

MR. LUCAS: Objection to form.

(The witness reviewing computer screen.)

A. I discuss this in paragraphs 90 and 91 of my report.

Q. Okay. And in paragraph 90 and 91 in your report, just to be clear, there is no language from Lee that states that

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the data represented by the "BUY" and "INFO" button is sent by Internet gateway network 30, correct?

MR. LUCAS: Objection; misstates the declaration.

A. Well, I have two answers, that one is in the Lee's disclosure that way, the other thing in my paragraph 91, I point out that Lee talks about the Internet gateway is sending data that would cause the display of info buttons, call buttons, snap buttons and NAV buttons. So the only -- the only communication record that is described in Lee which connects to Internet data is the gateway communication unit of device 20.

Q. And in paragraph 91 you cite to Lee at column 10, line 20 to 30, correct?

A. Right.

Q. And column 10, lines 20 to 30 of Lee do not include the words "Internet gateway 30" in that order, correct?

A. It's not typed there, no.

Q. Thank you. Could you please

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turn to paragraph one-zero-eight of your declaration.

(The witness complies.)

A. Yes.

Q. And so in 108 you opine that "a POSITA would have understood that 'the date and time of the button press,' and 'the channel selected' correspond to the claimed 'uniquely identifying data specific to at least the second media content.'"

Did I read that correctly?

A. You did.

Q. Okay. And so I would just like to understand how this works in your opinion.

So in Lee there is "BUY" and "INFO" buttons displayed during an advertisement when it receives the kind of data to do so; is that correct?

A. I didn't hear the last part of that question but I believe that's correct.

Q. Okay. And when the user presses

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the button, Lee captures the date and time the button is pressed, correct?

(The witness reviewing computer screen.)

A. It can.

Q. And it can also record or somehow keep track of the channel that was selected when the button was pressed, correct?

A. Lee's device 20 has that information available to it, yes.

Q. So if I were to push the "BUY" button right now at 1:58 p.m. Pacific time for you, 1:58 p.m. Pacific time would be the date and time of the button press, more or less, correct?

MR. LUCAS: Objection to form.

A. It would be the time, yes.

Q. Okay. If instead of pushing the "BUY" button I pushed the "INFO" button at 1:58 p.m. Pacific time, would 1:58 p.m. Pacific time also be the time of the button press?

MR. LUCAS: Objection to form.

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A. You're asking if you pushed two buttons at the same time?

Q. No, if I had instead pressed the "INFO" button.

A. Hmmm...I guess. I don't completely understand your question.

Q. Okay. So let's do it differently. So if I press the "BUY" button at 2:00 p.m., 2:00 p.m. is the time that will be recorded, correct?

A. It can be, yes.

Q. Okay.

A. That information -- that information is available to Lee's device 20.

Q. Okay. And if instead of pressing the "BUY" button at 2:00 p.m., I press the "INFO" button at 2:00 p.m., just the "INFO" button, 2:00 p.m. would be the time recorded for the "INFO" button press, correct?

A. It could be.

Q. Would the channel be the same if I pressed the "BUY" button and the "INFO"

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button?

MR. LUCAS: Objection to form.

A. The channel? I don't understand your question.

Q. So you state here that "the 'channel selected' is one of the 'uniquely identifying data specific to at least the second media content,'" correct?

A. Yes.

Q. So when you press the button, the channel selected is available for the multimedia device 20, correct?

A. That knowledge is present in device 20, yes.

Q. And if you press the "BUY" button during advertisement A, you're going to get the channel selected that advertisement A is being broadcast on, correct?

A. I don't know what you mean, "you're going to get," but the information in the device 20 understands the channel that's being provided, it understands that -- a date and time and it

understands the press of the button. So these three pieces of information are -- can be used to uniquely identify the data specific to at least the second media content.

Q. What is the "time and date" and "channel" selected used for?

A. Where?

Q. In Lee.

A. It's disclosed. These pieces of information are disclosed in Lee and they -- these pieces of information can be used to uniquely identify data specific to at least the second media content to whatever given resolution you would like to consider.

Q. Okay. Going back to the button press itself, you say in paragraph 108 that "'the date and time of the button press,' and the 'channel selected' is the 'uniquely identifying data specific to at least the second media content,'" correct?

A. They correspond to it, yes.

Q. Okay. How would the "time and

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date" of the button press and the "channel selected" differ if the user pressed the "BUY" button versus pushing the "INFO" button?

MR. LUCAS: Objection to form.

A. The button press information would be different.

Q. And where does it say that the button press information is part of the "uniquely identifying data specific to at least the second media content" in your declaration?

A. Right there in 108. "The date and time of the button press." So if you pressed button A, you have got the information that button A was pressed at 2:00 p.m., and if you pressed button B, you have the information that button B was pressed at 2:00 p.m.

Q. So you understand the term "the date and time of the button press" to mean that the multimedia device 20 is provided with the date, time and the button that is pressed?

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A. Of course.

Q. Why "of course"?

A. Because it's obvious.

Q. What information shows that the user pressed the "BUY" button versus the "INFO" button?

MR. LUCAS: Objection to form.

A. Where?

Q. Well, you've identified "button press information." So what information identifies that a user pressed the "BUY" button versus the "INFO" button?

MR. LUCAS: Same objection.

Q. In Lee.

A. It's -- it's the indication of the user whether we press button A or button B. In other words --

Q. Go ahead.

A. In other words, device 20 knows which button was pressed and it knows the date and time of the pressing of that button and it knows the channel selected.

These are obvious pieces of information that device 20 can manipulate

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and process to accomplish its goal.

Q. Where in Lee does it say that the button press information is known?

MR. LUCAS: Objection to form.

A. If I ask you, do you want ice cream or a cookie, and you say a cookie, I know that you selected the cookie rather than the ice cream. So that's obvious to the operation of device 20 that button A was pressed as opposed to button B.

Q. But we're talking about the device in Lee. And you didn't include "button press information" in your paragraph 108 that identifies "data corresponding to the claims uniquely identifying data specific to at least the second media content," correct?

MR. LUCAS: Object to form.

A. Incorrect.

Q. Where are the words "button press information" in paragraph 108 of your declaration?

A. The fourth and fifth words on the second line of paragraph 108.

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Q. So you say that "button press" means "button press information"?

A. Yes. But for the pressing of a button, there would be no date and time information in the button press.

Q. But the date and time of the button press would be the same regardless of what button you pressed, correct?

A. Incorrect.

Q. How so?

A. Again, this is obvious; that if you press button A, you get the information that button A was pressed at 2:00 p.m. If you pushed the button B, you get the information that button B was pressed at 2:00 p.m.

In that last response, I mean the device 20 of Lee.

Q. Thank you for that clarification.

Can you please go to column 11, line 16 of Lee. And let me know when you're there.

(The witness complies.)

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A. I'm there.

Q. Okay. This line 16 begins with "Advertising database 196," correct?

A. Yes.

Q. So at line around 23, the numbers are a little off but it says, "the user can press a 'BUY' or 'INFO' button," do you see that?

A. Yes.

Q. And it talks about pressing a button which "transmits to the gateway network 30, the location and the vehicle, 184 (GPS derived) the date and time of the button press, and the channel selected," correct?

A. You read that correctly.

Q. In the next sentence it says, "The advertised item is then looked up in the database 196," correct?

A. You read that correctly.

Q. So the date and time of the button press and the channel located is used to look up the advertisement items; is that correct?

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(The witness reviewing computer screen.)

A. The information that is used to create that query into the database would include the user's action, yes.

Q. And by that you mean, it would include the date and time and the radio channel that was generated when the user pressed the button?

MR. LUCAS: Objection to form.

A. You weren't specific in your question but that information generates the query into the database 196.

Q. And database 196 looks up the advertised item, correct?

A. That's what this says, yes.

(720 IPR Exhibit 1005 previously marked for identification, 58-page document, titled, "United States Patent Application Publication," dated November 27, 2003.)

BY MS. KIERNAN:

Q. I'd like to show you another document that was previously marked in

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this proceeding, 720 IPR Exhibit 1005.

Let me know when you see that in your Exhibit Share.

A. I have it.

Q. Okay. When you have it opened, can you let me know when you're at paragraph 65? When you have it open just let me know.

A. We're open.

Q. You recognize this document?

A. I do.

Q. And did you review this document in forming your opinions about the '405 Patent claims?

A. I did.

Q. Can you turn to paragraph 65 for me, please.

(The witness complies.)

A. Of...?

Q. Of the exhibit that you opened.

A. Yes, I'm there.

Q. The paragraph starts with "Thus, the contemporaneous wireless communication link," is that correct?

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A. Yes.

Q. So it continues, "the contemporaneous wireless communication link of the present invention permits the user to participate in a conversation via a voice communication link (e.g. via a 3G, 2.5G, or 2G network) while simultaneously using a data communication link (e.g. via WLAN, PAN 3G, 2.5G or 2G network) to receive or send e-mail, transmit and receive data via the Internet."

Do you see that?

A. I do.

Q. Did I read that correctly?

A. Yes.

Q. So this sentence is discussing contemporaneously participating in a conversation via one communication link while simultaneously using the other data communication link to send or receive e-mail, correct?

A. Yes.

Q. So going on to the next sentence it says, "Thus, the user can also receive

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and transmit live audio/visual data — such as live video transmissions" -- I'm going to skip the parenthetical there -- "and live audio transmissions" -- skipping the parenthetical again -- "while also transmitting and receiving computer data such as e-mails," correct?

A. Yes. So --

Q. So -- go ahead.

A. So you should include "and data to remote computing systems" --

Q. Okay.

A. -- in your reading.

Q. "And data to remote computer system," thank you.

So this is talking about the contemporaneous receipt and transmission of data in this sentence, correct?

MR. LUCAS: Objection to form.

A. Contemporaneous receipt of what?

Q. Well, it says here that the user can receive and transmit while also transmitting and receiving different types of data; is that correct?

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A. That's correct.

Q. Okay.

A. Actually 2G was not capable of that. 2.5G was barely capable of that. 3G only later was capable of that. So this is somewhat aggressive in terms of 2G.

Q. Were you familiar with this reference in front of you before this case?

A. I don't recall.

Q. You don't recall if you had seen Barnes' before being hired in this matter, correct?

A. Yes, correct.

Q. Going on to that last sentence in the paragraph, it starts with, "While the actual reception and transmission of the bits comprising the multiple transmission may not occur 'simultaneously' from a technical perspective" -- I'm just going to pause there.

The beginning of this sentence

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is talking about the reception and transmission of bits, correct?

A. Those are the words used there, yes.

Q. It goes on to state in the rest of the sentence, "the data from the multiple transmissions is presented to the user and received from the user in the same time periods (or overlapping time periods), which is herein referred to as contemporaneous transmission and/or reception."

Did I read that correctly?

A. You did.

Q. So this sentence is talking about the contemporaneous transmission and/or reception of bits, correct?

A. You can characterize it that way. You can also characterize it as he's resolving his time -- time accuracy -- like we discussed this morning -- the time that you would consider things to be considered contemporaneous.

Q. Okay. But it's talking about

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the resolution of the time for the transmission and reception, right?

A. Hmmm...

MR. LUCAS: Objection to form.

A. I think he's just defining his contemporaneous transmission statements or reception statements to just kind of define the time span that he considers to be contemporaneous -- like we discussed this morning -- but if your time span is a century, the First and Second World War occurred contemporaneously.

Q. So this is essentially defining what he considers to be a contemporaneous transmission and/or reception?

A. Yes. You can characterize it that way.

MS. KIERNAN: Eric, that's it for us. I will wait to see if you have any questions.

MR. LUCAS: Would you mind if I look over my notes and see if I have to ask anything?

MS. KIERNAN: No, not at all.

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(A recess was taken.)

MR. LUCAS: Just a couple of redirect questions from me, Dr. Williams, if that's okay.

THE WITNESS: Sure.

EXAMINATION BY
MR. LUCAS:

Q. Do you recall when counsel was asking you questions about Mackintosh's first and second receiver modules and how the first and second media content are received discretely?

A. Yes.

Q. I'd like to direct your attention to page 40 of your '081 Patent declaration and specifically that's related to limitation 9[c].

A. Yes.

Q. With reference to this section 9[c], other preceding sections or anywhere else, what constitutes the first receiver module in Mackintosh, in your opinion?

(The witness reviewing computer

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screen.)

A. Sorry, I'm in the wrong file here. Hang on a second.

(The witness reviewing computer screen.)

Q. Would you like me to repeat the question, Dr. Williams?

A. I'm sorry, I'm just dealing with a slow computer here. Can I have a second, please?

Q. Sure.

A. So can I have the question again, please?

Q. Yes. I was directing your attention to page 40 of your '081 declaration with respect to limitation 9[c]. Are you there?

A. Yes.

Q. With reference to this section, and any of the preceding sections, what constitutes in your opinion the first receiver module in Mackintosh?

(The witness reviewing computer screen.)

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A. So as I discussed in paragraph 74 of my '081 report, the first receiver module would correspond to the communications interface and that's configured to receive broadcast material that corresponds to the first media content. And program materials corresponds to the claim data enabling the identification of a specific instance of the first media content from a first broadcast medium.

So, again, as we've discussed throughout the day, the receiver is the -- it is the hardware and software that takes the information off of the modulated signal that was used to communicate to that -- that receiver and presents that information to the user. So it's the entire process.

Q. And then what constitutes the second receiver module in Mackintosh?

(The witness reviewing computer screen.)

A. So the communications interface

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of Mackintosh's computer corresponds to the claimed second receiver module which has -- as I explained previously -- include all the hardware and software required to perform the task of taking that information from the modulated stream and presenting it to the user. So it's all the way through the -- the receiving process.

And as I pointed out in 9[c], the -- it includes elements of the computer in Mackintosh.

Q. Are you referring to paragraph 90?

A. I am. I am.

Q. And so what do you mean by, "whereas it receives the 'supplemental materials'" in paragraph 90? Can you explain that a little bit?

(The witness reviewing computer screen.)

A. It means the computer of Mackintosh when it uses its hardware and software elements to derive the

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information that arrives via the RF medium into a set of media that can be interpreted by the user.

Q. Can you explain how the reception of the two media content in Mackintosh are discrete?

A. They use different -- each uses different hardware and/or software in order to accomplish the goal of taking that -- that information and presenting it to the user.

Q. Okay, let's switch quickly to the '405 Patent. So if you could pull up your declaration and that IPR and I'd like to ask you first, do you recall when counsel was asking you questions about Lee and second media content and whether it was possible to send the advertisement-related data over a subcarrier channel?

A. Yes.

Q. Setting aside whether something is possible in the world, what's your opinion with respect to where the

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advertisement-related data comes from in Lee?

A. Lee describes -- Lee teaches that the advertisement data comes via the gateway communication unit in devise 20.

Q. Do you recall being asked questions about the simultaneous reception of data with respect to Barnes?

A. Yes.

Q. Can you explain your opinion as to why a POSITA would have understood radio transmission data and inter-related data being received simultaneously in Barnes?

A. Don't understand the question.

MR. LUCAS: Withdrawn. I have no further questions.

MS. KIERNAN: Nothing further for me, either. Thank you Dr. Williams.

MR. LUCAS: Thank you Dr. Williams.

THE WITNESS: All the best.

MS. KIERNAN: Thank you, Eric.

- T.A. Williams -

MR. LUCAS: Good night.

(Time noted: 5:43 p.m.)

_____

TIM ARTHUR WILLIAMS, PhD.

Subscribed and sworn to before me this _____ day of _____, 2022.

_____

C E R T I F I C A T E

STATE OF NEW YORK)
: ss.
COUNTY OF NEW YORK)

I, AMY KLEIN CAMPION, a Shorthand Reporter and Notary Public within and for the State of New York, do hereby certify:

That TIM ARTHUR WILLIAMS, PhD., the witness whose deposition is hereinbefore set forth, was duly sworn by me and that such deposition is a true record of the testimony given by the witness.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 8th day of January, 2022.

AMY KLEIN CAMPION

---------- I N D E X----------

----------EXHIBITS----------

EXHIBITS CONTINUED

EXHIBITS CONTINUED

EXHIBITS CONTINUED

720 IPR Exhibit 1005 previously marked for identification, 58-page document, titled, "United States Patent Application Publication," dated November 27, 2003. 151

ERRATA SHEET

VERITEXT/NEW YORK REPORTING, LLC

CASE NAME:
Volkswagen Group Of America v. Stratosaudio, Inc.
DATE OF DEPOSITION: 1/6/2022
WITNESSES' NAME: Tim A. Williams , M.D.

PAGE	LINE (S)	CHANGE	REASON

_____
Tim A. Williams , M.D.

SUBSCRIBED AND SWORN TO BEFORE ME
THIS ____ DAY OF _____, 20__.

_____ _____
(NOTARY PUBLIC) MY COMMISSION EXPIRES:

f

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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