

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

CARBYNE BIOMETRICS, LLC,
Patent Owner

IPR2024-00329 (Patent 9,972,010 B1)
IPR2024-00330 (Patent 10,713,656 B1)
IPR2024-00331 (Patent 11,526,886 B1)

Record of Oral Hearing
Held: May 1, 2025

Before JAMESON LEE, ARTHUR M. PESLAK, and STEVEN M.
AMUNDSON, *Administrative Patent Judges*.

IPR2024-00329 (Patent 9,972,010 B1)
IPR2024-00330 (Patent 10,713,656 B1)
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APPEARANCES:

ON BEHALF OF THE PETITIONER:

DAVID W. O'BRIEN, ESQUIRE
Haynes and Boone, LLP
98 San Jacinto Boulevard
Suite 1500
Austin, TX 78701
(512) 867-8613
david.obrien.ipr@haynesboone.com

ON BEHALF OF THE PATENT OWNER:

BRADLEY JARRETT, ESQUIRE
McKool Smith, P.C.
300 Crescent Court
Suite 1200
Dallas, TX 75201
(214) 978-4000
bjarrett@mckooksmith.com

The above-entitled matter came on for hearing on May 1, 2025,
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P R O C E E D I N G S

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JUDGE AMUNDSON: Good morning. I'm Judge Amundson and with me on the panel are Judges Lee and Peslak. We have our final hearings in three cases between Apple, Inc. and Carbyne Biometrics, LLC. First, IPR2024-00329 involving U.S. Patent Number 9,972,010; second, IPR2024-00330 involving U.S. Patent Number 10,713,656; and third, IPR2024-00331 involving U.S. Patent Number 11,526,886. Let's start by getting the parties' appearances. Who do we have for Petitioner?

MR. O'BRIEN: Your Honor, this is David O'Brien for Petitioner. I believe with me on the line is Garrett Sakimae and also Chris Han from Apple.

JUDGE AMUNDSON: All right. Welcome. Who will be presenting the arguments?

MR. O'BRIEN: I will, Your Honor.

JUDGE AMUNDSON: All right. Thank you. And who do we have for the Patent Owner?

MR. JARRETT: Yes, Your Honor. This is Bradley Jarrett on behalf of the Patent Owner, Carbyne Biometrics, LLC. I'm joined today by Richard Kamprath, Lead Counsel for Patent Owner, and also George Fishback, Counsel for the Patent Owner.

JUDGE AMUNDSON: All right. Welcome. And who will be presenting the arguments today?

MR. JARRETT: I will, Your Honor.

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1 JUDGE AMUNDSON: All right. Thank you. So since we're
2 doing this hearing by video, we wanted to start by addressing a few items.
3 First, our main concern is your right to be heard. If at any time during the
4 hearing, you encounter technical or other difficulties that you feel undermine
5 your ability to adequately represent your client, please let us know right
6 away. For example, by contacting the team members who provided you
7 with the connection information. Second, when not speaking, please mute
8 yourself.

9 Third, please identify yourself each time you speak. This will help
10 our Court Reporter prepare an accurate transcript. Fourth, we have the
11 entire record, including the demonstratives. So when referring to a
12 demonstrative or an exhibit or a paper, please do so by identifying the slide
13 or page number. Also, please pause a little after identifying the slide or page
14 number to give others time to find it.

15 Also, in view of the order granting the requests for oral argument
16 and the recent email correspondence concerning the hearings, I will provide
17 an overview of how the hearings will proceed. We will have three sessions,
18 but with a single consolidated transcript.

19 In the first session, each side will have 85 minutes of total
20 argument time to address the issues for the '010 patent and issues common to
21 all three patents. In the second session, each side will have 25 minutes of
22 total argument time to address issues specific to the '656 patent. And in the
23 third session, each side will have 25 minutes of total argument time to
24 address issues specific to the '886 patent.

25 Now, procedurally, Petitioner bears the ultimate burden of proof

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1 and will go first in each session, and Petitioner may reserve time for rebuttal.
2 Patent Owner will go next, and Patent Owner may reserve time for
3 surrebuttal, but Patent Owner's surrebuttal must be limited to the issues in
4 Petitioner's rebuttal.

5 Additionally, please do not interrupt the other party while that
6 party is presenting its argument. If you have an objection, please raise it
7 during your argument. I will keep time, and I will try to give you a warning
8 when you're nearing the end of your time. So with that said, are there any
9 questions before we begin? If you said anything for Petitioner --

10 MR. O'BRIEN: None from Petitioner, Your Honor.

11 JUDGE AMUNDSON: All right.

12 MR. O'BRIEN: Sorry.

13 JUDGE AMUNDSON: Thank you. All right. It looks like there's
14 no questions, so let's start with our first session. Mr. O'Brien, would you
15 like to reserve any time for rebuttal?

16 MR. O'BRIEN: Yeah. I'd like to reserve 20 minutes, please.

17 JUDGE AMUNDSON: Twenty. Okay. So the initial time would
18 be 65 minutes and with 20 reserved for rebuttal. All right. So you can begin
19 whenever you're ready.

20 MR. O'BRIEN: Excellent, Your Honor. Well, may it please the
21 Board. I'm going to start with the '010, as we discussed, and I start here with
22 Slide 2 in our '010 deck. This focuses on Claim 1 of the '010 patent. The
23 point here is that the inventive concept in the '010 is based, at least in part,
24 on capturing biometric information, determining that the user is alive.

25 That's the inventive concept. That's reflected in the red highlighted

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1 portion of the claim, down at 1.7. Notably, that's not contested in the
2 grounds. That was a -- actually, a relatively late addition in the prosecution
3 here. It was by examiner's amendment after, I believe, two RCEs, six
4 amendments, and actually the claims as filed and prosecuted throughout the
5 case actually had no fraud detection and were focused almost entirely on the
6 UI issues. The UI issues, frankly, are the early part of the claim and the
7 contested portion of the claim are highlighted in yellow.

8 Turning to Slide 3, this is from the '010 patent itself. This is a
9 graphic that you've seen from both parties frequently. In the upper left, it
10 demonstrates, in some ways, the UI character that the Patentee or the
11 Applicant envisioned. The concept here was to visualize and make concrete
12 the money in a cyber world and have an image of the person -- in this case,
13 Bob, Bob 412 here, whom you would be depriving of the money when you
14 transferred his money to somebody else.

15 The idea is that if I am not Bob interacting with this system, that I
16 will feel feelings of guilt in depriving Bob of the tangible money I'm moving
17 on the screen while having to look at some virtual likeness of him. I'll point
18 out towards the bottom of the slide, the entire disclosure supporting that
19 point of novelty is duplicated in that paragraph. It's that single sentence.

20 Turning to Slide 4, Your Honors, these are instituted grounds and
21 the point here -- you're familiar with them, of course. We're going to cover
22 the disputed issues or symbology throughout this. These slides will be the --
23 the yellow is the highlighted portion of claims that is contested or in dispute
24 in terms of the grounds. There are many undisputed issues here, though.

25 So in terms of the issues that we will be covering and the focus of

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1 this hearing, it's the motivations to combine with reference to Grounds 1
2 through 3, duplicated above, as well as really focusing on limitation 1.2, and
3 it's really 1.3 is the one. And 1.9 in this case, there's a couple dependent
4 claims. The first pair has to do with the addition of a graphical
5 representation for the form of payment, and the second has to do with use of
6 an avatar as the virtual likeness.

7 So turning to Slide 5 and this is a landscape for all of the hearings,
8 and hopefully that'll help us level set in terms of issues that are shared and
9 the like. We're going to do three grounds in this case. Two of those grounds
10 renumbered as 1 and 2 appear in the other cases. We're dealing with the '656
11 today, and as you're familiar, those are our grounds.

12 I'm turning to Slide 6. This is another sort of landscaping slide that
13 we'll use throughout the sequences here. I'm focusing in this presentation on
14 the '010, and what we're presenting to you here is, again, highlighted in
15 yellow. Those are the claim terms that are an issue that the parties are
16 fighting about, I suppose.

17 The white cells and items in the claim language summary are
18 issues that pertain to this case but are uncontested, and the grays are ones
19 that pertain to other cases. But they're all organized for you in a somewhat
20 coherent manner. As I said, 1.2, 1.3 and 1.9 are the issues in this case. This
21 case, like the '886, is a one or more processors configured to case. The '656
22 is a processor configured to case. So we'll deal with that in the court of
23 events.

24 Turning to Slide 7, we're first going to -- this will be our roadmap
25 throughout. We'll touch on these periodically. We're first going to go to

1 Ground 1 and this is the Stone and Hoyos. So I'm going to start
2 substantively, I guess, with Slide 8 here. This is Stone and I guess there are
3 a few points I would like to make. We have three panes here emphasizing
4 aspects of the Stone disclosures that we rely upon.

5 First is the display aspects. It's kind of the UI construct that Stone
6 provides. Stone also gives us teachings as to the financial transaction flow
7 and also gives us teachings as to the system -- or exemplary system on
8 which both these displays and these financial transactions could be executed.
9 The system component describes processors, data structures, and
10 interactions between them. Specifically, I'm going to come back to the
11 display here on the left for a second. I think there's a few points here that are
12 helpful to you.

13 One is this is a presentation here of what a user would see once
14 they're already logged in. You'll see the log out button to the lower right.
15 So this is -- there will be terminology that will come up during the course of
16 this hearing. There's a pre-authentication use of authentication facilities and
17 a post-authentication use. Post-authentication being in the course of a
18 transaction. Pre-authentication being to initiate a session, for example.

19 This visual depicts for you a session that has gone through that
20 would appear in the pre-authentication phase. The person is already logged
21 in. And what we're seeing here is what someone would be presented with in
22 a "I'd like to send money to transaction." So throughout some of the
23 descriptions of these in related concepts, I'm going to sort of try to put some
24 personalities into these things. I'm going to assume that this is my display so
25 I am the user, I am the sender of the funds in this context, and I am planning

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1 to send or gearing up to send money to the recipient who is identified in the
2 visual feature 202 at the top, identified, oh, by the way, with not only a
3 name, but an associated virtual likeness.

4 We're identifying where the source of funds is going to come from.
5 It's my PayPal account. We're identifying how much. Here, it's \$26.32.
6 We're also identifying -- another visual feature here is there's personalized
7 currency. That's personalized to me as the sender user, so we're going to talk
8 about senders and recipients of this transaction. I'm the sender in this
9 example and I'll nominate my co-counsel, Hong Shi, as the recipient of the
10 transaction in this example.

11 So we would expect that I would initiate a transaction by --
12 confirm a transaction in the flow to the right there by clicking the send
13 button. But what you'll notice is this is the pre-auth that's completed. We'll
14 get to the post-authorization, and you'll also notice that even at this stage,
15 there's evidence in this depiction of an association between a sender and a
16 recipient, and these particular virtual likenesses. Either the sender's likeness
17 or the virtual -- the sender's virtual personalized currency likeness or the
18 recipient's likeness.

19 Turning to Slide 9, this is Hoyos. This is our second reference. So
20 Hoyos establishes the need for authentication in financial transactions. It
21 identifies the problem of spoofing, so somebody pretending to be me, trying
22 to send my money to somebody else. And it identified a solution to that
23 problem, techniques that are designed to identify that when I present myself
24 visually or by a fingerprint or some other biometric, that we interrogate
25 my -- that I'm alive. So a live person solution.

1 Hoyos identifies advantages of that technique, that combining the
2 aliveness determination with the biometric authentication. It does that in the
3 context, as you'll see, in the lower left pane of authorizing a transaction. So
4 this nicely fits into the post-authentication role.

5 Putting those together on Slide 10, you'll see how we've integrated
6 the teachings of the various references drawing on the teachings of both
7 Stone and Hoyos. Our record demonstrates here that a POSITA would have
8 combined Stone and Hoyos. That's the first thing I'm dealing with for you
9 here today. Our graphic correlates with a UI presentation with the
10 transaction flow, and I think as I've emphasized, the UI here is a presentation
11 that appears to be before a transaction is initiated, but after a pre-
12 authentication has occurred. And you'll notice that the teachings of Hoyos,
13 which show the biometric capture and fraud detection are deployed in a
14 post-authentication role to the right.

15 Turning to Slide 11, we've walked through in our record and
16 detailed the KSR analysis of motivation to combine. We've established what
17 the need was in the field. A need for authenticating transactions, including
18 fraud detection, as well as a need to provide higher levels of security for
19 some transactions. We've demonstrated the benefits of Hoyos, the improved
20 fraud resistance, the spoofing, addressing spoofing and achieving improved
21 deterrence.

22 We've also identified that there was a regulatory drive for multi-
23 factor authentication. You see that from the FFIEC Guidance that actually
24 appears as an independent ground, as well, and we've established that a
25 person of skill would've had reasonable expectations of success, as well as

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1 we've laid out the alternative motivation to combine jurisprudence under
2 Intel, the improvements that have been applied in one device, a person of
3 skill would be motivated to make similar improvements to similar devices.

4 So turning to Slide 12, Stone had -- I'm going through the Stone
5 needs. Stone had a need for authentication, Stone explicitly describes the
6 transfer of funds and financial transactions, Stone explicitly describes
7 authentication for financial transactions, particularly where it discusses
8 username, password, biometric ID, and security information.

9 I know the Patent Owner would like to cast Stone as purely a user
10 interface that has nothing to do with financial stuff, nothing to do with
11 transactions. That just doesn't hold water, Your Honors. Stone's need for
12 authentication here is also consistent with the well-known knowledge in the
13 field and we detail that as well. We'll come back to each of these graphics
14 towards the bottom throughout the presentation.

15 Another point on this record -- I'm at Slide 13, your Honors -- it's
16 undisputed on this record that there was a need for authentication and
17 financial transactions and that was well known in the art. We've provided in
18 both Carter and Varghese itself, which is a reference in the FFIEC, support
19 for that proposition in the record.

20 Turning to Slide 14, Hoyos' known biometric techniques have been
21 used to improve authentication for financial transactions. Under the Intel
22 PACT case, which I know Your Honors cited in substantiating your
23 preliminary review that motivation to combine had been established, the fact
24 pattern aligns here. Hoyos used these techniques to improve its device.
25 Stone's device is similar. A person of skill would be -- would recognize that

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1 that technique would improve similar devices and would be motivated to do
2 so.

3 Fifteen. So here, I'm addressing some of Patent Owner's
4 arguments. These are their arguments to the contrary. They argue that
5 Stone is not analogous art, and that Stone is not concerned with payment
6 processing and doesn't even recognize fraud as a problem needing to be
7 solved. Well, Stone is analogous art. Like the '010 patent, Stone addresses
8 the same problem of making the transaction seem more concrete to users by
9 showing the actual currency.

10 Stone also discloses secure transactions with multi-factor
11 authentication. I pointed out the username, the password, the biometric ID.
12 Stone also discloses user interface art, the dragging of an icon to signify
13 payment, which is precisely what the '010 is focused on. I believe Your
14 Honors have already expressed an opinion on this and I don't see any reason
15 to depart from the institution decision parsing at these issues.

16 Second, Patent Owner argues that Stone requires a client-server
17 structure and that Hoyos doesn't mention a server structure, as if that is some
18 great divide that would be difficult to bridge. First off, Stone uses a client-
19 server architecture and a payment architecture, and Hoyos describes its
20 authentication techniques in the context of the transaction, without regard to
21 whether it is a server or a client that is doing this authentication. In any
22 case, a POSITA would adapt Hoyos' biometric methods to serve the function
23 in Stone. We have record evidence that at the time, persons of skill were
24 familiar with both approaches.

25 Turning to Slide 16, I detail some of those aspects of the

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1 approaches. It's undisputed on this record that authentication and client-
2 server systems was well known. In fact, Patent Owner's expert admits or
3 acknowledges that there are two broad approaches. This is documented in
4 our evidence as well, but the Patent Owner acknowledges it as well.

5 Two broad approaches in the art. One, performing authentication
6 at a -- whatever stage we're talking about -- at a remote server or doing it at
7 the client, and I think both parties acknowledge that the direction of most
8 work of late was to move that as much as possible to the client. So again,
9 these are options known to a POSITA at the time within technical grasp and
10 we would expect a POSITA to be motivated to employ them.

11 Turning to Slide 17, the Patent Owner does not establish, and
12 frankly can't establish, teaching away. There are arguments of Hoyos
13 doesn't mention a server and the other one has a server, or as they would
14 articulate it requires a client server. That's not a teaching away. The case
15 law is pretty clear. This is a relatively high hurdle for them. They have to
16 establish discouragement, criticism, discrediting, or otherwise discouraging.
17 They haven't even approached that standard.

18 So that's the Stone-Hoyos combination. Our first set of grounds in
19 this disputed issue is -- I'm on 18 at this point. Limitations 1.2 and 1.9. It's
20 really 1.2, 1.3, and 1.9. 1.4 and 1.5 are really not in play here, and the
21 dependent claims are up next. So I am now at Slide 19, which details the 1.2
22 through 1.5, and I've highlighted where virtual likeness appears in 1.2 and
23 1.3. So it is receiving a virtual likeness, associating in the data store the
24 virtual likeness with an account of the account holder, and then rendering in
25 an interface, a user interface, the virtual likeness of the account holder. So

1 it's those aspects.

2 And what Patent Owner has -- well, let me get to the baseline
3 proposition and I'll mention what Patent Owner has argued. I've turned to
4 Slide 20. So our petition explains that either the recipient image or the
5 sender image teaches the same virtual likeness, and it also addresses whether
6 it describes that a processor -- so processor 504 and user device 404 alone,
7 or in combination with other processors, can meet the limitations or does
8 meet the limitations, is mapped to the limitations of the claim.

9 So the photograph below, just to emphasize the points here, the
10 green photo, as we introduced early on, that would be the virtual likeness of
11 a intended recipient of the transaction. The yellow highlights would be the
12 personalized currency that has the virtual likeness of the sender. So in my
13 example -- it's not a very good likeness -- but that would be my virtual
14 likeness profile. There's actual face on versions on the bills, as well, but
15 we're focusing, for teaching purposes here, on the coinage. And the party to
16 whom I'm intending to send money, in my example, my co-counsel, Hong,
17 would be the green virtual likeness.

18 So in each case, received, associated -- in fact, I'll get to the data
19 structures that perform the association, but even here on the screen, it's very
20 clear that the recipient, the identified recipient of this intended transaction, is
21 associated with the virtual likeness of the recipient. It's there on the screen,
22 paired with the identification of who we're going to send the money to, and
23 this is my logged in screen for the transaction that I am planning on
24 initiating, so it's my personal currency. So again, in a data sense, we've
25 clearly already associated the virtual likeness of me with this session in

1 which I am engaged in the transaction.

2 JUDGE PESLAK: Mr. O'Brien, I just want to make sure I
3 understand what you said here. So the yellow image, which appears to be
4 part of the currency, you're saying that's the virtual likeness of a face
5 associated with an account holder?

6 MR. O'BRIEN: So that is the virtual -- that is an example of a
7 virtual likeness of an account holder who, in this case, would be me in my
8 example, who is acting as the sender of this transaction we're getting ready
9 to do. So that's promoting the idea that this is my money that I am going to
10 be sending to Hong and therefore, in the context of the patent, if you want to
11 map it to that, that if, you know, one of my kids was logged in as me, they
12 would have feelings of guilt that they're depriving dad of his personal
13 currency by sending it to their friend. So yeah, I think the answer is yes, but
14 does that help anchor it for you?

15 JUDGE PESLAK: Okay. Well, I just want to make sure you
16 understood my question, which is that doesn't, I mean, I realize this isn't you,
17 wouldn't be you --

18 MR. O'BRIEN: Understood.

19 JUDGE PESLAK: -- here. So but if there was a picture of you,
20 what you have pointed out there doesn't look like a picture of you. It looks
21 like a likeness from currency. That's just what I was asking.

22 MR. O'BRIEN: So it's a virtual likeness. It doesn't have to be a
23 picture or photo. A photo is an example. An avatar is another example. I
24 don't think the patent distinguishes between -- doesn't require a virtual
25 likeness to be a high-resolution photo, if that's what you're getting at.

1 JUDGE PESLAK: Well, I just want to make -- I don't want to
2 belabor this, but if I have a larger picture of Stone, I see both of those
3 pictures say like -- the big one says, United States of America quarter dollar.

4 MR. O'BRIEN: Yep.

5 JUDGE PESLAK: So that's my question here is Apple's position
6 seems to be is that it doesn't have to be any actual likeness of the person
7 that's actually the sender.

8 MR. O'BRIEN: I think Apple's position is informed by the
9 disclosure, and in fact, the claims which establish that in some embodiments,
10 the virtual likeness can be an avatar, which need not faithfully, you know,
11 represent our visage. It may be a caricature, it may be something that we use
12 to associate with our identity. There's lots of things that it could be. This
13 happens to be a side profile image.

14 You'll notice on the currency, as well as the bill denominated
15 currency, it's a forward facing image. More akin to that, it appears for the
16 recipient. But our point is that either the recipient image or the sender
17 image, the virtual likenesses of the sender or the receiver, plays the role and
18 is mapped to the receipt, the store, and the render limitations for a same
19 virtual likeness. And what I've unpacked -- well, does that get us in the right
20 direction? Does that --

21 JUDGE PESLAK: I understand what you're saying.

22 MR. O'BRIEN: Okay.

23 JUDGE AMUNDSON: This is Judge Amundson. I would like to
24 focus on the recipient image in --

25 MR. O'BRIEN: Of course.

1 JUDGE AMUNDSON: -- Figure 2 in Stone. Here's my question.
2 So where is or what is the disclosure in Stone that indicates that processor
3 504 in sender user device 404 associates the recipient image with the
4 recipient account?

5 MR. O'BRIEN: Sure. So, turn to the next slide I think would be
6 helpful there. So one of the -- so the disclosure of Stone establishes --
7 describes a user identifier structure 418. That user identifier structure is in
8 the user devices themselves, so user device 404 when it's a -- for example,
9 the sender of the transaction, it's their device, or similarly for the recipient
10 devices, the Stone patent describes that the recipient devices are of like
11 design.

12 So whether it's an intended recipient who is interacting or me as
13 the sender, for example, we interact with a user device. That user device has
14 this user identifier for a team structure and here on Slide 21, what you'll
15 notice is that this is a data structure that receives a number of things. It's
16 detailed there in paragraph 45 that's duplicated from Stone itself, but we're
17 focusing on the personal information portion, the username, the password,
18 and here, the photographic image.

19 So in this data structure in the user device itself, we receive and
20 store -- we've received and then store the username, the password, two
21 classic canonical indications of an account. They are the accounts that will
22 be -- the username and the password for the account that will be transacted,
23 and the photographic image. It's here in the data structure in the device
24 itself. So at this point -- and that makes sense because we saw in the images
25 that the device had the capability to present the name of the intended

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1 recipient, and that's going to be for an account. We're going to send it to
2 Hong Shi's account, and a picture associated with that.

3 So it makes sense that the device itself has an encoding of that
4 association. What we've demonstrated on this record is that it's here, as
5 described in the text, paragraph 45 of Stone, it's here in this data structure
6 record. Is that --

7 JUDGE AMUNDSON: All right. Well, okay. There's a couple
8 things I want to follow-up on.

9 MR. O'BRIEN: Okay.

10 JUDGE AMUNDSON: And you didn't put it in your Slide 21 with
11 paragraph 45 from Stone. You didn't put it there. You didn't underline it,
12 but one of the user -- I noticed that one of the user identifiers is banking
13 institution information and user account numbers, and also a photographic
14 image. So maybe there's an association between those things there. But as I
15 understand user identifier 418, it's for the sender user, not the recipient user.

16 MR. O'BRIEN: I think that --

17 JUDGE AMUNDSON: Because it says password --

18 MR. O'BRIEN: I think Stone is pretty clear, Your Honor, that the
19 same device architecture and facilities apply to both the sender device and
20 the recipient devices. It calls out -- if you go to the numbers here, that's a
21 little bit small on the visuals, but it's -- I believe the call out numerals are
22 420 for the recipient devices. There's disclosure in Stone that the recipient
23 devices are of the same form and design and programming as the user
24 devices.

25 So we're all users in the sense of in a particular transaction, I may

1 be the sender this time, but I may be the recipient next time. So in terms of
2 my interactions with the device, an image will be received and captured at
3 the device, it'll go into the data structure record, and then the system will
4 then have that association of my virtual likeness with my username,
5 password, or the classic indicia that we're pointing to as evidence that it's in
6 the data structure associated with an account.

7 But you're right, Your Honor. There are other aspects there as well
8 that refer to the banking aspects as well. So in that larger data structure
9 package, it's pretty clear that when the photo goes in there, that that is
10 associating with an account. In fact, that data structure is -- it looks like you
11 have a question.

12 JUDGE AMUNDSON: Well, okay, I'm with you. Okay, but --
13 and I understand. Okay. So the data structure -- your position that the data
14 structure used on the sender user device is going to be the same or
15 essentially the same as the data structure used on the recipient user device.
16 Okay, fine. But I'm -- and so if there's an association of a photo, an
17 account -- let me just start over. So there could be an association of a sender
18 image with a sender account on the sender device, and an association of a
19 recipient image and a recipient account on a recipient user device. Is that it?

20 MR. O'BRIEN: Yes. I would not -- I'm not sure I would add the
21 gloss of there being -- the apparent gloss of there being two different kinds
22 of accounts. I think there are user accounts and in a given transaction, a user
23 may act as one or the other, but yes.

24 JUDGE AMUNDSON: Okay. So, yeah. So we've got the sender
25 user device and the recipient user device. Now what I'm trying to

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1 understand is your position as to how, and maybe it relates to your example
2 1.1, how the sender user device associates the recipient photo with the
3 recipient account information.

4 MR. O'BRIEN: So each of the devices -- each of the user devices,
5 whether they're employed by someone who is -- each of the user devices acts
6 as a portal or a gateway into this larger system. I believe that's a fair
7 characterization. And in gathering the information for a user, it associates
8 them in this data structure. That data structure will go lots of places
9 throughout this system.

10 Ultimately, it will get to the payment server as well because when I
11 set my phone down or turn it off, it's going to be stored in the payment
12 server, so when I come in again and authenticate again and want to engage
13 in another PayPal-like transaction, the information will get loaded. But from
14 a capture and getting into the system and being associated perspective, it is
15 associated in that data structure on the way in or on the way out.

16 And frankly, the association exists -- will exist in many places.
17 You know, as you were indicating, one of the things we did in response to --
18 the Patent Owner alleged, well, it's not the same image -- same virtual
19 likeness each time, and our -- what we've demonstrated in the examples, 1.1,
20 1.2, 2.1 and 2.2, is that for the two dimensions of the showing, namely
21 whether it's a single processor or multiple processors and whether it's the
22 recipient likeness or the sender likeness, yes, it is demonstrated that the
23 receive, the store, and the render limitations -- send and associate -- or store
24 and associate -- and the render limitations are each disposed of either by a
25 single processor in the single processor examples or disposed by multiple

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1 processors in the multiple processor examples, and for both, the recipient
2 version of the virtual likeness and for the sender version. So as you're
3 referring, 1.1 happens to be with regard to the recipient and I can go through
4 that, but each of the slides demonstrates those flows. Would it be helpful if I
5 went through some of those?

6 JUDGE AMUNDSON: Well, yeah, I think I understand your
7 position, but yes. But go ahead with your presentation. I think --

8 MR. O'BRIEN: Okay.

9 JUDGE AMUNDSON: -- you answered the question. Thank you.

10 MR. O'BRIEN: Okay. So I'll go through a couple here and I may
11 leave some of the other ones. They're in our briefing and as an exercise for
12 the viewer, maybe, but focusing on 23 --

13 JUDGE LEE: Mr. O'Brien, this is Judge Lee. I have a couple of
14 questions.

15 MR. O'BRIEN: Oh. Yes, Your Honor.

16 JUDGE LEE: The second one builds on the first. I don't think
17 there's any dispute on the first, but let me get it out of the way to make sure
18 that that is true. There's no dispute between the parties that the virtual
19 likeness recitation of limitations 1.2, 1.3, 1.4, and 1.5, they need to be the
20 same virtual likeness; is that right?

21 MR. O'BRIEN: I think that's right.

22 JUDGE LEE: Okay.

23 MR. O'BRIEN: I think --

24 JUDGE LEE: Now --

25 MR. O'BRIEN: -- to the extent of --

1 JUDGE LEE: In other words, you can't have an association of one
2 photo for the account and then a different picture appearing on the interface.

3 MR. O'BRIEN: Yes.

4 JUDGE LEE: I mean, that wouldn't --

5 MR. O'BRIEN: Correct. We are not suggesting that another
6 picture would -- now, whether it is -- which copy of the same virtual
7 likeness, I want to be clear that there can be multiple copies that float around
8 in the distributed system, but yes. The same image.

9 JUDGE LEE: Right. So after the Patent Owner points out in their
10 response that the virtual likeness of these multiple recitations needs to be the
11 same, I see that your reply spends 14 pages to say it would've been obvious
12 to a POSITA. Of course, it would be obvious. Here's the example 1.1,
13 example or whatever. You know, very extensive explanation. And the way
14 I see it is but none of that is in your petition.

15 I mean, from where I sit, the petition seems to have completely
16 omitted that accounting, like you just say -- you do have one sentence for
17 each limitation. The reference discloses or renders obvious this feature, but
18 there's really no explanation as to why each of these virtual likenesses is the
19 same as the one recited in the previous one or the next one. So I'm not sure
20 that this is okay. I'd like you to tell me why it's okay. If you didn't talk
21 about it at all in your petition why is it okay for you to spend 14 pages, and
22 let's assume that it's a very persuasive reasoning in the reply. Why is that
23 okay?

24 MR. O'BRIEN: Sure, I'd be happy to, Your Honor. So first off,
25 we have the same sort of viewpoint, I suppose, on this is pretty clearly

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1 obvious from the teaching, whether it is the recipient image that's the same
2 image throughout, or whether it's the sender virtual likeness that is the same
3 image in the personalized currency situation. That seemed to be very
4 straightforward in our presentation.

5 It also seemed to be very straightforward that we made clear that
6 whether we're talking about a single device or multiple devices -- multiple
7 processors -- that the limitations of the receive, the store and associate, and
8 the render were each disclosed. We laid that out in the petition.

9 So when the Patent Owner in its response came back and said, we
10 don't think it's the same, it was a little bit baffling to us. It wasn't really clear
11 whether they were saying, well, you're mixing and matching recipient and
12 senders, or whether you're saying that at some point, it gets to be different or
13 you're drawing it from different places and that they're different. It wasn't
14 clear what their beef was, quite frankly.

15 But as a Petitioner, we have a statutory right of reply. We are to
16 respond to the questions and issues put in issue by the Patent Owner, and we
17 did that. Our reply is entirely within the scope of response to the issue that
18 they raised. We, in our petition, very clearly laid out the two dimensions of
19 it can be a single processor, it can be multiple of the processors, and the
20 other dimension of it can be the recipient image or the sender image.

21 So when the Patent Owner questioned that, our proper response in
22 reply is to respond and to detail how, within the scope of our original
23 petition, that's dealt with. We don't have to have every example. We don't
24 go to this hearing and a final written decision based only on the petition. We
25 have a reply to the Patent Owner response, and we did that.

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1 I would note that the Patent Owner here, interestingly, they
2 deposed our expert at the initial phase. They didn't offer any evidence from
3 that deposition. We, in fact, had to introduce the evidence from the
4 deposition. They didn't want to hear what he had to say. Then when we
5 replied, we had a supporting declaration here. They didn't even bother to
6 depose him in any of these proceedings, Your Honor.

7 So Patent Owner -- there's two aspects of this. One is we're
8 responsive, and I think the question I think that is before you in terms of a
9 proper scope of reply inquiry is the due process concerns. I would point out
10 that the Patent Owner did not seek authorization for a motion to strike. I
11 doubt that they would've had a basis for the reasons that I mentioned. This
12 is proper reply, but they didn't. And they didn't even depose the expert. I
13 think that's where we are. I think it's proper scope of reply. Nobody's due
14 process rights have been affected. That would be my answer.

15 JUDGE LEE: Thank you. I think everything you say is correct.
16 However, there's one point you didn't address, which is -- let's throw out the
17 Patent Owner response completely, like it's not even here. I look at your
18 petition and I'm still not persuaded where in the petition you have attempted
19 to show that these four or five different likenesses are the same. You just
20 assume that they are the same, so of course, they raised a bunch of other
21 issues, but the one important question is -- let's just ask one question. Where
22 have you shown that these four or five different likenesses are the same in
23 the petition? It seems like you just assume that they are.

24 MR. O'BRIEN: I think we focused on two likenesses, not four or
25 five.

1 JUDGE LEE: I mean, the different limitations -- 1.2, 1.3, 1.4, 1.5.
2 So there's four likenesses, right, in those four parts.

3 MR. O'BRIEN: Yep.

4 JUDGE LEE: They all have to be the same virtual likeness.

5 MR. O'BRIEN: I believe in our description; we identified what the
6 virtual likeness was and we point to the visuals. This is a case where there's
7 a lot of visuals which animate it. There's the image of the recipient and
8 there's the side profile image on the currency, and we say that's the image
9 that's received, we say that's the image that is stored and associated, and we
10 say that's the image that is here rendered on the display.

11 Whether we trace the path through the architecture or not, that was
12 something that we did responsive to the Patent Owner's question of why are
13 these the same. To our mind, we articulated that they were the same virtual
14 likeness and they contested whether they were the same. Perhaps related to
15 that point --

16 JUDGE LEE: I'm sorry. Can I interrupt you? Because the
17 thought --

18 MR. O'BRIEN: Yeah, of course. Yes.

19 JUDGE LEE: In your reply, you didn't say, oh, we pointed out
20 that they are all the same. You went immediately to it would've been
21 obvious to make them the same. So where's the argument that, oh, they are
22 the same. Apparently, there isn't. Or unless you can -- where in your
23 petition have you explained why these likenesses are the same? You didn't
24 even say that in your reply.

25 MR. O'BRIEN: I think we referred to them as the sender likeness

1 each time and we referred to them as the recipient virtual likeness each time.

2 JUDGE LEE: Right, right. So that's --

3 MR. O'BRIEN: I don't think we --

4 JUDGE LEE: That's why I'm saying you kind of assumed that
5 they are the same.

6 MR. O'BRIEN: Well, in fairness, Your Honor --

7 JUDGE LEE: Instead of establishing --

8 MR. O'BRIEN: Go ahead.

9 JUDGE LEE: -- that they're the same.

10 MR. O'BRIEN: Okay. In fairness, the claim doesn't use the
11 terminology "same". What it does do is it uses the terminology
12 "consistently". And like the patent, we, in our grounds, applied the virtual
13 likeness consistently in each limitation. When the Patent Owner said, hey,
14 how are these the same virtual likeness, we pivoted to their language of
15 response and responded in the context of their contest that they created on a
16 sameness inquiry, but I think it is fair to say that in our petition, we
17 absolutely pointed to the same, although we didn't have to say same, the
18 same virtual likeness on a recipient, recipient, recipient basis, as well as a
19 sender, sender, sender basis. We made those points.

20 And in our -- for example, on our Slide 22 -- and this is a two-
21 dimensional aspect. You're asking, I think, about the flavor (PHONETIC) of
22 the reference rather than the actor in the -- or the actor in the system, the one
23 processor or two. But on Slide 22, we identify the virtual likenesses as the
24 recipient image and the sender image, and 28 of the petition identifies each
25 of those. And then in terms of the one or more processors dimension, we

1 deal with those on 27 and --

2 JUDGE LEE: Yeah. I understand --

3 MR. O'BRIEN: -- 28.

4 JUDGE LEE: -- what you're saying, but I think their argument
5 goes farther than that. It's not just saying sometimes it's the sender's photo
6 likeness, sometimes it's the recipient's. We can even forget about that and
7 just say, well how do I know that the photo received by the server is not one
8 with me wearing a suit and the photo of me on the currency is me wearing a
9 polo shirt. I mean, that's where I have -- I don't have a problem with mixing
10 up sender and receiver.

11 MR. O'BRIEN: Okay.

12 JUDGE LEE: Even with the same sender, I don't know that this is
13 the same photo. That's where I'm having a problem with.

14 MR. O'BRIEN: Well, fundamentally, Your Honors, we don't have
15 a code dump for the Stone system, so we have to make inferences that a
16 person of ordinary skill would in terms of this system. And I think, you
17 know, this is their tactic, certainly, to cause fear, uncertainty, indecision,
18 doubt, whatever, saying, well, it could come from somewhere else. There is
19 no evidence that it comes from somewhere else.

20 And would a person of ordinary skill in the art understand that a
21 handheld device that captures photos that has this data structure in it, in
22 which a photo is received and associated, and which presents a photo or a
23 likeness of the -- the broader term is likeness, photo would be an example --
24 on the screen, that that would be the photo or likeness that's being presented.
25 It is an odd exercise to say but it could be something different.

1 Our grounds indicated that it was the likeness at each stage and the
2 other side can certainly say but it could be something else. The question is,
3 what would a person of skill in the art understand and would a person think
4 it would be obvious in a device that captures photos, that has a data
5 structures which it receives them into and associates them with indicia of an
6 account, and then it renders what looks like an image of the person, whether
7 that's the same image.

8 And I think a fair read of the reference by a person of skill in the
9 art would be that that at least discloses and renders obvious the situation
10 of -- it's the same virtual likeness. Could someone design a system where
11 they had a different likeness? Perhaps, but that wasn't our ground and when
12 the Patent Owner came back and said, hey, but these may not be the same,
13 we went full in on this and showed that they in fact were.

14 JUDGE LEE: Thank you.

15 MR. O'BRIEN: I hope that helps. My colleague points out to me
16 that the petition at 42, Figure 2 is a good example of this, the photo on the
17 currency and the photo of the recipient there, as well. I think we've talked
18 those -- it's throughout, but here in the context of this particular limitation,
19 we have relied upon the recipient photo and the personalized currency
20 likeness as well. So they're each likenesses. I hope that --

21 JUDGE LEE: Thank you.

22 MR. O'BRIEN: Okay.

23 JUDGE LEE: Um-hum. Yep.

24 MR. O'BRIEN: Thank you, Your Honor.

25 JUDGE LEE: Thank you.

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1 MR. O'BRIEN: So --

2 JUDGE AMUNDSON: This is Judge Amundson. Just so the
3 record is clear, did you say petition 42 -- page 42?

4 MR. O'BRIEN: I believe I said petition 42, Figure 2, so it's -- I'm
5 sorry -- it's Figure 2 of Stone. So it's the juxtapose on 42 of the UI interface
6 with the transaction sequence. But that figure appears throughout our --
7 each case when we refer to likenesses, we're referring -- if it's on the
8 recipient virtual likeness side, we're referring to the picture that you see in
9 the upper right of feature 202 and in the sender likeness, it's the personalized
10 currency, and the coinage is the clearest one to see.

11 JUDGE AMUNDSON: All right. I think I understand. I just
12 wanted to make sure we're clear because page 42 concerned limitation 1.7.
13 But, okay, I got it. It's the same image -- the same composite figure that
14 you've used throughout your petition.

15 MR. O'BRIEN: Correct. So I think Your Honors have
16 internalized and it's certainly detailed, as you said, Your Honor, with the 14
17 pages in the reply on the two dimensions here it is the same virtual likeness.
18 So I'm going to skip ahead on those slides. Where are we? So we're at 50
19 minutes.

20 So I do want to talk just briefly on Slide 27. In the surreplies, the
21 Patent Owner raises this Salazar v. AT&T question. What I want to say on
22 this, and we can respond further if the Patent Owner addresses this in their
23 rebuttal, they misapply Salazar. Salazar is a case that deals with the
24 situation of in a comprising claim, so an open-ended claim, that a recitation
25 of a -- we'll call it processor, in Salazar was a microprocessor -- initially has

1 the possible understanding for the scope of the claim that it can include other
2 processors as well. It's a comprising claim after all.

3 But when the term is used later with a "the" or a "said" for some
4 other limitation, it is understood that the text of the claim itself establishes
5 that it's got to be the same processor. When you talk about it first as "a"
6 processor doing X and then say "the" processor does Y, it's got to be the
7 same processor that does both. Bedrock ground truth.

8 What they try to do is try to apply that in another context. Salazar
9 doesn't apply to the context of a claim which itself says one or more
10 processors may do this, so it's the text of the claim that's different here. It's a
11 glove that doesn't fit really. And then to sort of summarize at the end of the
12 day on this, although we didn't go through the four different examples, I
13 think it's pretty clear that two of those examples involve only a single
14 processor anyway.

15 So even though they're wrong on the law, in the case of two of the
16 four mappings, it just doesn't matter. It's a single processor anyway. So
17 whichever way you want to get to that outcome I think is appropriate.

18 Jumping to limitation 1.9. I think we're pretty clear here. I'm on
19 28 and then Slide 29, that Stone discloses -- this is the innards of one of
20 these user devices, whether it's being used by a person acting as a sender
21 right now or as somebody that in a transaction might be a recipient at some
22 point. It details a memory, a processor, and supply of instructions from the
23 memory to the processor, period, end of story.

24 I'll skip over Slide 30 at this point. I'll also -- if Your Honors have
25 any questions on the graphical representation of a payment form, we lay that

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1 out in respect to Claims 4 and 12. This is the express teaching of Stone that
2 there can be an image of Visa, Mastercard, American Express. We feel that
3 that very clearly deals with dependent claims that add a graphical
4 representation of the payment form. Frankly, the base figure, Figure 2 of
5 Stone, also shows a graphical representation, but certainly, the images of the
6 cards do.

7 And with respect to the avatar claims, those are also dependent
8 Claims 6 and 12. I've now turned to Slide 36. The evidence in this case is
9 undisputed that an avatar was a well-known alternative, as a design choice of
10 pictures for a user outcome. I was referring to before that the avatars are
11 within the scope of the broader claim. It's also undisputed that an avatar has
12 benefits.

13 We cite to the secondary reference, Cheng, on this point, where it
14 points out that in Yahoo's -- in the release of avatars in various Yahoo
15 properties, it was ramping up, taken similarly in the Windows Live
16 Messenger products, 7 million, 4 million users in a short period of time, and
17 the reasons for that were that it's a way of presenting one's virtual likeness in
18 a way that balances some personal expression or, you know, identification
19 that you can get that it's me, but it doesn't release a photo necessarily, so it
20 addresses privacy concerns.

21 Tell me that, again. I'm not sure what that --

22 MS. SHI: So it's not PDF. It's 42, so referring actually to the PDF
23 page, so the petition page is 29.

24 MR. O'BRIEN: So --

25 MS. SHI: The -- page 29.

1 MR. O'BRIEN: So Your Honor, when I gave you a page cite
2 before for page 42, we're actually looking to --

3 MS. SHI: Page 29 and 30.

4 MR. O'BRIEN: -- numbered pages 29 and 30.

5 MS. SHI: Here it says the same --

6 MR. O'BRIEN: Yeah, okay. Thank you, Hong. So responsive to
7 the question from Judge Lee on where in the petition, I gave a 42 page
8 example. I was looking at something different. I would want to point you
9 really to page 29, spanning on to 30 on that.

10 So back to the avatar claims. Those are disposed of here, again.
11 You know, in a KSR sense, a POSITA has good reason to pursue known
12 options that are within their technical grasp, and particularly when there's a
13 finite number of solutions identified and they have predictable solutions.
14 Here, the fact that there's 7 and 4 million people that rapidly uptake for these
15 reasons detailed in the record here, that is a well-known predictable solution.
16 So turning to Stone --

17 JUDGE AMUNDSON: This is Judge Amundson. I want to just
18 make sure I fully understand --

19 MR. O'BRIEN: Sure.

20 JUDGE AMUNDSON: -- your position with regard to limitation
21 1.9.

22 MR. O'BRIEN: Yeah. Yes.

23 JUDGE AMUNDSON: So on the issue about if the memory has to
24 provide, you know, instructions for each of the preceding steps, okay, I think
25 it's your position or your argument in the reply that even if that's required,

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1 the references teach that if there is what you call client-side authentication.

2 MR. O'BRIEN; Okay.

3 JUDGE AMUNDSON: All right. Now, I just want to make sure I
4 understand. When you say client-side authentication, are you referring to
5 limitation 1.7 or 1.7 and something else or what?

6 MR. O'BRIEN: I don't think we're -- I think what we're referring
7 to is -- let me pull up the full claim here so I anchor in the -- yeah, in that
8 sense, the fraud detection is an authentication step. So yes, but I think the
9 real question that the Patent Owner seems to be raising with that limitation,
10 the limitation reads, a memory coupled to the one or more processors and
11 configured to provide the one or more processors with instructions.

12 It seems that the Patent Owner wants to read that without
13 construing it, by the way, as a memory directly coupled to each of the one or
14 more processors and configured to provide each of the one or more
15 processors with instructions sufficient to carry out all the steps of Claim 1.
16 All of those additions I gave to you are inappropriate importation into the
17 term itself.

18 We demonstrate, as I think I showed on the Slide 29, that the
19 teaching here is a memory and a processor in a device, and that that memory
20 is coupled to one -- frankly, it's coupled to more than one processor in a
21 coupling sense, as the term is understood -- and it's configured to provide
22 instructions to a processor. That's all that the claim requires. It doesn't
23 require that it be provide -- directly coupled to each or that it provide to
24 each, and it certainly doesn't require that it provide instructions sufficient to
25 perform all the steps of the claim. That's sort of the top-level point.

1 The additional point is it also doesn't matter in terms of the
2 ultimate outcome here as we demonstrate that we have reads or mappings
3 which include just a single processor in which each of those limitations is
4 disposed. As you said, the client -- the authentication, the fraud detection, as
5 well as the receive, store, associate, render limitations, and any instruction
6 limitations relative to the memory, are all disposed of in a single processor.

7 So I think they're wrong on the implicit read of the claim language
8 and that they try to import limitations which aren't there and try to do it
9 without construction. They're welcome to say the construction and we can
10 brief it, but they haven't. But in any case, the mappings that involve a single
11 processor sort of moot this issue. Does that help you, Your Honor?

12 JUDGE AMUNDSON: Yes. I just wanted to make sure I
13 understood what limitations you're talking about when you say client-side
14 authentication. Yeah, so I have you about 60 minutes into your originally
15 initially requested 65.

16 MR. O'BRIEN: Yep, we're falling a little behind here. So let
17 me -- I think I will leave the motivations to combine on the Stone and FFIEC
18 Guidance to the record. I think that's relatively clear. I do want to introduce
19 a few points on the Varghese combination, just to make sure that we start
20 discussing those adequately. I will point out here in this record, with respect
21 to the Ground 2 that covers Claim 7, 15, and 22, the mapping of Varghese's
22 limitations, those limitations recite the captured contextual information.
23 That's the captured contextual information that's captured subsequent to an
24 interaction on screen, that they further comprise physical location
25 information.

1 So each of those limitations, the mapping of Varghese to those
2 limitations is uncontested, undisputed. The only thing that Patent Owner has
3 disputed here is would a person of skill in the art be motivated to combine
4 Varghese with the base combination here of Stone-Hoyos.

5 And so here I am at Slide 38. I'd like to hit a few points on
6 Varghese. So Varghese is a teaching about real-time authentication -- multi-
7 factor real-time authentication -- that is performed during the course of an
8 already authenticated transaction. So I introduced earlier in our discussion
9 the concepts, and they play out, I think, in our briefing, of pre-authentication
10 and post-authentication.

11 One of the things that Varghese emphatically teaches is the
12 benefits and virtues of post-authentication. So even if I've already logged in
13 as you saw in the first image from Stone, I as the user apparently already
14 logged in, because there's a log out button, right? So I'm logged in. I'm pre-
15 authenticated, but the teaching of Varghese is it's important to reduce the
16 risk of a particular transaction and its risk profile. And it teaches doing that
17 in a post-authentication sense.

18 In paragraph 148, it speaks to doing that contextually based on,
19 you know, for example, perhaps my money transfer to Hong was a large
20 money transfer and the banking institution for me had the setting, hey, check
21 carefully if it's a large money transfer. That makes a lot of sense. So at that
22 point, additional contextual information will be gathered. In the teachings
23 here, that would include a biometric, some liveness indication for my
24 biometric, and location information. Varghese itself speaks to the use of
25 location information.

1 One of the examples that we give for that is on the right, paragraph
2 109, in which the -- where the transaction is coming from is the important
3 feature. So we want to check and see if David O'Brien, apparently from
4 Austin, Texas, is strangely trying to execute a transaction from Moldova.
5 That would be a red flag and that's the kinds of things that Varghese is
6 about. So pre-authentication and post-authentication.

7 So in our record -- and I don't think the motivation is really in
8 question -- but we have established under KSR the need, the benefits of
9 Varghese's solution, and the reasonable expectations of success. I will point
10 out that the Patent Owner's responses there are -- I'll try to be a little
11 charitable here -- one of them is that they state that Varghese is a purely
12 software solution, as if it eschews anything hardware. I think what we've
13 established very clearly in our briefing is that is a -- that's not what the
14 language says or means.

15 They say that they want a software solution to avoid, you know, a
16 key fob that I would take around with a rotating code, having to provision
17 and keep those on my person. It's a solution that I can interact with software
18 to do the authentication. It does not preclude, and in fact, the disclosure
19 bases itself on having hardware for image capture, for biometrics, fingerprint
20 readers and the like. Their attempt to say Varghese teaches away from any
21 hardware solutions is a bit preposterous, but that's what they argue.

22 They also argue that it teaches away from using location check as
23 the final step in a fraud analysis, and I think it's very clear and we've detailed
24 in our record that Varghese teaches use of location at pre-authentication, as
25 well as at post-authentication, and our mapping here is the teachings of use

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1 of contextual information, including location information, in the post-
2 authentication phase. That's where the Stone plus Hoyos plus Varghese
3 combination has been articulated.

4 So with that, Your Honors, I am at my target time. I'm very happy
5 to eat over into it with any questions that you might have. I'll move my slide
6 deck forward to 53 because that's sort of an anchoring slide for us, but
7 absent any questions, I'll reserve the remainder of my time.

8 JUDGE AMUNDSON: All right. It looks like there are no
9 questions. Okay. So I have you like one minute into your -- whatever you
10 requested for rebuttal. Okay, so that's fine. All right. Very well. All right,
11 so let's turn it over to Mr. Jarrett. Would you like to reserve any time for
12 surrebuttal?

13 MR. JARRETT: Yes, Your Honor. Could I do 25 minutes? Just
14 have an even hour for my opening remarks.

15 JUDGE AMUNDSON: That's fine. It's up to you. Okay. So you
16 may begin whenever you're ready.

17 MR. JARRETT: Thank you, Your Honor. Bradley Jarrett here on
18 behalf of Patent Owner, Carbyne Biometrics, LLC. I'd like to direct you
19 first to Slide number 2. This is just the overview of our arguments for all
20 three of the IPRs. We've broken them down by which arguments are
21 common, what I've called universal arguments across all three of the patents
22 at issue. And then also, with the '010, we'll address those first, and then
23 arguments for the '656 and '886 will be addressed separately. I've just laid
24 those out here in the slide.

25 Your Honors, before I begin, I would just -- in respect of the

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1 Board's time, if it would be helpful, I can address any questions that you
2 have initially based on any of Petitioner's presentation. I think it would
3 probably be more helpful and more efficient if you could just direct me to
4 where you see current issues that you would like me to address before I just
5 dive into the presentation.

6 JUDGE AMUNDSON: Well, this is Judge Amundson. It's a
7 claim construction issue. It's the limitation 1.9, the memory. And so as I
8 understand, Patent Owner's position that the memory recited in limitation 1.9
9 has to provide instructions for -- that cause the processor to carry out -- one
10 processor to carry out limitations 1.2 through 1.8. Do I have that correct?

11 MR. JARRETT: Yes, Your Honor. I think that's a fair assessment
12 of our position.

13 JUDGE AMUNDSON: All right. So it seems to me that's a claim
14 construction argument and we've got -- and so for claim construction, we've
15 got three tools -- claim language, written description, prosecution history.
16 So which of those tools do you rely on to support your claim construction?

17 MR. JARRETT: Looking at the claim language itself and then
18 reading it in the context of the entire specification for the fraud reduction
19 patents, that would be what I would point you to, Your Honor. Looking at
20 the claim language itself, a memory coupled -- and I can take you to Slide --
21 sorry, give me a second here to get the right number. I can take you to
22 Slide -- it looks like 48 here. This just shows the memory limitation across
23 all three -- what would be called a memory limitation, across all three of the
24 patents for each of their Claim 1, and it's almost identical claim language.
25 The only difference is one or more processors for the '010 and '886 patent,

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1 and then a single "the processor" for the '656. So I believe the argument is
2 even more clear for the '656 since it's pointing to one individual processor.

3 Then going on to Slide number 49. And this is a memory, and then
4 using limitation 1.9 for the '010 patent as the example. A memory coupled
5 to the one or more processors and configured to provide the one or more
6 processors with instructions. Now, providing with instructions, reading that
7 language in context of the claims, particularly the limitations that go before
8 limitations 1.2 through 1.8 that discuss what the processor is configured to
9 do, reading that in context, it's just plain common sense that those
10 instructions would have to be what's being performed previously.

11 Otherwise, it would make no sense to just have random
12 instructions that are untethered to the previous claim language. It would
13 seem superfluous and unnecessary. At a minimum, those instructions would
14 have to be -- the instructions to perform those earlier limitations would have
15 to be included within this meaning of instruction. That's based on -- that's
16 what our expert opined based on a plain reading of the claim language itself,
17 and then also in context of the specification. And I think to say that there's
18 no basis for that in the claim and that we're adding limitations, I believe was
19 Petitioner's -- my friend, Mr. O'Brien's petition -- or Petitioner's position --
20 sorry. I don't think that's the case. I don't think we're reading in something
21 that is not there. I think we're just reading in the context of the earlier claim
22 language, the specification, and just using common sense.

23 JUDGE AMUNDSON: Well, I think I understand your position
24 with regard to the claim language. Is there anything that you would direct us
25 to in the patent's written description that you think supports your position?

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1 MR. JARRETT: Specifically including the previous instructions
2 from the claim limitations 1.2 through 1.8, I don't know that there's
3 something specific in the specification that would state that. I guess maybe
4 it's a better assessment. I know you recited the three tools for claim
5 construction. I think maybe it's more the claim language is what I'm getting
6 at. Maybe that's better for clarification, Your Honor.

7 JUDGE AMUNDSON: All right, thank you. I think I understand
8 the position. So, okay. Unless any of my colleagues has a question, then
9 maybe you should proceed with your planned presentation.

10 JUDGE LEE: I have a question. It's --

11 JUDGE AMUNDSON: Go ahead. Sorry.

12 JUDGE LEE: -- It is Judge Lee. So does the Patent Owner have
13 the view -- is the Patent Owner of the view that this one memory, in
14 limitation 1.9, it has to be coupled to all of the processors, which collectively
15 perform all the steps above. Let's say there are three processors. So this one
16 memory has to be coupled to all of them?

17 MR. JARRETT: Based on the claim language, at least for the '010
18 and the '886 that refer to the one or more processors -- based on that claim
19 language, Your Honor, it's Patent Owner's position that that is correct. It
20 would need to be coupled to the one or more processors if Petitioner is
21 attempting to point to more than one processor to meet the previous
22 limitations for 1.2 through 1.8.

23 JUDGE LEE: So this memory is inside one of the processors or
24 local to one of the processors then it wouldn't meet the claim?

25 MR. JARRETT: That's Patent Owner's position, Your Honor, yes.

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1 JUDGE LEE: What about indirect coupling? Let's say it's not
2 directly coupled to the other processors, but somehow, you know, this one
3 processor, if you trace it long enough, it's going to be connected to the other
4 processor. So through many stages, there's one memory. Although it's local
5 to one processor, it's still somehow coupled to everything else. Would that
6 meet the claim?

7 MR. JARRETT: It potentially could, Your Honor. I just am not
8 aware of where Petitioners pointed out that indirect coupling specifically in
9 their petition, but that could be potentially correct, Your Honor.

10 JUDGE LEE: But let's say you have three processors, and this one
11 memory is local to processor one, but based on your position, this one
12 memory has to supply executing instructions to the processor number 2 and
13 number 3, even though it's nowhere near this first memory.

14 MR. JARRETT: Based on the claim language, Your Honor, that is
15 Patent Owner's position.

16 JUDGE LEE: Okay, thank you.

17 MR. JARRETT: If Your Honors don't have immediate questions, I
18 can -- I'll just start from the top. Going back to now Slide Number 3, this is
19 just an overview of the three fraud reduction patents in the family that are
20 subject to the IPRs, the '010 patent, the '656 patent, the '886 patent.

21 And going to Slide 4, as Petitioner noted, I don't think there's
22 disagreement between the parties. It seems as though the limitations for the
23 claims break down into what we would call two categories, essentially.
24 There's those relating to the user interface and there's those relating to the
25 fraud detection elements of the claim, and this slide just highlights those two

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1 with figures from the specification itself. The one on the left showing there
2 the user interface with the virtual likeness of an account holder and then also
3 on the right, you have the interface that prompts for collection of biometric
4 information. And looking at Slide 5 --

5 JUDGE AMUNDSON: This is Judge Amundson.

6 MR. JARRETT: Yes.

7 JUDGE AMUNDSON: If we could stay on Slide 4 --

8 MR. JARRETT: Yes, Your Honor.

9 JUDGE AMUNDSON: -- for this question. And let me get the
10 right language here. I was just wondering if -- okay, so Slide 4, you've got
11 Figure 4 and Figure 6 from the fraud reduction patents. Now, I was just
12 wondering if either of those figures shows a transaction icon, according to
13 Claim 4, which is a -- the transaction icon includes a graphical
14 representation of a payment form. So my question is, does either Figure 4 or
15 Figure 6 show the transaction icon required by Claim 4 of the '010 patent?

16 MR. JARRETT: I would say that it does not, Your Honor. But an
17 example of what that would look like or what that could look like would be
18 the example looking at the image from Figure 4 on the left where you have
19 the pay now. If that were a -- potentially like if the dollar bill was on the
20 right side of the figure. If those were made the transaction icon, the user
21 could interact with or clicking the pay now, that would be an example of
22 what would satisfy that claim limitation. Although it's not shown in this
23 figure, that's what that would look like.

24 JUDGE AMUNDSON: All right. I think I understand your
25 position. Well, are there any of the figures of the fraud patents that show the

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1 transaction icon required by Claim 4 of the '010 patent?

2 MR. JARRETT: Without pulling up the patent, at the moment,
3 Your Honor, I don't know that that's the case, but I know -- I believe there's
4 descriptions of it within the specification of what that could potentially look
5 like.

6 JUDGE AMUNDSON: All right, I got it. So the pay now button
7 in Figure 4, item 410, if that had like dollar signs or MasterCard or Visa,
8 then Claim 4 would cover it?

9 MR. JARRETT: Yes, Your Honor.

10 JUDGE AMUNDSON: Okay, very well. Thank you.

11 MR. JARRETT: All right. Now on Slide 5, this is just an example
12 of the representative claims, the independent claims for each of the three
13 patents. Slide 6, this is -- what's been selected here is the limitations related
14 to the user interface. Some differences between the three, they all require --
15 all three patents in the independent claims here require the virtual likeness of
16 the face of the account holder to be present in the transaction interface with
17 the transaction icon. Slight differences are, for example, the '010 has a
18 specific claim limitations for the storage and the rendering of the virtual
19 likeness of the face of the account holder. And the '886, for example, has an
20 additional limitation of the virtual likeness must be selected during an
21 enrollment process.

22 Going to Slide number 7, this is a representation of the fraud
23 detection elements of the independent claims, and some slight differences,
24 Your Honor, here. One thing that's common to all three of the patents and
25 all three of their independent Claim 1 is the fraud detection analysis that

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1 involves the capturing of biometric information and the analysis of the
2 biometric information to determine that the user is alive, and for example,
3 not a printed photograph, essentially, an anti-spoof type of mechanism.

4 The difference is here -- slight difference is the '656 also includes a
5 biometric matching element, so a collection of biometric information,
6 storing of that information, and then later comparing that with a collected
7 template at the time of the transaction to verify that the user is a match for
8 the previously stored biometric information that's been associated with the
9 account holder. And then also the '886 clarifies that the biometric
10 information that's captured is images captured by a camera.

11 And also, another point is the '656 and '886 include elements of
12 collecting location information associated with the transaction to implement
13 in the fraud detection analysis. This is relevant to Varghese, which was
14 discussed in Petitioner's presentation. Varghese is relevant here because
15 that's what Petitioner has cited for the location limitations of the '656 and
16 '886.

17 And going on to Slide 8, I will not belabor this. This is just a
18 summary of the grounds of the petition, the asserted grounds against each of
19 the three patents. Primarily, we'll focus on the combination of Stone and
20 Hoyos for the '010 patent and for the user interface limitations, we'll focus
21 heavily on Stone. And also, for the motivation to combine, we'll focus
22 heavily on Stone.

23 And now going on to Slide number 9, we have this as just some
24 background of Stone. Essentially, Stone it's not something that's -- it's not a
25 reference that is directed to fraud detection, for example. It is concerned

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1 with enabling users to interact with an interface and provide a more user-
2 friendly virtually rich -- or visually rich interface. That's what we've
3 highlighted here on this slide.

4 And so then going on to Slide 10, this is just an example which
5 was discussed at length in Petitioner's presentation of Figure 2 of Stone,
6 which is the example of what the interface looks like for the electronic
7 transactions. And looking at Slide 11 for Stone, this is another important
8 slide that was addressed during Petitioner's presentation, this is the
9 framework or the server -- or the client-server structure that exists in Stone.
10 It's necessary for Stone's claims and Stone's teachings.

11 On the left, the 404 -- what's been labeled as 404, that is the user
12 device and the elements that are contained in the user device. What will be
13 important to take note of is 418, which is the user identifier, which can be a
14 myriad of things, according to paragraph 45 of Stone. One of them -- one
15 example is it could be a photograph of the user, but there's other examples of
16 what could be biometric information. 406 there is the recipient, which
17 according to Stone's teachings, would be a similar structure to that of the
18 user device there in 404.

19 And then 408, we have the payment server, which is where
20 account information is stored. That's the only place where Stone teaches any
21 association of account information with an actual user or user account
22 information is associated with the user. That occurs only in the payment
23 processor -- the server for the payment processor. That's laid out in
24 paragraph 45 of Stone and then 46, those are -- I would point the Board --
25 those are two of the more important teachings of Stone that's relevant for

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1 what we'll discuss today.

2 And now looking at Slide 12, this is another figure from Stone.

3 This is Figure 5. This is the structure of the user device, for example, or the
4 recipient device. This is where it lays out where the different components
5 are, the memory, the storage component, and also the processing component.
6 This is what Petitioner has pointed out or pointed to for specifically the
7 memory limitation that we've discussed already.

8 And then going to Slide 13, very straightforward with Hoyos.

9 Petitioner relies on Hoyos for the fraud detection limitations, disclosing
10 those. Specifically, the aliveness determination, and that's a figure from
11 Hoyos showing the one example of how the aliveness determination is
12 taught from Hoyos. There's a capture of a photograph of the user in
13 comparison between multiple images, for example, to determine probability
14 of aliveness and the probability of a biometric match for the user.

15 And Slide 14 is just an overview of Varghese, which is not
16 essentially critically for the '010 patent. We'll discuss Varghese in more
17 detail for the '656 and '886 because that's where it's relevant, as I mentioned,
18 for the location limitations of those patents. And the FFIEC Guidance on
19 Slide 15 was not discussed at great length during Petitioner's presentation,
20 but generally, this is Guidance from a banking regulatory agency relating to
21 the authentication and internet banking environments -- specific to internet
22 banking environment, and those entities, financial institutions that are
23 regulated by the FFIEC. And I would point out that for Stone, specifically,
24 Stone is a reference -- it's assigned to eBay. eBay is not regulated by the
25 FFIEC. It's not regulated as a financial institution or a bank -- considered a

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1 bank that's regulated by the FFIEC.

2 JUDGE PESLAK: Mr. Jarrett?

3 MR. JARRETT: Yes.

4 JUDGE PESLAK: I know in some of these cases, Patent Owner
5 has taken a position that -- I think it's that one of ordinary skill in the art
6 would not consider this document. What's Patent Owner's legal theory for
7 that? Is it that it's not analogous art? Is it that an engineer with the
8 qualifications of a person of ordinary skill in the art would not look to this
9 document? Exactly what's the legal theory that Patent Owner is raising with
10 respect to this guidance?

11 MR. JARRETT: Thank you, Your Honor. It would be the second
12 point you mentioned there. It's that a -- what has been defined as a POSITA
13 is an individual with a bachelor's degree in computer engineering, computer
14 science, or electrical engineering with two years of experience in the field.
15 And the position is that -- Patent Owner's position is that a person of that
16 skill level would not be looking to banking regulatory guidance specifically
17 in trying to develop better fraud detection techniques, especially when
18 looking at the technical aspects.

19 This is just high-level, general regulatory guidance for financial
20 institutions, what would be, I would say, individuals in administrative
21 positions at a bank, for example, or executives who are implementing
22 programs. This is not a technical document that an engineer would look to
23 and I don't believe Petitioners argued as much that an engineer would look
24 to develop new techniques for fraud detection, actual techniques, and rely on
25 it that way.

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1 That is just one example. And I think -- yeah, in addition to that,
2 it's just, again, the high-level nature of the document is not something that a
3 POSITA in this case would be interested in or looking to. And also, as I
4 mentioned a moment ago, the context, the greater context of these, the
5 references that Petitioner has cited, you have Stone. Stone is assigned to
6 eBay and references PayPal servers throughout, and PayPal and eBay are
7 specifically not financial institutions that are subject to FFIEC regulations.

8 So it seems outside the scope of what a POSITA who is looking to
9 improve peer-to-peer transactions, for example, that are done through an
10 eBay-type service or a PayPal-type service, it's not regulated by the FFIEC.
11 It would be outside the scope of what they would look to and consider when
12 developing technical solutions. That's the legal position, Your Honor.

13 JUDGE PESLAK: I understand.

14 MR. JARRETT: Going to Slide 16, this is where we'll address the
15 motivation to combine arguments for Stone and Hoyos specifically. There's
16 no motivation to combine, no sufficient motivation, to combine either of
17 these two references for a few reasons. First, we'll start off by looking at
18 Petitioner's alleged motivation to combine Stone and Hoyos. As it says, a
19 POSITA would've been motivated to apply Hoyos' teaching of fraud
20 resistant biometric financial transaction system in Stone's financial
21 transactions for benefits of improved fraud resistancy by addressing
22 spoofing and achieving improved deterrent against attempted fraudulent
23 transactions and decreased rejection of valid customers, as taught by Hoyos.

24 Now going on to Slide 18, Petitioner's position, again, is in view of
25 Stone's need to implement authentication with fraud detection, a POSITA

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1 would have implemented biometric authentication and fraud detection, as
2 taught by Hoyos in the system of Stone. Now, going on to Slide 19, the
3 motivation to combine there is just conclusory. There's no explanation
4 specifically of why a POSITA would've picked out of all the sea of prior art
5 Hoyos to combine it with Stone.

6 For example, looking at Slide 20 where this idea of the fraud and
7 electronic transactions being a well-known issue that Stone seeks to address,
8 yet Stone never mentions fraud is an issue it's trying to correct to prevent or
9 something it's trying to address. More specifically, it doesn't mention ever
10 any types of techniques for fraud detection that it's trying to disclose. It's
11 simply looking to make a more visually rich interface for the user. So
12 Petitioner's argument there presupposes this fraud problem that Stone is
13 trying to address, where Stone itself never mentions fraud or discusses it at
14 all.

15 And further, to jump from addressing a problem that's not even
16 mentioned in Stone, providing a specific solution of Hoyos, which is very
17 specific to anti-spoofing techniques, which at the time of the references, the
18 priority date, rather, of 2010, anti-spoofing was in its infancy at that time.
19 For example, when you look at things like Face ID or other such facial
20 recognition software for -- to prevent spoofing or prevent individuals from
21 spoofing a system for fraud detection with a printed photograph, those were
22 not even developed and really commercially available -- readily
23 commercially available.

24 So jumping -- at this point, looking back in 2010 and jumping from
25 Stone, which doesn't even address fraud, to a very specific class of fraud

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1 detection techniques that would've been obvious to apply, it wasn't obvious
2 at all. It seems rather what's happened is Petitioners looked to the claims of
3 the '010 patent and the fraud reduction patents and --

4 JUDGE PESLAK: Mr. Jarrett?

5 MR. JARRETT: Yes.

6 JUDGE PESLAK: If Stone mentions biometric ID, what are
7 they -- what would be the point of biometric ID if it wasn't to prevent fraud?

8 MR. JARRETT: Just to confirm a user with account information, I
9 guess, Your Honor.

10 JUDGE PESLAK: But why would you do that?

11 MR. JARRETT: To authenticate the user.

12 JUDGE PESLAK: And don't you do that to prevent fraud?

13 MR. JARRETT: It could be also a convenience factor, or for
14 example, using something that's facial recognition instead of having to enter
15 a password is seen as a convenience factor.

16 JUDGE PESLAK: Well, another question is, I mean, both parties
17 seem to agree that these claims are divided up between user interface and
18 fraud. Stone discloses user interface, doesn't it?

19 MR. JARRETT: It does.

20 JUDGE PESLAK: So why wouldn't one start with Stone?

21 MR. JARRETT: Starting with Stone, Your Honor -- I think Patent
22 Owner's position starting from Stone would not result in looking to Hoyos.
23 There's no discussion specifically of fraud detection or the need for fraud
24 detection. It's a jump from no discussion of fraud detection to specific anti-
25 spoofing techniques that were not readily applied at the time of the priority

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1 date of the fraud patents, it just doesn't make sense other than using
2 hindsight, Your Honor. That's the argument.

3 JUDGE LEE: Counsel, this is Judge Lee. I'd like to ask you about
4 this definition for a processor in the spec.

5 MR. JARRETT: Yes, Your Honor.

6 JUDGE LEE: It is stated "as used herein, the term processor refers
7 to one or more devices, circuits, and/or processing cores configured to
8 process data, such as computer program instructions." Would that include
9 another processor?

10 MR. JARRETT: The definition itself -- I believe you said the
11 definition is processing cores. To the extent that there's a distinguishable
12 difference between processing cores and processor, I think there's a potential
13 difference between those two terms. I don't think they're necessarily the
14 same. When you're looking at a device, multiple devices or multiple
15 processing cores, I don't know that multiple processing cores is exactly the
16 same as multiple processors or multiple devices.

17 JUDGE LEE: But why would you exclude another processor?
18 Because the definition starts out with one or more devices. That's very
19 broad. So if you have two processors together, it meets the definition of one
20 processor.

21 MR. JARRETT: Your Honor, I would agree that that is a potential
22 reading of -- understanding of that based on the definition of processor that
23 you have just read.

24 JUDGE LEE: I couldn't hear. Is that a yes or no?

25 MR. JARRETT: Yeah, it was yes. Sorry.

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1 JUDGE LEE: So it does -- the definition is broad enough to cover
2 two processors as one?

3 MR. JARRETT: Yes, Your Honor. The definition you've just
4 read, it would seem that it was broad enough to cover potentially two
5 processors, even though it doesn't specifically say two processors.

6 JUDGE LEE: Okay, thank you.

7 MR. JARRETT: And yes, Your Honors, going back to the
8 motivation to combine, I think we've addressed our first point, which is the
9 conclusory nature of Petitioner's motivations to combine. Going to Slide 24,
10 this is just addressing the analogous art issue. The '010 and patent in Stone
11 are not analogous art. The '010 patent addresses specifically fraud detection,
12 fraud reduction, fraud techniques. Stone is not concerned with those, as
13 we've discussed. It's concerned with providing a visually rich user interface.
14 And also, the last point for why there's no motivation to combine Stone and
15 Hoyos, the two references do teach away from each other.

16 Going to Slide 28, when looking at the two references, they're
17 incompatible in the sense that they require different computing
18 environments. Stone explicitly requires a client-server structure. It depends
19 on the server structure for any of the association of user account information
20 with a user, and none of that is done on the client side. And then as far as
21 Hoyos, Hoyos does not mention a server structure at all. It seems
22 straightforward from the reading of the claims -- the proposed claims and the
23 specification of Hoyos that the authentication techniques are done on a
24 device, such as a laptop, a computer, done locally.

25 JUDGE AMUNDSON: This is Judge Amundson. Well, on this

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1 point about incompatibility, so if I were a person of ordinary skill in the art
2 and I was going to implement the proposed combination, what would be the
3 problem with doing whatever Stone does on the server and doing whatever
4 Hoyos does on the client, and that's my proposed combination. What's
5 problematic about that?

6 MR. JARRETT: Thank you, Your Honor. Going to Slide 30, first,
7 looking from the perspective of Stone, applying Stone -- starting with Stone
8 and implementing a client-side authentication, first it would be redundant to
9 have authentication in multiple steps, especially when you're looking at a
10 client-server structure concerned with efficiency and maximizing or limiting
11 how much processor power is being taken up on the client device. You're
12 trying to offload some of that to the server, the processing requirements.
13 And so that would be one issue. And then having the -- yeah, the
14 redundancy between the two, it just doesn't make sense.

15 And then also going to Slide 31, if you're looking to apply Hoyos
16 on a server, a client-server model, it also wouldn't make sense. It would go
17 against the stated benefits that Petitioner has provided for local
18 authentication, which is, you know, it's faster, it is -- sorry -- faster, more
19 secure because there's no information being transferred from a device to a
20 server, so basically it would undermine everything that Hoyos is trying to
21 achieve and the benefits that Petitioner has stated by taking things off the
22 device and moving information to a server, making it less secure in that way.

23 And also, leading to more latency by processing and transferring
24 information over a client-server structure as opposed to done locally on the
25 device. I'm not sure, Your Honor, if that answers your question, but --

1 JUDGE AMUNDSON: Well, sort of. All right, but Slide 31, as I
2 understand it, it's problems moving the Hoyos steps to a server. So in my --
3 whatever you want to call it -- a hypothetical, the Hoyos steps are done
4 locally. The Stone steps are done on whatever -- locally or the server --
5 whatever they're done in in Stone. So my hypothetical is what is the
6 technical issue with leaving all the Hoyos steps local when you implement
7 the combination. I think you initially started by addressing that and then you
8 went into Slide 31.

9 MR. JARRETT: It's the redundancy aspect and it's -- the point of a
10 client-server structure is to offload some of the processing requirements
11 from the device itself, especially when you're looking at something in 2010.
12 You're not -- you don't have the processing power on, for example, an
13 iPhone or a phone or smartphone. You don't have the same levels of
14 processing power that we have now, and the point of offloading a lot of
15 information to a server is it's the efficiency aspect, and by now, requiring
16 intensive processing requirements on the phone or the user device itself, that
17 defeats the purpose of implementing a client-server structure.

18 So at that point in 2010, it doesn't make sense to use the local
19 authentication where you're storing information, whatever it could be, facial
20 recognition, maps, 2D and 3D maps of the user's face, on the device itself, as
21 opposed to storing it on a server. It just doesn't make sense, and it defeats
22 the point of offloading those requirements to the server structure, if that
23 makes sense, Your Honor.

24 JUDGE AMUNDSON: Yes, I think I understand your position.
25 Thank you.

1 MR. JARRETT: And going on Slide 32, we have the motivation
2 to combine the FFIEC Guidance with Stone. I believe we addressed --

3 JUDGE PESLAK: Mr. Jarrett?

4 MR. JARRETT: Yes, Judge.

5 JUDGE PESLAK: I have another question. If --

6 MR. JARRETT: Yes.

7 JUDGE PESLAK: -- we were not to agree with you that there's no
8 motivation to combine Stone and Hoyos, are there any limitations in the
9 claim, Claim 1, that are not met?

10 MR. JARRETT: Yes, Your Honor. Starting with Slide 35,
11 addressing those claim limitations 1.2 through 1.5, that's where Stone and
12 Hoyos does not disclose or render obvious the virtual likeness of the face of
13 the account holder, those virtual likeness elements. And looking at Slide 36,
14 you have the virtual likeness limitations 1.2 and 1.3. You have the
15 requirements to receive the virtual likeness of the face of the account holder,
16 associate that virtual likeness in the data store with an account of the account
17 holder and then render that likeness in an interface. So it has to do all three
18 of those things and I don't believe that there's any -- based on Petitioner's
19 arguments, I don't believe there's any dispute that it has to be the same
20 virtual likeness that meets all three of those limitations.

21 And looking at Slide 38, the petition does not identify the same
22 virtual likeness for the receive, associate, and render limitations. This was
23 addressed during Petitioner's presentation, if you look to the left on Slide 38,
24 the receive and associate limitations of Petitioner. Petitioner cites to user
25 identifier 418, which is pointed out here on the image to the left in Figure 4

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1 that's been annotated in the petition, and on the right, you have the rendering
2 of the virtual likeness, which is the virtual currency or the recipient photo
3 that's shown there, number 202, in Figure 2, that's been annotated as well.

4 Now going to Slide 39, the receive and associate limitations, the
5 only disclosure of any association that occurs between the user device or the
6 user's information and the user's account occurs on the payment server, and
7 that is the -- what's highlighted there in paragraph 45 where it discusses the
8 user identifier that is sent with a transaction request to the payment server,
9 and that's where the account information is all stored for the specific users
10 on the payment server and that's where the association occurs. There's no
11 disclosure of an association of account information with a user anywhere in
12 Stone, other than the specific passage here, and that occurs on the payment
13 server. So then going to Slide 40 --

14 JUDGE AMUNDSON: This is Judge Amundson. Staying on
15 Slide 39 where you've got paragraph 45 from Stone reproduced and where
16 that paragraph 45 discusses the user identifier that can include a
17 photographic image and user account numbers. So why isn't that sentence
18 right there in paragraph 45 an association between the photographic image
19 and an account?

20 MR. JARRETT: Because I would say, Your Honor, the last
21 sentence of the paragraph describes that it's used by the payment processor
22 server to associate the user 409 with a particular user account maintained by
23 the payment provider server 408. So it would seem not possible that any
24 association step would occur on the user device. So potentially if there is
25 account information, the user identifier as disclosed in Stone could include a

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1 lot of different information. It gives a list of different things it could
2 include. And so when that information is sent, it's sent with a transaction
3 request, it's sent to the payment server, and that's where the actual
4 association occurs.

5 So if there's account information on the user's device or stored as
6 the user identifier with a photo, that would never be associated with the
7 actual user account because those records are stored, according to the
8 teachings of Stone, on the payment processing server. So that association
9 can only occur on the payment server, if that answers the question, Your
10 Honor.

11 JUDGE AMUNDSON: It does, but I have a follow-up question,
12 and I just want to get to -- make sure I'm talking about the right thing.
13 Figure 2 in Stone. And so my question is, if the only association between a
14 user and the user's account occurs on the payment provider's server, how is it
15 possible that the sender user device can show the recipient's image with the
16 recipient's name as the payee in Figure 2? It seems to me -- it's a compound
17 question, but it seems to me that there's some kind of association that's going
18 on on the user device, so the user device can display the recipient's photo
19 with the recipient's address, or at least addressee's name.

20 MR. JARRETT: Yes, Your Honor. The issue there would be -- I
21 think one way to look at it would be the purpose of the two different
22 elements that are described there. The 418 is the user identifier that's sent to
23 the payment server. That's for authentication. This user photo, for example,
24 the 202, the recipient photo, there's no indication of what that is, if that's
25 even the right person, how that's provided. There's no association between

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1 that and 418. There's no link between the user identifier and the recipient
2 photo 202, which is really the core of why the petition is deficient in this
3 element is there's no association between those two and it's pointing to two
4 different images.

5 So the 418, there's no indication anywhere in Stone that user
6 identifier 418 is in any way associated or linked with 202. And one example
7 would be if you have -- for the user identifier, let's say it's some kind of
8 photograph. It could be if I take a photo of my face and it does -- with my
9 phone and it does some kind of 3D mapping of my face to basically ensure
10 that I am the right person or I am who I am, and it sends that information
11 and does some kind of match to confirm my identity on the payment
12 processing server.

13 It's far different than if I post a picture of myself as a profile
14 picture what could be me in a Halloween mask, for example, or a picture of
15 a dog or anything. I think those two functions of what the recipient photo
16 202 could be and what the user identifier photo would be, I think, are
17 different purposes. One is for looking to confirm you are who you are,
18 which is the point of the fraud reduction patents, and the 202, which is just a
19 display for a profile picture, for example.

20 And I think one example is if you look at the specification, it
21 shows the 202, and if you look at the image, it shows Jane Doe as 202 and I
22 believe that the photo is a gentleman wearing a suit, so I think that shows
23 that there's a disconnect and it could be -- that's not a reliable indicator of
24 any kind of authentication or that it's actually associated with an account. A
25 user could put that -- anything in that photo, and there's nothing in Stone that

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1 teaches that that photo is confirmed or actually associated with anything, a
2 user account, and I think that's the crux of the matter here and one of the
3 most important issues is looking at the difference between what the user
4 identifier 418's purpose is versus the purpose of the user currency, which is
5 personal expression, making a visually rich interface. It's not authenticating
6 the user, and same with the 202 photo.

7 As Figure 2 even shows, it's not necessarily linked to an account
8 because there's Jane Doe and you have a picture of a guy wearing a suit.
9 And I think that's the fundamental disconnect and that's where the petition
10 fails because there's a jump that we highlighted in our Patent Owner's
11 response. There's a leap there between 418 and either 202, the recipient
12 photo, or the image on the currency. There's a leap and an assumption that
13 those are the same image because it has to be the same image to meet all of
14 the -- to disclose all of the elements and they're not the same image, and
15 there's nothing in Stone that teaches it and Petitioner has not pointed out any
16 disclosure in Stone that shows that there's any association. So I don't think
17 there's any dispute at this point that they're not the same image or they can't
18 be, based on the teaching of Stone, and that's dispositive of this entire issue.

19 JUDGE AMUNDSON: All right, thank you. I think I understand
20 your position.

21 JUDGE LEE: I have a question. It's Judge Lee. What's your
22 response to Petitioner's explanation that it would've been obvious to a
23 POSITA to make the pictures the same?

24 MR. JARRETT: Yes, Your Honor. I think it would go back to my
25 description of what the purpose of the user identifier is versus a photo that

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1 shows up on your interface -- on the user interface for the display. I think a
2 good example would be if you have a smartphone, that you -- the example I
3 gave of a user identifier would be something like a facial map of your face
4 for some kind of user facial recognition, versus my profile picture, which
5 would be very different. And I think that's why there's no -- there's a
6 disconnect between the two -- the purpose of what the photos are for.

7 And I don't think there's anything Petitioner pointed to in Stone,
8 other than saying it's obvious in the 14 pages of their reply brief and looking
9 at, for example, Slide -- we can look at the images -- Slide 43, that's a
10 picture, the graphic that was taken from Petitioner's reply brief. And the
11 only thing I see there there's no anchoring in the text or teachings of Stone. I
12 just see that the images have been superimposed together with arrows
13 pointing at just the claim language.

14 There's no basis in the text of Stone to support that, other than
15 hindsight and needing to make 202 fit with the user identifier 418 to make
16 them be the same image, other than hindsight. I've seen no teaching in Stone
17 that would suggest that there's any basis for that or that Stone ever envisions
18 that. Stone could've clearly said that the user identifier could be used as a
19 photograph for the interface photo or the currency. It could've shown that
20 there was a commonality, but it doesn't teach that and any obviousness
21 argument would just be hindsight, looking back and looking backward from
22 the claims of the '010 patent. That's the only basis that I can see. Looking at
23 the teaching of Stone to come to that result will be working backwards from
24 the '010 patent's claims.

25 JUDGE LEE: I understand the distinction -- a more formal

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1 photograph, like a passport photo for identification purposes, which you
2 might not want on a personalized currency, which is for fun, but we're
3 talking about obviousness. So someone who's less humorous, like me, I
4 couldn't think of a caricature photo myself. I might put my passport photo
5 on my personal currency. So the issue is obviousness, not what one with a
6 whole lot of fun might want to do. So it would've been obvious, it seems, to
7 put any of the person's photo, whether it's a serious one suitable for
8 identification purposes or a more casual one. They all would've been
9 obvious to place on the interface or the personal currency, wouldn't it?

10 MR. JARRETT: I don't think that's the case, Your Honor, again,
11 because of the difference between what the purpose of the user identifier is.
12 With addition to that, the other information that could be included within
13 that, biometrics, for example, as mentioned, I think that goes more to the
14 point of identification, and there's no indication from the teaching of Stone
15 that the photo -- a photo of 418 -- 418 is used for -- just to confirm your
16 photo, just like an ID. It could be something for a match -- a facial
17 recognition type match, which is the photo --

18 JUDGE LEE: Oh, I see. So you're saying the 418 identifier is not
19 disclosed as having the import of a passport photo or something like that? It
20 could be a casual photo anyway?

21 MR. JARRETT: Yeah, I don't think it would be a casual photo,
22 Your Honor. That's, I guess, the understanding based on looking at the
23 description of the user identifier. It's for identification. It's for -- it could --
24 again, it's not necessarily even a passport photo. It could be a photo, a facial
25 scan, that's been taken into and created a mathematical representation for

1 matching a user or something like that.

2 JUDGE LEE: Thank you.

3 MR. JARRETT: But besides, as we've discussed, Your Honors,
4 the failure of the petition to disclose the -- to identify a single common
5 image that is the same for the receive, associate, and render limitations,
6 which I don't think there's any dispute at this point that the petition does not
7 do that, that, again, is fatal to Petitioner's grounds. And I believe with that,
8 I'm looking at the remaining slides. We've already addressed Your Honor's
9 questions about limitation 1.9 and the memory limitations, but pending your
10 questions, I would yield the rest of my time for rebuttal.

11 JUDGE LEE: One last question from me, Judge Lee. Do all of
12 your disclosed embodiments show literally the same likeness for each one of
13 these steps? You have no embodiment that show a different likeness for
14 these different recitations?

15 MR. JARRETT: Your Honor, I don't believe that there's a single
16 figure that shows -- I don't think there's a figure that shows each of the steps.
17 It just describes them and there's just one photo that's given and provided on
18 the -- I think it's Figure --

19 JUDGE LEE: So all of the patent's disclosed embodiments have
20 the same likeness for each of these steps?

21 MR. JARRETT: I think it's a fair way to read the specification, but
22 I don't -- to answer your question, I don't think there's a specific figure that
23 shows step by step the same image, but I think that's understood basically --

24 JUDGE LEE: But does it describe in words the same thing that
25 that likeness is now displayed. See, that likeness was associated and now

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1 that same likeness is now displayed. Does it describe words or is it generic?
2 Like it could be read as having different likenesses shown.

3 MR. JARRETT: My understanding of reading the specification is
4 it just refers to one image. It refers to an image that's used and associated
5 with the account. It doesn't refer to multiple images. I don't think it
6 specifically shows step by step that there's, you know, it's the same image
7 here, same image here, same image here exactly how the claim describes,
8 but I don't know that that's necessarily in this case. I think just from
9 showing that it's -- there's only discussion of one image, the understanding
10 would be it's the same image that's used throughout the process.

11 JUDGE LEE: The claim requires the same likeness is your
12 ultimate point?

13 MR. JARRETT: Yes. Yes, Your Honor.

14 JUDGE AMUNDSON: Well, okay, it looks like there are no
15 further questions from me or my colleagues. So I have you about 56
16 minutes into your initially requested 60 minutes, so all right. At some
17 point -- okay, so fine. Okay. All right. Let's go off the record here for a
18 minute. At one or more points today, we're going to have to take a break. I
19 don't know if you want to take a break now or if you want to try to finish
20 session one where --

21 MR. O'BRIEN: We can take a break now, Your Honor. That
22 would be fine.

23 JUDGE AMUNDSON: Okay. So what do I have? I have it's
24 11:12 Eastern Time, so how about an eight-minute break. We can try to
25 reconvene at 11:20 Eastern, 10:20 Central; is that okay?

1 MR. O'BRIEN: Perfect.

2 MR. JARRETT: Yes, Your Honor.

3 JUDGE AMUNDSON: Okay, fine. Let's do that then, okay?

4 (Whereupon, the above-entitled matter went off the record at 11:12
5 a.m. and resumed at 11:20 a.m.)

6 JUDGE AMUNDSON: So let's go back on the record.

7 MR. O'BRIEN: Thank you, Your Honors. So let me take a few of
8 these points. There's a lot to unpack there, I think, but let me try to hit these
9 methodically. So I want to address that Stone itself teaches the same virtual
10 likeness. I'm going to use some citations to Stone itself. I want to get to the
11 petition itself, details the same virtual likeness, and dig into those portions
12 on 28, 29 and 30, as well as the citations to Stone on that. And there's a few
13 other items on my list, if we can get to it.

14 So starting with Stone, going -- I want to take Your Honors to
15 paragraph 7 of Stone in the summary. This is the description of the
16 personalized currency with the user photo. So here it is in 007. I believe the
17 place that Stone discloses as a place to store the photo is the data structure
18 described in paragraph 45, so skipping ahead to 45 and then I want to take
19 you to 46. But recall, 45 describes the user identifier data structure and then
20 Mr. Jarrett seeks to conflate a constituent element of that structure.

21 For example, a photo or separately, a biometric ID, and there's a
22 series of other constituent elements with the ID itself. The photo isn't an ID.
23 It isn't a structure that this patent has described as a user ID structure. It
24 includes lots of things in it. Names, passwords, images, addresses, phone
25 numbers, credit card issuers, things of that sort. That's not an -- those are a

1 bunch of things that are co-located in this structure.

2 Okay, so I mentioned paragraph 009. I'm talking to 45, which is
3 the structure that Stone describes as for a photograph image. That would be
4 the place that we understand, that a person of skill would understand, is the
5 resident in the user device. So whether it's me being a sender user today or
6 me being a recipient user at some -- a future time or entering my data at
7 some prior time -- a user device.

8 Forty-six speaks specifically to -- I made a point, but I didn't have
9 a citation for it for Your Honors, but the point is that the recipient devices,
10 406, the first sentence of paragraph 46 details this point that the recipient
11 devices may be the same or have the same basic features as the user device.
12 So the point is, these are all our phones walking around or whatever, our
13 handheld device or the like might be, and depending on how we're using it
14 that day or the role that we are playing in our interactions, a recipient or a
15 sender device, or recipient devices. The same device. They have the same
16 user ID structure, they do the same receipt and placing in the record in a
17 manner that, I think as Your Honor pointed out, Judge Amundson, it was
18 hard to understand how the user interface itself can present the recipient in
19 connection with the recipient's image if they have not already been
20 associated. And the teaching of the reference is they're associated in this
21 data structure.

22 So I'll come back to that point because I want to directly contest
23 the point that I think Mr. Jarrett tries to make, which is the idea that the
24 association only occurs in the payment server. It's not true it's not supported.
25 We've established it's here, but that's his rhetorical point. Let me come back

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1 to 46 here. Forty-six talks to the user device -- this is a device of a person
2 that will be a recipient, so it's one of the 406 people, not the sender person.

3 And it talks about the recipient device is able to access the
4 recipient attributes. Those are the recipient attributes where it's the personal
5 and banking information. That's the reference to the major categorical
6 contents of user identifier 418. You notice in the paragraph before 045, it
7 talks to the elements of the user identifier 418 as including personal
8 information, it gives a laundry list of things of that sort of which the photo is
9 one, the username is one, the password is one, and the banking information
10 of which the institution, credit issuer, or et cetera are examples. These are
11 the same things here. The personal and banking information. This is the
12 recipient device. So the user device is able to access recipient attributes
13 such as their icon information. I think icon information here is another way
14 of saying their virtual likeness.

15 Now, the prior art doesn't have to use the same magic words that
16 the patent did, but I believe that's what that is. And it says that, you know,
17 of course, these recipients will establish an account with a payment provider.
18 So the account has been created, there is a user ID structure which is there to
19 receive this information, it includes, for example, the virtual likeness of the
20 individual, and it's stored in association with username, password, which are
21 the username and password for the account on the payment server. So that is
22 an association of the photo -- or of the virtual likeness to use the claim
23 terminology -- with a user account.

24 Turning to the petition, I think this goes to some of Judge Lee's
25 questions. I want to point to Your Honors to in particular, to pages 28 and

1 29 of the petition. You'll see that there, we refer, for example, to the
2 material in 46, talking about the similar association that applies to the
3 recipient. That's in the paragraph that spans 28 to 29. In this question that
4 Patent Owner attempts to raise, the question being, how do we know that
5 they're the same, and Judge Lee's question of where do we see the assertion
6 that they are the same in the petition, our treatment -- so Patent Owner
7 identifies 1.2 and 1.3.

8 This is the receive, the store and associate, and the render portions
9 of the limitation, and they ask, how do we know that they are all the same,
10 and Judge Lee asks, where do we see that originally in the petition. Our
11 treatment of 1.3 deals specifically with that second paragraph of that section.
12 It says, first as, shown in an annotated Figure 2 below, and then it talks -- it
13 identifies what we are defining as the virtual likeness of the face of the
14 account holder. It says the photograph of the user's face as discussed in 1.2
15 and 1.3. Those are the receive, the store and associate, and the render
16 limitations. So right there, we have made the assertion that it is the virtual
17 likeness relevant to each of those limitations.

18 Now, Patent Owner is within its rights to make this argument that
19 it did. They say, we don't think they're the same. Fine. They are, and in our
20 reply, we detailed in -- I think from Judge Lee's perspective, in excruciating
21 detail -- the examples of where that occurs in the four different scenarios.
22 So I would say also, I caught in that -- time me because I didn't start a clock,
23 please -- wanted to apply a standard to their own patent in response to Judge
24 Lee's question, saying where in the patent does it show that it's exactly the
25 same virtual likeness used at each stage. And he said, well, it's not -- it

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1 doesn't really say that, but a person would get that. Doesn't have to say it.
2 We understand that.

3 So we're not here to debate what the disclosure content of the
4 patent is, but I would point out that that is evaluated as an expressly or
5 inherently discloses standard, and he argued to you that, well, you would
6 understand it -- a person of skill would understand it. We have had argued
7 here it is in the Stone patent. They've raised questions about whether it's
8 really there, but I will point out that this -- we are an obviousness standard,
9 so the question is -- given the arguments, the combinations, the grounds that
10 we've advanced -- would a person of skill find it obvious that in the manner
11 that we've articulated, relying on, for example, some of the citations that I
12 just refreshed you on and in our record, that it is the same virtual likeness.
13 And the answer there is yes, and the standard is obviousness. It is not
14 anticipation, as the Patent Owner would seem to want to apply to us.

15 Another point I want to make -- and if you have questions, please,
16 your questions are more important than my statements, but I've got two more
17 on my list that --

18 JUDGE LEE: Thank you. I do.

19 MR. O'BRIEN: -- I want to hit. Go ahead.

20 JUDGE LEE: It's Judge Lee. Thank you for the explanation.
21 Why not in the reply just say, one with ordinary skill in the art reading Stone
22 would come away with the understanding that they are the same, because
23 there's no other input for the photo. It comes from one place and that's what
24 a POSITA would understand. That would be fully consistent with the
25 petition, right? When you account for 1.3, you refer back to 1.2 matter of

1 factly.

2 What I'm bothered with is you switch entirely and submit 14 pages
3 of obviousness arguments that's nowhere seen in the petition. Where's any --
4 it would've been obvious to make them the same, but that is just absent from
5 the petition. I think it would be fine in the reply to just say, well, like we
6 said in the petition, it's inferred it's the same. One would understand by
7 reading Stone that they would be the same, but you went through 14 pages
8 of explanations of obviousness --

9 MR. O'BRIEN: Okay. Your Honor, I don't --

10 JUDGE LEE: -- which is not in the petition.

11 MR. O'BRIEN: I understand the point. I'll respectfully differ, and
12 I will respectfully observe that there is not a legal standard of a particular
13 number of pages that is acceptable or unacceptable on an issue.

14 JUDGE LEE: Yeah, I understand that, but you have a lot of
15 arguments there in the 14 pages. What I mean is the arguments of why it
16 would've been obvious. Can you show me where in the petition where you
17 explained it would've been obvious to a POSITA to make them the same?

18 MR. O'BRIEN: I think I tried to point that out to you on page 29,
19 Your Honor, where we very clearly say, the virtual likeness, and we identify
20 it as the virtual likeness that we are discussing in limitation 1.2, which is the
21 receive and 1.3, which is the store and associate. So we are making the
22 assertion that it is the very same virtual likeness.

23 Now, when we file a petition -- and every litigant has this issue --
24 we have a lot of limitations here that we have to cover in many pages, and
25 we address each of them methodically. Patent Owner picked one and

1 decided that they were going to question whether it was the same one. We
2 had asserted that it was the same one, our grounds were the same one, in
3 both scenarios. Both, recipient and sender, and the other dimension in one
4 processor or multiple processors. We have asserted that.

5 They were on notice of that, they clearly responded to that. We
6 did our job in the petition. They did their job of picking an issue that they
7 want to dive down in their full 14,000-word Patent Owner response and go
8 into, and then we have to respond in our reply to the issues that they raised.
9 We did that. We did it not with half measures. We did it emphatically. We
10 did it in a manner that's consistent with it being a proper scope of reply. We
11 replied specifically to the questions that they asked. We did it in a way that
12 preserves their due process rights.

13 They had every opportunity to depose our experts. They could've
14 asked Your Honors to strike that as a non-responsive reply. I don't think that
15 would've gone very well or I hope that would not have gone very well
16 because I think it very clearly would've been established that it's responsive,
17 but the question is due process, and I don't think we have an issue there.
18 That's my position and I understand you're probing me on it, but I don't want
19 to overdo my rhetoric.

20 Our 14 pages, in fairness, you know, that's a nice little sound bite
21 in terms of the quantity, but we do unpack quite a bit more there, where they
22 did raise the other issue that they wanted to make, which was one processor
23 has to do some of this and another processor has to do a different portion of
24 it, and their argument was that that was not within the scope of the claim.
25 That was the argument that they made based on Salazar, for example, later

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1 when they added it. So we did unpack quite a few issues in that -- in our 14
2 pages, in fairness. I do want to say -- I hope that's responsive to your
3 question.

4 JUDGE LEE: I'm good, thank you.

5 MR. O'BRIEN: Okay. I do want to hit -- I think there is a
6 misunderstanding by the Patent Owner here of the user ID. I think they try
7 to equivalence that, I mentioned that, with the photo. It is a data structure
8 that has many elements. When we get to one of the other cases, you'll see it
9 has a biometric ID stored in it. In this case, we're speaking of the photo,
10 we're speaking of the username and the password.

11 Finally, I do want to hit -- they have articulated, or Patent Owner
12 has articulated the idea that association is only performed in the payment
13 service. Our record clearly establishes that's not the case. As I mentioned,
14 Judge Amundson, I think you were onto that with the -- how is this photo
15 even here in conjunction with the identification of the recipient. Frankly, the
16 same is true in terms of how is the right personalization of the currency even
17 here, given this user being logged in as the potential sender of the
18 transaction. Same thing.

19 This is all before the transaction is sent to the transaction server, so
20 the association must already exist in the system and in particular, on the user
21 device because it's being rendered at the front of the screen. So I think those
22 are the big points I want to make. Again, very happy to answer any
23 questions, engage on any points that you think have not been covered
24 adequately.

25 JUDGE AMUNDSON: I have no further questions. It looks like

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1 my colleagues also do not have any. All right. Well, thank you very much
2 and we'll turn it over to Mr. Jarrett.

3 MR. O'BRIEN: Thank you, Your Honors.

4 MR. JARRETT: Thank you, Your Honors. Now having gone
5 through oral argument and all the rounds of briefing the petition, it still is
6 apparent that there is nothing that can be pointed to in Stone that shows that
7 the user identifier, which Petitioner has to rely on for the receipt and
8 association steps in limitation 1.2 and 1.3 to -- there's no connection between
9 that user identifier and any of the images that are rendered in the user
10 interface, either recipient photo 202 or the virtual currency image that's on
11 the display.

12 And there's no dispute between the parties that the claims require
13 that the same virtual likeness be present and pointed to for all of those
14 limitations and Petitioner has failed to do that -- still failed to do that and as
15 Judge Lee pointed out in their reply brief, proceeded to bring 14 pages of
16 how it would be obvious that they are the same photo, when looking at
17 Petitioner's reply, it consists mainly of figures from Stone merged together
18 with arrows and colored arrows and claim language, but there's no text from
19 Stone, nothing grounded in the teaching of Stone that shows that that would
20 be obvious to create these images that Petitioner has created and combined
21 these teachings in some way to define a way of the recipient photo 202 or
22 the currency as the same as the user identifier. There's nothing in Stone that
23 teaches it, there's nothing in Petitioner's reply other than arrows and figures
24 and claim language that shows this. There's just no teaching for it.

25 JUDGE AMUNDSON: This is Judge Amundson. With regard to

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1 limitations 1.2 and 1.3 in the '010 patent, if I can -- correct me if I'm
2 wrong -- but I'm trying to boil down Patent Owner's position, and I think it's
3 this. And correct me if I'm wrong. The association, if any, occurs on the
4 payment provider server and the rendering occurs on the user device, and so
5 there's not -- so Stone does not satisfy limitations 1.2 and 1.3; is that a fair
6 summary?

7 MR. JARRETT: Yes, Your Honor. And one point I would add is
8 just with the user identifier 418, it specifically -- Stone teaches that there's a
9 transfer of that information to the payment provider server. So in addition to
10 that, there's a specific -- that's where the association step occurs and that's
11 what Petitioner points to for the association. They can say that there's now
12 other associations that occur, but that was not what was briefed in the
13 petition and that's not what was briefed in the reply.

14 That's the association step and that's why the user identifier has to
15 be the same photo as what is in recipient photo 202 or the virtual currency
16 on the display. It has to be the same for that reason because the association
17 step, according to Stone and Petitioner's own briefing, occurs in the payment
18 provider server. There's no other associations specific, and Stone is specific
19 when it uses the term association and it uses it in that limited context.

20 JUDGE AMUNDSON: Well, okay, but -- so if the panel agreed
21 with Petitioner that one or more processors could mean two or three, how
22 does that affect the Patent Owner's position on limitations 1.2 and 1.3?

23 MR. JARRETT: It still wouldn't change the fact that the virtual
24 likeness is not the same, and that's a claim interpretation issue by just
25 applying the basic antecedent basis rule, based on the claim language of 1.2

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1 and 1.3. It doesn't change the fact that the image has (INDISCERNIBLE -
2 TECHNICAL DIFFICULTY) --

3 JUDGE AMUNDSON: Oh, all right. I think you probably --

4 MR. JARRETT: -- and whether it's done on one server or on one
5 (INDISCERNIBLE - TECHNICAL DIFFICULTY) --

6 JUDGE AMUNDSON: Okay. I think we might need a little
7 specific example here. Maybe we can look at reply, page 8, where Petitioner
8 has what they call example 1.2. Do you have that page?

9 MR. JARRETT: Sorry, Your Honor. You said it's from
10 Petitioner's demonstratives?

11 JUDGE AMUNDSON: No, I'm sorry.

12 MR. JARRETT: Oh.

13 JUDGE AMUNDSON: Yeah, there wouldn't be a good enough
14 figure in the demonstratives. So I'm looking at Petitioner's reply, page 8.

15 MR. JARRETT: Okay. Pardon me, Your Honor. Give me one
16 moment to --

17 JUDGE AMUNDSON: Sure.

18 MR. JARRETT: -- pull that up. Okay. Yes, Your Honor. I'm
19 looking at page 8, Your Honor.

20 JUDGE AMUNDSON: Okay. So where in that example are they
21 using a photo other than the recipient's photo?

22 MR. JARRETT: Well, the issue here, Your Honor, is if you look
23 at the top of the graphic there, it shows the photo, the recipient photo.
24 There's still the same problem, the user identifier 418. There's no
25 association in Stone, disclosed anywhere in Stone, that that photo 202 is the

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1 user identifier or in any way related to the user identifier. They still run into
2 the same problem. Whether it's on a recipient device or not, it still runs into
3 that same core problem. And it's highlighted by the fact that there's a
4 disconnect between Jane Doe and the individual here, whose photo, he's
5 wearing a suit. I mean, I think that also -- this kind of goes more to that
6 point. That's the disconnect and whether it's the recipient device, the user
7 device, it doesn't change that core problem.

8 JUDGE AMUNDSON: All right. I think I understand your
9 position. Thank you.

10 MR. JARRETT: But pending your questions here, Your Honors,
11 that is all I have.

12 JUDGE LEE: One last question from me, Judge Lee. If you didn't
13 file a motion to strike, why have you not waived any argument that there's
14 something belated in the reply?

15 MR. JARRETT: A motion to strike for the reply?

16 JUDGE LEE: No. A motion to strike new arguments in the reply.

17 MR. JARRETT: Your Honor, it's my understanding that we're
18 allowed to address -- that the hearing is an appropriate time to address that
19 issue, that a motion to strike separately is not necessary to -- essentially,
20 we're making the same arguments. We made the arguments in our surreply
21 that it was new argument and we're holding to that position now. I think
22 we've effectively raised the issue, whether it's here or a separate motion to
23 strike.

24 JUDGE LEE: Okay, thank you.

25 JUDGE AMUNDSON: All right. It looks like there are no further

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1 questions from the panel, so, okay, fine. So we can move on to the next
2 patent at issue here and we can -- I mean, I don't know if you need time to
3 pull up the right materials. Let me just make sure I pull up the right
4 materials for that, for the '656 patent.

5 MR. O'BRIEN: I believe I have them, Your Honor. Let me just
6 get them on the desk in front of me. I want to make sure I have the right
7 record book because as I -- all right, I want to go to the right record book
8 when we get questions. So I think I am ready to go, if you're ready for me to
9 go.

10 JUDGE AMUNDSON: I think so. So then as we indicated, you'll
11 have -- for this session you'll have 25 minutes of total argument time. And
12 would you like to reserve any of that for rebuttal?

13 MR. O'BRIEN: Yeah. I think we ought to reserve 10. I'll try to
14 get done more quickly --

15 JUDGE AMUNDSON: Okay.

16 MR. O'BRIEN: -- as we race through this one.

17 JUDGE AMUNDSON: All right. So your initial request is for 15
18 and I think we've all got the materials up. So you can begin whenever you're
19 ready.

20 MR. O'BRIEN: Okay. So Your Honors, I'm going to go direct --
21 the foreground material you'll be familiar with. There's an inventive concept
22 here. Again, it's not the limitation in which the inventive concept appears is
23 actually not disputed in terms of the read of art. I'll skip right ahead to Slide
24 5. We've already discussed some of the combination arguments. It was
25 Grounds 2 and 3 before. It's Grounds 1 and 2 now. We're in the '656 patent,

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1 so we also have the Grounds 3 and 4 that add Borovsky, which deals with
2 the motivations to combine social media sourcing for the virtual likeness.
3 For those, the application of the teachings is not at all contested. Again, the
4 Patent Owner simply seeks to contest why we would combine it -- why a
5 person of skill would combine it.

6 Turning to Slide 6, again, this is our inventory. It's a different set
7 of claim limitations in play for the '656 patent. You'll also notice that the
8 '656 patent textually recites a processor, not one or more processors, so we're
9 in that sort of contextual silo, but we're dealing with limitations 1.2 and 1.9.
10 1.2 has the receiving and storing of biometric information, wherein the
11 biometric information is associated. You notice in the prior case, we had an
12 associating limitation. Here we have a status of being associated limitation.
13 So here we're going to speak to the biometric ID -- the biometric
14 information. It's the reference biometric information, by the way, rather than
15 in the prior case we were talking about the virtual likeness, an image, a
16 photo, a likeness being used in the user interface. This is actually dealing
17 with the biometric information.

18 The claims are side by side in 7. I don't think we need to go
19 through that. I am going to skip over all of the motivation to combine Stone,
20 Hoyos, Varghese. That takes us all the way to Slide 26, where the limitation
21 1.2 is laid out for you. Again, it is a processor configured to receive
22 biometric information associated with an account holder and store in a data
23 store, the received biometric information, wherein the biometric information
24 is associated with an account of the account holder.

25 So I'm going to flip you now to Slide 27. Stone here -- one, our

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1 ground renders this obvious. Two, Stone more specifically describes storing
2 a biometric ID in a data store of a user device. And the stored biometric ID
3 is associated with an account of an account holder. As before, a user device
4 404 has a data structure, which is denominated as user ID 418 in its memory.
5 That memory is a data store in which one of the elements that is stored there
6 is a biometric ID. We tiptoed into that before. Our prior discussion was of
7 the photographic image. Here, we're talking about the biometric ID, which
8 is stored in that same structure, so two entirely different things.

9 I know in the cases here, the Patent Owner seems to want to
10 conflate them as the photo and -- well, is that the one that we use for
11 authentication. No, no. It's a visage that we're using as a virtual likeness in
12 the photo in the prior case. Here, it's a referenced biometric information, so
13 biometric ID is what's stored.

14 The user ID itself acts as an association with the account. We've
15 discussed this before, in terms of the photographic image before. The data
16 structure in which in this case, the biometric ID resides together with, again,
17 for example, a user account, a password for that user account. I think Your
18 Honor also pointed out some of the banking account specifics that are sort of
19 all put together in this larger data structure. So by storing it into that data
20 structure on the user device, they are associated. I'll point out that the claim
21 doesn't require the act of associating, but they are associated.

22 Here, again, I think throughout these cases, Patent Owner seeks
23 to -- well, alleges that Stone uses the word "associate" at the end of this
24 paragraph 45, which is detailed on this slide. Stone describes that the user
25 identifier, when it is sent to the payment server as part of a request to initiate

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1 a transaction, is used by the payment server to make the association of my
2 request -- I am requesting to transfer money to Hong, in my example -- and
3 it gets my user ID as the method of saying, oh, it's David and David's
4 account that is the subject of this transfer request. So that's all that that
5 sentence says.

6 Just because the payment server uses that content that it receives in
7 the context of my attempt to send money, so my initiation of the transaction,
8 doesn't mean that it is the only association that exists anywhere in this
9 system or that is the only place where a step of associating is performed. In
10 this claim, it's just the status of the association rather than the step. But in
11 either case, I think that --

12 JUDGE PESLAK: Mr. O'Brien?

13 MR. O'BRIEN: Yes, Your Honor.

14 JUDGE PESLAK: This is Judge Peslak. So is it Apple's position
15 that what Stone discloses is two separate associations? One on a user device
16 and then a second association on the payment provider?

17 MR. O'BRIEN: I think there's an association that is resident or
18 made in each case. I would say, you know, I'm reading the tea leaves here a
19 little bit in terms of the disclosure, but I think the association gets conveyed
20 around this system in the form of data that gets transacted, but yes, there
21 certainly are multiple places where an association exists in a data structure
22 and where an association is made.

23 I think our assertion here is that simply placing -- in the facts of
24 this case, the '656 -- placing a biometric ID in the data structure that is for
25 the user account -- it has the username and the password -- that is later

1 conveyed and used by the payment server to say, oh, that's the account that
2 you want to transfer money from. That this association occurs on, frankly,
3 each of the user devices, and it also exists and occurs, or however you want
4 to describe it, on the payment server.

5 One does not displace the other. And the use of the word
6 "associate" in terms of describing what the payment server does with it, it
7 uses the data structure in which the association already is extant, it already
8 exists to, in furtherance of its job, associate the transaction with the account.
9 So when I send that data -- when I, as the user device -- send that user ID
10 structure as part of the transaction request, it says, oh, it's David who wants
11 to send the money and David's account from which we should draw the
12 money to satisfy this request. So that's a long-winded answer, I think, Judge
13 Peslak, but the answer is yes.

14 JUDGE PESLAK: Okay. So let me follow up then. So does
15 Apple also rely on Hoyos to show association between the biometric ID and
16 the account?

17 MR. O'BRIEN: I don't think we have relied on Hoyos for that.
18 There are certainly biometrics that are employed and -- let me slow down
19 and parse that a little bit. And I think we need to go a little bit into the
20 technology of biometrics. So here in this claim limitation that we're
21 discussing, we're dealing with the reference biometric information. So if I
22 may enroll in a system, I may go ahead and get my images captured and that
23 gets stored. That's information that is stored and maintained so that the act
24 of biometric authentication can occur later, when I later come and present
25 my face or my finger.

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1 So in the context of the claim limitation that we're talking about,
2 1.2, it is this reference biometric information that is being discussed. When
3 we jump over to the act of authenticating in the context of Hoyos, it's the act
4 of authenticating, using biometrics and at the same time, measuring liveness.
5 That's the measurement of the presentation of biometric information against
6 that reference information. Sometimes called a biometric template.
7 Sometimes called other things. We detail that in our record.

8 But I don't want to get stumbled up on the two forms of biometric
9 information. Here, the claim -- and it's not a contested limitation -- but the
10 claim speaks to the comparison of them. On the front end of the claim,
11 we're really speaking to the reference of biometric information.

12 So my colleague has reminded me that I need to walk back a
13 statement. In the petition, we also rely on Hoyos, but in terms of this
14 description I was giving in terms of this limitation, I want to make clear that
15 the reference biometric information is the information that's stored in this
16 record and is associated with the account, and that the act then of
17 authenticating is in real-time, at the time of the transaction, gathering facial,
18 fingerprint, whatever it happens to be, to compare against that reference
19 information.

20 JUDGE PESLAK: Okay, thank you.

21 MR. O'BRIEN: All right. So we are 11 minutes in. On page 28,
22 this is a diagram which shows the user ID structure. It highlights the
23 username in association with the biometric ID. I think I verbally described
24 those points. It anchors in the record of paragraph 45.

25 I'll go to Slide 29 here. The Patent Owner's surreply is that Stone

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1 doesn't disclose an association. We've addressed that it does in the user
2 identifier itself. Patent Owner also argues that a POSITA wouldn't have
3 been motivated to implement local authentication, as taught by Hoyos, on
4 Stone's -- what it characterizes as a client-server environment.

5 The record clearly establishes that the teachings of Hoyos on the
6 act of authentication can be performed multiple places in this system. It
7 could be performed at the client, it could be performed at the server. The
8 record establishes that persons of skill understood that those places could be
9 the place where authentication occurs and the preference -- to the extent that
10 there is a preference -- has generally moved, historically, in the relevant
11 timeframe, to the client side. There are advantages to it being on the client
12 side, notwithstanding the Patent Owner's protestations about efficiency or
13 privacy. There's a lot of good technological reasons to do it on the client
14 side.

15 So turning to the memory limitation here, I will point out that this
16 one seems quite easy. I'm on 31. The memory is coupled to a processor,
17 which is configured to provide the processor with instructions. That's
18 exactly what 500 shows. Done. We've established that the association is
19 performed -- those steps are performed in the user device itself.

20 I'm going to skip over the graphical form of payment. I think those
21 are well-established in the record, as well as the use of an avatar. And let's
22 just get to Borovsky. Borovsky is the social media sourcing of the virtual
23 likenesses. That's -- I've skipped ahead to Slide 48 there. Here, Borovsky
24 teaches in the context of a contact manager going out and scraping from
25 social media sites, social networking sites, also other forms of sites, virtual

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1 likeness avatar information to bring back and use in the context of its contact
2 manager application. That is a teaching that is known in the art, well
3 understood in the art, applied to a system like a contact manager, would
4 apply equally to this system in which we are managing a set of contacts to be
5 used as recipients, senders, the like, and the related information. So a person
6 of skill would be motivated to do that.

7 The Patent Owner's no combination arguments here are really just
8 the appeals that they seem to make to requiring that Stone itself make the
9 suggestion or Stone itself discuss the use of social networks to populate, or
10 that Stone itself have another third-party server to do this. I'm on Slide 50
11 here. None of those are how obviousness law works.

12 One, we know that the suggestion can come from anywhere. It can
13 come from the prior art, which it does in our grounds. In this case, it would
14 be Borovsky. For some of our other combination grounds, it would be, for
15 example, Hoyos, specifically makes the suggestion or the Guidance
16 specifically makes the suggestion. Stone doesn't have to have the
17 suggestion. That's just contrary to KSR. That's not the law. This isn't either
18 anticipation or a first recited reference must cry out for the improvement.
19 That's not the standard for obviousness. With that, I assume you may have
20 some questions and I would like to make sure that I can answer them in our
21 limited time here.

22 JUDGE AMUNDSON: It looks like the panel does not have
23 further questions right now at this time. Okay. So I have you at about 16
24 minutes into your time. And so then, all right, let's turn it over to Mr. Jarrett.
25 And let me ask if you would like to reserve any time for surrebuttal.

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1 MR. JARRETT: I'll just reserve five minutes, Your Honor, and I
2 might not need that.

3 JUDGE AMUNDSON: All right. Very well. You can begin
4 whenever you're ready.

5 MR. JARRETT: Thank you, Your Honors. I'll try to be brief and
6 cut right to the heart of the issue of the '656. If you go, please, to Slide 54 of
7 my demonstratives, I think this frames the dispositive issue for the '656
8 patent in the IPR and the petition.

9 Looking at limitation 1.2, this is very similar to what we are
10 dealing with, with the virtual likeness limitations in the '010 patent.
11 Limitation 1.2 is receive biometric information associated with an account
12 holder, store in a data store the received biometric information, wherein the
13 biometric information is associated with an account of the account holder.
14 So looking at that, that claim language, the association must occur in the
15 same processor that receives and stores -- in the same data store where the
16 association must occur. The association must occur, based on that claim
17 language, the wherein clause, must occur in the data store where the
18 biometric information is stored.

19 And now, the petition again, we render the same issue with the
20 user identifier of 418. In this case, Petitioner is pointing to user identifier
21 418, which discloses that it could be biometric information or a biometric
22 ID. The petition points, again, to user identifier 418 that is received by the
23 processor on the user device, which is -- if you look at Figure 5, that's 504,
24 which is a processor on a user device, and then stored in the storage
25 component on that same user device.

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1 Now, the issue is here, again, the association step. The association
2 then, according to Petitioner, has to occur on the payment server. That's
3 what's pointed to in the petition. The payment server is where the
4 association occurs, much like with the user identifier that we discussed at
5 length during the arguments for the '010 patent. That's the only place where
6 the association of the account information occurs is on the payment server.

7 And there's a disconnect then. The data store on the user device is
8 not on the data store on a payment server, so there's the disconnect. The
9 association doesn't occur in the same data store. And the idea now that
10 there's potentially -- I believe Petitioner said, reading the tea leaves, there are
11 potentially multiple associations that occur or multiple association steps.
12 That's not accurate, according to the teachings of Stone. Stone's very crystal
13 clear in paragraph 45 where the association of the user identifier occurs with
14 account information, and there's no multiple associations that are briefed in
15 Petitioner's briefings.

16 JUDGE PESLAK: Mr. Jarrett?

17 MR. JARRETT: Yes, Your Honor.

18 JUDGE PESLAK: On page 33 of the petition, it starts with a
19 paragraph with a bold second and it's referring to paragraphs 45 and 48 of
20 Stone, and it says that the biometric information of user identifier 418,
21 stored in user device 404, is associated with the user account 422 of the
22 account holder, where user identifier 418 is used for identifying the account.
23 I mean, I understand that Stone does disclose this association at the server,
24 but isn't the petition here relying on the fact that the account is, for lack of
25 better terms, is stored along with the biometric ID?

1 MR. JARRETT: Your Honor, looking at -- if the account is stored
2 with the biometric ID, that's still stored on the payment server. 422 is
3 explicitly stored -- I believe it's explicitly stored on the payment server. If
4 you look at Figure 4 of Stone, it discloses the structure of the payment
5 provider server. That's 408. And looking within that, the payment provider
6 includes payment application 420, the user or merchant accounts, which are
7 422, and account information 424.

8 So all of that information is stored on the payment server. It's not
9 in any way stored on the processor for the user device. So the association
10 step then has to occur again. We're back to the same issue we are with the
11 '010 patent and the virtual likeness issue. We're back to requiring an
12 association step that occurs in a payment provider server where the
13 information -- the biometric ID that's stored, what Petitioner is pointing to, is
14 actually stored on the user device. There's the disconnect.

15 JUDGE PESLAK: Okay. So if we were to accept what you said
16 as correct, back to page 33 of the petition, the petition seems to say that
17 Hoyos describes receiving and storing biometric information during
18 enrollment. So in the combination where you're applying Hoyos to Stone, it
19 appears that those combined teachings would teach associating the biometric
20 information with the account information on the user device. What do you
21 say to that?

22 MR. JARRETT: I think that goes back to the point, Your Honor,
23 of our -- that we made during the motivation to combine arguments. Now
24 we're in a redundancy issue. There's now information being stored on the
25 user device, which again, is not contemplated anywhere within Stone. It's

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1 now being stored on the user device and then associated on the user device
2 with account information that's not stored on the user device.

3 There's no teaching of Stone with its client-server structure that
4 shows that any account information or the actual account information is
5 done for association would be stored on the user device, and it doesn't seem
6 that that would necessarily be possible, given that Stone is a reference for
7 eBay and PayPal. It references payment servers. eBay and PayPal are not in
8 the business of hardware manufacturers, so that's why the client-server
9 structure is important.

10 And so applying Hoyos in this sense doesn't solve the issue. It
11 seems to be a disconnect. It would require storing account information on
12 the user device that's not contemplated in Stone and would be contradictory
13 to any of Stone's teachings where the client-server structure is disclosed. So
14 I don't think that solves the issue by trying to wedge Hoyos in to save the
15 failed disclosure of Stone.

16 JUDGE PESLAK: Okay. So let me ask you the question again
17 that I asked you previously about the motivation to combine. If we were not
18 to accept your argument that there's no motivation to combine Stone and
19 Hoyos, is there then -- do you have any argument that this limitation is not
20 disclosed in that combination?

21 MR. JARRETT: Yes. Yes, Your Honor. Because, again, just the
22 motivation to combination -- the reasons for not combining Stone and Hoyos
23 is not necessarily relevant for if you're looking to specifically combine a
24 teaching of Stone, specifically combine storage of user account information
25 on Hoyos, you're now completely rewriting the teaching of Stone. Not just

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1 combining the two.

2 It's not an issue of whether it's client-server. You're now just
3 rewriting Stone. Which there's no basis in Stone in looking at Hoyos to do
4 that, based on the client-server structure where Stone clearly articulates that
5 all of the information for the accounts is stored on a payment server, it
6 doesn't seem practical or sensical to take a step now and have all of that
7 information stored on the client device, which is not contemplated in Stone.

8 It's coming back to the larger issue, which at this point it's looking
9 at the claims of the '656 and trying to reshape and reconfigure the Stone and
10 Hoyos references in some way to get the end result of the claims, it's
11 backwards looking. It's the equivalent of the old adage, show me the man,
12 I'll show you the crime. Show me the references, and I'll show you the
13 motivation to combine. It's the same backwards kind of thinking and I don't
14 think it's applicable here with the Stone and Hoyos reference.

15 And in this way, it would not work with Stone and it would
16 completely rewrite Stone, and at that point, we're no longer taking a
17 reference and looking at what will be obvious. We're taking the claims,
18 working back, and reconfiguring, picking and choosing elements of the two
19 references and combining them in a specific way to reach the claim
20 elements.

21 JUDGE PESLAK: Okay, thank you.

22 MR. JARRETT: Pending your questions, Your Honors, I'll yield
23 the rest of my time to rebuttal.

24 JUDGE AMUNDSON: All right. It looks like there are no further
25 questions right now, so it looks like I have you at about nine minutes in. So

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1 you've got quite a bit of time for your surrebuttal, if you need that. All right.
2 Okay.

3 MR. O'BRIEN: Sorry, Your Honor. I was a little slow on the
4 mouse clicks there. So yeah, I don't know that I'll use all that. I'll quickly
5 clear that and start. So 16, okay. So I believe that Patent Owner argued that
6 Stone does not disclose the association on the client. I believe that we've
7 established that it does. I believe also that Patent Owner articulated its
8 position using the verb form, a gerund, associating, which the claim in '656
9 does not require. There is no requirement of associating in the '656. I just
10 want to be clear on that.

11 I believe it also asserted that all of the information is stored on the
12 payment server and that was meant to lead you to believe that it does not
13 exist elsewhere. And I don't think one follows from the other. Payment
14 server can be the repository which amasses all the relevant information and
15 it persists there long past any session that I or you or anyone else might have
16 on their client device. And when we log in again, it's populated again. But
17 just because it exists on the payment server doesn't mean that it does not
18 exist on the client device, the user device 404. And in fact, the evidence
19 very clearly shows that it does and what "it" is in this context is the
20 biometric information stored in the user ID data structure on the user device
21 in association with the elements that indicate an account.

22 I would point out that if you just look to Stone Figure 2, this is the
23 one that we keep coming back to with everybody's smiling faces and the
24 transaction interface, if it's me and I'm using this device, I'm logged in. So I
25 have a log out button. The client, note here the user device, has in its

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1 context the information that I've logged in to my user account, because I can
2 log out, it has presented information that's pertinent to me, and in forming
3 this transaction, it is presenting a target person in association with their
4 visual likeness.

5 So all of these associations or the state of the association existing
6 occur in the data structure on user device 404. We've discussed it in terms
7 of the photographic image. In this case, we're speaking about the biometric
8 information, the reference biometric information. It's in the data structure,
9 it's here. Whether it exists also in combination and in a repository sense, on
10 the payment server is great, but it's beside point with respect to our read of
11 the claim limitations. So I think those are the points that are really open for
12 response. I don't know if there are further questions lingering, but I would
13 be happy to answer any of them, if you have them.

14 JUDGE AMUNDSON: It looks like the panel has no further
15 questions. So let's go back to Mr. Jarrett.

16 MR. JARRETT: Yes, Your Honors. To avoid the risk of
17 repeating myself, again, I would pass the panel if there are any remaining
18 questions. Otherwise, I would yield my time for when we move on to the
19 '886.

20 JUDGE AMUNDSON: It looks like, again, at this point, there are
21 no further questions from the panel on this patent. So all right, let's move on
22 to the '886 patent. Make sure you have time to bring up your materials.

23 MR. O'BRIEN: Your Honor?

24 JUDGE AMUNDSON: Yes.

25 MR. O'BRIEN: Could I request a quick bio break?

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1 JUDGE AMUNDSON: Oh, sure.

2 MR. O'BRIEN: I did not avail myself at the last break and it
3 would be nice to do so right now, if we could.

4 JUDGE AMUNDSON: Oh, fine. Okay. So I have it at 12:21
5 Eastern, 11:21 Central. Let's reconvene at 12:30 Eastern, 11:30 Central,
6 okay?

7 MR. O'BRIEN: Excellent. Thank you, Your Honor.

8 JUDGE AMUNDSON: All right.

9 (Whereupon, the above-entitled matter went off the record at 12:21
10 p.m. and resumed at 12:30 p.m.)

11 JUDGE AMUNDSON: All right. It looks like everyone is back.
12 Let's go back on the record and we will do the third session that will address
13 the '886 patent. And as with the second patent, each side will have 25
14 minutes of total argument time, and you may request time for rebuttal or
15 surrebuttal respectively. So Mr. O'Brien, how much time, if any, would you
16 like to reserve for rebuttal?

17 MR. O'BRIEN: Let me reserve 10.

18 JUDGE AMUNDSON: All right. And so please start when you're
19 ready.

20 MR. O'BRIEN: So I think we're familiar with the claims. I'm
21 going to go skip over some of the preliminaries and go directly to Slide 26
22 and the claim limitations at issue in this case are 1.2.2, as we've numbered,
23 and 1.3.1. I'm starting with 1.2.2. This is the limitation that recites wherein
24 the virtual likeness of the face was selected by the account holder as part of
25 the enrollment.

1 So we're back to our friendly virtual likenesses, again, and I'll
2 refresh. We show in the upper right photo, we're speaking to the virtual
3 likeness of the face that is the sender. And in the lower right, it's an
4 illustration highlighted in yellow for Your Honors of the virtual likeness of
5 the recipient, and those are the virtual likenesses. Indeed, the Figure 2
6 shows some alternative likenesses for the personalized currency, but we're
7 focusing, for this discussion, on the coinage, virtual likenesses for the
8 sender, and for the recipient. It's the one in the visual feature 202.

9 So turning to 27 -- Slide 27, that is -- Stone describes the account
10 registration and user enrollment with a user photo. So on our record, it is
11 undisputed that the '886 patent describes enrollment to mean account
12 registration. It uses the terms interchangeably. We have identified, in this
13 slide, one of the locations where they speak to enrollment, and then speak to
14 the image provided at registration. They use those as part of the same
15 process. We don't believe that there's any distinguishing between them. We
16 believe they're one in the same. It turns out the registration term is more
17 akin to what, I think, one would understand here, but the claim term is
18 enrollment. There are other aspects in our record where we show that
19 correspondence of the terms.

20 So Stone itself establishes that an account registration with a user
21 identifier includes a photographic image. We've been through a number of
22 things here before in terms of the import of the contents of paragraph 45 and
23 its specific recitation of a photographic image being here. It lists that as an
24 attribute as part of the personal and banking information. Actually, it's just
25 the personal portion, not the banking portion of the user identifier.

1 Moreover, Stone describes establishing an account for a recipient
2 in terms of these very same attributes, and unfortunately, the paragraph
3 number cut off for you, but this is the 46 paragraph that we've discussed
4 previously. So 45 is on the right. This is paragraph 46. Oh, I guess it's
5 there in my citation. I'm sorry. It's 46 of Stone and, you know, here, we talk
6 about the recipient and their icon information. That would be their photo,
7 and it's received through the network, and it's been established as part of this
8 account -- I believe the word here is the account establishment process on
9 the payment server.

10 So account establish, registration, enrollment, whatever the
11 terminology used, it's clear that the user photo is obtained, captured, stored
12 on the front end of this process. You see all the visual renditions already
13 showing the forms of the virtual likenesses. It's clear that they've come in
14 prior to the transaction that we're seeking to perform.

15 So turning to Slide 28, selecting a profile image during
16 registration, and frankly, the benefits of doing that are undisputed, well-
17 known knowledge established in this record. It's undisputed that Stone itself
18 describes a social networking aspect of connecting people, and it's
19 undisputed that there exist benefits of providing a user with the ability to
20 select their individual profile image.

21 Patent Owner's only real rejoinder here seems to be that Stone
22 doesn't itself disclose something which it calls an enrollment or registration
23 procedure. So focusing on procedure. Not the act of it or the results of it, or
24 the disclosure of it. Focusing on the use of the word "procedure". The other
25 thing that they seem to seek to argue is that photographs could be selected

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1 after account creation. This is sort of a -- but the photos could have come
2 from somewhere else.

3 The teaching of Stone is that they already exist on the front end. It
4 may be another design option to do something else, but simply
5 hypothecating a search for the real killers is not a counterargument to what
6 we've established here in this record. We rely on secondary references here,
7 we rely on the Haniff secondary reference and Chatterjee in evidencing the
8 what is -- as I mentioned, is undisputed that it is well known to select profile
9 images during registration and it was well known that providing a user with
10 that option had benefits. So that's 1.2.2.

11 Turning to 1.3.1 -- and I have gone through Slide 28. I've gone
12 now to Slide 29, and I will turn the page to Slide 30, which deals with
13 limitation 1.3.1. This is the capture of contextual information that includes
14 or comprising location data. And it's done subsequent to some interaction
15 by the user with an icon. So we rely on -- in our combination, of course,
16 Stone, Hoyos, Varghese, we rely heavily on Varghese for these teachings.
17 You'll recall in the combined module towards the front of this -- of today,
18 we spoke to pre-authentication, sort of at the log in, creating the session,
19 which might create this situation where we're looking at Stone Figure 2, me
20 as a user, already logged in, and post-authentication, a process by which in
21 the context of the transaction, in a real-time, in a dynamic during the course
22 of the transaction, we expose the user to heightened authentication
23 requirements post-authentication.

24 Our application or mapping here speaks to the post-authentication
25 teachings of Varghese, so I want to focus a few of those on the slide here.

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1 Varghese teaches, as I said, real-time analytics. And in its Figure 14, it
2 speaks to the real-time analytics that will be applied in this post-
3 authentication scoring, it gives the hierarchy of things that are considered.
4 You'll notice location fingerprinting, so establishing the location is part of
5 the real-time character, the dynamic post-authentication character of
6 Varghese's teachings.

7 It speaks to it in the context of a transaction, and I'll point you to
8 the blow out detail, because I realize that's very hard to read, Table 10. It's
9 hard to read in the patent. It's even harder to read on the slide here, but
10 Table 10 speaks to a series of business policies that are executed and applied
11 in the post-authentication phase, and it speaks in particular to restricting
12 transactions from an unregistered device location.

13 So at the time the transaction occurs, we're looking to see, well,
14 where is this device. It purports to be David because David logged in, but
15 it's very strange that this transaction is actually coming from Moldova. You
16 know, the IP address is on the packets or the association that can be done
17 with any of the geolocation services that are described in Varghese
18 establishes that this transaction is coming from Moldova, rather than here in
19 Austin, Texas, where we would expect David to be.

20 JUDGE AMUNDSON: This is Judge Amundson.

21 MR. O'BRIEN: Go ahead.

22 JUDGE AMUNDSON: Okay. So okay, you said Table 10
23 concerns post-authentication. And as I understand Patent Owner's position,
24 it's that, okay, Varghese discloses using geographic location data for
25 authentication purposes, but it's only for pre-authentication that that

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1 geographic location data is used. So what's your basis for saying that Table
2 10 concerns post-authentication?

3 MR. O'BRIEN: Okay. So first order, I think you've diagnosed it
4 correctly, Judge Amundson. That is their argument, that it discloses
5 location, but that you, Your Honor, should understand that to only be in a
6 pre-authentication. So it definitely applies location in pre-authentication, but
7 it also applies it in post. So one does not begat the other. They will point to
8 examples where it's used in pre or it's presented in that context. That does
9 not undermine the proposition and the proposition that we establish that it
10 used also in post.

11 So to your question, Table 10 talks about business policies. These
12 are done in the context of the transaction itself. So this is a transaction from
13 an unregistered device location. This isn't a log in from an unregistered
14 device location. The Patent Owner likes to make quite a bit of other
15 instances in the document or in Varghese, where it speaks to a location of
16 log in. This is not that. We don't dispute that location can and should and is
17 taught to be used at pre-authentication, as well, but in the context of the
18 transaction itself, this is a post-authentication.

19 And the overriding teaching -- I'll go to paragraph 109, to the
20 lower right -- is that these transaction rules -- Varghese teaches doing this
21 sort of authentication at post-authentication. That's the major thrust of its
22 disclosure. It's referring very specifically to these transaction rules, these
23 business policy rules. You'll notice that in paragraph 109, it refers to the
24 business policy or transaction rules. Table 10 is the business policies. So
25 109 speaks to these as being business policies are general application -- I

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1 think that should be "applied", but I didn't write this specification --
2 generally applied during post-authentication.

3 So right there, textually, Your Honor, Varghese itself says these
4 kinds of policies, business policies, of which Table 10 in its description of
5 the transaction of an unregistered device should be checked for fraud, based
6 on that location, is a business policy that is generally applied at post-
7 authentication. And again, we do not differ with the Patent Owner that
8 location can and should and is taught to be applied elsewhere, for example,
9 in pre-authentication. The point for this inquiry is in this obviousness
10 combination, have we established a teaching to apply location in the post-
11 authentication role, which maps to the claim language, which requires it to
12 be subsequent to an interaction and presumably, that interaction is after log
13 in. So we wouldn't be looking until the log in.

14 So I think in this slide in particular, we've captured both of those
15 points. The nature of one example, and there are other examples in the
16 patent, as well, or in the reference, as well, but here's this business policy
17 and the clear statement in the record, in the reference itself, that the location
18 is used post-authentication. I used quite a bit of my time to answer your
19 question, but I think that is what you were getting at.

20 JUDGE AMUNDSON: Yes, exactly. Thank you.

21 MR. O'BRIEN: Okay. Hopefully I didn't beat a dead horse.
22 Turning to the page to 31, I think this is the overarching point that what
23 Varghese is describing throughout its disclosure is this concept of further
24 authenticating an already authenticated session. So when you think already
25 authenticated, that's back at the time of log in, it was pre-authenticated, and

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1 Varghese is speaking and it has the teaching that we should request further
2 authentication during the course of the session, and that's what it refers to as
3 the post-authentication on the last slide. We were talking about its
4 demonstration of the use of location, frankly, in addition to biometrics in
5 that role.

6 So I think that answers both of your answers -- or your question,
7 but answers it both, in the narrow and in the broad. I think that is the
8 primary issue here in -- those are the primary issues here in the case. I am
9 how many minutes in?

10 JUDGE AMUNDSON: I have you at about 14.

11 MR. O'BRIEN: Okay. I will point out one item. It came up in the
12 context of our initial run through the shared issued, and I think it also shows
13 up in the slides. I think Patent Owner is asserting that it has raised an issue
14 with respect to a memory limitation of all three patents. I would, I guess,
15 respectfully differ. They have not raised it in this context, although they do,
16 in the context of their reply, appear to cobble together -- in the context of
17 their surreply, cobble together a number of paragraphs which don't pertain to
18 the claim here, but really pertain -- I think they may have grabbed it from
19 their '010 surreply.

20 So it was not raised in the Patent Owner response. It does show up
21 in the surreply. We're very happy to engage on it, but since it isn't in our
22 record to date, I'm going to go ahead and defer response until it is potentially
23 raised here in oral argument. So with that, any questions? And then I'll
24 reserve the remainder of my time, if there are none.

25 JUDGE AMUNDSON: I have no further questions. It looks like

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1 my colleagues also do not have any further questions. Okay. All right. So
2 I've got you about 16 minutes into your time. So let's turn it over to Mr.
3 Jarrett. And let me ask if you would like to reserve any time for surrebuttal?

4 MR. JARRETT: I'll reserve five minutes, Your Honor, and I,
5 again, may not use those.

6 JUDGE AMUNDSON: Right. All right. So I don't know if you
7 need any time to get your materials together, but I think you're -- Patent
8 Owner's demonstratives are all in one set, so --

9 MR. JARRETT: Correct, Your Honor.

10 JUDGE AMUNDSON: -- I think the panel is ready here.

11 MR. JARRETT: Okay. Yep. Your Honor, I'm ready to go.

12 JUDGE AMUNDSON: All right. Then start whenever you're
13 ready.

14 MR. JARRETT: Okay. Thank you, Your Honor. For the '886, I'd
15 like to focus on what I believe is the core issue, which is this pre- and post-
16 authentication distinction and what we've addressed in relation to claim
17 limitation 1.3.1, so I'll start with Slide 59 of our demonstratives. And
18 limitation 1.3.1, and going to Slide 60, this is just a slide depicting or
19 showing the specific claim limitation here that's at issue, subsequent to an
20 interaction by a user with an icon rendered in the one or more interfaces,
21 capture contextual information comprising location data usable to determine
22 a physical location associated with the user.

23 So unpacking that a bit, Your Honors, we have a key temporal
24 limitation, subsequent to an interaction by user with an icon. So that's an
25 interaction with the transaction icon. After that's occurred is when there's

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1 the capture and then the analysis of the location data or information.

2 And looking at Slide 61, this is Petitioner's Stone, Hoyos,
3 Varghese transaction model, and as you can see, essentially the last step
4 after the confirmation step -- sorry, I'm just making sure I'm reading that
5 correctly. The text on my screen is a little small. After the confirmation
6 step, which is clicking the send button on the Stone interface, send button
7 214. That's when the capture of biometric information and location
8 information occurs according to Petitioner's proposed transaction model
9 combining Stone, Hoyos, and Varghese.

10 And why this is important is because Petitioner relies, as Petitioner
11 discussed and has been briefed, relies solely on Varghese as disclosing the
12 location capture limitations for its transaction model. And looking at
13 Varghese, there's a distinction between pre- and post-authentication. Now,
14 if you look at Slide 62, the pre-authentication example in paragraph 74 from
15 Varghese discusses the pre-authentication and most common user request as
16 a log in request for access to an application or a system.

17 So it's my understanding, and I don't believe Petitioner is
18 contending it anyway, that the pre-authentication steps or anything related to
19 pre-authentication satisfies the claim limitations subsequent to interacting
20 with the user transaction icon in the capture. So it's going to be all focused
21 on the post-authentication, which Varghese states is -- the post-
22 authentication services include transaction requests involving large amounts
23 of money, so that seems -- I think the parties can agree that that's what we're
24 dealing with. We're looking at Varghese and whether the post-
25 authentication steps disclosed in Varghese actually disclose the capture of

1 location information that can be used to determine the user's physical
2 location, and it doesn't.

3 And looking at Slide 63, this is what Petitioner points to. We're
4 showing that there's evidence that there's capture of location information that
5 occurs during the post-authentication steps. At the right of the slide on Slide
6 63, you have -- it's page 17. I believe it's page 17 from Petitioner's reply.
7 This figure that has been put together by Petitioner. It points to information
8 that it believes in Table 10 here that's collected -- that they contend is
9 collected during post-authentication. One thing to point out, that Table 10
10 does not -- is not associated with Figure 14 in the text. It's associated with
11 Figure 15B. Just a note for that.

12 But in Table 10, what Petitioner is pointing to is this list of
13 business rules or transactions and specifically points to a transaction from an
14 unregistered device location or frequently used location for fraud -- or
15 device fraud locations. So Petitioner points to this as disclosing the capture
16 of location information in post-authentication, which would be after a user
17 of the Stone, Hoyos, Varghese transaction model would hit the send button.

18 Now, the issue is there's no disclosure here in this Table 10 of
19 when the capture of this information occurs. We just have the application of
20 a business rule. There's nothing precluding that the login information -- that
21 this information of where the device location is, is taken during login. So
22 for example, if I have an application, I log in, my IP address is probably sent
23 to a server and confirmed that it's me here in Dallas, Texas, and that I'm
24 here, the IP address matches my location, and then from there, I can conduct
25 a transaction.

1 There's no disclosure in Varghese that, again, after that occurs that
2 there's some other collection of location information, so there's no reason to
3 look at Table 10 and this business rule to say that it, in any way, means that
4 there's a capture at the time of post-authentication. This could be reliance on
5 earlier authentication for logins, and I think when you look at Varghese's
6 teachings, it specifically repeatedly says that the login phase and pre-
7 authentication is where it's concerned with location information in the user
8 device -- authenticating the device and ensuring that it's the user's device and
9 it's where -- it's associated with the location for the user.

10 JUDGE AMUNDSON: This is Judge Amundson. I think it might
11 be helpful to look at Table 10 in context, and I mean, if you could go to
12 paragraph 110 in Varghese -- that's Exhibit 1010, a lot of ones and zeros --
13 but if you go to paragraph 110 in Varghese and if you could let me know
14 when you're there.

15 MR. JARRETT: Yes, I'm there, Your Honor.

16 JUDGE AMUNDSON: All right. And so Table 10 is part of
17 paragraph 110, and then paragraph 110 concerns -- well, it says, a particular
18 banking service provider may have determined that certain transaction data
19 indicate that the transaction should be restricted or rejected. It seems to me
20 that sentence at least suggests that we're in the post-authentication realm, as
21 opposed to the pre-authentication realm. What's your position on that?

22 MR. JARRETT: I think that's accurate. I think this could be
23 considered post-authentication, but what I would like to point out is if you
24 look at Table 10, the transaction from an unregistered device location or
25 frequently used device location, that's where Varghese specifically teaches

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1 throughout that device authentication and authenticating the device, and
2 determining whether it's registered or not, that's done at the login phase.

3 So what we have here is a post-authentication set of rules that
4 applies information collected during the pre-authentication phase. So it's not
5 an actual capture of any location information. So what you have here -- for
6 the purpose of this hypothetical or this example -- agreeing that yes, this is
7 discussing post-authentication, but nowhere is there a discussion of actual
8 capture, and that's why the claim limitations and the actual language of the
9 claim is important because there's that temporal limitation that requires
10 subsequent to an interaction with the transaction icon, which Petitioner has
11 pointed out as the confirmation of the send step.

12 So let's say if we take the Stone model and using that in applying
13 Varghese, what really could be the case is that the location information, if it
14 is collected at all, is done when the person logs into the application, which I
15 believe Petitioner has said that Figure 2 shows the interface of Stone after
16 the user is already logged in. So looking at Figure 2 of Stone and applying
17 the teachings of Varghese when it refers to location information being
18 relevant to the login, which is the specific example I gave in 74 -- that's what
19 the example is for login -- that we've already passed that step, so there's no
20 location information being collected once we're already -- once the user
21 interface is populated and shows that the account holder is signed in, the
22 location information has already been done and it's over with and so there's
23 no actual confirmation.

24 And why is that important? Because the teachings of -- or the
25 claims of the '886 patent specifically require the timing element to prevent

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1 this idea of someone could be logged in for two days and doesn't log out,
2 and it just recalls the information from the IP address at login, when the IP
3 address could've changed. And I don't think there's any teaching in
4 Varghese that shows a distinction or shows an actual collection of any
5 location information during post-authentication.

6 To me, reading this Table 10, this is relying on the previous
7 collection of location information, and if you go to Slide -- I believe it's -- I
8 want to get this right -- Slide 66, we pointed this out in our surreply. Now
9 you have this Table 6A and B. This is discussing the device authentication
10 and this is examples of user login from different geographical locations. So
11 this goes back to that point that this is specific pre-authentication. All of this
12 is done during pre-authentication. There's actually no disclosure anywhere,
13 and Petitioner has not pointed to a direct disclosure that says specifically that
14 that Table 10 information -- that location information that's used there to
15 determine whether someone is not -- I forget the actual phrase of Table 10
16 there -- that the transaction is from an unregistered device or location.

17 Again, the device authentication and device and location is
18 specifically said to occur -- or Varghese teaches that that's done during pre-
19 authentication. So what you have here is a business rule applying -- for
20 post-authentication, information that was previously collected, and that's not
21 what the '886 patent claims teach or disclose. And so this is where there's
22 the disconnect.

23 And there's nowhere I found -- I'm open to be shown where in
24 Varghese this occurs, but I don't see any -- again, any teaching that ties --
25 directly capture -- or specifically states that capture of location information

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1 occurs in post-authentication. It may use it. It may use location information
2 that was previously collected, but that's not the '886 claims and that's why
3 there's a distinction.

4 And as I pointed out, the timing is important. It's not irrelevant.
5 It's not that, oh, we can just -- it discloses location, collection, some time,
6 and so we can just make it fit wherever we need to in the transaction. No,
7 it's specifically for the timing element for that specific situation where it
8 basically teaches, again, the claims of the '886 are, if anything, away -- move
9 away from what Varghese is teaching, this use of pre-authentication
10 information to apply a post-authentication rule.

11 JUDGE AMUNDSON: All right. Yes, I think I understand your
12 position. Thank you.

13 MR. JARRETT: All right. Pending Your Honors' questions, that's
14 all I have for now. I'll yield the remainder of my time for rebuttal.

15 JUDGE AMUNDSON: All right. I have you about 12 minutes in.
16 Okay. All right. So all right, let's go back to Mr. O'Brien. All right, let's go
17 back to Mr. O'Brien. Are you ready?

18 MR. O'BRIEN: I am, Your Honor.

19 JUDGE AMUNDSON: Then let me start with a question, okay?

20 MR. O'BRIEN: Okay.

21 JUDGE AMUNDSON: What would you point us to in Varghese
22 as the best disclosure that supports your position that Varghese teaches
23 capturing geographic location data in the post-authentication period?

24 MR. O'BRIEN: Sure. Well, I'm happy you asked. So I think a lot
25 of this comes down to what do the terms real-time risk reduction or risk

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1 management or risk mitigation mean here in this concept. If Patent Owner is
2 to be believed, once we have a location, it's good enough. We can just
3 continue to use that. But the teaching of Varghese is to perform real-time
4 analytics and scoring on transactions. We point to that in our slides. Slide
5 14 speaks to that in terms of where location fingerprinting arises.

6 I think the Patent Owner suggested to you that Table 10, which I
7 thought that was ironic, all the 10s, as well, but we would highlight for you
8 there that with respect to the business rules -- and now I'm having trouble
9 getting to it, Table 10. Table 10 follows paragraph 109, which speaks to
10 post-authentication, as we discussed. So I tend to agree with the inference.
11 It also speaks to the use of location information. Paragraph 110 in which it
12 resides talks about the transaction should be restricted or rejected.

13 If one is doing that in a real-time risk reduction capacity, one is
14 going to use the most recent location. And I think we should understand,
15 merely the IP address of the packet that comes in with the response does an
16 identification of where it came from. That's one of the principal sources of
17 location information, so we're not talking about something that would be
18 difficult to do. In fact, it would be sort of odd not to do it. To say, hey, five
19 hours ago, David logged in from Austin, Texas, on his device, and I just
20 don't care now that there's a transaction coming in, I can't be bothered with
21 seeing if it's from Moldova.

22 The teaching of Varghese is about doing that real-time analysis.
23 We saw that in Figure 14. I think Patent Owner made the point with you
24 that the context or the anchoring of Table 10 is, in their view, more to Figure
25 15B. If you turn your eyes to Figure 15B, it speaks to a user using multiple

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1 locations in a short timeframe. So it speaks in that context to multiple
2 location sampling events in a short period of time. If the other side wants to
3 argue that the first of those multiple must necessarily be at login, what's the
4 second?

5 Turning a little forward, I'll jump around the disclosure because
6 you asked me for support for this proposition. And by the way, we're
7 responding to surreply arguments here, so that's why we're doing this more
8 in this context than in the paper context.

9 If you turn to Varghese itself, Claim 31, the claim speaks to -- I'll
10 give you a second to get there. Exhibit 1010, Claim 31, on page --
11 numbered page 28 of the reference itself -- speaks to a method of
12 authenticating a current request and it speaks to gathering information,
13 describing one or more of the locations of the user and other stuff, so
14 location is in there. And it speaks to the current location. Not the past
15 location, not the location at login, and it's used relative to the risks related to
16 the current user device and the risks related to the current transaction.

17 So it's very consistent with why a person of skill would understand
18 this reference where it describes the use of location in pre- and in post-
19 authentication. It would understand it to render obvious the use in post-
20 authentication with real-time information about the device, where the
21 location is at the time the transaction is issued. So that's the thrust or the
22 reasoning of our arguments. I'll identify a few other things in the reference
23 that tee up that concern, if you would like, but I don't want to only respond
24 on this issue if you have other things you want to discuss. I've got more in
25 the patent that I can give you.

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1 JUDGE AMUNDSON: I think that's enough for me. I don't know
2 about my colleagues, but it's at least Varghese's disclosure of doing
3 something in real-time and for a current transaction?

4 MR. O'BRIEN: Yes.

5 JUDGE AMUNDSON: Okay, I got it. Thank you.

6 MR. O'BRIEN: I'll see if there's any other items here I've dealt --
7 this seems to be the principle item that Mr. Jarrett discussed. I think absent
8 further questions, I'm done.

9 JUDGE AMUNDSON: Oh, okay. I have no further questions. It
10 looks like my colleagues also do not. So let's go back to Mr. Jarrett.

11 MR. JARRETT: Thank you, Your Honor. Just a few brief points.
12 One thing I'd like to address is this -- the idea that real-time authentication
13 indicates that there's a specific collection of location information at the time
14 of a transaction authorization. I don't -- there's no support for that in
15 Varghese and that's not based on anything but conjecture. There's nothing
16 about the term "real-time authentication" that suggests that there's an active
17 capture of location information. It just means that there's a real-time
18 decision being made at that time. Nothing precluding it from being made
19 using location information that was captured during pre-authentication and
20 during device login.

21 So this idea that there has to be a separate capture, Varghese
22 doesn't teach that. And even if there were hypothetically a second capture,
23 there's nothing indicating that it's done when confirming the transaction at
24 the time the Petitioner's transaction model requires. It could be -- let's say
25 after a user login, there could just be essentially cron-jobs set to do an IP

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1 address check randomly at two minute intervals. It's not tied in any way to
2 post-authentication, and that's what's specifically required for Varghese in
3 the context of Petitioner's transaction model. And it's not borne out
4 anywhere in the teachings of Varghese.

5 This is, again, an example of working backwards from the '886
6 patent's claims and finding a way to make Varghese fit, wedging it in to
7 make sure it fits the claim limitations to say in hindsight that the '886
8 would've been obvious. Pending your questions, Your Honors, that's all I
9 have.

10 JUDGE LEE: Yeah, it's Judge Lee. I have a question. It's belated.
11 It's common to all cases. It's got to do with the Guidance reference. The
12 Patent Owner had an argument saying a POSITA would not have gone to
13 look for anything in the guidance, but you have in -- I'm not sure what
14 context that's in. You didn't argue that Guidance is not analogous art, so in
15 the absence of that, where do you place the nature of the argument that a
16 POSITA would not have looked in the Guidance?

17 MR. JARRETT: In considering motivations to combine, the
18 POSITA would still have to have a -- as we've addressed it in our papers, a
19 POSITA would have to have a reason specifically to look or consider that art
20 when trying to come up with the patented solution. Maybe it wasn't said
21 specifically in the context of the analogous art test, but there still has to be
22 an impetus for the POSITA to look to that. If anything, I mean, it is similar
23 to the analogous art context in the sense that the --

24 JUDGE LEE: Wait. I'm sorry. Maybe I didn't make it clear. I
25 thought a hypothetical person of ordinary skill in the art would've looked in

1 any reference that's analogous. Isn't that the law? If it was analogous art,
2 then he would go there.

3 MR. JARRETT: Then I guess the position is maybe it wasn't made
4 clear in our papers then, and the position would be it's not analogous art in
5 that sense -- in the sense that it was not something that a POSITA would --

6 JUDGE LEE: But you didn't say. I mean, I don't know if you
7 need to say expressly, but I didn't get the sense that you were arguing -- you
8 argued Stone was not analogous, but you didn't say the Guidance is not
9 analogous. So it seems unfair for you to now characterize that as a non-
10 analogous art argument at the time of the surrebuttal of an oral hearing. I'm
11 not sure the Petitioner understood the argument as that.

12 MR. JARRETT: Yes, Your Honor, but looking at what we said,
13 we did not maybe say the exact word analogous, but we explained in detail
14 why a POSITA would not have looked to it. So without -- I guess we didn't
15 say the specific word analogous art, but we explained why a POSITA would
16 not have looked to it, and if that's making an analogous art argument without
17 using the specific word "analogous art", Petitioner was able to respond to
18 those arguments and did. I don't know that it's unfair to Petitioner. It's not
19 unfair to Petitioner since they've responded to those points, whether it's --
20 applying in the framework of the field of endeavor, that's what the argument
21 essentially boils down to. It's not in the same field of endeavor that
22 somebody would look to when --

23 JUDGE LEE: Well, in all fairness, they don't have to say anything
24 if it's analogous art because a POSITA is presumed to know to go there,
25 unless you're saying a POSITA, having the Guidance in front of him or her,

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1 wouldn't come to that conclusion, but I don't think you're making that
2 argument.

3 MR. JARRETT: We're still making the argument that a POSITA
4 looking at that -- well, first, wouldn't have looked to the Guidance at all.
5 Wouldn't have considered this and wouldn't have -- and then inevitably, if it
6 wouldn't have looked to it, it would not have combined. Still, it goes to
7 there's no motivation to combine the two. There's no looking at this
8 FFIEC --

9 JUDGE LEE: Thank you. So I think I get it. I think your answer
10 is that you intended it to be a non-analogous art argument, although you
11 didn't say so expressly; is that right?

12 MR. JARRETT: That could be a fair characterization, Your
13 Honor, but again, I think it still goes to the larger point that there still has to
14 be a motivation to combine this piece of art. They still have to point to a
15 reason. Even if it is analogous art, they still have to point to a reason of why
16 to combine them, and we pointed to why a POSITA would not consider it,
17 which may have been unartfully worded, but I feel like it still gets to the
18 same crux of the point that it wouldn't -- there was no motivation to
19 combine.

20 JUDGE LEE: Well, that gets me confused because, you know,
21 consider it doesn't -- is one thing, and whether you would arrive at the
22 claimed invention is another, right? So if it's analogous art, you would
23 consider it by definition. And you argued that a POSITA would not
24 consider it. That seems to place it in the analogous art category and not --
25 after you consider it, you would find nothing to combine it with the other

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1 references. I don't think that's your argument.

2 MR. JARRETT: I think it's -- sorry, Your Honor. I was going to
3 say, to be fair, I think it would -- sorry, I did not mean to interrupt you. I
4 just wanted to -- I thought it might be helpful to just say, I understand your
5 point here and I think maybe the best way to frame it is, it was -- it's in the
6 realm of the analogous art argument. Sorry.

7 JUDGE LEE: Okay. Now, I think since I asked you this question
8 at your second time up, the Petitioner doesn't have any time to respond. I
9 don't -- I think it's fair for them to also answer this question. Do you agree?

10 MR. JARRETT: Yeah, that's fair, and I would yield the remainder
11 of my time for the Petitioner to do so.

12 JUDGE AMUNDSON: This is Judge Amundson. Okay. Just
13 so -- maybe we can look at some concrete language or specific language
14 here. If we could all look at where -- the 329 IPR and for the '010 patent --
15 if we could look at Patent Owner's response, page 44. Let me know when
16 you have that.

17 MR. O'BRIEN: The Patent Owner response -- what was the
18 citation?

19 JUDGE AMUNDSON: It's page 44 in the Patent Owner response,
20 in the 329 IPR.

21 MR. O'BRIEN: 329. Okay, page 44.

22 JUDGE AMUNDSON: Yeah. Okay. Well, but I'm asking my
23 question to Mr. Jarrett because this is before you get up, okay? So I want to
24 ask Mr. Jarrett. Do you have --

25 MR. JARRETT: I do, Your Honor. Yes.

1 JUDGE AMUNDSON: Okay. And there maybe about halfway
2 down the page, you say an engineer fitting this description and exercising
3 reasonable diligence would not have been inclined to look to high-level and
4 non-technical regulatory guidance directed to the banking industry to
5 develop precise technical solutions for electronic fraud. So as I understand
6 what you've said just now in response to questions from Judge Lee, and
7 earlier, a question from Judge Peslak, the panel should understand that
8 statement to be a non-analogous art argument, as opposed to a public
9 accessibility argument.

10 MR. JARRETT: I think that's a fair assessment, Your Honor. And
11 again, apologies for muddling the issue, Judge Lee.

12 JUDGE AMUNDSON: All right. And so now, Mr. O'Brien can
13 respond and tell us what he thought about that argument and whether they
14 think they've addressed it.

15 MR. O'BRIEN: Sure. I think I'll be brief on this, and of course, it
16 wasn't raised as an analogous art argument, so the verbiage that will play out
17 in our record will not be speaking to analogous art. We addressed it in terms
18 of the motivation to combine. We took it, I think, to be a -- it sounds like the
19 sea-of-art argument that we often see that ignores the analogous art issues,
20 but I'll point to three things for you. I'm going to take you -- and we did this
21 in our deck, in the large deck for the '010, for the shared issues because the
22 FFIEC combination spans all of them -- but we hit this in Slides 50, 51, and
23 52, and I think we laid down three principal rebuttals.

24 One was we showed in our record that Oracle, the technology
25 company, acquired Bharosa. Turns out, it happens to be the corporate

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1 applicant corresponding to the Varghese patent. And in doing so, they
2 issued a press release describing all the great things about Bharosa. And one
3 of the things that they said was particularly nice about the technologies that
4 they were acquiring, was Bharosa's treatment of specific regulatory
5 mandates, such as those by the FFIEC. So that's the Guidance and the
6 proven technologies that they were acquiring to deal with those.

7 So here is Oracle, not a bank, not a banker, not some non-technical
8 user, or to follow your quote, Judge Amundson, not an engineer fitting the
9 description and exercising diligence inclined to do non-technical regulatory
10 guidance. Here is a technical company, Oracle Computer -- or Oracle, these
11 days -- doing that. So, point one.

12 Point two. We provided in the record direct testimony of Dr. Jones
13 and his personal knowledge in the context of a business that he was involved
14 with, Sagem Morpho. That's appearing on Slide 50 in the citations to both
15 the reply and the evidence, in which POSITAs that he had personal
16 knowledge and experience with used the Guidance in formulating their
17 approach to provide biometric subsystems for use in financial applications.
18 Direct testimony of that. So not only would a POSITA have been interested
19 in Guidance, but you have direct testimony that a POSITA was interested in
20 the evidence.

21 And then finally, we did a little bit of a citation search and that's on
22 page 52. You'll see the Guidance is very widely cited. Moreover, it's cited
23 in patent documents. Notably, we pointed out a different Oracle device,
24 which cites it on the front page, the FFIEC. This was the release of the
25 Guidance, so the press release that fronted the Guidance document on which

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1 we rely. An Equifax document -- these are inventions directed to multi-
2 factor password authentication and key exchange in one case and
3 verification and authentication systems in another. Not the domain of
4 bankers -- or I mean, the bankers would care, but this is not people smoking
5 a cigar in a backroom somewhere in Manhattan. This is engineers. This is
6 technology.

7 And also a third that admittedly is a bank -- it is Citibank as the
8 assignee, but deals, again, with systems, methods of providing security
9 tokens for authentication. So, very clear. This is a tripartite recitation here
10 on this third one. Three patents, large citations to people that clearly aren't --
11 the bankers that I think the Patent Owner insinuates here would only be
12 interested in this guidance document.

13 And in fact, they meet the standard of the engineers, so that's how
14 we responded to it. And admittedly, that is more in the context of it being an
15 accessibility, or would they look to this reference following what Judge Lee
16 said -- a person of ordinary skill in the art is presumed to have knowledge of
17 all references. Not just the ones that the Patent Owner would like us to look
18 at to the exclusion of others. So I think that's how I would answer and I
19 hope that answers the questions of each of you on this point.

20 JUDGE LEE: Thank you.

21 JUDGE AMUNDSON: All right. And we'll give Mr. Jarrett one
22 last opportunity, if you want to address anything that Mr. O'Brien just said.
23 Go ahead.

24 MR. JARRETT: Just to reiterate, Your Honors -- just very
25 briefly -- in addition to our position that a POSITA wouldn't be interested, I

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1 think one of the things that is important to point out for Petitioner's expert is
2 reliance when he was -- this is -- I believe it's cited in our briefing, but his
3 reliance on the FFIEC Guidance, why it came to the fore in his analysis of
4 the grounds is because of his experience in standard setting organizations.
5 And I think that's relevant to considering that that's the impetus for
6 considering it here and that's beyond the experience of a POSITA who is
7 only a bachelor's degree holder with two years of experience. That was the
8 only point I would like to add.

9 JUDGE AMUNDSON: All right, thank you. Let's check and see
10 if any of my colleagues have any further questions.

11 JUDGE LEE: Nope.

12 JUDGE AMUNDSON: Okay. All right. Then that concludes our
13 hearing. Thank you to both parties for your time and helpful presentations,
14 and your ability to expeditiously get through these issues. The case is
15 submitted and the hearing is adjourned.

16 (Whereupon the above-entitled matter went off the record at 1:26
17 p.m.)

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PETITIONER:

David W. O'Brien
Hong Shi
Kelly Lyle
HAYNES AND BOONE, LLP
david.obrien.ipr@haynesboone.com
hong.shi.ipr@haynesboone.com
kelly.lyle.ipr@haynesboone.com

PATENT OWNER:

Richard A. Kamprath
George Fishback
Bradley Jarrett
MCKOOL SMITH, P.C.
rkamprath@mckoolsmith.com
gfishback@mckoolsmith.com
bjarrett@mckoolsmith.com