

1 O P E N S E S S I O N

2 A F T E R N O O N S E S S I O N

3 JUDGE ELLIOT: All right. Who's next?

4 MR. NELSON: Thank you, Your Honor.

5 At this point, Google calls Dr. Mark Mahon to
6 the stand.

7 JUDGE ELLIOT: We'll start out on the public
8 record.

9 MR. NELSON: Your Honor, may we approach? We
10 have some binders to pass out.

11 JUDGE ELLIOT: Yes.

12 MARK MAHON, PhD,
13 having been first duly sworn, was examined and testified as
14 follows:

15 MR. NELSON: May I proceed, Your Honor?

16 JUDGE ELLIOT: Yes.

17 MR. NELSON: Thank you.

18 DIRECT EXAMINATION

19 BY MR. NELSON:

20 Q. Sir, could you please introduce yourself?

21 A. Yes. My name is Mark Mahon.

22 Q. Can you tell us what you do for a living now?

23 A. Yes. I'm a teaching professor at Penn State
24 University in their School of Electrical Engineering and
25 Computer Science.

1 Q. Can you tell us generally what your
2 responsibilities are as a professor at Penn State?

3 A. Yeah, I teach classes, I guide graduate students
4 doing their dissertations and theses, and I advise
5 undergraduate students.

6 Q. So can you tell us what kind of courses you
7 teach?

8 A. Yes. I teach wireless communications at the
9 graduate level and undergraduate level. I teach mobile
10 networks and I teach neural networks classes.

11 Q. Can you summarize for us your educational
12 background, please?

13 A. Yes, I have a PhD in acoustics and a master's
14 degree in electrical engineering from Penn State
15 University, and a Bachelor of Science from the University
16 of Scranton in electronics engineering.

17 Q. So now, let's talk about some work history.

18 Talk about a little bit of your work history.

19 Can you tell us what you did after receiving
20 your bachelors degree?

21 A. Yes. My first job after I graduated with my
22 bachelors degree was working as a project engineer for the
23 Central Intelligence Agency, doing classified work for
24 them.

25 Q. Were you doing that while you were still going

1 to school?

2 A. I was pursuing my masters degree at the same
3 time, yes.

4 Q. Okay. And without getting anything classified,
5 obviously, can you just tell us what kind of research
6 projects you were working on with the CIA?

7 A. I was focused on collection of wireless
8 communication signals, which would include cellular comms
9 and speech, so acoustics and RF.

10 Q. Now, let's talk about your masters degree. What
11 did that work specifically entail?

12 A. I've -- my masters work was focused on using
13 vector space signal processing techniques, and I applied
14 that to something called adaptive beam forming for tracking
15 of wideband signals.

16 Q. Work-wise after obtaining your masters degree,
17 what did you do?

18 A. I started working for Penn State University's
19 applied research lab, which is a University affiliated
20 research center doing classified work, and I started
21 working on various projects.

22 Q. Okay. And again, generally, without getting
23 anything classified, what types of projects were these?

24 A. I worked on communication systems. I worked on
25 sensor networks. I worked on acoustics. So between 1991

1 and approximately 1998, my work was only classified
2 basically at the secret level. So I did various project
3 work through that period of time on those systems.

4 Q. Now, what other types of work, research work,
5 did you do at the applied research lab?

6 A. Well, beginning in 1998 through 2015, I worked
7 on highly classified systems, and that would include,
8 again, cellular communication systems and various acoustics
9 systems, including underwater and in-air.

10 Q. Can you please describe for us your research and
11 work with speech processing, generally?

12 A. Yes.

13 For example, about 1994-95, I worked on an
14 active noise control system applied to troop transports to
15 try to improve speech intelligibility inside the transport.

16 A little after that, I worked on a nonlethal
17 defense project where our focus -- my focus was on doing
18 stress analysis from voiceprint patterns.

19 In early 2000s, I worked on a very low energy
20 sensor, acoustic sensor that would be triggered by speech.
21 And the idea there was to basically transmit acoustic
22 energy, meaning voice, in an unobvious way.

23 Then about 2014 through 2015, I also worked on a
24 project for the test and management program, and we worked
25 on natural language processing for Navy operators testing

1 Navy platforms.

2 Q. And, sir, are you a member of any professional
3 organizations?

4 A. Yes. I'm a member of IEEE, which is the
5 Institute of Electrical and Electronic Engineers.

6 Q. Okay.

7 Are you a named inventor on any patents?

8 A. I am not.

9 As a University affiliated research center, the
10 research we did, the intellectual property was owned by the
11 government, so we were not permitted to file any patent
12 disclosures based upon our research effort.

13 Q. So have you authored any publications?

14 A. Yes. I authored several publications before my
15 work turned highly classified, so approximately eight or
16 so, maybe ten before that period of time.

17 During the highly classified work, I was -- in
18 terms of unclassified publications, I had one unclassified
19 publication, and I also had a publication of a chapter in a
20 data fusion book.

21 And then, after that period of time, from 2015
22 on, I have about eight publications now with two in the
23 pipeline.

24 Q. Any of that related to acoustic processing?

25 A. Some of the papers are worked dealing with

1 acoustic processing, yes.

2 Q. Now, if you could turn to -- or before that, the
3 research that you talked about, recognizing that it's
4 classified, has any of it been recognized nonetheless?

5 A. I did some work for the National Reconnaissance
6 Office in the late '90s, early 2000s, working on a project
7 trying to solve a problem that they were being told was
8 almost impossible to solve.

9 And I came up with a mathematical formulation.
10 I built equipment. We took it out to the desert, we tested
11 it, and it worked very well. So I did receive a letter of
12 commendation from them for that work.

13 Q. Now, if you could turn to CX-1185 in your
14 binder.

15 A. Okay. I'm there.

16 Q. Can you tell us what 1185 is?

17 A. Yes. This is a copy of my CV.

18 Q. Does that accurately reflect your educational
19 background and professional experience?

20 A. Yes.

21 Q. Now, have you served as an expert or been
22 qualified by Courts as an expert in litigations in the
23 past?

24 A. Yes, I have.

25 Q. About how many times?

1 A. Three times I've testified.

2 Q. What is your consulting rate in this case?

3 A. \$500 an hour.

4 Q. Does your compensation in this case in any way
5 relate to the result?

6 A. No, it does not.

7 MR. NELSON: So, Your Honor, at this time, we
8 tender Dr. Mahon as an expert in audio processing.

9 JUDGE ELLIOT: Very well.

10 BY MR. NELSON:

11 Q. So now I'd like to talk about the '748 and '311
12 patents.

13 You're familiar with those?

14 A. Yes, I am. I've spent many hours looking at
15 those.

16 Q. Now, can you tell me what you were asked to do
17 in this case with respect to the '748 and the '311 patents?

18 A. Yes. I was asked to analyze those patents and
19 examine the evidence and determine whether Sonos's accused
20 devices infringe those patents and whether Google's
21 domestic industry products satisfy the domestic industry
22 prong of this case.

23 Q. Okay.

24 Were you asked to respond to any validity
25 opinions?

1 A. Yes, and respond to Dr. Johnson's reports.

2 Q. Just so we're clear, the testimony regarding
3 validity opinions, that's for later in this case; is that
4 right?

5 A. Yes, sir.

6 Q. So now, His Honor has determined that for the
7 '748 and '311 patents in this case, that a person of
8 ordinary skill in the art is one with a BS degree in
9 electrical or computer engineering or a related field, and
10 approximately two to four years of experience in the field
11 of voice and/or audio processing, or an equivalent level of
12 skill, knowledge, and experience.

13 Have you seen that?

14 A. Yes, I have.

15 Q. Okay.

16 Now, can you tell us, are you at least a person
17 of ordinary skill in the art under that definition?

18 A. Yes, I am.

19 Q. So now I'd like to talk about some of the
20 technical background, and we've heard some testimony about
21 voice assistants.

22 Can you just tell us generally what voice
23 assistants are?

24 A. Yes.

25 Voice assistants are essentially software

1

4 Q. So now, I'd like to turn to the '748 Patent,
5 which is JX-3 in your binder.

6 So is JX-3, the '748 Patent, is that a patent
7 that you analyzed for purposes of your analysis in this
8 case?

9 A. Yes, it is.

10 Q. The title of the '748 Patent is what?

11 A. Device Designation for Audio Input Monitoring.

12 Q. So now, what problem was it that the inventors
13 describe in the '748 Patent?

14 A. The problem that they're trying to solve and
15 they describe in the '748 Patent is basically being able to
16 monitor an environment for audio input, containing a
17 predetermined audio command, such as a hotword, and that it
18 be done by only a single computing -- if it's done by only
19 a single computing device, that would allow the system to
20 reduce wasted energy, avoid parallel processing problems,
21 computational load, and improve the overall user
22 experience.

23 So that's what they were trying to solve. That
24 was the problem they were trying to overcome.

25 Q. And so then, how did the '748 Patent, at least

1 as described, how did it solve those problems?

2 A. Well, the '748 Patent discloses basically a way
3 for the device to determine if -- well, to designate a
4 device to respond to the user, which device should respond
5 to the user.

6 Q. How does the '748 Patent generally describe
7 determining which device to designate for processing audio
8 input?

9 A. Well, basically, it goes through and determines
10 which device heard the hotword to figure out if it should
11 respond or not.

12 Q. So now I'd like to move to your domestic
13 industry analysis, so the Google products.

14 MR. NELSON: And here, we're on the confidential
15 record, Your Honor, but again, it flips from Sonos to
16 Google.

17 JUDGE ELLIOT: Very well.

18 BY MR. NELSON:

19 Q.

6 Q. So now I'd like to move to your infringement
7 analysis, and we'll start with Claim 7 of the '748 Patent.

8 MR. NELSON: Here, we're still confidential, but
9 it will be Sonos confidential information, Your Honor, and
10 we're fine on our side.

11 JUDGE ELLIOT: Very well.

12 BY MR. NELSON:

13 Q. Claim 7 of the '748 Patent, let's look at the
14 first element with respect to your analysis of the accused
15 Sonos Voice products. Okay?

16 A. Yes.

17 Q. All right.

18 So that first one, the preamble, 7.0, is, "A
19 first computing device comprising: at least one processor;
20 and at least one module operable by the at least one
21 processor..."

22 So what is it from your analysis that led you to
23 conclude that the Sonos Voice product practiced that?

24 A. Well, the Sonos Voice products are a computing
25 device; they have the capability of doing computation. And

1 they have a processor,

7 Q. So then if we move to 7.1, 7.1 says, "Receive a
8 spoken audio input that is also received by one or more
9 additional computing devices in physical proximity to the
10 first computing device."

11 Do you see that?

12 A. Yes, I do.

13 Q. So do these accused Sonos Voice products
14 practice that element 7.1 as well based on your analysis?

15 A. Yes. Based on my analysis, the Sonos Voice
16 products are listening for a hotword, continuously
17 monitoring the environment. When they detect a hotword,
18 basically, that's the receiving spoken audio input. And
19 it's being received by multiple devices, which is how the
20 devices are supposed to be used by users.

21

1

10 Q. So now I want to talk about the next element,
11 7.2, and that is, "Determine, based at least in part on
12 information received from the one or more additional
13 computing devices, whether the first computing device
14 should perform speech recognition on the spoken audio
15 input."

16 Do you see that?

17 A. Yes, I do.

18

12 Q. So then, what was your conclusion as to whether
13 the accused Sonos Voice products practiced -- or met,
14 rather, element 7.2?

15 A. The Sonos Voice products do meet this claim
16 element.
17

1

5 Q. So now I'd like to move to 7.3, and 7.3(a).

6 So that 7.3(a) element is, "Send to at least a
7 second computing device from a plurality of computing
8 devices a command to temporarily refrain from performing
9 speech recognition."

10 Do you see that?

11 A. Yes, I do.

12

10 Q. Now, the losing devices, when you say they
11 refrain from performing speech recognition, what do you
12 mean by that?

13 A. When that variable

 , they will automatically lose the arbitration
16 process, so they will stop performing immediately any
17 speech recognition on the -- speech recognition, and they
18 will go basically back to looking for another wake word.
19 So they're basically temporarily refraining from performing
20 speech recognition at that point.

21 Q. Now, does Sonos and Dr. Johnson dispute your
22 analysis of this element 7.3(a)?

23 A. Yes, they do.

24 Q. What's your understanding of that dispute?

25 A. Well, basically, their -- my understanding of

1 their disagreement with me is that they're saying that I am
2 creating or coming up with this construction

5 outside the construction of the claim element 7.3.

6 Q. What's your response to that?

7 A. Well, again, I'm taking the Court's
8 construction, and I'm looking at this as -- from the
9 perspective based on -- in light and based on that
10 construction, and evaluating the claim element, and
11 specifically that claim element does not require a
12 restriction for 7.3(a) to be on the spoken audio input.

13 Q. When you say "does not require to be on the
14 spoken audio input," do you mean doesn't require
15 temporarily refrain from performing speech recognition on
16 the spoken audio input?

17 A. Yes.

18 Q. Okay.

19 Can you explain the significance of that?

20 A. Well, again, it's responsive -- it's still
21 responsive to the element in 7.3.

22 But in terms of temporarily refraining from
23 performing speech recognition, if -- when the arbitration
24 requests are -- I'm sorry, the arbitration messages are
25 sent out immediately, it's going to tell the receiving

1 device immediately to, again, temporarily refrain from
2 performing speech recognition. It's not going to perform
3 speech recognition.

4 Q. So now I'd like to look at some -- or move to
5 element 7.3(b) first, and there that element is "Perform
6 speech recognition on the spoken audio input."

7 Do you see that?

8 A. Yes, I do.

9 Q. Now, what's your analysis as to whether the
10 accused Sonos Voice products meet element 7.3(b)?

11 A. Based on my analysis, they meet claim element
12 7.3(b).

13 Q.

6 Q. Would that be a result of -- or responsive to
7 determining that the first computing device should perform
8 speech recognition on the spoken audio input?

9 A. Yes.

10 The device has basically won the arbitration
11 process, so it's interacting with the user. And so, it
12 will be the device that will perform a speech recognition
13 on the spoken audio input.

14

9 Q. So now I'd like to move to 7.3(c), and this
10 element reads, "Determine, based on performing speech
11 recognition on the spoken audio input, whether the spoken
12 audio input includes a predetermined spoken audio command."

13 Do you see that?

14 A. Yes, I do.

15

1

1 Q. So now I'd like to move to the last element that
2 we've marked as 7.3(d), and that reads, "Responsive to
3 determining that the spoken audio input includes the
4 predetermined spoken audio command, execute an action
5 associated with the predetermined spoken audio command."

6 Do you see that?

7 A. Yes, I do.

8 Q. What is it about the accused Sonos Voice
9 products that you believe meets this element?

10 A. Well, this is where the Sonos Voice products,
11 after determining that there -- in the spoken audio input
12 that there's a predetermined spoken audio command, actually
13 go ahead and execute the request.

14

20 Q. So then in summary, what's your opinion as to
21 whether the accused Sonos Voice products infringe Claim 7
22 of the '748 Patent?

23 A. Well, based on my analysis, I found that the
24 Sonos Voice products satisfy every element of claim element
25 7.

1 Q. So now I'd like to move to Claims 9 and 10
2 again, and let's start with Claim 9.

3 Here, let's look at 9.1 first. It says,
4 "Wherein the at least one module is further operable by the
5 at least one processor to determine a current context of
6 the first computing device."

7 Do you see that?

8 A. Yes, I do.

9 Q. So now, remind us what this device context is in
10 the '748 Patent.

11 A. Well, it can include things such as -- well,
12 characteristics associated with the device, such as a
13 device is playing music or a timer is firing, or the
14 capabilities of the device.

15

3 Q. And then the next element, 9.2, that reads, "And
4 wherein the at least one module is operable by the at least
5 one processor to determine whether the first computing
6 device should perform speech recognition on the spoken
7 audio input further based on the current context of the
8 first computing device."

9 Do you see that?

10 A. Yes, I do.

15 Q. So then, in summary, what's your opinion as to
16 whether the accused Sonos Voice products meet Claims 9 and
17 10 of the '748 Patent, as well?

18 A. Based on my analysis, I find that the Sonos
19 Voice products do meet every element of Claims 9 and 10.

20 MR. NELSON: At this point, I have no further
21 questions for you, sir, and I thank you for your time.

22 I pass the witness for cross-examination, Your
23 Honor.

24 JUDGE ELLIOT: Very well.

25 MR. SHEA: May I proceed, Your Honor?

1 JUDGE ELLIOT: Yes.

2 CROSS-EXAMINATION

3 BY MR. SHEA:

4 Q. Rory Shea on behalf of Sonos, Dr. Mahon, good to
5 meet you.

6 A. Nice to meet you, too, in person.

7 Q. Just to start, your infringement and domestic
8 industry analysis in this case relied on source code review
9 performed by Dr. Jones; is that correct?

10 A. Yes, in part, correct.

11 Q. For purposes of your opinions that you've
12 rendered on infringement and domestic industry, you have
13 adopted those opinions and those analysis of Mr. Jones in
14 full; correct?

15 A. I analyzed his opinions and compared it to my
16 own. I reviewed the source code, and along with the other
17 evidence that I reviewed in the case, and I did adopt his
18 opinions.

19 Q. You're not providing any opinions on source code
20 that go beyond the opinions that Mr. Jones offered;
21 correct?

22 A. My opinions that I have put in my report are
23 based on my analysis, and I can't right now recall anything
24 that is beyond his opinions. I would have to review my
25 reports, but I don't recall anything specifically.

1 MR. NELSON: Not from the Complainant, Your
2 Honor.

3 MR. COYLE: Nothing for Respondent. Thank you.

4 JUDGE ELLIOT: All right.

5 Dr. Mahon, yes, come on up, please.

6 All right. Let me remind you, sir, you are
7 still under oath.

8 Whereupon--

9 MARK MAHON, PhD,
10 a witness, called for examination, having previously been
11 duly sworn, was examined and testified further as follows:

12 JUDGE ELLIOT: What record are we on?

13 MR. SHEA: So, Your Honor, I think we are on the
14 confidential record right now, and we will be starting with
15 the Google confidential record for only just, I think, a
16 couple more minutes, and then we're going to be switching
17 right into the Sonos confidential record.

18 (Whereupon, the trial proceeded in confidential
19 session.)

20

21

22

23

24

25

1 C O N F I D E N T I A L S E S S I O N

2 JUDGE ELLIOT: Very well.

3 CONTINUED CROSS-EXAMINATION

4 BY MR. SHEA:

5 Q. Dr. Mahon, welcome back.

6 A. Thank you.

7

18 Q. So I'd like to turn to your opinions regarding
19 infringement for the '748 Patent.

20 MR. SHEA: So, Your Honor, this would now be the
21 transition point where we will be switching from the Google
22 confidential record to the Sonos confidential record.

23 JUDGE ELLIOT: Very well.

24 BY MR. SHEA:

25 Q. So, Dr. Mahon, let's start by looking at

1 CDX-3C.89, which is your demonstrative slide for limitation
2 7.1.

3 So do I understand correctly that your opinion
4 for the accused products is that the spoken audio input of
5 limitation 7.1 consists of a wake word that is detected by
6 multiple devices?

7 A. It would include the wake word. The spoken
8 audio input would include the wake word.

9 Q. Okay.

10 Specifically, is the wake word you're referring
11 to here a first wake word that it would detect?

12 A. It would be the interaction of the user with the
13 device, and if it begins with a wake word, that would be a
14 spoken audio input.

15 Q. Okay.

16 So, for purposes of our discussion, can we refer
17 to that as the first wake word?

18 A. If there's a description of the context, yes.

19 Q. So then, what else would the spoken audio input
20 of limitation 7.1 include beyond the wake word?

21 A. Again, it would include -- could include a
22 command and also any follow-on requests.

23 Q. So a follow-on request is a request spoken
24 within some short amount of time after the accused product
25 responds to the user's initial request; correct?

1 A. With respect to the device operation, there's a
2 period where the device will consider that the next
3 utterance is part of that first spoken audio input and will
4 process it.

5 Q. That period is a short period after the accused
6 product has responded to the user's initial request;
7 correct?

8 A. It's a defined period of time based on the
9 operation of the device.

10 Q. Yes. Sorry.

11 My question is: Is it a period that occurred
12 after the device responds to the initial request?

13 A. It would be consistent with the use case for the
14 device, yes.

15 Q. Again, sorry, my question -- just I'm trying to
16 get simply, yes or no.

17 Is that period a period after the device
18 responds to the user's initial request?

19 A. Yes. That would be correct.

20 Q. Now, you testified yesterday that under your
21 infringement theory, the accused products would also need
22 to detect a second wake word after winning arbitration on
23 the first wake word; do I have that right?

24 A. With respect to satisfying a sub-element of what
25 I call Claim 7.2.

1 Q. Now, do you consider that second wake word to be
2 part of the spoken audio input of limitation 7.1?

3 A. No.

4 Q. So the second wake word is not part of the
5 spoken audio input?

6 A. Correct.

7 Q. But follow-on requests that are spoken after the
8 second wake word are part of the spoken audio input?

9 A. Correct.

10 Q. So let's turn to CDX-3C.92, which is your
11 demonstrative slide for limitation 7.3(a).

12 Do you see that there, Dr. Mahon?

13 A. Yes, I do.

14

1

1

1

1

5 Q. You understand that Sonos and Dr. Johnson have
6 taken the position that hotword detection is a specific
7 form of speech recognition; correct?

8 A. I'm aware of that, yes.

9 Q. You disagree with that; correct?

10 A. Yes, I do.

11 Q. You believe that hotword detection is mutually
12 exclusive of speech recognition; that's your position?

13 A. As disclosed by the patents, yes.

1 Q. Well, I guess what I'm asking is, is if a device
2 is in a state where it is performing hotword detection, and
3 if hotword detection is speech recognition, then isn't it
4 the case that the device will not be refraining from
5 performing speech recognition?

6 A. So the scenario you're talking about is outside
7 of the disclosed -- in my analysis, outside of the
8 disclosures in the patents, and I would -- I'd need you to
9 repeat that question one more time.

10 Q. Yeah, sure.

11 Yeah, my question is: Assume that a device is
12 performing hotword detection -- sorry. Excuse me. Yeah.

13 Assume that a device is performing hotword
14 detection without interruption, and assume that hotword
15 detection is speech recognition.

16 Are you with me so far?

17 A. Yes.

18 Q. So in that scenario, you would agree with me
19 that that device that is continuing to perform hotword
20 detection is not refraining from performing speech
21 recognition; correct?

22 A. No, I'd still disagree because you're going back
23 and performing speech recognition for the next spoken audio
24 input. So it's not performing speech recognition on the
25 current spoken audio input.

1 Q. One -- I think I heard you say that you believe
2 that the hotword detection and the speech recognition is
3 mutually exclusive as disclosed by the patent.

4 Do I have that right?

5 A. Yes. The patents are directed towards an
6 efficient energy and processing disclosure for the
7 front-end detection, yes.

8 Q. But you're not saying that those concepts,
9 hotword detection and speech recognition, are mutually
10 exclusive outside the context of the patent; correct?

11 A. I am not.

12 Q. Okay, so I want to focus in on this claim
13 language phrase, "a command to temporarily refrain from
14 performing speech recognition."

15 And so, to do that, let's pull up CDX-3C.87.

16 Mr. Jay, could we Zoom in on limitation 7.3(a).

17 So as a starting point, your opinion is that
18 limitation 7.3(a) requires a command to refrain from
19 performing speech recognition on the remainder of the
20 spoken audio input, whatever it is.

21 Do I have that right?

22 A. The command to temporarily refrain will be for
23 the device processing the spoken audio input, which would
24 be either continuing conversation or follow-on requests.
25 Yes.

1 Q. Well, so I want to make sure we have it right,
2 though.

3 Your testimony previously has been that it's a
4 command to refrain from performing speech recognition on
5 the remainder of the spoken audio input, whatever that is.

6 Do you agree with that?

7 A. It would be everything after the intent to
8 determine, so it would be -- include, as I said, the
9 follow-on request. It's the same thing.

10 Q. Okay. Why don't we take a look at your
11 deposition transcript, Mr. Mahon.

12 So, Mr. Jay, can we pull up JX-0051C at 138,
13 lines 16 through 24.

14 So, Dr. Mahon, again, you were deposed in this
15 case; correct?

16 A. Correct.

17 Q. You undertook a deposition as part of this case;
18 correct?

19 A. Correct.

20 Q. And during that deposition, you were asked the
21 question, "What is your interpretation of 'temporarily' in
22 the context of the '748 Patent?"

23 And your response was, "That the device will
24 refrain until the winning device -- it would refrain from
25 performing speech recognition on the remainder of the

1 spoken audio input, whatever that is."

2 That's the answer you gave; correct?

3 A. Yes, and that answer -- what I was intending to
4 fully articulate is the fact that when it's temporarily
5 refraining, it's not processing the follow-on requests or
6 the continuing conversations, and that will refrain until
7 the end of the spoken audio input.

8 Q. Well, actually, Dr. Mahon, at your deposition,
9 what you actually meant, isn't it right, is that it would
10 not continue to perform speech recognition on the hotword
11 and the initial command; isn't that what you actually meant
12 there?

13 A. No, that's not what I meant.

14 Q. Okay.

15 Let's pull the deposition transcript right back
16 up, Mr. Jay.

17 And again, this is JX-51C. We're going to be
18 right back on page 138. We're just going to look at the
19 very -- the question immediately preceding that, which is
20 at lines 7 through 15.

21 So right before you gave the answer we just
22 looked at, you were asked the question, "In the context of
23 a command to temporarily refrain from performing any and
24 all speech recognition, how did you interpret the word
25 'temporarily'?"

1 And you answered, "Basically, 'temporarily' in
2 the context as disclosed here is that it will not continue
3 to perform speech recognition on the -- the hotword, wake
4 word and the initial command."

5 That's the answer you gave at your deposition;
6 isn't that right?

7 Yes or no, Dr. Mahon, did you give that answer
8 at your deposition?

9 A. That seems -- I'm not disputing the text of the
10 deposition, but in terms of the context of answering the
11 question...

12 Q. Right.

13 So under your view, a message that results in a
14 device refraining from performing speech recognition, for a
15 very, very short time that is practically zero, would still
16 be a command to temporarily refrain from performing speech
17 recognition; correct?

18 A. There is no time limit in terms of temporarily
19 refraining.

20 Q. And so, because of that, you believe that if it
21 refrains from performing speech recognition for a very,
22 very short time that is practically zero, that would still
23 meet the requirement of a command to temporarily refrain
24 from performing speech recognition; correct?

25 A. Well, under a circumstance if there's

1 immediately a wake word that comes in at that instance, and
2 it is a very, very short instance, that would still be a
3 temporarily -- temporarily refraining.

4 Q. Okay.

5 Let's pull up page 142 of Dr. Mahon's deposition
6 transcript, which is JX-0051C. We're going to start at
7 line 4 and go through line 13.

8 So you were asked at your deposition, Dr. Mahon,
9 "And so, in the example, temporarily is zero seconds;
10 correct?" (As read.)

11 You said, "Again, it depends on the input
12 stream, what has been identified, what else is in the room
13 or what other words might be in context, but certainly,
14 it's not without possibility that time is very, very short,
15 which could be practically zero."

16 You gave that answer at your deposition;
17 correct, Dr. Mahon?

18 A. Yes, I gave that answer. And what I just stated
19 previously in my previous answer to you is the same context
20 to me.

21 MR. SHEA: I have no further questions for you
22 at this time. Thank you.

23 MR. NELSON: May I proceed, Your Honor?

24 JUDGE ELLIOT: Yes.

25 MR. NELSON: Thank you.

1 O P E N S E S S I O N

2 BY MR. NELSON:

3 Q. So, Mr. Rudd, can we put up Claim 7 of the '748
4 Patent, please.

5 So here, at Claim 7, it says, "A first device
6 comprising: At least one processor; and at least one module
7 operable by the at least one processor to:" (As read.)
8 And then there are a number of additional elements.

9 Do you see that?

10 A. Yes, I do.

11 Q. Is that a method claim?

12 A. No, it is not.

13 Q. Okay.

14 Can you explain to us why that is.

15 A. Well, it's an apparatus claim. It's basically
16 saying that this is a specific device, and it's operable to
17 do these specific things.

18 Q. What's the significance of that with respect to
19 your analysis in this case?

20 A. Well, the significance of that is you have to
21 look to see if each device that you're evaluating actually
22 does, or executes these elements.

23 Q. It has the capability to execute the elements?

24 A. So it has to have the capability and be able to,
25 yes.

1 Q. So when you went through in your analysis, did
2 you confirm that the accused devices have the capability to
3 perform each of the required elements?

4 A. Yes.

5 Q. How did you do that?

6 A. I did it multiple ways. Obviously, I examined
7 the source code, and then I also did testing.

8 Q. So now I want to focus in on what we were
9 calling element 3, and then 3(a), 3(b), 3(c) and 3(d).
10 If we could blow that part of the claim up, so
11 that would start about line 18, Mr. Rudd, with "Responsive
12 to..." Yeah, and there's one more below that, too.
13 Perfect.

14 So here, element 3, "...responsive to
15 determining that the first computing device should perform
16 speech recognition on the spoken audio input."

17 Do you see that?

18 A. Yes, I do.

19 Q. Now, if we go to element 3 -- what we have been
20 calling 3(a), it says, "Send, to at least a second
21 computing device from a plurality of computing devices, a
22 command to temporarily refrain from performing speech
23 recognition."

24 Do you see that?

25 A. Yes, I do.

1 Q. Okay.

2 What's the significance of that?

3 A. Well, the significance of that is that in order
4 to do the analysis of whether the devices meet the claim
5 limitation, you have to specifically look to see if the
6 disclosed operation or the -- what's disclosed in the
7 sub-element is actually performed in the way it's
8 disclosed, and in this case, it would have to be performed
9 for -- I guess it's -- we're calling it (b) and (c) here,
10 the perform and determine sub-elements would be on the
11 spoken audio input, but the sending does not have that
12 requirement.

13 Q. So let's talk about the spoken audio input.

14 MR. NELSON: I think here, Your Honor, I need to
15 go on the Sonos confidential record.

16 JUDGE ELLIOT: Very well.

17 (Whereupon, the trial proceeded in confidential
18 session.)

19

20

21

22

23

24

25

1 C O N F I D E N T I A L S E S S I O N

2 BY MR. NELSON:

3 Q. So, Mr. Rudd, can we pull up slide 94 of
4 Dr. Mahon's presentation.

5 So now, with respect to your analysis, in the
6 accused Sonos Voice product, what is the spoken audio input
7 that the devices have the capability to operate on?

8 A. I'm sorry. I couldn't hear the end of that
9 question. Could you repeat it?

10 Q. Yeah.

11 What is the spoken audio input that the devices
12 have the capability to process?

13 A. The -- it would include the wake word, the
14 command, and the follow-on request.

15

24 Q. So then, what is the spoken audio input; the
25 first -- it starts with what?

1 A. It starts with the hotword.

2 Q. And it ends where?

3 A. At the last -- either at the next instance of a
4 hotword or a time-out from processing the current spoken
5 audio input.

6 Q. The time-out, can you explain to us what that
7 is.

8 A. Yes.

9 As it's even indicated here on the slide, it
10 says, "With some voice requests, you can make additional
11 requests for a few seconds afterwards without saying 'Hey
12 Sonos' again," which is the hotword.

13 So the device basically will continue to listen,
14 and if it doesn't hear a hotword, which would end that
15 session, it would time out because it's just not going to
16 continuously wait for long periods of time for the user to
17 utter additional follow-up requests.

18 Q. So then you were asked some questions from
19 counsel about the length of time in certain examples where
20 that might be temporarily refrain.

21 Do you recall those?

22 A. Yes, I do.

23 Q. Okay.

24 So in terms of the programming, the capability
25 of the device, does it have the capability to temporarily

1 refrain for more than just a very, very short period of
2 time?

3 A. Yes, indeed.

4 Q. Can you explain that to us.

5 A. Yes.

6 So as a user speaking in -- for example, in
7 this -- well, with this example that's shown on the slide,
8 the user says, "Hey Sonos, play some music." And then they
9 say, "louder." There's a -- of course, a -- might -- may
10 be a little bit of delay, obviously, between when they hear
11 the music and when they say "louder." They could say, "a
12 little louder," "a little quieter." They keep asking the
13 device to interact.

14 So the device would continue to consider those
15 follow-on requests, again, until the user stops speaking,
16 and then either the time-out fires or another wake word
17 comes in, which would, again, end that session.

18 Q. So then, in terms of the scenario that counsel
19 proposed to you where the wake word may come in very
20 quickly, so then, are the devices programmed to only have
21 the capability to temporarily refrain in that scenario?

22 A. So certainly, that wake word timing would cause
23 that time to be very short, but that's not the limitation
24 of the device.

25 Q. So then, in the context of -- you were shown

1 some questions at your deposition with certain
2 hypotheticals. Can you explain to us the significance of
3 that?

4 A. Yeah.

5 So what I was trying to convey is just this case
6 where you can have different circumstances with users
7 interacting in different ways with the devices, and you
8 could have a myriad of different interplay.

9 The example I was articulating there was in a
10 case where the user is speaking, and immediately, as soon
11 as the device either starts to play or respond to the user,
12 a new wake word comes in, and that would end the voice
13 input session for that user.

14 Q. So then, the fact that there may be operation
15 scenarios where the refraining temporarily is a very short
16 period of time, does that have any relevance to your
17 analysis of the capability of the devices?

18 A. No. It's just one, very tiny use case, but it
19 doesn't -- to me, does not, based on my analysis, obviate
20 any of my analysis regarding the normal typical use cases,
21 which is what I've been trying to articulate.

22 Q. In that instance, are you -- when you're doing
23 your analysis of Claim 7, are you looking at the
24 programming and operation of the device and its capability?

25 A. Yes.

1 Q. So then, if we look now at slide 94 again, at
2 CX-155, page 2, an excerpt from the Sonos document, what
3 does this tell you about the capability of the device in
4 terms of how long the devices can temporarily refrain from
5 performing speech recognition?

6 A. Well, this would be an example that's displayed
7 here of the user uttering several follow-up requests,
8 meaning that the user is extending that period of time,
9 that temporary refraining period of time, based upon their
10 interaction with the device, so that could be extended.

11 Q. Now, counsel showed you a few -- a couple of
12 questions in the context of the -- this temporarily
13 refraining scenarios that they were asking you on page 138
14 of your dep.

15 Do you recall that?

16 A. I believe I do, yes.

17 Q. Okay. Do you have your deposition in front of
18 you?

19 A. No, not that I know of.

20 Q. It should be in one of those binders; if not, we
21 can get a copy.

22 A. Oh, deposition...

23 Okay.

24 Q. So now, counsel showed you the two Q and A on
25 page 138, starting at line 7, ending at line 24.

1 Do you see that?

2 A. Yes, I do.

3 Q. Okay. Now I'd look to look at the question that
4 begins at line 25; in other words, the very next question
5 and answer.

6 The question, "And what happens if a device has
7 already performed speech recognition on the entirety of the
8 spoken audio input?"

9 Your answer, "The devices will refrain until the
10 instance of that first spoken audio input is complete, and
11 then they would be -- well, they -- they just -- they're
12 not performing speech recognition, I should say, on that
13 spoken audio input. That's the result in the case that you
14 just indicated.

15 Meaning, the case you proposed was that if the
16 user gave a short command that didn't require a follow-on
17 request, that the refraining would basically be for that
18 duration of that process, so meaning there's no follow-on
19 request. It will -- but it will not perform speech
20 recognition on anything that remains, which in this case
21 would be nothing."

22 Do you see that?

23 A. Yes, I do.

24 Q. Okay. So can you explain to us the context now
25 that you see the entirety of the exchange?

1 A. Yes.

2 What I was referring to there is that if the
3 user is interacting with the device and they stop
4 interacting with the device, meaning they don't issue any
5 follow-on requests, that device will time out; and that is,
6 there's nothing else that the user is uttering to keep
7 that -- that speech recognition process from processing
8 follow-on requests. There's no follow-on request, so it
9 wouldn't continue to process.

10 Q. So the fact that it was -- the hypothetical
11 proposed to you was a scenario where there was no follow-on
12 request, does that have any bearing on your analysis and
13 your opinion in terms of the capability of the devices to
14 temporarily refrain from performing speech recognition?

15 A. No.

16 Q. And why not?

17 A. Well, because in that -- it's the exact, same
18 scenario. The exact, same things are going on. If there's
19 no follow-on request, the other devices are still
20 refraining from performing speech recognition. They don't
21 know that there's not going to be another follow-on
22 request, and they're waiting for another hotword. They go
23 back to hotword detection. So they're refraining by going
24 back to hotword detection.

25 Q. So then, when you do your analysis as an expert

1 in the field, do you do your analysis based on fringe,
2 extreme hypotheticals, or do you do your analysis based on
3 how the device is programmed and how it's capable of
4 operating?

5 A. Well, I consider how it's programmed, and I
6 actually test them, in this case, how they function, and I
7 considered that in making my decision.

8 MR. NELSON: Thank you, sir.

9 At this point, I have no further questions, Your
10 Honor.

11 JUDGE ELLIOT: Very well.

12 MR. SHEA: Your Honor, I just have a very brief
13 recross.

14 JUDGE ELLIOT: Very well.

15 MR. SHEA: If you don't mind.

16 And I think we can go back on the public record.

17 Sorry, Your Honor.

18 (Whereupon, the trial resumed in open session.)

19

20

21

22

23

24

25

1 O P E N S E S S I O N

2 MR. SHEA: Mr. Jay, could I have you pull up the
3 '748 Patent and Claim 7, which was the claim that we were
4 just looking at with Dr. Mahon.

5 Perfect.

6 RECROSS-EXAMINATION

7 BY MR. SHEA:

8 Q. So, Dr. Mahon, your counsel just asked you a
9 couple questions about this claim; is that right?

10 A. That's correct.

11 Q. You pointed out that this is claim directed to a
12 computing device -- a first computing device; correct?

13 A. That's correct.

14 Q. It's a computing device having at least one
15 module that's operable by at least one processor to perform
16 these functions; correct?

17 A. Correct.

18 Q. I think I heard you say that this claim just
19 requires the capability for that first computing device to
20 execute these functions; is that right?

21 A. It has to be capable of, yes.

22 Q. Okay.

23 So if we look down into the claim at around line
24 22, you see there that there is a function of "...sending
25 to at least a second computing device from a plurality of

1 computing devices."

2 Do you see that?

3 A. Yes.

4 Q. So you're saying that this claim, because it
5 only requires capability, can be met even if that device is
6 not in a system with a second computing device?

7 A. The disclosures in this patent are focused on a
8 multi-device environment, that is outside the scenario.
9 And if there's a situation where there's not a second
10 computing device, of course, it could send it, but there's
11 no second device to receive it, certainly.

12 Q. Okay. So you believe that even if there's no
13 second device, this claim can still be met, as long as
14 there's a single device that has the capability to perform
15 that function; is that right?

16 A. Could you repeat the question, please.

17 Q. Sure.

18 So your understanding and opinion here is that
19 because this is a device claim that only requires
20 capability, that a product can meet the limitations of this
21 claim even if it's not in a system with a second computing
22 device?

23 A. Well, if there's no second device in the system,
24 there's not a second device to send to, but it would depend
25 upon how the device is actually programmed to -- if it

1 detects that there's not a second device, it would not
2 perform this step, but it may be programmed to send
3 regardless.

4 Q. Yeah.

5 And so, sorry, I'm just trying to ask a simple
6 question.

7 I want you to take a scenario where you just
8 have a single device only, okay, that has the software for
9 performing all of the functions of the claim. So let's
10 assume all of the functionality of the claim is satisfied
11 by the software.

12 A. Okay.

13 Q. Okay?

14 In that scenario, if there is a system with only
15 a single device, there is no other second device, would
16 that single device meet each and every limitation of
17 Claim 7 of the '748 Patent?

18 A. Well, in the claim element receive a spoken
19 audio input also requires one or more additional computing
20 devices, so that wouldn't be germane to this claim element,
21 so the answer would be no.

22 Q. So then, one other question or maybe a couple of
23 questions.

24 Mr. Jay, could you pull up RX-350.

25 Could we go to -- it's document page 31,

1 Mr. Jay. I actually don't have the -- yeah, that's the
2 right page. Thank you.

3 So this is actually RX-350 at 34.

4 So, Dr. Mahon, your counsel asked you some
5 questions about the command to temporarily refrain
6 language.

7 Do you remember that?

8 A. Yes.

9 Q. Okay.

10 You understand that the Court has construed a
11 command to temporarily refrain from performing any and all
12 speech recognition -- excuse me. Let me start over. I
13 went too quick.

14 You understand that the Court construed the
15 claim term "a command to temporarily refrain from
16 performing speech recognition" to require "a command to
17 temporarily refrain from performing any and all speech
18 recognition"; isn't that right?

19 A. Yes.

20 Q. And "a command to temporarily refrain from
21 performing any and all speech recognition" certainly would
22 encompass speech recognition on the spoken audio input;
23 isn't that right?

24 A. For that claim element, that claim element
25 doesn't require it to be on the spoken audio input.

1 Q. Okay, but you agree the Court's construction of
2 that claim element does require that; right?

3 A. The command to temporarily refrain has to be on,
4 as construed, performing any and all speech recognition.

5 Q. Right.

6 And any and all speech recognition would
7 include, of course, speech recognition on the spoken audio
8 input; right?

9 A. Well, it's -- any and all would be encompassing
10 of spoken audio input.

11 MR. SHEA: Okay. Thank you.

12 No further questions, Your Honor.

13 JUDGE ELLIOT: Very well.

14 Dr. Mahon, thank you.

15 THE WITNESS: Thank you.

16 (Witness excused.)

17 MR. NELSON: Your Honor, Mr. Curran will be
18 handling this witness.

19 JUDGE ELLIOT: Very well.

20 MR. CURRAN: Good morning, Your Honor. Patrick
21 Curran, Quinn Emanuel, for Google.

22 Google calls as its next witness Mr. Tavis
23 Maclellan, who will be here in just a moment.

24 JUDGE ELLIOT: Very well.

25 Whereupon--

1 art using the VoicePod System to solve the problem of
2 parallel responses, the VoicePod System is actually
3 designed to solve that problem. So they're not going to be
4 motivated to go find another solution if they're, you know,
5 evaluating the VoicePod System. There's no real reason to
6 combine it with Masahide, for example.

7 Q. How does that relate to the hindsight discussion
8 that we had earlier?

9 A. Well, it's a similar perspective where you have
10 this claim language that you're trying to see if you can
11 basically fill in the holes based on your knowledge now
12 versus a person of ordinary skill in the art at the time
13 evaluating the VoicePod System and saying, well, what's
14 the -- you know, the system obviously indicates it has a
15 weakness, and I need to go find some other reference to
16 improve the system, and it's just not there.

17 MR. NELSON: Now, sir, that's -- those are the
18 questions that I have for you right now.

19 And I pass the witness for cross-examination,
20 Your Honor.

21 JUDGE ELLIOT: Very well.

22 MR. SHEA: May I proceed, Your Honor?

23 JUDGE ELLIOT: Yes.

24 MR. SHEA: Thank you.

25 CROSS-EXAMINATION

1 scenario; correct?

2 A. It would meet all the limitations, yes.

3 JUDGE ELLIOT: I don't know how long you're
4 going to be on Rosenberger. Can we go on the public
5 record?

6 MR. SHEA: Oh, yes, Your Honor. Yes. I think
7 we can probably stay on the public record almost the entire
8 time.

9 JUDGE ELLIOT: Very well.

10 (Whereupon, the trial resumed in open session.)

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 O P E N S E S S I O N

2 MR. SHEA: Thank you.

3 BY MR. SHEA:

4 Q. So with respect to that detecting a voice input
5 limitation, Dr. Mahon, you agree that Rosenberger does
6 disclose a system in which electronic devices are
7 configured to arbitrate based on a detection of a trigger
8 phrase; correct?

9 A. They are -- the system is -- does look for
10 trigger phrases to start the process, yes.

11 Q. But my question is, it not just does that, it
12 arbitrates based on detection of a trigger phrase; isn't
13 that right?

14 A. No.

15 Q. Okay.

16 Mr. Jay, can we pull up Dr. Mahon's rebuttal
17 report, JX-13C. Can we go to page 355 of that document.

18 Oh, sorry. I'm looking for Paragraph 634. I
19 think I've got us in the wrong spot. Sorry about that.

20 I think one more page -- yep, perfect.

21 Can you blow up 634 there for us?

22 Dr. Mahon, in your rebuttal expert report, which
23 we're looking at here at Paragraph 634, you stated,
24 "Rosenberger states that the preferred embodiment is one in
25 which devices arbitrate based on the detection of a trigger

1 context of a system to say, yeah, that's possible in that
2 system or not.

3 Q. Okay.

4 How about Rosenberger, for instance; in that
5 system, do you believe that the arbitration process
6 disclosed there would take less time than the speech
7 recognition process?

8 A. I would hazard a guess that it would take less
9 time.

10 Q. So you don't dispute that the devices of
11 Rosenberger are configured to receive a spoken audio input
12 that is also received by one or more additional computing
13 devices in physical proximity to the first computing
14 device; right?

15 A. Correct.

16 Q. The spoken audio input in Rosenberger can take
17 the form of either a trigger phrase or a speech command;
18 correct?

19 A. I'm sorry, I didn't catch that. Could you
20 repeat the question again, please?

21 Q. Yeah.

22 I said, the spoken audio input in Rosenberger
23 can be either a trigger phrase or a speech command;
24 correct?

25 A. Correct.

1 Q. So focusing on a scenario where that spoken
2 audio input is a speech command, you agree that Rosenberger
3 teaches that when a device receives such a speech command,
4 it begins performing speech recognition processing on that
5 speech command; correct?

6 A. It's -- Rosenberger, based on my analysis, is
7 always -- it's disclosing a process that's always
8 performing speech recognition, so it will perform speech
9 recognition in that case, yes.

10 Q. And the way -- in Rosenberger, the way that
11 speech recognition processing works is that it evaluates
12 the speech command against an expected vocabulary in order
13 to recognize each word in that speech command; is that
14 right?

15 A. That's correct.

16 Q. And during this processing, each time that the
17 device successfully matches a spoken word in its expected
18 vocabulary, it will then calculate and return the measures
19 that are used for arbitration; right?

20 A. Correct.

21 Q. To be clear, your view is that Rosenberger's
22 control devices perform speech recognition on audio output,
23 but not any other forms of speech processing; correct?

24 A. I'm not sure I understand the question.

25 Q. My question is, your interpretation of

1 Rosenberg is that the control devices do perform speech
2 recognition on audio input, but do not perform other forms
3 of speech processing; correct?

4 A. I can't recall any other speech processing that
5 they perform.

6 Q. And so, let's take an example of what we were
7 just discussing where the speech input that's received by
8 the devices in Rosenberger is, "watch cable channel CNN in
9 the living room."

10 Are you with me?

11 A. "Watch cable channel CNN" -- I didn't catch the
12 last part.

13 Q. "In the living room."

14 A. "In the living room," okay.

15 Q. And in this example, you agree that each device
16 in Rosenberger that heard that input would begin performing
17 speech recognition processing on it; correct?

18 A. Well, again, Rosenberger's systems are always
19 performing speech recognition, so it will be performed on
20 that spoken audio.

21 Q. If there's a command of "watch" in each device's
22 expected vocabulary, then each device will recognize that
23 word "watch" and calculate and return measures that are
24 used for arbitration; correct?

25 A. Again, I assume we have already used the process

1 of getting the device to respond to the user so that the
2 user can speak the --

3 Q. So this is an embodiment where it's not
4 monitoring for -- or using a trigger phrase to initiate
5 that. We're talking just about a speech command.

6 A. Okay.

7 Q. And so, in that scenario, you agree that if
8 there is a command of "watch" in the expected vocabulary of
9 the device, that each device will recognize that word and
10 calculate and return measures that are used for
11 arbitration; correct?

12 A. It would perform -- if it recognizes the word,
13 it will perform -- via speech recognition, it will perform
14 a metric. It will calculate a metric. Sorry.

15 Q. And then, based on that arbitration, one device
16 will be selected to handle the speech command while the
17 other devices would be instructed to immediately terminate
18 further processing; correct?

19 A. The arbiter would -- the arbitration process
20 would determine the winner, and the other devices would be
21 sent back to performing speech recognition.

22 Q. Yeah.

23 And they would immediately terminate further
24 processing; correct? That's what Rosenberger discloses.

25 A. Well, if they're going back to performing speech

1 recognition, they might have other processes running,
2 again. And it doesn't necessarily terminate all processes,
3 but certainly it goes back to speech recognition.

4 Q. Are you disputing that Rosenberger does not
5 disclose that those -- that the stop command causes those
6 devices to immediately terminate further processing?

7 A. Again, depends on the -- it certainly says that,
8 but what you mean by the -- in that context, I guess I
9 would need to understand, because processing -- as leading
10 up to this, you were asking me about other processes.

11 Q. You don't -- I want to shift gears, Dr. Mahon.
12 You don't dispute that the VoicePod System
13 qualifies as prior art to both the '311 and '748 Patents;
14 right?

15 A. No, I do not.

16 Q. And you don't dispute that the VoicePod System
17 produced in this case runs firmware that qualifies as prior
18 art to the '748 and '311 Patents; correct?

19 A. Based on everything that I know, that is
20 correct.

21 Q. Now, you understand that there was native source
22 code produced for the VoicePod System in this case;
23 correct?

24 A. That's my understanding, yes.

25 Q. That native source code corresponds to the prior