

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY INTERACTIVE ENTERTAINMENT, LLC.,
Petitioner,

v.

QUANTUM IMAGING, LLC.,
Patent Owner.

IPR2023-00995 (Patent 10,846,941 B2)
IPR2023-00996 (Patent 10,991,165 B2)

Record of Oral Hearing
Held: September 13, 2024

Before SCOTT A. DANIELS, KEVIN W. CHERRY, and
JAMES J. MAYBERRY, *Administrative Patent Judges*.

IPR2023-00995 (Patent 10,846,941 B2)

IPR2023-00996 (Patent 10,991,165 B2)

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1 P R O C E E D I N G S

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3 JUDGE DANIELS: Well, good morning. It's Friday, September
4 13th. We have this morning an oral hearing, a combined oral hearing in the
5 morning for IPR2023-00995 and 2023-00996. Sony Interactive
6 Entertainment LLC versus Quantum Imaging LLC. We will do a separate
7 hearing for IPR2023-00954 this afternoon at 1:30, that will be separate. And
8 I know there are leap practitioners for that one, so Judge Mayberry will be in
9 charge of that one. I'm Judge Daniels. With me this morning are Judges
10 Cherry and Mayberry. And if I could get the parties' appearances, please.
11 Who do we have from Petitioner Sony?

12 MR. ARJOMAND: Good morning, Your Honors. Mehran
13 Arjomand of Morrison & Foerster in Los Angeles for Petitioner, Sony
14 Interactive. With me in person is Bryan Blumenkopf of Morrison &
15 Foerster. Also on the line remotely is Alex Yap of Morrison & Foerster. I
16 also believe that other colleagues from Morrison & Foerster, and counsel
17 from Sony Interactive are on the public line.

18 JUDGE DANIELS: Mr. Arjomand, are you going to be doing
19 both presentations?

20 MR. ARJOMAND: I'll be doing this consolidated hearing with
21 respect to the '941 and the '165 patents, Your Honor. My colleague Brian
22 Blumenkopf will be handling this second hearing relating to the '028 patent.

23 JUDGE DANIELS: Perfect. Thank you. All right. And for
24 Quantum, who do we have here today?

25 MR. ROBINSON: Hi. I'm Lead Counsel Erick Robinson with
26 Bochner PLLC, and with me in arguing is my colleague from Dunlap

1 Coddling, Douglas Sorocco. And in addition, I have with me from Bochner
2 Homayoon Rafatijo, who will be arguing this afternoon's hearing, but Doug
3 will be arguing this morning, and I believe we may have some more
4 colleagues from Bochner on the dial-in line. And Doug, I don't know, do
5 you have any colleagues from the Dunlap Coddling side?

6 MR. SOROCCO: Yes, we do. From the Dunlap Coddling side,
7 with joining me here in the room is Mark Brockhaus and Ann Robl, who
8 were on the briefs, and I believe on the dial-in line that we have some
9 younger attorneys, interns listening in as well.

10 JUDGE DANIELS: And Mr. Sorocco, you're going to do the
11 argument today for Patent Owner?

12 MR. SOROCCO: That is correct.

13 JUDGE DANIELS: Great. Thank you so much. Welcome again
14 to everyone who's listening and who's arguing. We set forth the procedures
15 we always did as we always do in our trial order. But just to remind
16 everyone quickly how this will work, each party this morning has 60
17 minutes of total time to present your arguments. Each party can allocate
18 your time any way you like. When it's your turn to speak, just let me know
19 how much time you'd like to reserve for rebuttal.

20 Just a note, when you're referring to your demonstratives, if you
21 want to share them, that's fine. We are also following along with your
22 demonstratives, and we have your, you know, we have all your briefing and
23 the papers and case and exhibits up as well on our screens. So, what is
24 helpful is just to make sure you say the exhibit number if you're referring to
25 one and the slide number if you are referring to it as well. And it helps for
26 clarity in the transcript to have that.

1 All right, unless there's any questions, Petitioner has the burden on
2 the original claims and will go first. And again, Mr. Arjomand, you can
3 reserve whatever time you'd like for rebuttal.

4 MR. ARJOMAND: Thank you, Your Honor. I'd like to reserve 20
5 minutes for rebuttal, please.

6 JUDGE DANIELS: Great. Oh, sorry, one more thing. I will keep
7 time. If you have someone there who can keep time for you, it might be
8 helpful. I do my best when I'm looking at my screen and watching my
9 clock. But whenever you're ready.

10 MR. ARJOMAND: Good morning, Your Honors. And may it
11 please the Board. Petitioner respectfully submits that the challenged claims
12 in these two IPR proceedings are untenable. Turning to slide 1. I will begin
13 first with an overview of the claims and claim construction, and then I'll turn
14 to the two grounds in these IPR proceedings, specifically Ground 1 based on
15 the Pisanich reference, and Ground 2 based on the Phantasy Star Online, or
16 PSO manual.

17 Turning to slide 3, it provides Claim 1 of the '941 patent and Claim
18 1 is directed to one or more non-transitory computer readable medium,
19 storing an interactive software application platform comprising a number of
20 elements, including a quantum imaging environment QIE module. As we'll
21 discuss today, much of the parties' briefings and arguments are directed to
22 this limitation.

23 Turning to slide 4, this shows a portion of Claim 23 of the '941
24 patent. It's very similar to Claim 1 of the '941 patent, but it has an additional
25 limitation directed to a client system and a server system communicating to
26 provide an interactive software application platform.

1 Slide 5 shows Claim 1 of the '165 patent. It has limitations that are
2 very similar to Claims 1 and 23 of the '941 patent, but it does have some
3 recitations that are unique. For example, it has recitations directed to
4 obtaining real-time information via the World Wide Web as shown in purple
5 in this slide.

6 Now, turning to claim construction, in the decision on institution,
7 Your Honors did not need to expressly construe any terms to institute
8 review. Our position in this hearing today is that Your Honors do not need
9 to reach any express constructions in issuing a final written decision. And
10 the reason for that is set forth here on slide 8. It's our position that the
11 claims are obvious even under Patent Owner's proposed constructions.

12 JUDGE CHERRY: Excuse me, I had a question. I wondered in
13 Claim 1 of the '995 patent, there's -- in limitation 1[d] there's the, you know,
14 the quantum imaging environment module. It talks about different types of
15 devices for use within the virtual thematic environment. I wondered what
16 devices is that talking about? And I wonder if you had a claim construction
17 for that phrase.

18 MR. ARJOMAND: Well, Your Honor, if I can direct you to the
19 end of my slide deck, I believe it's slide maybe 84, 85. It provides a portion
20 of that term. Specifically, if you take a look at what the Patent Owner has
21 provided for that term. If they have construed type, so in the QIE module --
22 oh, that's sufficient -- I'm sorry.

23 JUDGE CHERRY: So, I understand type, but what about devices?
24 How do you interpret devices?

25 MR. ARJOMAND: I think, Your Honor, we would interpret that
26 term very broadly. So, for example, different computers, an Atari computer

1 versus an Apple computer make two different devices.

2 JUDGE CHERRY: So, you interpret it as the different end user
3 for lack of a better term, devices. The devices you're playing the game on --

4 MR. ARJOMAND: Correct, Your Honor.

5 JUDGE CHERRY: -- computers or iPads or whatever?

6 MR. ARJOMAND: Correct.

7 JUDGE CHERRY: Okay. Thank you, that was my one question.

8 MR. ARJOMAND: Okay.

9 JUDGE DANIELS: Sorry, just to follow up on that, Mr.

10 Arjomand. So, the different devices you all envision are, for example, it
11 might be an Atari computer. It might be a -- I don't know if they had Sega
12 back then, but you had Apple or Atari, or it could be a, man, we didn't, when
13 we had the old Atari games, we didn't have cell phones, but another different
14 device could also be a cell phone now, correct?

15 MR. ARJOMAND: Yes, yes, I think the term devices is a broad
16 term, and I think it would capture different types of computers, as I
17 mentioned, Atari, Apple. As we'll see in this presentation, there's well-
18 known in the art, multiple different types of devices that utilize flight
19 simulator games, and that's what a person of ordinary skill in the art would
20 know, but it could also encompass other devices that were in existence at the
21 time of the '941 patent, such as a smartphone or a laptop, if you will.

22 JUDGE DANIELS: And just one more follow-up. The Patent
23 Owner had an argument that I believe, and they can correct me if I'm wrong,
24 but I believe it was that Mr. Crane was talking about different games at one
25 point, which, and it's not, he may have been talking about different games at
26 some point in his declaration, but I do believe, and correct me if I'm wrong,

1 that he was talking about the, and gave us some examples of the, like Atari
2 versus Apple, and some of the other early games that you all consider
3 different devices?

4 MR. ARJOMAND: Absolutely, Your Honor. So, let me first take
5 you to slide number 13. And if you see on the left, this is showing Pisanich
6 Figure 1. And Pisanich has a game data server that communicates with
7 game 112, and it also communicates with other games 116. And there was
8 some discussion both in the direct testimony and in Mr. Crane's depositions
9 about what other games could constitute. And Mr. Crane was very clear in
10 his testimony that other games could be different versions of game 112.
11 And I can direct you to Exhibit 2012.

12 JUDGE DANIELS: What do you mean by different versions?

13 MR. ARJOMAND: So, for example, I'm going to slide 23, Your
14 Honor. If you take a look at the left side of this slide, this is an image from
15 paragraph 83 of Mr. Crane's direct testimony, his declaration. That's Exhibit
16 1004 in the proceeding that relates to '941 patent. And what Mr. Crane
17 explained was that it was well known by the time of the filing of the '941
18 patent that there were multiple versions of flight simulator games. So, in
19 this case, what's shown here are six versions of the same game by Sublogic,
20 specifically Flight Simulator II. So, there's a version from Apple 2. There's
21 a version based on Atari. There's a version based on Commodore 64. So,
22 going back to Pisanich Figure 2, when it shows --

23 JUDGE CHERRY: Yeah, I have a question. So, in -- now, each
24 of those games, they're kind of each running independently, right?

25 MR. ARJOMAND: Yes, Your Honor. Each game is on that
26 specific computer.

1 JUDGE CHERRY: And this version, HN's flight logic -- or
2 Sublogic Flight Simulator II. This is on, is it slide -- can't see the slide
3 number. Slide 24, I guess. And that is not the game that's expressed --
4 that's being disclosed in Pisanich, right?

5 MR. ARJOMAND: So, Your Honor, Pisanich describes that. That
6 it is directed to basically utilizing real-time information in the context of a
7 game.

8 JUDGE CHERRY: Yes, that was my question. I know that
9 Pisanich says that, but Pisanich isn't talking -- it's not talking about this
10 Sublogic Flight Simulator II game, right?

11 MR. ARJOMAND: No, no, but it is talking about a flight
12 simulator game. And what Mr. Crane testified in his depositions was that
13 when Pisanich shows a server going to communicating with game 112 and
14 other games 116, the other games 116 could be other versions of the flight
15 simulator game. And that was expressly testified by him at Exhibit 2012,
16 page 419, at lines 12 through 15.

17 So, I don't believe that there's any dispute that if you take a look,
18 and, you know, I'm going back to slide 13. If you take a look at Figure 1,
19 the game data server 108 is in communication with multiple games --
20 multiple flight simulator games. And as Mr. Crane explained in his
21 declaration, each of those games can be on different devices as was known
22 in the art. So, for example, as was known, the Sublogic Flight Simulator
23 Game II was on six different computers by the time of the '941 patent was --
24 application was filed.

25 JUDGE CHERRY: I Why I'm struggling is we might have said
26 something like that in the DI, but when I read your petition, I'm not quite

1 getting that argument that you're now articulating because it seems that
2 when the petition talks about the different types of devices, you quote from
3 Pisanich where it says, as a player, 120 controls a gaming unit within a game
4 112, for example, an aircraft, car or the like, the game requests data from the
5 game data server 108 as required to provide a realistic environment for the
6 game. The data requested by the game 112 includes data such as weather
7 reports or air traffic or in the direction that the player 112 is guiding the
8 vehicle in the game, 112.

9 And that's why I was asking about devices because they're, I mean,
10 as best as I can understand it, it seems to be saying that the different types of
11 devices are the aircraft car or other vehicles that are used in the game.
12 Where in the petition do you talk about these different types of PCs?

13 MR. ARJOMAND: Absolutely, Your Honor. So, I believe you're
14 reading from pages 23 and 24 of the petition. Is that correct?

15 JUDGE CHERRY: Yes. Yes.

16 MR. ARJOMAND: If you take a look at page 23 of the petition.

17 JUDGE CHERRY: Okay.

18 MR. ARJOMAND: When it talks about, and it's at the end of that
19 page, it says a POSITA would have understood that the players 120 and 124
20 may access such second content on different types of devices for use within
21 the game. And it cites Exhibit 1004 beginning with paragraph 152. Now, if,
22 I may direct you to paragraph 152 in Mr. Crane's declaration, you'll see that
23 he talks both about what was known in the art and about different games.
24 So, let me direct you to Exhibit 1004, and let me know when you're there.

25 JUDGE CHERRY: Okay, I'm there.

26 MR. ARJOMAND: So, he says in the first sentence, as noted

1 above it was well known in the art of the filing of the '941 patent to interpret
2 and manipulate video game content for use on different types of devices. In
3 addition -- and then he talks about different games and they're sort of in the
4 context that you were mentioning, Judge Cherry -- but the first sentence
5 talks about as noted above. As noted above relates to paragraph 147 which
6 is two pages before that paragraph on 152, and it talks about in paragraph
7 147 as an initial matter it was well known in the art as of the filing of the
8 '941 patent to interpret and manipulate video game content for use on
9 different types of devices. See section A2. And then that refers back to the
10 discussion of the, you know, the Sublogic Flight Simulator II game being on
11 six different types of computers. So, I think if you work through the --

12 JUDGE CHERRY: Pisanich doesn't talk about being on six
13 different types of computers, right?

14 MR. ARJOMAND: No, no, Your Honor, but this is I think a
15 fundamental error that Patent Owner has made throughout their briefing is
16 that they are focused on expressly and only expressly what Pisanich
17 discloses. And we know from the case law that we put in our briefing that
18 that's not how obviousness works. Obviousness is based on first on the
19 knowledge of a person of ordinary skill in the art looking at the reference.
20 Our ground is based on Pisanich and the over person of ordinary skill in the
21 art. And then furthermore, it's not based on just the express disclosure of
22 Pisanich, but what it teaches.

23 And so, what Mr. Crane testified both in his direct testimony and
24 on cross-examination and on redirect, is that when a person of ordinary skill
25 in the art, looking at Pisanich, and it sees that it's talking about a game
26 server, and it's talking about a flight simulator game, it would understand

1 that that flight simulator game is not just playing one game with one player,
2 it's playing multiple games with multiple players, and those games are in
3 different versions.

4 JUDGE CHERRY: Now, well, I have a couple of questions. First,
5 when I look at the next page -- and so I'm still in paragraph 152 of Mr.
6 Crane's declaration, but I go to the next page where he's talking about Figure
7 1 of Pisanich, I mean, there the disclosure is talking about, and I'll read it,
8 moreover the second player, 124, may play an entirely different game, 116,
9 for instance, a car racing game or a football game, than the game 112 being
10 played by the first player 120. However, the different game 116 may request
11 the same type of data, whether, for example, as the first game 112.

12 I guess, I mean, there it seems to be talking about them playing
13 totally different games. And I why are we, I think that's Patent Owner's
14 argument is that they're not playing the same game.

15 MR. ARJOMAND: Well, just from the first sentence that you read
16 in that paragraph on page 71 of Exhibit 1004, it says moreover, a second
17 player 124 may play an entirely different game 160. So, it leaves open that
18 the game 116 may be the same as game 112, i.e., a flight simulator game.
19 And in fact, Mr. Crane also testified as to that -- the use of the word may.

20 So, stepping back again, I think a person of ordinary skill in the art
21 would certainly understand that Pisanich talks about, you know, in Figure 1
22 and in this paragraph that you read about the possibility of the server
23 communicating with different players playing completely different games.
24 But a person of ordinary skill in the art with the knowledge they have and
25 with the discussion that I just pointed to would also understand that game
26 116 can be a different version of game 112, both of them being flight

1 simulator game.

2 JUDGE CHERRY: Now, that leads into my next question, which
3 is, so the limitation -- let me bring up the limitations so I get this right. The
4 limitation talks about, for use within the virtual thematic environment. I
5 guess what does that entail? And by that, I mean, does it satisfy it that
6 people are playing the same game, and each is kind of independent? Or is it
7 like I would imagine like a World of Warcraft or some kind of, you know,
8 multi role-player game where we're all in this virtual world?

9 Is that, what is a virtual thematic environment require? Is it
10 sufficient that everyone is playing a video game and they're all getting
11 served information from the server? Or do they have to be kind of a unified
12 reality, a virtual reality?

13 MR. ARJOMAND: So, Judge Cherry, I direct you to slide 3,
14 which has Claim 1 of the '941 patent. And I specifically direct you to the
15 first recitation that at least one thematic publishing logic module. Do you
16 see that, Your Honor?

17 JUDGE CHERRY: Mm-hmm, yes.

18 MR. ARJOMAND: So, that talks at the end of that recitation it
19 provides -- it says, quote, provide a virtual thematic environment on a visual
20 component, comma, the virtual thematic environment being a theme-based
21 virtual world environment, unquote. So, I think that understanding of a
22 virtual thematic environment is that it has to be theme-based. Theme is the
23 operative word. And if I may direct you to slide -- let me direct you to slide,
24 to slide 24, Your Honor. You were there previously.

25 JUDGE CHERRY: Sure.

26 MR. ARJOMAND: So, during Mr. Crane's deposition, he was

1 asked, again, in relationship to these six different versions of the flight
2 simulator game by Sublogic. And he said, he said, head on that the theme of
3 these six games would be the same. So, in our view, when the theme of
4 these six games is the same, based on Mr. Crane's testimony, which you
5 have to give, I think should be given credit, given his experience in the field,
6 I think that satisfies the recitation of a virtual thematic environment being a
7 theme-based virtual world environment.

8 JUDGE CHERRY: Okay. Thank you. That's helpful. But I feel
9 like now that we're back to slide 24, it kind of begs another question, which
10 is, you know, you've kind of put forward this game from 1984 to 1987,
11 running on a group of computers that, by the priority date, were no longer
12 really being used. And instead, you've kind of talked about different types
13 of PCs. What are different types of PCs? I mean, you're not alleging that
14 Pisanich is serving those to an Apple to Commodore 64, are you?

15 MR. ARJOMAND: Well, I think obviously you're taking it as of
16 the priority date, Your Honor. And certainly, as of the priority date,
17 technology has advanced beyond Commodore 64 and Apple II. But that
18 doesn't mean that there wasn't an Apple II computer, or there wasn't an
19 Apple computer, you know, some kind of iMac or MacBook. And there
20 were other types of --

21 JUDGE CHERRY: But you kind of said in your reply different
22 types of PCs. What did -- what do you define that as? What is a different
23 type of PC? What are different types of the PCs?

24 MR. ARJOMAND: I would say, for example, an Apple computer
25 would be different from a Dell computer. I think both of them would be in
26 existence as of the, you know, as of the priority date.

1 JUDGE CHERRY: So, you're talking about they have to run
2 different operating systems?

3 MR. ARJOMAND: Yes, different operating systems and different
4 hardware, right. They have different CPUs. They have different other hard
5 drives, all that kind of stuff. So, it's not just operating systems, but it's also
6 hardware, too, Your Honor.

7 JUDGE CHERRY: So, if, say, you would say different types of
8 PCs would include if I'm running a, I don't know what, Pentium 150, and
9 Judge Daniels is running a 486, would those be different types of PCs in
10 your definition?

11 MR. ARJOMAND: Yes, Your Honor, and it's not my definition.
12 If you take a look at Patent Owner's construction of types in this proceeding,
13 all it is -- is different kinds, groups, or classes. So, that's a very, very broad
14 construction of what different type means. And so, obviously if you have
15 one computer that's running with a different, you know, with one type of
16 CPU and another computer running with a different type of CPU, I think that
17 would meet Patent Owner's construction of different types of devices.

18 JUDGE CHERRY: And where is your evidence to support this?
19 Because I didn't really see Mr. Crane talking -- I saw him -- he has this
20 discussion about the flight simulator game. But where does he talk about, in
21 context of Pisanich, that he would be playing this on different PCs with
22 different hardware configurations like you're now talking about?

23 MR. ARJOMAND: I think when you -- I can find it. I think
24 around that cite that I gave you in Exhibit 2012 at page 419, lines 12 to 15,
25 he talks about, again, the context of how a person of ordinary skill in the art
26 would understand Pisanich as operating on multiple -- having the server

1 communicating with multiple different devices playing different games. So,
2 I think that would be one area for Your Honors to look at. Maybe at the
3 break on rebuttal I can find you additional cites.

4 JUDGE CHERRY: Okay. Thank you.

5 MR. ARJOMAND: Have I answered your question, Your Honors,
6 regarding some of these initial issues?

7 JUDGE CHERRY: Yes. Thank you.

8 MR. ARJOMAND: Great. So, let me just turn back quickly to
9 one, just two kind of table setting points, and then we'll get back into some
10 more of the substantive arguments that Patent Owner has made in this
11 proceeding.

12 So, turning to slide number 9, this shows the level of skill in the
13 art. And what I wanted to highlight here for Your Honors is that beyond the
14 bachelor's degree and the two years of professional experience, that two
15 years of professional experience includes experience with client server
16 systems, specifically in the context of consoles and gaming, and it also
17 includes general knowledge of 3D rendering. And I think this is going to be
18 very, very important when we see some of the arguments that Patent Owner
19 makes about whether Pisanich or the PSO manual discloses, for example, a
20 client server system as claimed in Claim 23 of the '941 patent.

21 The other point I'd like to just make up front, this is on slide 10.
22 This shows the instituted grounds. And as you can see in this slide, there are
23 a number of challenged claims beyond Claims 1 and 23 of the '941 patent
24 and Claim 1 of the '165 patent that I've discussed with you. But what is
25 important for Your Honors to understand is that they have not argued any of
26 the dependent claims separately. So, in our opinion, the claims will rise or

1 fall based on whether the independent claims are patentable or not.

2 So, let me now turn back to slide 16, and this shows the QIE
3 module that we were just discussing. And we have been focusing on the
4 language relating to different types of devices. And there is another portion
5 of this recitation associated with a software layer that Patent Owner has
6 made a number of arguments related to. So, specifically it states the QIE
7 module being a software layer. And now turning to slide 17, this shows
8 what Patent Owner understands the software layer to be. What's highlighted
9 here is that their understandings of the software layer, in the software the
10 modules assigned to one layer interact only with those that are assigned to
11 adjacent layers.

12 And in our view, the software layer cannot be limited to this
13 specific meaning because it's inconsistent with the specifications of the '941
14 and the '165 patent. So, for example, turning to slide 18, this shows Figure 1
15 of the '941 and '165 patents on the left. It shows the Quantum Imaging
16 Engine 104, which I believe Patent Owner considers to be a layer. And
17 while that Quantum Imaging Engine 104 interacts with layers that are
18 adjacent to it, as shown by the red highlighting, it also interacts with non-
19 adjacent layers. For example, the thematic publishing logic layer, the digital
20 content library layer, and then the storage layer. So, in our view --

21 JUDGE DANIELS: Mr. Arjomand?

22 MR. ARJOMAND: Yes.

23 JUDGE DANIELS: Can you put -- the panel in discussing this
24 case over the past couple of weeks, one of the things that -- well, I guess I
25 can only speak for myself, I don't really know what a layer is. Does it have
26 something to do with the programming stack? The reason I'm saying this is

1 I don't really -- I appreciate your argument here that these layers are
2 interacting with non-adjacent layers when we look in this picture. I mean, it
3 just seems to me like layer is an additional noun that we've thrown in here
4 that really just means a program. For instance, a GUI, you know, a GUI is
5 just a program that interacts with various different other programs or layers,
6 correct?

7 MR. ARJOMAND: Well, Judge Daniels, I think your kind of
8 questioning what a layer means is very apt in this situation because frankly,
9 the patent doesn't really describe what a layer is, and a lot of the patent and
10 the claims are filled with jargon that's very hard to unwind and the claims
11 are drafted in a confusing manner.

12 But specifically with respect to a software layer, I'd like to direct
13 you to the '941 patent at column 11, lines 54 to 65. That's really the only
14 kind of discussion of layers that I've seen in the '941 and '165 specifications.
15 And what it provides there, it basically says that the logical architecture of
16 the virtual platform of the present invention is implemented on a six-tier
17 modular system, i.e., six layers, and at least six service area modules which
18 are fully distributed across the internet. And then it cites to Figure 1. That's
19 all we have.

20 So, when I look at that discussion, Judge Daniels, and I look at
21 Figure 1, what I get out of what a layer means is that it's just a component in
22 a modular architecture, in a modular software architecture. And that
23 conclusion I think is also reinforced by the fact that that paragraph that I just
24 cited to you is under the logical architecture section. So, this is just
25 describing how software is organized and how they interact. And the claim
26 just says a software layer. There isn't anything in this passage or in the

1 specification that we have seen that would support the gloss that Patent
2 Owner is putting on a software layer as requiring it to only interact with the
3 adjacent layers.

4 In fact, what Patent Owner has to do is that they have to cite an
5 extrinsic document, Exhibit 2006, that is an article regarding industrial
6 applications of software. And it talks about all sorts of different examples,
7 different types of systems. And they pluck out from that article this
8 definition, but there's nothing from this passage that I read to you or from
9 the '941 specification in total that would suggest that that meaning should be
10 imported into the claims here.

11 JUDGE DANIELS: Thank you.

12 MR. ARJOMAND: I think along those lines, Your Honor, I think
13 there have been other glosses that Patent Owner has tried to import into a
14 software layer and none of them are consistent with the specification of the
15 '941 and '165 patents.

16 So, let me turn to slide 19. Slide 19 shows two arguments that
17 Patent Owner has made with regard to the software layer. The first
18 argument on top, they argue that an object-oriented design and a software
19 layer design are separate and distinct software architectures. And they're
20 basically, again, trying to say that the software layer means something, and
21 as it turns out, the references don't have whatever that is. And that's not the
22 case.

23 So, this argument arose from the fact that Pisanich talked about
24 with regard to a game system 107 and object-oriented design. But when
25 you look at what Pisanich described regarding that object-oriented design,
26 it's exactly what's described as what the layers in the '941 and '165 patents

1 do. So, let me just direct you to Pisanich at page 10, lines 1 through 3. It
2 talks about the specialized objects preferably storing their own data,
3 requesting data from other objects when needed, and providing data to other
4 objects. When you look to the '941 specification, for example, and you look
5 at some of the layers and their description of the layers, they do the exact
6 same things that Pisanich just described.

7 So, for example, the digital content library layer at column 27,
8 lines 41 through 46, talks about maintaining the information in a content
9 management database. That's exactly like Pisanich's object storing their own
10 data. And if you go to thematic publishing logic discussion at column 16,
11 lines 49 to 65 of the '941 patent, it talks about that logic, providing user
12 information, providing access and execution to thematic environment rules,
13 and controlling and creating events from engines. Those are, again, on all
14 fours with what Pisanich's objects are doing in terms of requesting and
15 obtaining data. So, once again, their argument that somehow the software
16 layer is not object oriented doesn't encompass an object-oriented design is
17 inconsistent with their own intrinsic evidence.

18 I will just briefly also point out that on slide 19, Patent Owner has
19 also argued that software layer should be understood as a single software
20 layer. And that, that again is inconsistent with the intrinsic evidence in the
21 record. First of all, as we just talked about regarding the QIE module, it
22 doesn't say a single software layer. And if I could turn you back to slide 18,
23 it shows on the right Figure 2, and that in that case, in that embodiment, the
24 QIE module is on two different layers. There's on a service-side layer, and
25 it's also on a client-side layer. So again, the intrinsic record undercuts Patent
26 Owner's glosses on what a software layer means.

1 So, let me just stop there and see if you have any further questions,
2 Your Honor, on a software layer.

3 JUDGE DANIELS: Do you have -- does Mr. Crane -- did Mr.
4 Crane talk about this equivalency sort of between the software layer and the
5 object-oriented design at any point that Patent Owner has set out?

6 MR. ARJOMAND: I can take a look. I mean, I think he certainly
7 testified about object-oriented design and how, in his view, you know, it
8 would have, for example, an object would have its own database. So, I
9 believe I can direct you to -- I think that's in Mr. Medvidovic's declaration.
10 So, that would be Exhibit 2005 in paragraph 102. He talks about what Mr.
11 Crane has said and he tries to establish that Mr. Crane testifying the object-
12 oriented design in the object-oriented design an object might have its own
13 database, or storage would somehow mean that this excludes a software
14 layer.

15 But that's actually not correct, and as I've explained the concept
16 here is that the object-oriented device even though it might have its own its
17 own database, it's still communicating with the other, you know, the other
18 objects just as in the '941 the layers are communicating with each other.

19 JUDGE DANIELS: I feel I understand your argument in some
20 respects just a very broad that these are -- these terms are covering -- the
21 terms that are being used by Patent Owner are essentially just different terms
22 for similar or the same function as was done in the prior art. And then the
23 second part of that would just be sort of your argument is that look, you can
24 call it anything you want but it's not doing anything new. Is that a fair way
25 to sort of summarize your point?

26 MR. ARJOMAND: I think -- I think particularly that latter point is

1 spot on, Judge Daniels, with respect. I -- a lot of what Patent Owner
2 believes is unique and invented is just jargon. So, quantum imaging
3 environment is just jargon that the Patent Owner has made up. But when
4 you actually look at it, the invention is far, far more modest. All it requires
5 is that there is a software layer that receives, interprets, manipulates content
6 for different types of devices. And as we discussed earlier in response to
7 Judge Cherry's questions, what's happening is that when a person of ordinary
8 skill in the art looks at, for example, Figure 1 of Pisanich and sees that there
9 are the servers communicating with multiple games, different versions of
10 flight simulator, if you will, on different computers, they would understand
11 that the server in that situation is receiving, interpreting, and manipulating
12 content for those different types of devices.

13 And if you permit me, I can actually discuss that a little bit in more
14 detail if you'd like. I think this is shown here on slide 27. So, slide 27,
15 actually, there are two passages from the '941 patent that show the modesty
16 of Patent Owner's invention. What it's talking about here on the QIE, that
17 the QIE basically receives some kind of information, in this case, in the top
18 quote, clock information. And then it interprets it or rasterizes it for a given
19 device. That's what quantum imaging environment module limitation is
20 about.

21 And so, when you turn to slide 28, you see that Pisanich is
22 disclosing a very similar concept well, well before the '941 application was
23 filed. So, what's shown here in slide 28 is game data server 108. That's
24 what we have mapped to the QIE module. So, it receives information from
25 the air traffic and weather data providers, 100 and 104, just like I discussed
26 the QIE receives information. And then it communicates -- it basically

1 utilizes that information to provide it to the various games that are shown at
2 112 below. So, as we discussed, a person of ordinary skill in the art would
3 understand Figure 2 as having multiple games, 112, different versions of
4 flight simulator, for example, on different devices.

5 Each of those devices are going to be in communication with game
6 data server 108 through the request processes 224 and 228. They're going to
7 ask for data and then the game data server, based on the information that it's
8 received, is going to manipulate -- interpret, and manipulate that data for
9 each of those devices. And you can see that disclosure in Pisanich on the
10 next slide, slide 29. On the right, there's a passage from Exhibit 1007, that's
11 Pisanich, at page 8, lines 18 to -- line 18 to page 9, line 4. It specifically
12 says that to determine the most appropriate data, the request processes 224,
13 228, that's part of the game data server, part of the QIE module that we
14 pointed to in our petition, considers the aircraft performance, whether it's a
15 747 in one version of a game on, let's say, Apple, on an Apple computer
16 versus a Piper Cub on a different version of a game on a Dell computer, it
17 considers those, and then it, through the request processes, it delivers the
18 appropriate data. That, Your Honors, is exactly what the QIE module,
19 putting aside the jargon, is claiming.

20 JUDGE DANIELS: Mr. Arjomand, you are -- you're at -- you've
21 been doing a great job presenting your case to us for almost 45 minutes. I'm
22 at about 43 and a half. So, you've eaten a little bit into your rebuttal time.
23 You can keep going. That was a great summary, I think. Thank you for
24 answering my question, too, by the way. So, you can either stop here or go
25 on a little bit more if you'd like.

26 MR. ARJOMAND: Your Honor, let me just really, really briefly

1 touch Ground 2 just so we can have that in the mix, if you will. I will be
2 very, very quick with that. Let me direct you to slide 57. So, the PSO
3 manual, that is a manual associated with the Phantasy Star online game, and
4 again, sort of the disputes here center around, does the PSO manual disclose
5 a software layer? Does it disclose that software layer receiving, interpreting,
6 and manipulating second content to make it available to different types of
7 devices within the virtual thematic environment.

8 And I think, again, if you take a look at what the PSO manual
9 discloses from the context of a person of ordinary skill in the art, you would
10 say, yes, it discloses a software layer, and yes, it discloses different types of
11 devices. So, with regard to the software layer here on slide 9, it talks
12 about -- I'm sorry, slide 57, it's showing page 9 of the PSO manual. And it
13 talks about blocks and a visual lobby within a block where you can have an
14 information counter, you can have ability to organize teams, and then there
15 are --

16 JUDGE CHERRY: It doesn't tell us at all how this is
17 implemented, right? It just tells us the end result.

18 MR. ARJOMAND: Well, Your Honor, again, I think what is
19 important to understand here is that a person of ordinary skill in the art that
20 has experience with client service systems in the context of, you know,
21 consoles and gaming and with knowledge of, you know, 3D rendering will
22 look at this and know what this is disclosing, will know what this is about.
23 And specifically, they would understand --

24 JUDGE CHERRY: So, they would know what's inherent in this
25 disclosure?

26 MR. ARJOMAND: I mean, you could go to inherency if you

1 want, Your Honors, but I don't think you need to, because I think a person of
2 ordinary skill in the art would understand that ships and blocks that are
3 described here are modular layers. And they exhibit, again, going back to
4 Judge Daniel's question, they exhibit the same functionality that's in the '941
5 specification, and the '165 specification relating to the QIE module.

6 So, I mean, when I talk about that when I mentioned information
7 counter transporter and organized team functions, if you take a look again at
8 the thematic publishing logic module that's described in the '941 patent at
9 column 16, lines 49 to 65, it provides user information. It provides access
10 and execution to thematic environment rules. It controls and creates events
11 from engines. So again, this is the same functionality that's being described
12 in the '941 patent is also would be understood -- would exist in the PSO
13 manual with regard to the discussion of blocks and ship. And it can also --

14 JUDGE CHERRY: A different type of device contention here is
15 that people play it in different countries. What evidence do you have that
16 this game is played in different countries on different types of Sega
17 Dreamcasts?

18 MR. ARJOMAND: Yes, let me direct you, Judge Cherry, to slide
19 58. And slide 58 at the bottom left shows a passage from Mr. Crane's
20 declaration, Exhibit 1004 in the proceeding that relates to the '941 patent,
21 and specifically paragraph 238 footnote 14. But there, Mr. Crane explains, it
22 was well known in the art of the time that game systems, consoles, such as
23 Dreamcast, sold into different countries were different hardware and/or
24 software systems, including the use of different voltage sources, different
25 language, operating systems, and compatible with different television
26 standards.

1 So, I think this is evidence, Your Honor, that there would be
2 different types of devices, you know, the Dreamcast in Japan versus the
3 Dreamcast in the U.S., and those differences in devices would include
4 different voltage sources, different language, operating systems, and
5 different video options. Furthermore, as shown here on slide 58, the PSO
6 manual on page 2 also talks about the users interacting with users from all
7 over the world that underscores that what Mr. Crane has said, that there's all
8 these different types of consoles, they would actually be in play in the PSO
9 environment when it's being used by different players around the world.

10 Given that I'm eating quite a bit into my rebuttal time, unless Your
11 Honors have any questions, I'll reserve the remaining time for rebuttal.

12 JUDGE DANIELS: One last question to follow up, Mr.
13 Arjomand. The -- it was -- I know Patent Owner has used a number of -- has
14 used some of Mr. Crane's deposition testimony to back up its arguments, but
15 is this -- was this -- here on your slide 58, is this -- is Mr. Crane's testimony
16 as to these different hardware and/or software systems in different countries
17 actually rebutted anywhere?

18 MR. ARJOMAND: By a Patent Owner?

19 JUDGE DANIELS: Yeah.

20 MR. ARJOMAND: Your Honor, standing here, I don't recall. I
21 think it would be very, very difficult and Patent Owner would lose
22 credibility if they were to argue that at the time of the invention that there
23 weren't different Dreamcast consoles around the world. I mean, it's a well-
24 known fact, as Mr. Crane has said. So, I haven't seen a rebuttal. I can
25 certainly take a look through the record while my colleague --

26 JUDGE DANIELS: No, I was -- I don't -- I didn't see any either. I

1 was just looking for, you know, one of the concerns we've had with this case
2 is Mr. Crane has, you know, quite a bit of testimony, and in some places, it's
3 not as supported by outside sources as we would normally like. But that's
4 why I'm asking this question about this because, you know, some of his
5 testimony I'm interested in is being rebutted or not. And this one, I don't
6 remember seeing anything that rebutted it either. That's why I asked. So,
7 don't go looking for it. Just my last question.

8 MR. ARJOMAND: All right. Thank you. As I said, Your Honor,
9 I haven't seen them rebut this footnote.

10 JUDGE DANIELS: We've asked a lot of questions. We've asked
11 you a lot of questions, and if we need to, we can extend your time a little bit.
12 I think the panel is usually pretty lenient. If you need some when it comes to
13 your rebuttal time, a few more minutes won't matter. So, at the moment, it's
14 just about 51. So, I'll leave you 10 minutes for rebuttal, and we'll be fair.
15 And we'll do the same thing for patent owner if we need to, Mr. Arjomand.

16 MR. ARJOMAND: Thank you so much, Your Honor.

17 JUDGE DANIELS: Great. Thank you. Mr. Sorocco, you're up
18 next. Just let me know how much time you'd like to reserve.

19 MR. SOROCO: Thank you, Your Honor. I'm going to reserve
20 15 minutes, please.

21 JUDGE DANIELS: All right. You can go ahead when you're
22 ready.

23 MR. SOROCO: Okay. Thank you. That was an interesting
24 presentation, and I think at one point in time, Mr. Arjomand made a
25 comment about that we have made fundamental mistakes in our reading or
26 understandings of the prior art or Pisanich, or something of that nature.

1 And, you know, I think that that is a line too much given that, as we'll point
2 out, it appears that the Petitioner has completely misunderstood the claims,
3 and I think your questioning of him brought that out in many, many
4 situations.

5 But, you know, for the most part, when we look at things like the
6 QIE module and software layer, you know, there was a lot of pointing to
7 functionality of what the functionality was described in the '941 patent, what
8 functionality was in the Pisanich reference, and they're the same. And it
9 doesn't really matter what terms were used in the claims, whether it was a
10 layer or object-oriented. And that's not true. The term object-oriented or
11 layer are different types of architecture. They explain different ways of
12 doing functionality. So, functionalities may be the same. You know, they
13 might be doing similar things that are known in the art, but they're not the
14 same architecture.

15 And I think the comment you made just a moment ago about that
16 Mr. Crane testified on a lot of things, but there was not a lot of external
17 support is true. It was quite an interesting deposition that I took of him.
18 And when pressed, Mr. Crane's response was always to go back to, well, it
19 would be known to one of ordinary skill in the art. It would be known to
20 one of ordinary skill in the art. It was a consistent litany, and I think we did
21 it in our Patent Owner, you know, preliminary response we entitled it
22 conclusory. You know, we hadn't yet had the opportunity to take his
23 deposition. And, you know, in our Patent Owner response, what we did is
24 we cited to the *Arendi v. Apple* case, which I know my colleague is aware of,
25 because he was a participant in that, those proceedings, where it really deals
26 with the fact of what happens when a POSITA's knowledge is being used to

1 find a missing limitation from a reference.

2 And I think that happened a lot this morning, like, you know, when
3 we were talking about, well, you know, where is software layer in Pisanich?
4 Well, you know, software layer is never used in Pisanich. It's an object-
5 oriented design, the patent itself says that, Mr. Crane testified to that, did he
6 acknowledge that? But it would be a software that one of ordinary skill in
7 the art would know that it was a software layer because that's their
8 knowledge. And that's not what *Arendi*, you know, under *Arendi*, the
9 precedent requires. The precedent requires evidence and a reasoned
10 explanation why that limitation would be found or imported into the
11 reference.

12 And so, you know, going back to the very beginning, there was the
13 discussion that was happening, believe it was with Judge Cherry, about the
14 different devices and different games. We don't, you know, what Mr. Crane
15 testified to is we don't dispute that there are different games that could be
16 played on different devices. I mean, it was going back, it was like going
17 back in time talking to him about the Commodore and the Atari and all these
18 things, it was my youth. But these were, as he testified, the way those
19 games, if I wanted to play Donkey Kong on Atari and I wanted to play a
20 Donkey Kong on Commodore 64, it required different software. And I think
21 when Mr. Crane talked about that, he referred to it as the conventional
22 methodology and he equated that to porting. You know, you would have to
23 rewrite the software for each console device that you wanted it on.

24 And when we started then talking about the QIE module and what
25 it does, well, in simple terms, what it does is it allows you to have game
26 content on multiple different types of devices in a single software layer.

1 And I know there was some discussion about numbers of layers and figures
2 ones, but we go back to what the claim language is. A software layer that
3 has these functions. So, it's immaterial what the '941 patent says and maybe
4 one embodiment versus an alternative embodiment, whether Figure one, I'll
5 note their argument about the arrows going across different modules, is all
6 attorney argument. There was no testimony about that. There was no
7 evidence, and I think it only came up in their reply.

8 JUDGE DANIELS: But Mr. Sorocco, I mean, we can see the
9 arrows go across different layers.

10 MR. SOROCCO: Right, Your Honor, and as we said in our sur-
11 reply, it's just as likely that that could be one layer communicating indirectly
12 with that other layer, going through its adjacent. And that definition of
13 software layer isn't some narrow one that was pulled out to make fit for this
14 case. The definition of software layer that was put forth by Dr. Medvidovic,
15 is the definition of what a software layer is. It's a layer that only interacts
16 with adjacent layers. So, whether Figure 1, again, shows, you know, maybe
17 a different embodiment, it was all speculation by Petitioner. There's no
18 evidence. Mr. Crane didn't argue that point. Yes, sir.

19 JUDGE CHERRY: What evidence does Dr. Medvidovic cite to?

20 MR. SOROCCO: For the proposition of a single layer?

21 JUDGE CHERRY: Yeah, the single layer only communicating
22 with adjacent layers.

23 MR. SOROCCO: Sure. That is Dr. Medvidovic. So, it's his
24 declaration, which is Exhibit 2005. It is paragraphs 102 and 103 citing
25 Exhibits -- I need to find that real quick, sorry. Is citing Exhibit 2006, I
26 believe, which is an article entitled Software Architecture and Industrial

1 Applications by several individuals with Siemens in Princeton, New Jersey,
2 explaining what software layers are, what object-oriented design is. It's
3 basically a software architectural paper explaining what one of ordinary skill
4 in the art would understand those terms to mean as far as software
5 architecture.

6 JUDGE CHERRY: Okay, I see. Do you mean Exhibit 2005,
7 paragraph 79?

8 MR. SOROCCO: Oh, I'm sorry, I may have done it wrong.

9 JUDGE CHERRY: I'm looking at the one, this is for the '995
10 case?

11 MR. SOROCCO: Yeah. I'm sorry, I may have had it wrong. It
12 may be Exhibit 79, I'm sorry. Let me pull it up here, 79. He may have been
13 cited -- I may have pulled up the section where he was talking about it again.
14 Well, if I'm looking at Petitioners, I'm looking in the wrong, I apologize. I
15 was looking at the wrong declaration in the wrong proceeding.

16 So, you're correct, I believe that it's in paragraph 79 of the '941
17 proceeding. Yes. If you look, yes, you're correct. Thank you. In paragraph
18 79 of Exhibit 2005 in the '941 IPR, Dr. Medvidovic explains that an object
19 or what an object-oriented design is versus a software layer, and then goes
20 on to explain, or cite to, excuse me, Exhibit 2006, which is the industrial
21 applications paper, and then also Exhibit 2008, which is the Microsoft
22 Computer Dictionary, 5th Edition, that explains those terms as well. And
23 that, he goes on and does that and further in paragraphs 8081 of his
24 declaration in the '995 IPR.

25 JUDGE CHERRY: I guess what gives me pause, though, is, again,
26 I look at Figure 1 of the challenged patent, and we're, you know, these

1 arrows are going between what it describes as different layers across
2 multiple ones, and not ones that showing are adjacent. I mean, how do we
3 reconcile that? I mean, I understand there's this extrinsic evidence here, but
4 I mean we're supposed to give priority to the intrinsic evidence. It seems
5 that the intrinsic evidence seems to show something different.

6 MR. SOROCCO: Yeah, it's -- I understand the, under Phillips, the
7 intrinsic versus the extrinsic, and I think what I come back to is that there is
8 a view of the '941 patent that it's showing that those layers are discussing,
9 are communicating beyond just those that are adjacent. However, again,
10 there is no evidence in the patent itself or that Mr. Crane has provided or
11 testified to or that Petitioners have provided otherwise, that that is indeed the
12 case. And so, in our sur-reply, what we did was we pointed out it was
13 attorney argument that they brought up for the very first time in their reply.
14 And that, you know, just as likely that that could be indirect communication
15 occurring at that point in time. Even though it's showing going over the
16 layers, it could be the one layer talking to the one next to it, talking to the
17 one after it. So, it's, you know, those layers are able to communicate and
18 send information. It's just that they would have to go through those layers
19 that are adjacent to one another. And, you know, --

20 JUDGE CHERRY: I mean, the patent does describe, its states in
21 column 11, it does say that those are the six layers. The six layers of the
22 virtual platform include a graphical user interface 100, a thematic publishing
23 logic 101, and a digital content library 102, 23, a business logic 103, 4, a
24 thematic or zone application builder interpreter, i.e., a quantum imaging
25 engine 104, 5 communications, and 6 data storage. Each level of the six-tier
26 system is designed to around open-source technologies but can include

1 software developed in open standard environment. So, that's not really
2 relevant, but I mean it seems to indicate those are layers. I guess I'm again I
3 mean it doesn't say anything about indirect communication. I mean do you
4 have evidence that this is indirect communication that's shown in one of -- in
5 Figure 1?

6 MR. SOROCCO: Well, Judge Cherry, I think that's our point is
7 that the evidence, or the lack thereof the Petitioners have brought up that it
8 isn't indirect, right? It's not our burden to prove at this point in time
9 whether --

10 JUDGE CHERRY: I know it's not your burden but the patent
11 shows them communicating. The errors go across multiple layers. I mean
12 my eyes are telling me that. I guess I'm just that I shouldn't believe my eyes
13 is what you're telling me. And so, I guess I need some evidence that that I
14 shouldn't believe my eyes.

15 MR. SOROCCO: Well, Judge Cherry, the evidence that we're
16 going to is what the definition of a layer is to one of ordinary skill in the art.
17 And they have that, you know, a software layer only communicates with
18 adjacent software layers. And so, taking that knowledge a POSITA of how
19 software layers interact with one another in computer architecture, looking at
20 Figure 1, it would be, you know, I believe one of ordinary skill in the art
21 would understand that those are indirect communications that are happening
22 through adjacent layers.

23 And again, I just have to say that when they brought that up in
24 their reply, we had no way of going out and getting additional evidence or
25 submitting additional evidence on that issue in a sur-reply. And so, all we
26 can point to is that there is this attorney argument about what that means.

1 We have evidence by Dr. Medvidovic, which I'll take this moment to say,
2 Dr. Medvidovic's deposition was taken by Petitioners. It's been put into
3 evidence. Nowhere in their reply did they cite the deposition of Dr.
4 Medvidovic. His testimony on the record is unrebutted. So, with regard to
5 him giving this definition of what a POSITA would understand, what
6 software layer means, I believe that that interpretation has to overlie what
7 Figure 1 is showing to one of ordinary skill in the art.

8 JUDGE DANIELS: Mr. Sorocco --

9 MR. SOROCO: Yes.

10 JUDGE DANIELS: -- does that Exhibit 2006, the exhibit that he's
11 referring to, does that talk about software layers being single? Let me just --
12 the reason I'm asking, I'm looking -- we sort of do have a battle of the
13 experts here, okay, in certain places. And my concern is that you're asking
14 us here to not only interpret what the QIE is, that it's a software layer, but
15 then to go down another step and interpret what a software layer is, but none
16 of which is in the claim or is in the specification, as Judge Cherry is asking
17 about it.

18 MR. SOROCO: Right.

19 JUDGE DANIELS: I appreciate what you're arguing, so I'm
20 looking for a hook so that we can really pull in that testimony if we need to.

21 MR. SOROCO: Sure. And let me -- if you could give me a
22 moment where I'll -- we'd look for that just to make sure because I will give
23 you that argument. And what I -- I will give you that cite because I believe
24 it does. The, I think what I want to say is, is, you know, we've gone down
25 this path of what a software layer is, but at the same time, that is just but one
26 reason of why their, you know, obviousness case falls. And there's a really

1 simple one, you know, that I can point to that, you know, when I said
2 Petitioners have completely missed it. And I think it's because it's a
3 misunderstanding of the claims themselves. So, if you could look at Patent
4 Owner's slide, I believe it's number 9. And I will admit that I understand
5 that Mr. Crane, during his deposition, was not admitting that our invention
6 was the holy grail. He was getting a bit sarcastic at that point, or excuse me,
7 not nine.

8 If you go to slide 3, excuse me, slide 2. So, let's look at the '941
9 patent. And then the '165 also have the QIE, which, you know, per the
10 District Court was defined very similarly. But the QIE module, we've talked
11 about its software layer. There's been some debate. But it has to receive --
12 that software layer has to receive, interpret, and manipulate the second
13 content so as to be accessible on different types of devices for use within the
14 virtual thematic environment.

15 Now, I want to hit virtual thematic environment because there's a
16 lot of discussion about themes and, you know, whether it was flight
17 simulators, and we have things in our brief that talk about all of that flight
18 simulator information, all of those pictures were from after the priority date,
19 and they were coming from sites such as Wikipedia and Moby Games,
20 which Mr. Crane testified that he doesn't use Wikipedia normally because he
21 doesn't believe it's accurate, and that Moby Games uses peer reviewers to
22 put their information up. But the important thing there is we're not arguing
23 that these games can have similar themes, but it's a difference between the
24 virtual thematic environment has a theme based in, you know, a feel -- or a
25 feel to it, excuse me, it's that in that situation.

26 So, I want to be very careful that we're not consolidating or

1 conflating environments with the look and feel of a game or the theme of a
2 game. An environment is a game. It's a, you know, it's a, you're in a
3 gameplay state. The theme is what is the gameplay state? Is it a flight
4 simulator? Is it Donkey Kong? Whatever that happens to be. But when we
5 look at this QIE, I want to really focus in on here, and this is what gets
6 missed with Pisanich, PSO, all of that, is that it's a software layer that
7 receives, interprets and manipulates the second content. Okay. That phrase
8 can't be read out of this claim. That is what the QIE is operating on. And if
9 we go to slide -- let me move over here a bit, slide 34, please. Oh, excuse
10 me, it's actually going to be 36. Oh, I'm sorry. I'm looking at a different set
11 of slides at the moment. Yes.

12 JUDGE CHERRY: It does kind of --

13 MR. SOROCCO: Yeah, it's going to be slide 34. I'm sorry.

14 JUDGE CHERRY: No, I mean, I guess that's what I've been
15 trying, that's what I was trying to ask your opponent. You know, does this
16 have to be one -- like, what is the virtual thematic environment? Is it like a
17 virtual world that we're all operating in? Or is it each game is a flight
18 simulator game? Or can you kind of explain that? And also, I mean, it does
19 seem like the game data server is getting this. I mean, do you agree that the
20 weather information could be second content?

21 MR. SOROCCO: I'll answer it backwards, Your Honor. The
22 weather and traffic cannot be second content.

23 JUDGE CHERRY: Okay. Why can it not be second content?

24 MR. SOROCCO: Because it's not coming from the primary
25 application, which is the game. Second content is provided by the first
26 application -- or the primary application, excuse me.

1 JUDGE CHERRY: Okay. Could you tell me where that is? Can
2 you ((CROSSTALK)) --

3 MR. SOROCCO: Sure. It is. Let's see here. Well, it's first in --
4 okay, I see it. I see it in I'm looking at the '941 patent. So, it talks about a
5 primary application.

6 MR. SOROCCO: Correct.

7 JUDGE CHERRY: Providing the virtual thematic environment.
8 So, that -- and what have they identified as the primary application?

9 MR. SOROCCO: The game 110, I believe.

10 JUDGE CHERRY: Okay.

11 MR. SOROCCO: And so, the, you know, that's why we can't, we
12 have to say is that that game data server 108 is not the QIE module because
13 as their own case is putting in, they're saying they're going out and getting
14 first real-time, real-world information from the traffic and weather. They're
15 not going down and getting that game content, that, you know, that second
16 content from the primary application, the game. And that kind of talks to
17 you in the beginning of your question that started off this discussion was,
18 you know, what is this thing doing?

19 Well, it's making game content available, right, to two players on
20 two different, at least two different types of devices so that they're looking at
21 the same virtual thematic environment. It's kind of what we see these days
22 in kind of these online multiplayer games and things of that nature. It isn't,
23 yeah, we'll agree the game data server goes out and gets traffic and real-
24 world weather and brings it down to each of the games individually. But
25 that traffic and real-world weather are not being provided by the primary
26 application, the game.

1 And we were very careful. The petition says that the game is the
2 primary application. And Dr. Crane -- or Mr. Crane testified that the game
3 was the primary application. And you're going to see this flow into PSO,
4 and this is all in our, probably most concisely in our sur-reply briefing. But
5 you're going to see it also flows over to the PSO manual, where their word
6 select that they're using is the QIE functionality, the word select is the
7 secondary application. It can't be, it can't fit this claim. They testified, their
8 petition lays out that the game in the manual is the secondary application.
9 The primary application is the game. So, once again, it's that game content
10 that the QIE receives, interprets, and manipulates to make it available on a
11 different type of device.

12 JUDGE MAYBERRY: Excuse me, counsel?

13 MR. SOROCCO: Yes.

14 JUDGE MAYBERRY: This is Judge Mayberry here. Can I ask
15 you a question along those lines?

16 MR. SOROCCO: Yes, sir.

17 JUDGE MAYBERRY: Because I'm looking at Claim 1 of the '165
18 patent. I see the QIE module doing two things. Sending a request for first
19 real-time information via the QIE module to the World Wide Web. Then,
20 sending a request for second real-time information via the QIE module.
21 That's it? Not this interpretation, making it available for different machines
22 kind of thing. Where is that coming from?

23 MR. SOROCCO: So, two things, Your Honor. One, the language
24 about the second content from the primary application, that language is
25 specifically outlined in the Claims 1 and 23 of the '941 patent. With regard
26 to the '165 patent, it comes into the claim by the District Court's claim

1 construction of providing a QIE module. And it's the QIE module that has
2 the rest of that information that is explicitly set forth in the '941 patent.

3 JUDGE MAYBERRY: You would agree, though, counsel, that we
4 are not bound by the District Court's construction.

5 MR. SOROCCO: I agree that you're not necessarily bound, Your
6 Honor. However, we are now in the situation where two District Courts
7 have interpreted the claims that way. And I would urge the Board to
8 interpret the claims the same way for, you know, efficiency and economy.

9 JUDGE CHERRY: Does the -- I'm looking at -- I mean, I guess
10 where this, I mean, these, I'm going to be honest with you, Mr. Sorocco,
11 these claims are not the model clarity. So, so I get that. And that's a good
12 point about the second content has to be from the primary application. But
13 I'm going to park that for a second. And I'm going to focus on what Judge
14 Mayberry was talking about. Because it also talks about the QIE module.
15 And this is in the '941 patent, Claim 1, just to be clear.

16 MR. SOROCCO: Yeah.

17 JUDGE CHERRY: The QIE module obtaining the first, obtaining
18 first real-time information and second real-time information. I guess when I
19 read that, it seems to be something else other than the second content. Is that
20 fair?

21 MR. SOROCCO: It, oh, what I understand that it's kind of down
22 there in that what the second to last kind of block paragraph. And it's
23 basically just saying that the QIE has additional functions beyond, you
24 know, taking that second content and retrieving it, you know, interpreting it
25 and manipulating it. It's just saying that the QIE module goes out there and
26 gets the real-world information as well. It serves kind of two functions

1 there. So, it's a module that has multiple functions.

2 JUDGE CHERRY: So that kind of -- I mean, I'm not asking, you
3 don't have to agree with this, but I'm just saying it seems like they've
4 mapped Pisanich to, and probably the Phantasy Star Online Manual to.
5 Second part, is that fair to say without any references? Is this your
6 argument? Would you say it's fair that they haven't mapped it to this first
7 part is the problem?

8 MR. SOROCCO: I would say that that is fair, Your Honor. That
9 when we looked at what they put in the petition, and that's why, again, we
10 were in our hope or we were a bit, you know, these are conclusory. And I
11 understand, you know, on the record before you, you were making
12 reasonable interpretations and judgments. But it was truly, they mapped, as
13 you said, to the second component of, you know, the QIE working with real-
14 time information. And they just completely ignored that, you know, the
15 main component of retrieving, interpreting, and manipulating had to be done
16 on the second content.

17 So, it's, you know, this QIE module, and that's why, you know, the
18 kind of tongue in cheek with the holy grail with Mr. Crane is because, you
19 know, as he talked about it, that, you know, what Mrs. Barbaro invented was
20 this universal translator. This, you know, this functionality that was capable
21 of not only taking the gameplay content and making it available on different
22 types of devices, but also going out there and getting real-time information,
23 real-world information, and bringing it into the game and making it available
24 as well.

25 JUDGE CHERRY: So, in the '941 patent, what is Mrs. Barbaro
26 saying is the primary application? Is it the game she's playing on her

1 computer?

2 MR. SOROCCO: Yeah.

3 JUDGE CHERRY: Is it like if I'm, you know, is it -- or is it some
4 multiplayer game that's run on the server is the primary application, and then
5 what is the secondary application?

6 MR. SOROCCO: It could be on the -- the primary application
7 could be on the game. It could be on a server. It's just that it's a software
8 layer that is, you know, doing that, retrieving, you know, interpreting and
9 manipulating for those different types of devices. And one embodiment I
10 believe it's shown as being on the users, you know, like a first user's
11 computer kind of software.

12 JUDGE CHERRY: Okay.

13 MR. SOROCCO: And then I know, you know, my colleague
14 pointed out, I think, Figure 2 showing two QIEs. One, that's a second
15 embodiment. So, it could have a QIE at the game. It could have a QIE at
16 the software. It's just a different embodiment and the claims are not
17 required. I don't believe that Claim 1 and 23 are written so as to cover that
18 limitation, but going down the line of questioning that you're asking, you
19 know, you could have multiple QIEs. It's just not what's currently claimed.

20 So, we've all kind of gotten quiet here for the moment. And so, I
21 want to be very clear, but not be pedantic, okay? And that's not what I'm
22 trying to do here. But the Petitioner's entire argument, at least for the '941
23 claims, completely fails apart because of this second content limitation. As
24 you said, Judge Cherry, they mapped it on the wrong component, or they
25 didn't map both places where they needed a map. And so, you know, with
26 regard to both Pisanich, you know, game, they said and admitted that game

1 is the primary application.

2 For PSO, they said in their petition, and I believe Mr. Crane also
3 testified, or at least put in his declaration, that the game was the primary
4 application, and then he testified that the word select would be a secondary
5 application. And so, again, when we got into all of this information, that's
6 why we were a bit perplexed that we were going down this way. Is there
7 any other questions on this second content being associated with the primary
8 application, missing limitation?

9 JUDGE CHERRY: No, I think I'm just confirming. So, in the
10 '995 case, you're making that argument on pages for Pisanich you're making
11 it on pages 31 and 32 of your Patent Owner response? And where is, I didn't
12 see where, where is that argument with the PSO manual?

13 MR. SOROCCO: That would be in the Patent Owner response.
14 Let me get that, and I will tell you that in rebuttal, if you don't mind.

15 JUDGE CHERRY: Yeah, no problem.

16 MR. SOROCCO: Okay. The, you know, we spent a lot of time on
17 second content. You know, there's, our papers talk about, you know, the
18 retreat, the kind of what I call the rim functionality that retrieving, you
19 know, interpreting and manipulating, you know, again that when we're
20 dealing with that kind of functionality, once again, they did not, you know,
21 show or map that there was any interpretation or manipulation that was
22 going on. You know, if we look at the game data server 108 pulling in the
23 real-world information, it's just kicking it down, right, to game 110 and 112.
24 It's not manipulating it. It's not interpreting it. There's no, you know,
25 making content available for different types of devices.

26 And I also say that if we look, we talk about different types of

1 devices, Pisanich is completely silent as to whether or not they're using
2 different types of devices. When I pressed Mr. Crane on that issue in his
3 deposition, he wasn't able to point to anything other than he could say it
4 could be, right? It could be a different device. And what we see with his
5 declaration quite a bit, he just points to a POSITA saying, well, they could
6 know that because they understand software architecture and how games are
7 played. But he never gives me that, never gave or testified that under Arendi
8 that detailed disclosure and information.

9 JUDGE CHERRY: Mr. Sorocco, I mean, I agree with you that I'm
10 not totally sold on that argument from Petitioner, but at the same time you've
11 offered us a really broad construction of type. And so, I mean, isn't it
12 reasonable that there are multiple types of PCs out there based on your
13 definition?

14 MR. SOROCO: Sure. And, but I, again, I think the comment
15 was more of, you know, they don't discuss different types. And I realize our
16 definition is, or Pisanich doesn't disclose type, different types. Our
17 definition is broad, you know, for what type -- different types would be. But
18 again, I think if you go back in and look at the '941 patent of what you're
19 showing, what Mrs. Barbaro was showing in Figure 1, were things like a
20 cell phone versus a whiteboard versus a PC versus a camera, one, you know,
21 one type of device. So, different meaning, you know, maybe different in
22 kind, not necessarily different in, you know, just being different software
23 processors and things of that nature. So, we've talked about -- did that
24 answer that question? I'm sorry.

25 JUDGE CHERRY: Yeah, no, I'm, yeah, I'll have to think about
26 this more. I'm not -- I think the Petitioner is kind of, I mean, I think you

1 guys might have a point that this is a new argument. I'm not entirely clear
2 that it's made in the petition. So maybe, but I am a little concerned that your
3 definition is very broad, so I'm having a little trouble under your definition
4 kind of excluding what they, in my mind, excluding how, you know,
5 different PCs, versions of PCs in terms of, you know, running different
6 processors wouldn't fall into that definition being so broad.

7 MR. SOROCCO: Yeah, I understand that. I just don't think that
8 the parties until we brought -- they brought that up recently, were
9 considering that. If you look at, you know, even though we don't think it's
10 proper, all the different examples that Mr. Crane put with regard to that
11 flight simulator, it wasn't different types of PCs, it was different types of
12 units or consoles or, you know, whatever you want.

13 JUDGE CHERRY: Yeah, those, I'm -- yeah, I'm not convinced
14 that a Commodore 64 and an Apple IIC or whatever are of the same, you
15 know, are a comparison similar to a PC with an i4 processor versus a PC
16 with an i6 processor. I think that's fair.

17 MR. SOROCCO: Thank you. Yeah, I agree with you on that.
18 Thank you very much. The, you know, again, if we go to our slide 23, if
19 you don't mind, and what I wanted to hit upon here just for a couple of
20 minutes before I eat into my rebuttal time is, you know, that concept within
21 the same virtual thematic environment and different types of devices, if you
22 look at what was being said on, how was I going to say it, the game data
23 server, real-time data, all of that that MR. Medvidovic testified to is that, you
24 know, the different types of devices require the software be manually
25 written.

26 And I cannot tell you enough, I probably spent way too much time

1 with Mr. Crane going through this, what conventional technology was of
2 porting and rendering and all of that. And it was to rewrite these games.
3 And so, you know, that game data server, if we're looking at slide, you
4 know, 23, it's really not doing those functions, 108. It's not doing any type
5 of interpreting or manipulating. In fact, I believe Pisanich just talks about
6 gathering real-world and real-time information. There's really nothing that
7 the game data server is doing.

8 If we look at slide 24, and, you know, would understand that the
9 different types of devices, answering your question about the PC and all of
10 that. Going on to slide 20 -- let's go to slide 33, please. And I apologize for
11 jumping around trying to kind of get through this. But the content being
12 accessible to different games does not disclose that being accessible on
13 different types of devices. So, even if for some reason you would agree with
14 the Petitioner on their argument on real-world or real-time is, you know,
15 making it acceptable or accessible to different games, games don't equate to
16 devices.

17 And I think that's what Dr. Medvidovic was testifying to in
18 paragraph 89 and paragraph 90 that, you know, what the second player could
19 do and what the architecture of the game would allow was making it
20 accessible on the games that were being played, maybe different games. So,
21 player one may have a different game on his device, you know, he may have
22 a car racing game, he may have a football game, and that data is being made
23 available to different games, but it's on that same device. It's not making
24 content available on different types of devices within that same virtual
25 thematic environment.

26 And I think if there are, and you know, I know, you know, PSO

1 manual, you hit upon kind of our points, it's the gameplay manual, it doesn't
2 teach any architecture. You know, the Petitioner points to the network map,
3 which is gameplay, right? That you're going to go up to the city block,
4 you're going to go up to an information kiosk. It's not teaching anything
5 about whether it's a software layer, it's an object oriented design. You know,
6 and frankly, we think it's just a backdoor way, and if you look at Mr. Crane's
7 declaration, is he talks about the game, what the game is doing, and the
8 game is not a proper reference for an IPR proceeding.

9 And so, we believe that the manual is nothing more than a
10 backdoor attempt to get the game in front of you. And so, when we look at
11 that manual, you know, the only thing that we felt was from a substantive
12 standpoint that was needed to be discussed was that whole entire discussion
13 around word select. And whether a word that you select in America, you
14 know, you basically, and I asked him this, is it a pull-down list? He said
15 yes, there's predetermined words. You pull down, you select your word, and
16 it pops up in Japan in Japanese. And all of -- any manipulation that was
17 happening was happening at the destination, not at the console itself,
18 because as he said, how would your console know that the person -- other
19 console is sitting in Japan? And so, again, when we look at the game being
20 the primary application, there's no disclosure in PSO in any event of any
21 type of architecture, but it's in that content. Excuse me?

22 JUDGE CHERRY: Oh, I'm sorry. I mean, if it's a pull-down
23 menu, it's probably sending a code, right? And then there's a word in
24 Japanese that corresponds to the, you know, the English word is mapped to a
25 code, and then it sends the code, and then the console says, oh, I got this clue
26 that corresponds to this Japanese word.

1 MR. SOROCCO: Exactly, Your Honor. It wasn't, you know, in
2 today's day it would probably go out to Google Translate and something like
3 that, but that, you know, obviously wasn't available back then. And that's
4 not what the claims cover.

5 And then finally, you know, in our paper, in our sur-reply, there
6 are other limitations that, you know, I wouldn't, part of these, you know, the
7 QIE, the graphics modules, things of that nature, that, you know, we point
8 to, and this comes back to in the petition, and we mentioned Aero Copter,
9 we brought it up again in our response, that there are entire sections that are
10 kind of incorporated by reference from the Crane declaration into the
11 petition that are completely summarily, you know, without any further
12 evidence. And so, a lot of times they'll just say for this, you know, and this
13 is what I show, we argue in the sur-reply, you know, there are claim
14 limitations where it just says, points back to 1A. Well, there are completely
15 different claim terms in say 23A and 1A. And so, you know, they're not,
16 can't be interpreted. Their disclosure just wasn't there. Unless there's any
17 other questions, I'll reserve the remaining -- the rest of my time for rebuttal.

18 JUDGE DANIELS: Thanks. Thanks, Mr. Sorocco. That was
19 very helpful. Let me -- so, you kind of, we'll give you your 15 minutes you
20 asked for, which adds about a minute, and same to keep you equal with the
21 Petitioner's counsel. Mr. Arjomand, you're free to go ahead in 10 minutes
22 for your rebuttal.

23 MR. ARJOMAND: Thank you, Judge Daniels. So, let me first
24 direct you to slide 3 of the Petitioner's demonstrative slides. This provides
25 Claim 1 of the '941 patent. And I wanted to address an argument that Patent
26 Owner's counsel made with regard to second content being provided by the

1 primary application. So, if you take a look at the claim language of Claim 1,
2 in the primary application recitation, Your Honors, it says at the bottom,
3 having first content utilized within the same application environment as
4 second content provided by the primary application. So, the second content
5 is being provided by the primary application to the secondary application.

6 But there's no disclosure, there's no claim language that says that the primary
7 application is providing the second content to the QIE module. The QIE
8 module only operates, if you look at the QIE module recitation, it only --

9 JUDGE CHERRY: Well, what in Pisanich have you mapped to as
10 the primary application and the secondary application?

11 MR. ARJOMAND: Sure. I'd be happy to -- I think that's a really
12 important question, Your Honor. So, let me direct you to --

13 JUDGE CHERRY: Let's start there.

14 MR. ARJOMAND: -- slide 14. So, if you're looking at slide 14,
15 on the right is Figure 3, and it shows the annotations that we provided in our
16 petition. The primary application is being 112. And so, the second content,
17 as is described in the petition, is real world information. That's a petition at
18 20. And there's also 2D cockpit information and 3D terrain information.
19 That's in the petition at 21, based on a citation to Mr. Crane's declaration,
20 paragraphs 130 and 131.

21 But if you take a look, the primary application is receiving that
22 real-world information, and it's providing it to the secondary applications,
23 for example, the audio engine or the rendering engine. Furthermore, that
24 real-world information is also being operated on by the QIE module, IE
25 Server 108. It's absolutely incorrect to argue, as Patent Owner has done, that
26 the claims require the primary application to provide the second content to

1 the QIE module. That's not in the claim language. And I would direct you
2 to Patent Owner's demonstrative slides 36 and 37. I believe he was using the
3 file slides. I wasn't sure, but I'm referring to the file slides by the Patent
4 Owner.

5 His -- the heading that he provides is a misstatement of the claim
6 language. He provides -- he states, petition does not disclose a QIE module
7 that receives, interprets, and manipulates the second content provided by the
8 primary application. That heading is, orthogonal to the claim language. The
9 claim does not require that the QIE module receive, interpret, and
10 manipulate second content providers by the primary language. It only
11 requires that it receive, interpret, and manipulate the second content. So, I
12 think that argument is unsupported by the claim language.

13 Let me quickly also turn to the software layer point. And I just
14 wanted to, you know, I -- we believe clearly that Patent Owner is trying to
15 import extrinsic evidence and limitations into the claim language of Claim 1
16 of the (INDISCERNIBLE -TECHNICAL DIFFICULTY) patent. But we
17 also argued in our papers that even if you accepted Patent Owner's
18 construction of software layer, it's still met by Pisanich. So, let me direct
19 you to slide 20 of Petitioner, and what this slide shows, this is again, Figure
20 2 of Pisanich, and it shows that game data server 108 in red. And that's the
21 queue -- that's the QIE module. So, that's you can consider their QIE
22 module 108 as a layer. And then it's interacting. It's a single layer that's
23 interacting with the layer above it. That's in -- shown brown, the air traffic
24 and weather data providers layer, and it's also interacting with the layer
25 below it, the game layer. So, even if you accept Patent Owner's construction
26 of a software layer, our view is that Pisanich meets it.

1 Let me also turn to the discussion of different types of devices, and
2 I would like to direct you to slide 23. And as we discussed, Your Honors,
3 it's showing different devices playing the Sublogic Flight Simulator IIB.
4 One of the devices is Apple II. And the Apple II device could not run the
5 same software as the other devices. That's just a known fact. It can't run the
6 software of other devices. And so, that, by itself, shows, this paragraph 83
7 by itself shows different types of devices. I mean, it's different in terms of
8 its processor. It's different in terms --

9 JUDGE CHERRY: But none of those devices are networked,
10 right? None of them are receiving information from any kind of server?

11 MR. ARJOMAND: Well, Your Honor, --

12 JUDGE CHERRY: (CROSSTALK.)

13 MR. ARJOMAND: Right. So, we are not -- the ground is not
14 paragraph 83, Your Honor. It's Pisanich in view of a person of ordinary skill
15 in the arts knowledge. So, what that means is that when you take a look at
16 Pisanich, and it talks about the server communicating to game 112 or other
17 games 116, that would be understood by a person of ordinary skill in the art
18 to be a situation where you have, you know, the flight simulator game on
19 Apple of that time period, and of a, you know, of a non-Apple computer also
20 at that time. That's I think --

21 JUDGE CHERRY: Does it have any disclosure whatsoever about
22 a Macintosh, about in Pisanich? Or does it just talk about PCs?

23 MR. ARJOMAND: I think, what -- I think it talks about other
24 games and games that we've discussed. I don't recall standing here
25 mentioning any specific type of computers. But again, the combination, the
26 ground is, is Pisanich in view of a person of ordinary skill in the art. And if

1 I may, once again, Judge Cherry, to address, --

2 JUDGE CHERRY: Just because -- just because different
3 computers existed at the time and you could have games -- there were games
4 that they made multiple versions of for different computers. Does that mean
5 that Pisanich is one of those games? I mean, there were some games that
6 were only available for PC, some only available for Mac.

7 MR. ARJOMAND: Well, Your Honor, I mean, I think, I mean if
8 you go back to, to slide 22, and this is testimony from Mr. Crane.

9 JUDGE CHERRY: I guess I did have another question. What, so
10 where did he get those pictures? Did you have the game and did you take
11 those pictures? Where are those pictures from?

12 MR. ARJOMAND: Yes. Yes, Your Honor. So those --

13 JUDGE CHERRY: The simulator game?

14 MR. ARJOMAND: -- those came from Moby games, and I heard
15 Patent Owner counsel again, say that they're, they're not to be relied upon.
16 But I would direct you to Mr. Crane's testimony at Exhibit 2011, line -- page
17 91, lines 20 to 21. He says Moby games is a renowned website, and he says
18 it's carefully curated at page 196 of his testimony, line 813. There's no
19 dispute in the record, Your Honors, that the Sublogic Flight Simulator II
20 game existed and it ran on these devices. And Moby Games is a reliable
21 source for establishing that. And I don't believe Patent Owner has ever
22 disputed that there's no such game, that this game didn't exist circa 1984 to
23 1987.

24 And then to just turn back to the first question, Judge Cherry,
25 about, well, you know, why would you necessarily assume that Pisanich
26 would just operate on one type -- on multiple types of computers running

1 different versions of the game. I turn -- I direct you to slide 22. This is
2 paragraph 81 from Mr. Crane's declaration. He said that games were often
3 made available for multiple devices. That was well-known, and it was
4 actually a market necessity to do so. So, once again, a person of ordinary
5 skill in the art, when they would look at Pisanich, and it talks about games
6 and other games, would understand that that server is communicating with,
7 you know, multiple games, running, you know, multiple flight simulator
8 games on different types of devices, because that's how the software with
9 business works. And I think this is, if I may, this is a good pivot to the battle
10 of experts point. Mr. Crane has been in the forefront of the gaming, the
11 video game industry from its inception. He was the creator of one of the
12 first video games, Pitfall. He was one of the founders of Activision. He's
13 been doing this for 40 years. In contrast, Dr. Medvidovic doesn't have any
14 apparent gaming experience. And when you look at MR. Medvidovic's -- or
15 Dr. Medvidovic's testimony, it asks you to basically suspend your
16 disbelief -- or suspend your reasoning skills, I should say. So, for example,
17 on the software layer, when you take a look at his discussion in paragraphs
18 63 and 64 of his Exhibit 2005 in the '941 proceeding, he basically just says
19 that, yeah, these are software layers and he incorporates the definition that
20 counsel wanted to incorporate. He doesn't provide any analysis. In contrast,
21 Mr. Crane, you know, provided both his understanding of the state of the art
22 and was cross-examined across two days and provided testimony that
23 establish what a person of ordinary skill in the art would do.

24 Let me just briefly also address the instruction of QIE module in
25 2165 in the '165 patent. And I'll direct you to slide 5. So, Judge Mayberry,
26 you're correct. If you take a look at Claim 1 of the '165 patent, it says a

1 graphics user interface GUI module for use in the client system. It doesn't
2 have any of the recitations that we've been discussing today, you know, for
3 example, receiving, interpreting, manipulating second content so as to make
4 it accessible in different types of devices for use in a virtual thematic
5 environment. It doesn't. Now, it's true that the District Courts have
6 construed, you know, GUI module in Claim 1 of the '165 patent to be the
7 same as Claim 1 of the '941 patent. But you're not bound by those
8 constructions. And I would say that if you want to give Claim 1 a broader
9 breadth, I would not be objecting to that. That said, our petition also
10 analyzed Claim 1 under their construction that Patent Owner provided, and
11 we still think Claim 1 would be unpatentable even with a narrow
12 construction of the GUI module.

13 Also, I wanted to briefly address, Judge Cherry, your question
14 about whether there was a new argument that was raised with regard to
15 games versus other games. And again, I wanted to quickly direct you to
16 both the petition and Mr. Crane's declaration. So, the petition refers to
17 paragraph 152, and 152 of Mr. Crane's declaration in the proceeding that
18 relates to the '941 patent talks -- says, as noted above, it's referring to the
19 discussion about the six different versions of the Flight Simulator II game by
20 Sublogic. As noted above, it was well-known in the art that the filing in
21 (INDISCERNIBLE) to interpret and manipulate the (INDISCERNIBLE)
22 content for use with different types of devices. Then he says, in addition, in
23 addition, so this is not the same point. This is a different point. In addition,
24 he talks about different games and goes off. So, I think, I don't think it's a
25 new argument. I think the petition made it very clear that he understood that
26 Pisanich, for example, games and other games could be, you know, could be

1 multiple versions of the same game on different devices. And he made that
2 point in his cross- examination.

3 Finally, I just wanted to hit a point that --

4 JUDGE CHERRY: The problem I have with a lot of this is it's just
5 hand-waving by Mr. Crane. And we kind of have to put -- piece together
6 what he meant by all this stuff and what was known. Yes, it was known, but
7 why are we combining -- why are we putting that in here to Pisanich? You
8 know, I can't help but be a little frustrated. I realize you guys didn't -- that
9 Morrison & and Foerster didn't write this petition and you're taking over this
10 case, but, I feel like it's a little challenging here that we have to kind of piece
11 together like a puzzle your arguments from all over the place.

12 MR. ARJOMAND: Well, I think that the challenge first comes in
13 is that the claims are, you know, an enigma wrapped in a puzzle wrapped in
14 something else. I mean, the claims are so convoluted and uses such odd
15 language that it's very hard to --

16 JUDGE CHERRY: My response is why haven't you sought to, I
17 mean, it seems like these claims are screaming to be interpreted under
18 112(f). It seems like they have other 112 problems potentially. It seems like
19 what -- what -- have you, have you argued that they're going, that these are
20 means plus function claims?

21 MR. ARJOMAND: I believe there were, in the claim construction
22 order, there were arguments presented about whether Claims 1 of the '941
23 patent had terms that were directed or at least was functional limitations. I
24 think that the court, with respect to those arguments went to the plain and
25 ordinary.

26 COURT REPORTER: I'm sorry, can you speak up, please?

1 JUDGE CHERRY: Did you bring a 101 motion against these
2 claims?

3 MR. ARJOMAND: I'm not sure, Your Honor.

4 JUDGE CHERRY: Okay.

5 MR. ARJOMAND: But --

6 JUDGE CHERRY: I mean it just seems like it's, you're asking us
7 to kind of apply this art and with a lot of vagueness on both sides. So, it's
8 very difficult both because of the claims and because your arguments are
9 very vague.

10 MR. ARJOMAND: I appreciate the challenge, Your Honor, but I
11 also think that it's important not to get -- put your blinders on with all the
12 arguments that Patent Owner's counsel has made. They want, they want you
13 to suspend your reasoning skills in reaching a final written decision. They
14 want you to look at Figure 1 of the '941 patent and say that those arrows,
15 they don't mean what they look like they knew. They want you to look at
16 six versions of a flight simulator game and say that they're not the same
17 theme. They want you to look at a reference that talks about games and
18 says, no, it can only be one game. These arguments are directed at -- I don't
19 think really should resonate with an administrative body that has expertise
20 and understands all these things. So, unless there are any further questions,
21 Your Honor, Petitioner rests.

22 JUDGE DANIELS: All right. Thank you very much. All right.
23 We will, Mr. Sorocco. Yeah, so, Mr. Sorocco, we gave Mr. Arjomand, a
24 few extra minutes. So, you know, you've got 15 minutes plus at least five
25 or more. So, whatever you think you need.

26 MR. SOROCO: To lunch, you know. All right. Thank you,

1 Your Honors.

2 JUDGE DANIELS: Be kind to the court reporter.

3 (CROSSTALK) a break.

4 MR. SOROCCO: I -- there's a lot to unpack there, and so I'm just
5 going to, I'm going to try to kind of follow Mr. Arjomand's arguments
6 without getting into some of the kind of the sideswipes and things of that
7 nature. Judge Cherry, you had asked about the second content for the PSO
8 manual. With respect to our arguments on that, that's in Patent Owner
9 response pages 49 to 50 in the '995 IPR. And it follows, I believe, in the
10 same or about the similar area for the '996. I just don't have the exact site for
11 that.

12 JUDGE CHERRY: I mean, I guess I was interested in your
13 opponent was saying that the second content doesn't have to be from the
14 primary application. I don't know if you followed that argument. Could you
15 maybe address what -- can you -- do you have a rebuttal to that?

16 MR. SOROCCO: I have a great rebuttal --

17 JUDGE CHERRY: (CROSSTALK) QIE he doesn't have to get it
18 from the primary application?

19 MR. SOROCCO: Sure. If you don't mind taking a look at
20 Petitioner's, I guess it's page 3, or page 5 of their slides, or excuse me, page
21 three, I think that's a nice layout of the '941. It isn't as small text as mine on
22 my slides. The problem with the Petitioner's argument is it's just, it's just
23 ignoring what came before in the claim, right? And so, you know, we're
24 going to go, we focused on a QIE because it truly is the novel part of this
25 claim and then how it interacts with all the other functions. But it's a
26 software layer and we've kind of gotten hooked up onto this single software

1 layer but it's an A software layer that receives, interprets, and manipulates
2 the second content so as to be accessible on different types.

3 So, it's the QIE receives, interprets, and manipulates second
4 content. And then if you go up and where it's purple on the lefthand side of
5 the Petitioner's marked up claim, they've got, it's kind of pink on the first one
6 and then purple. If you get onto the last sentence of that, that block, it says
7 within a same application environment as second content provided by the
8 primary application. The primary application provides the second content.
9 The second content is received, interpreted, and manipulated to make it
10 accessible on different types of devices for use within the VTE. So, you
11 know, the best that I could understand Petitioner's argument, it's just, it's
12 untrue. It's a false statement. The claim itself says where that second
13 content is coming from. It's content provided by the primary application.
14 As --

15 JUDGE MAYBERRY: Excuse me, counsel.

16 MR. SOROCO: Yes.

17 JUDGE MAYBERRY: This is Judge Mayberry. Can't you read
18 that as the second content provided by the primary application to the
19 secondary application? So, if I understood what Petitioner was saying and
20 apologize if I messed it up, that the QIE can receive the second content and
21 do its receiving, interpreting, and manipulating aspect. Send it to the first,
22 the primary application, which then provides it to the second application.
23 So, the QIE has done its thing before the primary application provides it to
24 the secondary application. Isn't that a way to read that purple limitation?

25 MR. SOROCO: No, Your Honor, and respectfully. And I think
26 that's where we're getting, and it kind of goes down the Petitioner's

1 argument. Second content does not equal second real-time information. It's
2 two different elements of the claims. The second content is provided by the
3 primary application, whereas the second real-time information is coming
4 from the -- into the secondary application, doing all the, kind of the
5 functionality that you talked about, that's kind of there on the righthand side
6 in the bottom of the green QIE claim block, I will say. And so, it's, --

7 JUDGE MAYBERRY: Okay. Thank you.

8 MR. SOROCCO: -- and that's, no problem. And I think that's
9 where things went astray for a Petitioner, and I do agree, you know, my
10 colleague is actually the fourth independent law firm and set of lawyers
11 working in this case, and the arguments have changed over time, and that's
12 why I think there is a significant number that we pointed out of new
13 arguments in the sur-reply, and we ask that you take note of that and give it
14 the weight it's entitled to. And there was a discussion about the extrinsic
15 limitations we're having to go to this, you know, a book that defines what a
16 software layer is.

17 Well, you know, I think they doth protest too much is appropriate
18 there because it's, you know, they're asking, well, like you said, Mr. Crane,
19 literally threw up all of this what POSITA does. And he just set it forth, you
20 know, and block format does this, does this, knows this, knows this, does
21 this. And, you know, there was some discussion about Mr. Crane versus Dr.
22 Medvidovic and what they had, you know, at least Dr. Medvidovic followed
23 Arendi and explained why something was known to one of ordinary skill in
24 the art. He provided evidence. He, you know, made an argument, laid it
25 out. And you can follow that through. And, again, not want -- they can say
26 whatever they want about Dr. Medvidovic.

1 And I think there was a time that my colleague was challenging a
2 paragraph in his declaration. But they did not provide any of that evidence
3 or any challenge to his testimony in their reply. Now, you know, take with,
4 you know, what you want from that, why, they're good attorneys, they're,
5 you know, they're smart. I can only assume that there was nothing in there
6 that helped them, that Dr. -- and so, they left Dr. Medvidovic unrebutted in
7 the reply. And so, whoever, you know, Mr. Crane is, you know, kind of this
8 super, super-POSITA and what he's filling in, it doesn't matter. And
9 Petitioner's slide 20, that they off, that they use, if you want to pull that up, I
10 think my colleague was discussing that a moment ago with regard to
11 software layers, or things of that nature. This is a brand-new argument.
12 This does not, you do not find this in the petition. You do not find this in
13 Mr. Crane's testimony. This is attorney argument that showed up for the
14 very, very first time in their -- in their reply. Again, I would ask you to give
15 it very, very little weight.

16 JUDGE DANIELS: Which slide is this, Mr. Sorocco?

17 MR. SOROCO: It's Petitioner's slide 20. And it, I believe my
18 colleague was using it to say, even if you use our software layer definition
19 that Pisanich still meets it, they never made this argument with regard to
20 these colored boxes and what they arguably teach.

21 Going back to the pictures, there has been this discussion about the
22 Sublogic and all of that day -- that information. And I think there was a
23 statement about it being unchallenged and I couldn't figure out if it was
24 unchallenged with regard to the pictures or unchallenged that the games
25 existed. I, you know, we're not, we're serious people. We're not going to,
26 you know, seriously object that those games didn't necessarily exist. What

1 we do object to is the evidence that you -- that Mr. Crane used was not
2 available prior to the priority date of the patents. Okay. If you look at every
3 one of those footnotes, you know, they relate back to a website, it's either
4 Wikipedia or Moby games, and each one of them has a date that those
5 pictures were updated. Those pictures were made available on those
6 websites. Every single one of them after the priority date of the patents at
7 issue. So, that's what we object to is that the evidence provided cannot be
8 relied upon to say what of one of ordinary skill in the art new at the time of
9 the patents.

10 If you look at our slide 3, or our slide 4, excuse me. I've excerpted
11 Mr. Crane's discussion about Wikipedia and it's at Exhibit 2011, 93, line 20
12 through 94, line 19, and he says he doesn't use Wikipedia because he doesn't
13 rely upon it because it can be changed by peer review by anybody as far as I
14 know. And then we talk some more about peer reviewers, and I don't, and
15 Mr. Crane stated at line 17 on page 94 started on line 17, I don't know how
16 Wikipedia proves there the people who are allowed to make changes, but I
17 have heard that it's very open.

18 Now, when I talked to him a little bit about Moby Games, which is
19 around the same similar kind of area, a little bit before in Exhibit 2011, page
20 92, lines 16 through 19, we were talking about peer reviewers for Moby
21 Games, and his thing, his comments was that they review that information.
22 Sorry, I'm para -- that they review that, that being information, and kind of
23 fight over it and decide what date they're going to put on it. Again, that's
24 why we are saying that that evidence coming from these sites is not reliable.

25 You know, Mr. Crane can believe that Moby Games is more
26 reliable based upon his friends making these judgments, or his colleagues in

1 the game industry making these judgments. But again, when it really comes
2 back down to it, and it's really no different than Wikipedia and people
3 arguing over dates to be appended to information.

4 I believe my colleague said something about suspending. We're
5 asking you to suspend your belief, you know, to suspend disbelief, and have
6 you look at Medvidovic's declaration and, you know, apparently, I don't
7 know if the implication there was that he said what we wanted him to say.
8 You know, Petitioner had that opportunity to cross-examine him on that and
9 didn't make any of that information available in their reply.

10 But what I think is happening and what I hope I kind of inferred
11 maybe from some of the questions is it's really Petitioner who is asking to
12 suspend disbelief. That the claims don't say what the claims say, that the
13 reference Pisanich has specific disclosure in it, but let's ignore it, you know,
14 or there's no disclosure in it. There's a missing limitation in it, but, you
15 know, Crane says a POSITA knows it, so a POSITA knows it. And again,
16 you know, it's unfortunate because my colleague was part of that case, but if
17 you go and look at *Arendi v. Apple*, and what is required, the level of
18 information and analysis that is required to say that a missing limitation in a
19 one reference obviousness rejection or institution can be filled in by
20 knowledge of POSITA requires you to provide evidence to support your
21 statement. That you provide argument and a rationale to do it.

22 You know, I think that's what Crane didn't do that Medvidovic
23 did. And that's why you see us citing to Crane and his deposition all over
24 our papers because he was challenged, and he couldn't push back from that.
25 And in fact, I know we have in our papers that when I asked him what
26 standards he used to make these conclusory statements that, you know,

1 Pisanich taught everything and it would be obvious or PSO taught
2 everything and it would be obvious. He had the right language up front in
3 his petition about Deere and Graham and following the factors and all that.
4 But I specifically asked him if he pointed out the differences between the
5 references and then showed where in the knowledge. And he said he didn't
6 do that. He said he looked for similarities. And I think that's what we've
7 seen from Petitioner's argument today is that they keep looking at
8 similarities of function that, well, it's a similar function happening here.
9 They're making some data available. So, you know, that matches up with
10 what, you know, the Patent Owner is claiming. And that's not the case.
11 That's not what's happening here. So, when we're talking about suspend
12 disbelief, I'd ask you to think about that for a minute.

13 Let's look at if you could just real quickly look at slide 5 of
14 Petitioner's slides. And it's that Claim 1 of the '165 patent that they brought
15 up for you, Judge Mayberry. And you asked some questions and there was
16 some discussion that like we had about, you know, whether the Board is
17 bound by the constructions of the District Courts. And my colleague
18 pointed to a graphic user interface GUI model and talked about, you know,
19 whether or not that has to be interpreted according to the District Court.

20 You know, yeah, the District Court did give a definition. We want
21 that definition to be given. I want -- we want the claim construction. The
22 claim has to be construed. But it's really that quantum -- he completely
23 ignored the quantum imaging environment limitation in the next line, in that
24 light green highlighting. And that definition was also given by the Northern
25 District, or by the District Courts.

26 And I'll note that it came from the Northern District of California,

1 which is, you know, notable for their views on patent claims as well. And it
2 was also adopted by the Western District of Texas in the claim in the
3 litigation between the parties. And, you know, as part, I think there was a
4 question from Judge Cherry about 112 issues, which are obviously I'm not
5 saying that there's any thought that that is part of this IPR, but I will let you
6 know that 112 issues and process, yeah, 112(f) issues and things of that
7 nature were raised and the District Court did not find them to be susceptible
8 to 112(f) or 6.

9 So, again, you know, whether these claims are dense, the Patentee
10 had the right to be her own lexicographer. She was an individual who
11 worked within the art. She wrote them how she thought of them. And when
12 you unpack them and you follow the words, it's very, very clear what they're
13 claiming.

14 Finally, I'll say if we look at the '995 IPR in the PO response at
15 page 61 through 63, again, the evidence was that there was no imaging
16 available. And oftentimes the Petitioner tries to supplement the definition of
17 POSITA, you know, adding in, well, he would know this, would know that.
18 But that doesn't mean that all knowledge of POSITA is taught in the
19 references or shown in the references or filed out. And, you know, I guess I
20 want to end on, you know, you talked about it being a battle of the experts.
21 And, you know, really the Petitioner bears the burden for both persuasion
22 and production here.

23 And this means that the Petitioner bore the burden to impeach Dr.
24 Medvidovic like we had the burden to impeach Mr. Crane. It is not the
25 responsibility of the Board, I don't think, to try and fill in those holes that
26 you identified by Mr. Crane, left by the failures of the Petitioner, whether it's

1 in the petition itself or the reply. And, you know, I'm not sure why they
2 failed to put MR. -- Dr. Medvidovic's testimony in their reply. They're
3 good lawyers. They're great lawyers. In fact, the only reason I can think of
4 that they would fail to do is it doesn't support their case. His testimony,
5 therefore, is unimpeached and they know it.

6 And it's unimpeachable and they know it. And so, they didn't put it
7 in. So, the Petitioner failed to present any argument or evidence rebutting
8 the conclusions of our expert, Dr. Medvidovic. Therefore, the testimony,
9 you know, when you're weighing the testimony of these experts in this battle
10 of the experts that you talked about, we ask that you put that weight in favor
11 of Patent Owner and, you know, give us the judgment of upholding all the
12 claims of the challenged patents on Grounds 1 and 2 in both the '941 and the
13 '165 patent.

14 Unless there's any questions, I cede any remaining time that I may
15 or may not have.

16 JUDGE DANIELS: All right. That was pretty good. A couple
17 more minutes. If there's no questions, then thank you very much for those
18 great presentations. This case is submitted.

19 COURT REPORTER: We're going off record, and the time is
20 12:34, I'm sorry, 12:24 p.m. Eastern Standard.

21 (Whereupon the above-entitled matter went off the record at 12:24
22 a.m.)

IPR2023-00995 (Patent 10,846,941 B2)

IPR2023-00996 (Patent 10,991,165 B2)

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