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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

ERICSSON AB,
Patent Owner.

IPR2025-00003 (Patent 9,313,178 B2)
IPR2025-00004 (Patent 11,122,313 B2)

Record of Oral Hearing
Held: January 27, 2026

Before GEORGIANNA W. BRADEN, NORMAN H. BEAMER, and SCOTT RAEVSKY, *Administrative Patent Judges.*

APPEARANCES:

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The above-entitled matter came on for hearing on Tuesday, January 27, 2026, commencing at 11:00 a.m. EST, via videoconference.

1 P R O C E E D I N G S
2 - - - - -
3 11:01 a.m.
4 JUDGE BRADEN: Good morning. We are convened for oral
5 argument in IPR2025-00003, which challenges U.S. Patent Number
6 9,313,178, and IPR2025-00004, which challenges U.S. Patent Number
7 11,122,313. I'm Judge Braden. Also appearing virtually are my colleagues,
8 Judge Beamer and Judge Raevsky.
9 Before we begin, we want to thank you for your flexibility in
10 conducting this hearing via video today. Given that this is a departure from
11 a normal practice, we start by clarifying a few items.
12 First, please know that our primary concern is your right to be heard.
13 If at any time during the proceeding you encounter technical difficulties that
14 undermine your ability to adequately argue your case, please disconnect
15 from the Webex, then try to reconnect into Webex, and let the panel know
16 where and when you dropped off. If you cannot reconnect, please dial in
17 using the phone number provided by our hearing and IT personnel.
18 Second, for the benefit of the Judges, opposing counsel, and
19 importantly, our court reporter, please identify yourself when you speak to
20 begin your argument and speak clearly into your microphone. Please do not
21 speak when others are speaking. Also, please identify specific slide numbers
22 when referring to your demonstratives. Third, please mute yourself when
23 you are not speaking.
24 Finally, we've not received notice from either party that business
25 confidential information will be discussed or disclosed during the course of
26 this hearing. That being said, please be aware that third parties are virtually

1 attending this hearing. Therefore, if you plan to divulge any business
2 confidential information, inform the panel beforehand so that we can wall
3 off the third parties for that portion of the hearing. Petitioner's counsel, do
4 you understand?
5 MR. SARWAR: Yes, Your Honor.
6 JUDGE BRADEN: Patent Owner's counsel, do you understand?
7 MR. NOROOZI: Yes, Your Honor.
8 JUDGE BRADEN: Very good. I want to take this opportunity to
9 address counsel and their clients before we begin. As an *inter partes* review
10 is a contested proceeding, today's hearing provides an opportunity for
11 counsel to orally advocate for positions on the patentability of the challenged
12 claims as raised in the petition. We understand that in every case that comes
13 before us, the parties, both Petitioner and Patent Owner, have a lot at stake.
14 The judges before you take our role in deciding this dispute seriously.
15 We have reviewed the briefs and the evidence, and we are prepared today
16 with questions. A lot of them. These questions and your answers will help
17 us to decide the issues in the case. In the interest of fairness and due
18 process, we must limit our consideration to the arguments and evidence
19 already present in the record. Our role as judges on the panel is to assess
20 your arguments and evidence, and weigh those in accordance with the
21 burdens established by our rules of procedure and precedential authority.
22 We remind the parties that Petitioner has the ultimate burden of
23 establishing unpatentability by a preponderance of the evidence. We have
24 the briefs and the evidence available to us electronically on our computers.
25 So, if we look away or look down during the hearing, we are consulting the

1 documents or taking notes. Please know that we are paying close attention
2 to your arguments and carefully considering the case.
3 And I apologize in advance, but when we interrupt you, we do so to
4 be able to ask you questions that may be essential to our resolution of the
5 issues or to help keep the hearing on track with time.
6 Now, we're going to go through some housekeeping issues.
7 Recording of any PTAB hearing is prohibited. The court reporter will
8 provide a transcript of the hearing that will become part of the record in the
9 proceedings at a later date. Per the hearing order, which is Paper 37 in
10 IPR2025-00003, each party has 45 minutes total time to argue their position
11 in both cases. That's a total of 90 minutes per side.
12 In our prehearing conference call on Friday, January 23rd, the parties
13 were instructed to meet and confer and inform the Board of the exact amount
14 of time they wanted for both cases in a consolidated fashion. The Panel has
15 not yet received that information. Therefore, the parties can inform us now
16 if they wish to consolidate their time or maintain the cases separately.
17 Petitioner, have the parties reached some agreement?
18 MR. SARWAR: Yes, Your Honor, the parties emailed trials at
19 uspto.gov in the attempt to convey what our agreement was. If Your Honors
20 would like, I can convey the information in that email.
21 JUDGE BRADEN: Yes, please.
22 MR. SARWAR: The parties conferred regarding how to allocate time
23 in the oral argument. The parties wish to address both proceedings together
24 in one hearing. The parties proposed 90 minutes total allocated to Petitioner
25 to address both proceedings, with Petitioner permitted to reserve time from
26 Petitioner's 90 minute allocation for rebuttal after Patent Owner's

1 presentation. And 90 minutes total allocated to Patent Owner to address
2 both proceedings with Patent Owner permitted to reserve time from Patent
3 Owner's 90 minute allocation for surrebuttal after Petitioner's rebuttal. The
4 parties propose -- oh, sorry.
5 JUDGE BRADEN: Please proceed.
6 MR. SARWAR: The parties propose a brief break after the parties'
7 initial presentations are both complete. So before the parties begin the
8 rebuttal slash surrebuttal presentations.
9 JUDGE BRADEN: Very good, Counselor. So that we understand, so
10 you're going to maintain the 90 minutes each side has?
11 MR. SARWAR: Your Honor, the audio cut out just for a second, so I
12 was not able to catch the end of that sentence.
13 JUDGE BRADEN: So we're going to maintain the 90 minutes that
14 both parties have, correct?
15 MR. SARWAR: That's right, Your Honors.
16 JUDGE BRADEN: Very good. Petitioner Google LLC has the
17 ultimate burden of establishing unpatentability. Therefore, Petitioner will
18 open the hearing by presenting its case as presented in its petitions regarding
19 the alleged unpatentability of the challenged claims in both petitions.
20 Petitioner may reserve the rebuttal time, no more than half of its total
21 argument time.
22 Thereafter, Patent Owner Ericsson AB will respond to Petitioner's
23 arguments. Patent Owner may reserve surrebuttal time of no more than half
24 its total argument time to respond to Petitioner's rebuttal. Otherwise, the
25 parties may use its allotted time to discuss the cases however they choose.
26 Just please remember that your arguments should be limited to only those

1 arguments previously presented in your briefs. And please make it clear
2 which challenges and which claims you are addressing at all times.
3 We ask that the parties please hold any objections regarding another
4 party's arguments until it is your time to talk. And at that time, then you can
5 note any objections. In order to ensure clarity of record following the
6 hearing, please email the court reporter with a list of word spellings unless
7 you've already done so.
8 Because we are not in the courtroom, I'm going to maintain a clock
9 and try to inform the parties when they each have five minutes left. But
10 because we are not in the courtroom, we do not have an electronic system
11 for doing that. So I ask that you please also maintain your own clock and
12 keep track of your time.
13 Let us get started with appearances for both parties for those who will
14 be arguing today. If there's anyone else attending with you, either in person
15 with you or remotely with you today, but not speaking, please identify them
16 as well. For example, please state if your client is attending. Again,
17 following the hearing, please confirm with the court reporter to ensure that
18 there are no questions regarding the spelling of any names or terms. Now,
19 we will start with appearances for Petitioner.
20 MR. SARWAR: Good morning, Your Honors. I hope you all are
21 staying warm. I'm Turhan Sarwar from Wolf Greenfield. I'm joined today
22 by my colleague, Libbie DiMarco. We also have on the public line a
23 representative of our client, Howard Chen from Google. We are here on
24 behalf of Petitioner.
25 As Petitioner informed the Board and Patent Owner during our pre-
26 hearing conference, lead counsel Scott McKeown is unable to attend today's

1 hearing. Patent Owner had no objection, and the Board indicated it would
2 waive the rules regarding his attendance. I'd like to reserve 35 minutes for
3 rebuttal. I'm not sure if this was the appropriate time to say that, but just
4 letting you know.
5 JUDGE BRADEN: Thank you very much, Counselor. Now for
6 appearances from Patent Owner.
7 MR. NOROOZI: Good morning, Your Honor. Kayvan Noroozi of
8 Noroozi PC for Patent Owner Ericsson AB along with Mr. Peter Knops,
9 who's lead counsel. I will be presenting. And we also, I believe, have Mr.
10 Derek Neilson of Ericsson on the public line. And we would like to reserve
11 40 minutes of rebuttal time.
12 JUDGE BRADEN: Thank you, Counselor. Are there any questions
13 or issues that the parties would like to raise before we begin, starting with
14 Petitioner?
15 MR. SARWAR: Nothing at this time, Your Honor.
16 JUDGE BRADEN: Very good. Patent Owner?
17 MR. NOROOZI: Just that I've been quite sick. So if you have any
18 issues hearing me, just let me know and I'll try to articulate better or speak
19 louder.
20 JUDGE BRADEN: Thank you very much, Counselor. We
21 understand completely and appreciate you being here today. Petitioner, you
22 may begin your arguments when ready.
23 MR. SARWAR: Thank you, Your Honors. Let's start with Slide 2 of
24 Petitioner's demonstratives. These are showing the challenged patents.
25 They share a specification and have similar claims. You can see here that

1 Petitioner used the same prior art combinations against both, so most of the
2 disputed issues are common to both proceedings.
3 I plan to discuss disputes related to the '178 Patent first. Patent Owner
4 raises two extra disputes for the '178 Patent related to limitations that are not
5 recited in the '313 Patent, but the other disputes all overlap. For clarity, I'll
6 try to flag the '178 Patent only territory when we're in it. Patent Owner also
7 filed contingent motions to amend for both patents. The disputes that arise
8 from the motions to amend are largely shared between the proceedings. So
9 after we've discussed the original claims, I'll turn to the motions to amend.
10 On Slide 3, you can see the original independent Claim 1 from both
11 patents. The claims recite a method for handling secure distribution of
12 content. I've highlighted the limitations about the content. Secure here
13 refers to the fact that the content is encrypted using content encryption keys.
14 This is spelled out more clearly in the '313 Claim at right with reference to
15 key rotation boundaries in the content.
16 Slide 4 helps illustrate what the claims are talking about. This is a
17 system where the content is divvied up into a series of segments and
18 different segments of content are encrypted using different keys.
19 Imagine some program, a televised football game that's being
20 broadcast over the internet. Imagine that the first minute of the game is
21 encrypted by key 1, the second minute of the game is encrypted by key 2,
22 and so on. A client needs the correct content encryption key to be able to
23 decrypt each segment of content. Key 1 for segment 1, key 2 for segment 2,
24 and so on. This changing of keys is called key rotation. In this diagram, you
25 can see that --

1 JUDGE BRADEN: Counselor, we very much appreciate this
2 background, but perhaps we could go ahead and move into Peterka and why
3 Petitioner feels that Peterka shows that you've got the multiple keys going in
4 with the response to the request.
5 MR. SARWAR: Yes, of course, Your Honor. So I'm going to jump
6 ahead to Slide 6. So our grounds are based on the Peterka reference. And
7 like the challenged patents, Peterka relates to distribution of multimedia
8 securely over a network. Peterka describes several implementation options
9 and different ways to purchase and start playing content that's been divided
10 into segments and encrypted, and different ways to get keys on an ongoing
11 basis after that playback has started.
12 As you can see on Slide 23, Petitioner specifically relies on Peterka's
13 pay-by-time mechanism for purchasing content. Petitioner also relies on
14 Peterka's teachings of a client that keeps track of its own keys so that it can
15 pull keys as needed during playback. Now, I'm going to be jumping straight
16 into this multiple keys question you have. But just as a heads up, I'm likely
17 to reference some back to Slides 6 through 22, which summarize the
18 evidence that show the relevant teachings from Peterka.
19 Okay. So the multiple key argument, Slide 25. This applies to both
20 proceedings. Patent Owner basically argues that Peterka only ever teaches
21 sending one key per client request. As promised, I'm going to go back to
22 those earlier slides, Slide 6. Peterka discloses this pay-by-time purchase
23 mechanism to purchase content, or PBT. For PBT, a user pays for the time
24 duration of content that was actually watched by the client. Peterka
25 accomplishes PBT by dividing content into segments that are each encrypted
26 with different content keys before being sent out.

1 So what happens when Peterka's client purchases access to media
2 using PBT? Two things, just like in the challenged patents. The clients get
3 keys to start decrypting content and the client starts getting content to
4 decrypt. Now, you can see that reflected on Slide 9, in paragraph 82 there
5 on the upper right.
6 Now, the content is delivered in a stream of packets and Peterka uses
7 a different vehicle to actually deliver keys so that unauthorized users can't
8 just decrypt any secured content that they get their hands on. Slide 11 shows
9 that vehicle. Keys to decrypt Peterka's content are sent to clients in
10 entitlement messages, for example, ECMs. So the million dollar question
11 that you've asked is how many content keys does Peterka's system send to
12 clients when they first purchase content? Slide 13. At least two.
13 Peterka teaches a key management approach where a server sends
14 multiple keys, for example, current and next, to a client when it first
15 negotiates to get keys from the server. Peterka explains that this approach is
16 especially useful and desirable in the context of PBT. Here's why. For PBT,
17 Peterka highlights an issue that happens when content is divided into pay
18 segments and many clients are purchasing and accessing and consuming
19 encrypted content on an ongoing basis. Peterka refers to this as a -- this
20 issue as a large server load at segment boundaries.
21 I've included our diagram from earlier illustrating key rotation.
22 Imagine that this program, again, is a football game. There are clients
23 already watching. There are clients that are tuning in for the first time at
24 various points in the game. Each minute of the game is encrypted by a
25 different key, CK1, CK2. At the end of each minute, those red lines, those
26 boundaries, each client needs to apply a new key for decryption so that it can

1 keep watching. So the clients are all negotiating on an ongoing basis with
2 the server to get the needed keys as time goes on.
3 In this scenario, the server responsible for getting the keys to clients
4 needs to send out a lot of keys to many clients just as we approach each
5 segment boundary. That's large server load. A lot of client-server
6 negotiation, a lot of client requests, a lot of activity at segment boundaries.
7 To alleviate this problem, as you can see here on Slide 13, Peterka
8 teaches a specific key management approach. Whenever you send keys to a
9 client, send multiple keys. Send at least two. Send at least the key needed
10 for the current segment and the key needed for the next segment. So this is
11 no matter which client is asking or when the client is asking or whether the
12 client is joining the stream for the first time or trying to join again after
13 getting disconnected, send at least the current and next key.
14 Now, according to Peterka, this approach will give the server enough
15 time to distribute the next segment keys during the current segment. Now --
16 JUDGE BRADEN: As I understand Patent Owner's argument, and I -
17 - they can correct me when it is their time at the podium if I misspeak. But
18 my understanding is this disclosure in Peterka simply says that this
19 management system, this rabbit, is given the keys, but it doesn't explicitly
20 disclose that it's given the keys within one single message, that it could be
21 multiple messages that each bring one single key. And it's whether this is
22 done in response to a request.
23 MR. SARWAR: Correct. So, Your Honors, Patent Owner has
24 actually specifically not made the argument that the claims require a single
25 message to come back to the client in response to any request. They, I
26 believe in their Patent Owner response, indicated that, no, if it's coming in

1 multiple messages, that's fine, but the question is, and of course I'll let them
2 speak for themselves, the question is whether or not those are actually
3 coming in response to a request from a client.
4 JUDGE BEAMER: So, Counsel, I think they're arguing that it's not
5 coming in in response to a single request.
6 MR. SARWAR: That's right. So, Your Honors, we --
7 JUDGE BEAMER: All this is -- I mean, this could be interpreted to
8 mean that, okay, during any one period of time you've received the key to
9 the current segment, and at some point before the segment expires, you also
10 receive a key for the next segment. So that could be two separate requests
11 that generate those two keys, right?
12 MR. SARWAR: Well, so Your Honors, we disagree that that's what
13 paragraph 80 is actually saying. So paragraph 80 is talking about always
14 sending current and next keys during this process of whenever a client is
15 trying to negotiate for new keys. So the reason why we think paragraph 80
16 is talking about this scenario in which a client asks for keys and then
17 receives multiple keys in response is because of this overall context of why
18 this key management approach is being done in the first place.
19 So requiring the clients to ask multiple times for a bunch of keys and
20 then not giving them multiple keys in response would not be alleviating
21 server load, right? The idea of giving the client more keys than it's asking
22 for or, you know, in response to every request, making sure that it's sending
23 multiple keys, that is what is reducing the amount of traffic on the network,
24 it's what's reducing the amount of load on the servers.
25 And, you know, this current and next key management approach that
26 I'm describing in the context of Peterka wasn't really just a quirk of Peterka,

1 right? Like, the same approach is taught in other prior art references like
2 Suzuki from 2004, like Slide 15. Suzuki shows a client sending a server a
3 key request, for example, when it first joins a multicast program, and shows
4 receiving the current and next content key in a single message response.
5 So sending current and next keys at the same time was a well-
6 established technique to mitigate server load issues, and that's why we think
7 paragraph 80 of Peterka is actually describing that.
8 Now, Slide 16, we relied on this description of this approach in
9 paragraph 80 to explain that Peterka expressly discloses conveying multiple
10 content keys to a client when a client first requests and negotiates access to a
11 media stream. On Slide 17, we further separately argue that this approach
12 was desirable and obvious. For that argument, Petitioner used Figure 7B for
13 corroboration.
14 Slide 18. Peterka's Figure 7B shows distribution of keys during a
15 program. Up top, you can see the number of requests for a program that
16 Peterka's system receives plotted against time. The plot goes up and then
17 down over time. See, it's sort of a skewed --
18 JUDGE BEAMER: What slide are you on? I'm sorry, what slide are
19 you on?
20 MR. SARWAR: I'm sorry, Your Honor. That's Slide 18 of
21 Petitioner's slides.
22 JUDGE BEAMER: Okay.
23 MR. SARWAR: All right. So the plot on the top, that's the number
24 of requests for a program that Peterka's system receives plotted against time,
25 and you can see the skewed bell curve near the top. Near the bottom, you
26 see the content keys that are conveyed to clients during those same program

1 portions when those requests come in. This is the row labeled ECMs. So
2 Figure 7B shows two content keys, CK0 and CK1, distributed for each
3 request to join the program that's received during the blue period.
4 Figure 7B also shows two content keys, CK1 and CK2, distributed for
5 each request received during the red period. Figure 7B thus is confirming
6 Peterka's teaching in paragraph 80 of sending multiple content keys, current
7 and next, in response to requests, you know, for a program. Now, Slide 19.
8 Petitioner further argued that it would have been obvious to group multiple
9 ECMs together in one content key -- sorry, in one -- let me back up.
10 JUDGE BRADEN: Hold on. I want to make sure I understand your
11 position. It's your position that CK0 and CK1 are sent together in response
12 to a request, and that CK1 and CK2 are sent together in response to a
13 request. Did I hear that correctly?
14 MR. SARWAR: Yes, Your Honor. We are saying that whenever one
15 of those requests that are reflected in that plot up top is received by the
16 system, this is what the system does. If you're in that blue period, you
17 receive CK0 and CK1, consistent with this idea of sending both current and
18 next from paragraph 80. Then, in the red period, this initial key distribution
19 period, one of those requests that are reflected in that plot up top, in response
20 to that, any client that tries to join the program at that time gets CK1 and
21 CK2.
22 In the yellow period, you're only getting one key, but that's because
23 the program is coming to the end. But for those first two periods, when the
24 client is requesting to join the program, is requesting the program, it's getting
25 those respective pairs of keys.

1 JUDGE BRADEN: So, if I understand, if someone signed on to the
2 free preview period and they got key 0 and 1, and then they continued to
3 watch, they wouldn't get 1 again, right? In the red period, they already have
4 it.
5 MR. SARWAR: We disagree with that, Your Honor. Peterka
6 actually, consistent with the teachings in Suzuki and other prior art, is
7 talking -- using this sort of server load management approach. So it is
8 always sending, regardless of whether or not, you know, when the key is --
9 when the client is joining the program, current and next. So it sends current
10 and next in the blue period, and then it sends current and next again in the
11 red period.
12 So, yes, the client gets the one key twice, but, you know, these keys
13 are identified. The client and server are both able to keep track of what keys
14 are being sent out, so it's receiving current and next each time. And this is to
15 account for the anticipation of a lot of requests near boundaries and the
16 anticipation of servers having difficulty handling all these requests in
17 situations where clients are kind of joining and leaving a program at will.
18 Does that make sense, Your Honor?
19 JUDGE BEAMER: Not to me. Seems to me if you already have the
20 key, there's no need to request --
21 MR. SARWAR: Can you repeat that, Your Honor?
22 JUDGE BEAMER: What?
23 MR. SARWAR: Can you repeat that, Your Honor? The audio cut out
24 for a second.
25 JUDGE BEAMER: Sorry. I just don't understand why you would
26 have a request for key 1 when you're in the middle of, you know, you've

1 passed the free preview period. You're now in the so-called guaranteed
2 period. You've still got to pay for it, right? You're not going to get key 2
3 until you pay for it. And so, at that point, when you pay for it, you're now
4 going to request key 2, but you don't need key 1. You're already watching
5 the preview period and the guaranteed period using the keys you already got.
6 MR. SARWAR: Okay. So --
7 JUDGE BEAMER: And if you wait too long, you're going to lose --
8 you're going to be in the disallowed period. But I guess, as I understand,
9 you could still pay and get the key 2 and resume watching, but you'll have an
10 interruption. And I don't know what happens if you go all the way into the
11 yellow zone and you haven't done anything. I guess you can still catch up
12 and start watching it if you pay. I mean, the patent is just not clear on all
13 that.
14 MR. SARWAR: Right. So there's a few things that I want to -- this
15 train of thought, I want to try to convince Your Honor that it might not be
16 particularly relevant to Petitioner's arguments on this. So the initial point of
17 this question, the sort of our entry point to this was, what happens when a
18 client is requesting to join the program during this blue period? And I think
19 Your Honor agreed with me that that client receives both CK0 and CK1. Is
20 that fair?
21 JUDGE BEAMER: That's my understanding. Although the Patent
22 Owner says there's no request at all, and so you're getting those keys
23 somehow without a request.
24 MR. SARWAR: Right. I'll just --

1 JUDGE BEAMER: Which, I'll let the Patent Owner explain that. I
2 don't understand how that could be the case. But anyway, so for purposes of
3 this discussion, I agree with you.
4 MR. SARWAR: Okay. Excellent. So that's -- I'm halfway there. So
5 the next point I wanted to mention is that, so once we've done that for the
6 clients that have joined the free preview period, this initial part of the claim
7 that requires a request for playback and a playback request response in
8 which you receive multiple keys, we've already been satisfied. We're all set.
9 For all the keys that have joined in this blue period, we've gotten through
10 this initial part of the claim where we've got the playback request and the
11 media playback request response.
12 So Your Honors almost don't even need to really worry about what
13 happens as that client that has already joined the program is crossing over
14 into the rest of the program, right? Because whether or not they're receiving
15 that CK1 again is almost beside the point. The claims don't really talk about
16 receiving multiple keys in response to subsequent requests after playback.
17 So I want to point Your Honor to the subset of clients that are actually
18 joining the program in the red period. Would Your Honors agree with me
19 that for a client that is joining the broadcast in the red period, they're
20 receiving both CK1 and CK2?
21 JUDGE BEAMER: Only if they pay.
22 MR. SARWAR: Sure, if they pay. So they request -- and Your
23 Honor, I would just point out that any client that's actually trying to join
24 during the red period, that's not the free preview period anymore. So, you
25 know, these clients are ones that have paid, right? So this is a purchasing
26 decision, it’s a -- sorry, it's a playback request that happens to come with a

1 purchasing decision. Yes, I'm going to pay for this. So they've joined in that
2 red period. In that situation --
3 JUDGE BRADEN: And if we agree with you, then we don't even
4 have to consider the blue period is what you're saying? The CK0, CK1?
5 MR. SARWAR: Yeah. If Your Honors agree that clients in the
6 context of Figure 7B, ones that join during the red period, when they request
7 to play back the media, they receive CK1 and CK2, it does not -- the blue
8 period doesn't matter. Because in that situation, we've confirmed that
9 Peterka has a teaching in it for clients that are joining a program for the first
10 time, receiving multiple keys in response, thereby satisfying limitation 1A
11 and 1B. Okay.
12 JUDGE BEAMER: Well, I can see two different scenarios. And I
13 don't think the patent explains which one applies, so we're just guessing.
14 But during the guarantee period, if somebody suddenly decides to join this
15 system, I can see that they would only get key 1, because they have until the
16 disallowed period to buy. And at some separate point in time, presumably
17 fairly quickly, they would pay and then they get key 2. Or on the other
18 hand, as you say, the moment they join, they get both keys, although they
19 haven't paid yet. So why would they get key 2? They need -- key 2 is only
20 for when you pay.
21 MR. SARWAR: Well, I don't -- Your Honors, I don't actually think
22 that the client can join the broadcast during the non-free preview period for
23 free. For clients that are joining --
24 JUDGE BEAMER: We're just guessing. I mean, we have no idea.
25 What we do know is that if you join during the free period, you can continue
26 to watch for free during the guarantee period by using key 1. And if you --

1 but if you wait too long, you'll lose the program because you don't have key
2 2.
3 MR. SARWAR: Yes, that's right. Well, so the other thing that I want
4 to mention in this particular discussion is the -- this purchase key theory.
5 I'm trying to figure out exactly which slide I need to go to in order to get us
6 to where this is useful. All right. Let's go to Slide 31. So this is where
7 Patent Owner articulates an unpurchased key theory. I think it's from one of
8 their surreply footnotes. They acknowledge that Peterka teaches media and
9 keys provided to PBT clients before clients have made a purchase decision,
10 but they say those responses don't count.
11 Your Honors, my question is why? According to a Patent Owner, it's
12 because keys for unpurchased content aren't covered by the claims, but this
13 unpurchased theory, the unpurchased key theory is unsupported by the
14 claims or the specification or the file history. We looked back at their POR
15 to see if they cited anything to support the unpurchased key theory, the idea
16 that a purchasing decision matters. And, you know, there obviously wasn't
17 any citations there.
18 The claims require only a request for media playback and a playback
19 request response. The claims don't recite or care about any purchase
20 decisions. So if the request is for encrypted content that happens to be free,
21 the claim doesn't care. Patent Owner provided no reason to believe
22 otherwise. Now, another thing, Slide 29. We are a little bit confused about
23 this conclusion based on Figure 7B, that Peterka's client is always
24 miraculously in possession of specific content keys needed for specific
25 content before even requesting playback of that specific content in the first
26 place.

1 I have a son, six years old. He's sometimes permitted to watch TV.
2 He usually tunes in to How It's Made, a Canadian television show about how
3 objects are constructed. Sometimes he tunes into Bluey, an Australian show.
4 Sometimes he chooses a nature documentary like Planet Earth. The server
5 doesn't know what he's going to pick. The client doesn't know what he's
6 going to pick. He doesn't know what he's going to pick.
7 Patent Owner is saying that before my son even chooses what he
8 wants to stream, before the client in Peterka even initiates playback requests
9 for a specific program, regardless of whether or not it's been purchased, the
10 client already has these specific content keys for the specific segments of the
11 specific program content that hasn't been decided on yet. This interpretation
12 of Peterka makes little sense. Peterka does not teach in Figure 7B or
13 anywhere that its client magically receives content keys for segments for a
14 specific piece of content without first requesting to play the specific content
15 in the first place.
16 JUDGE BRADEN: Well, Counselor, let's go back to your example of
17 the football game. So you're on ESPN and it's got, you know, several games
18 of the day. So you could watch college football, you could watch NFL, you
19 could watch Canadian football, whatever it is. And you're scrolling over
20 each game and it shows you as the cursor goes over one game, you get a free
21 preview of what's going on in that game or, you know, the discussions of the
22 highlights or whatever it is before you're like, yes, I would like to see
23 Indiana beat Miami. Let's watch that. Maybe that's what you want to do.
24 But you're getting a free preview, but you haven't requested the game
25 yet. You're just seeing some of the highlights or whatever it is. And then
26 you click on it and maybe then it says, hey, in order to watch this, you've got

1 to make this -- it's outside your subscription, you've got to make a purchase.
2 Then you've got to send in the request to be able to watch that game.
3 Whichever it is, whether it's clicking on the game or making a purchase,
4 whichever those, you know, constitute your request.
5 When you scroll over that thumbnail and got to see some of the
6 highlights, you saw the free preview. You didn't request the program, you
7 didn't request any of the keys or anything like that, because maybe you'll
8 keep scrolling. Maybe you're like, no, that's not the game I want. I would
9 like to watch Australian Rules football. I don't know. But you keep on
10 going and you can see all of these free previews and maybe never even
11 decide to watch a game.
12 How would that not fall within here? And how would that not say,
13 okay, I had the free preview. I'm going to click on this. I'd like to watch
14 Australian Rules football. Now I'm going to go into the guarantee period.
15 I've got CK0, I've got CK1. Now I'm going to purchase it and I'm going to
16 get CK2.
17 MR. SARWAR: Well, Your Honor, so first of all, that's sort of
18 imposing a lot of, I guess, structure around the concept of this request that
19 I'm not sure is actually in the claims. So I, for example, would argue that
20 hovering over a video with a mouse so that that video starts playing back the
21 free preview is a request to playback media. It doesn't matter that it's
22 purchased or not. It doesn't matter that I haven't clicked or not. Basically, I
23 have made a request to play that back.
24 And in response to that request, I've received two keys in this blue
25 period, right? The CK0 and CK1. So presumably in this setup, your mouse
26 is hovering over this free preview and then you can keep watching for a

1 while. And then at some point you need to purchase it. But in order to let
2 you watch it for a while, you've received CK0 and CK1 in order to be able to
3 get yourself into the red period for a while. That's that scenario.
4 And I don't think the -- you need to click on it, you need to say, hey, I
5 purchased it or anything like that. If you hover over it, you're good. And
6 that counts as a request. And Your Honors, I'm not sure if there's anything
7 in the claim that actually like sort of, or certainly nothing in the claims, but I
8 don't think there's anything in the spec that would sort of, you know, suggest
9 interpreting the claim to be like quite so narrow about like what a request
10 entails.
11 JUDGE BRADEN: Very good. Thank you, Counselor.
12 MR. SARWAR: Excellent.
13 JUDGE RAEVSKY: Counselor, I have another question related to
14 the claims. Have we considered anywhere in the briefing whether the word
15 "a" in limitation A, "a" media playback request, receiving "a" playback
16 request response means one or more, as the Federal Circuit typically
17 interprets that term? And if so, does that help us interpret Peterka to cover
18 these claims, or no?
19 MR. SARWAR: I don't think the clients have -- sorry. I don't think
20 the parties have briefed this particular issue. That interpretation of "a" as
21 potentially being one or more would certainly result in a broader
22 interpretation of the claim that then would obviate a lot of Patent Owner's
23 arguments regarding, you know, the necessity to have like a specific, you
24 know, express disclosure of a single request and multiple keys coming in
25 response to that. I think it would be even more clear in our eyes if Peterka
26 satisfies that.

1 But, you know, in full frankness, we haven't briefed this issue and,
2 you know, beyond like sort of confirming that, yes, Peterka certainly
3 discloses that. I'm not sure what else I can say about that. Does that answer
4 your question, Your Honor?
5 JUDGE RAEVSKY: Yes, it does. Thank you.
6 JUDGE BEAMER: Could we go back to Claim 1?
7 MR. SARWAR: Yes, Your Honor.
8 JUDGE BEAMER: What slide would that be?
9 MR. SARWAR: I think we can go with Slide 5.
10 JUDGE BEAMER: So I want to, I guess, I want to go back to some
11 basic questions here. Do I understand your position that the playback
12 response, you know, if you take the first two requirements, you talk about a
13 response and then you're parsing the response and you need to have a
14 plurality of encryption keys in that response, right? Is that how you're, you
15 know, are you agreeing that that's what's required?
16 MR. SARWAR: That is correct. The parties agree that this term
17 appears to require that the playback request comprise content encryption
18 keys, plural.
19 JUDGE BEAMER: And Claim 2 gives an example. We don't have it
20 in front of us because I recall it says you have the current key and the next
21 key or something like that.
22 MR. SARWAR: That's right.
23 JUDGE BEAMER: But it could be a hundred keys, I guess.
24 MR. SARWAR: That's right.
25 JUDGE BEAMER: But then when you go further down the claim,
26 you talk about detecting rotation boundaries and making requests for new

1 keys from the, does it say, from a license server. So now it's talking about
2 keys that you don't have. So what's the transition from the keys that you got
3 right up front and the rest of the claim, which is talking about keys you don't
4 have yet?
5 MR. SARWAR: So is Your Honor asking me why the claim was
6 drafted in this fashion and whether or not there's sort of some problem with
7 the second half of the claim?
8 JUDGE BEAMER: Well, I just want to know -- I mean, I assume
9 we're talking about all sorts of different scenarios, but at some point, you run
10 out of keys that you got up front and now you're saying, okay, now I'm
11 running -- I'm on my last key that I got up front and it's expiring soon, so I
12 need another key. And then that pattern continues forever until you have
13 your end of the program. Is that correct understanding of how it works?
14 MR. SARWAR: I think that's correct, Your Honor. So the initial
15 playback request and the playback request response gives you a first set of
16 keys that allows you to decrypt for a while. And then in order to continue
17 doing something on an ongoing basis, that second half of the claim in blue
18 there, that's acquiring additional keys during playback.
19 JUDGE BEAMER: Okay. So go back to Figure 7B of Peterka.
20 MR. SARWAR: We can go to Slide 18.
21 JUDGE BEAMER: Which one?
22 MR. SARWAR: Slide 18. It's a large version of Figure 7B.
23 JUDGE BEAMER: Okay. So the way I see this is, at least according
24 to your interpretation, when you ask for a free preview, you get two keys.
25 So there you go, you're satisfied those first two elements. Then you
26 continue watching. And I don't see anything about expiration here, you just

1 continue watching until you pay. And once you pay, you've got key 2, and
2 then it goes on forever, you're done. So where does the rest of those claim
3 elements come into play?
4 MR. SARWAR: Okay. So this is -- I really appreciate this question,
5 Your Honor, because this highlights a point I want to make about Figure 7B
6 in general. So we rely on Figure 7B to corroborate teachings in Peterka, for
7 example, the current and next teaching. But Figure 7B does not reflect all of
8 Peterka's teachings that we're relying on. So Figure 7B shows one
9 embodiment in which, you know, there are three keys for the entire program.
10 But Peterka contemplates programs that go on for a while, and Peterka
11 contemplates using a PBT scheme, which is not really reflected here in
12 Figure 7B.
13 And for that ongoing program in which you have clients that are using
14 a PBT scheme, they are going to need to keep asking for keys so that they
15 can continue watching the program that they've purchased using this PBT
16 scheme. That's the system that we're relying on. Figure 7B is helpful
17 because it corroborates certain teachings in Peterka that we relied on from,
18 for example, paragraph 80, because it actually shows, in response to
19 requests, receiving multiple keys and illustrates it helpfully. But it's not the
20 be-all and end-all of what Peterka discloses.
21 So in terms of how the claim maps specifically onto Figure 7B, I
22 would just say that Figure 7B is not the limit of what our argument is.
23 JUDGE BEAMER: So you're modifying 7B, you're combining it with
24 other teachings in the patent that talk about a whole series of keys that you're
25 getting as the time expires?

1 MR. SARWAR: So, Your Honor, if we turn to Slide 23, it's more
2 accurate to say that we're relying on a system that Peterka discloses that uses
3 the pay-by-time purchase mechanism and the pull-key distribution during
4 playback, where the clients are monitoring their key expirations and getting
5 more keys as they go. The Figure 7B is used as corroboration for Peterka's
6 teachings to show that, look, the system that we're talking about and the way
7 we're interpreting Peterka is all consistent internally with Peterka.
8 And there's this picture here that's helpful for understanding this
9 multiple key point. It's also helpful for understanding, for example, that a
10 single key comes in every ECM.
11 But we're not modifying Figure 7B. We're not -- we don't ever in the
12 petition rely on a free preview or anything like that. This is, on Slide 23, this
13 is a better encapsulation of what we're actually arguing. Does that --
14 JUDGE BEAMER: Okay. Thank you.
15 MR. SARWAR: Okay. I'm going to turn us to Slide 19 and just
16 mention that, in addition to using the teachings in Peterka from paragraph 80
17 regarding sending current index, and in addition to using Figure 7B to
18 corroborate that Peterka teaches sending multiple keys in response to the
19 client requests, we also argued that it would have been obvious to group
20 multiple ECMs, each containing one content key, into a single message. So
21 there's another obviousness argument here that Your Honors should
22 consider.
23 We said that it was obvious to combine those into a single message
24 and obvious to send that combined message to a client when it sends a
25 request to join a program. So this argument was after an explanation of
26 Peterka's teachings regarding the benefits of the current indexed approach,

1 and has citations to Peterka's teachings regarding network efficiencies of
2 grouping entitlement messages together, and cites to Suzuki with his express
3 teaching of sending multiple keys at once in a single message in response to
4 a client request.
5 So those are the three ways disclosed by Peterka, desirable and
6 obvious given Peterka's teachings, and then obvious in view of Peterka and
7 the knowledge reflected in references like Suzuki.
8 Now, on Slide 26, Patent Owner's response, you know, takes several
9 stages. First, I want to highlight something about Patent Owner's argument
10 here. Patent Owner leads with and devotes a significant amount of briefing
11 to purchasing mechanisms in Peterka that the petition simply didn't rely on,
12 pay-per-view and subscription. Those arguments are distractions.
13 We think Patent Owner places such prominent focus on those
14 mechanisms because those don't need to use the same kind of segment-by-
15 segment key rotation that Peterka describes for PBT. You certainly could
16 use key rotation in those contexts, but you technically don't need to. And,
17 you know, we think there's a focus on those mechanisms because that's a
18 scenario where you're not even rotating keys in the first place. There's no
19 concern about large server-loaded segment boundaries.
20 Patent Owner also employs a similar distraction technique for its
21 discussion of keys. In arguing that Peterka would never send content keys
22 for multiple content segments in response to a client request, Patent Owner
23 devotes a lot of argument to other keys in Peterka, specifically the free
24 preview key and the group key.

1 So, again, these are scenarios that are not really relied on by the
2 Petitioner and -- well, they're not relied on by the Petitioner. And these are
3 talking about situations where keys are provisioned to clients beforehand.
4 So we didn't map Peterka's free preview key and group key to the
5 claimed content encryption keys. We relied on the CKs. And, you know, as
6 you can see in Table 1, Slide 27, there's many kinds of keys here. These
7 other keys are used in different ways. For example, they can be used to
8 encrypt content keys. Peterka uses brackets and parentheses to indicate
9 when a key is encrypted by another key. The key that's being encrypted is
10 shown on the inside, the key that is encrypting is noted on the outside.
11 So, here you can see that the idea of provisioning keys or content keys
12 or giving them ahead of time isn't even listed as an option. It's certainly
13 listed as an option for the other keys, the group key and the free preview
14 key, but it's not listed as an option for the key that we are specifically relying
15 on.
16 I also wanted to note that on Slide 32, Patent Owner's multiple key
17 argument also turns on a misreading of the purpose of Peterka's pay-by-time
18 key. This part of the argument just ignores how Peterka's system, the one
19 that we relied on, keeps track of what clients should be charged. There's no
20 indication in Peterka that clients are charged based on the number of keys
21 that they receive. Instead, the server records the client's joining and leaving
22 time and uses that. So the PBT system doesn't break when a client happens
23 to have an extra key.
24 On Slide 33, you can see that Patent Owner actually seems to
25 recognize this. They point to this -- they make this point that having the key
26 for the next segment ahead of time in Peterka helps avoid service

1 interruptions, and that this is consistent with Peterka's teachings. So there's
2 suggestion that Peterka's current and next key teachings somehow defeat the
3 purpose of PBT, and we don't think that's credible. So do Your Honors have
4 any questions about the purpose of Peterka's PBT in this? Okay.
5 JUDGE BEAMER: Am I right in understanding that Peterka has a
6 whole bunch of different embodiments that it's talking about? And you're
7 not saying that any one embodiment anticipates the claim, but rather by
8 combining different parts of different embodiments, you render the claim
9 obvious?
10 MR. SARWAR: As a general matter, I would agree with that. We're
11 not making anticipation argument. The only thing I hesitate about is the idea
12 that we're essentially mixing embodiments. What we're doing is building an
13 embodiment out of the different options that Peterka says that you can use, if
14 that makes sense. So we're not -- this is not a type of situation where, oh,
15 we're taking an embodiment that's reflected in Figure 1 and an embodiment
16 that's reflected in Figure 4, and we've sort of, without explanation, just sort
17 of started picking and choosing different pieces from those.
18 Instead, what we've done is we've looked at Peterka's teachings and
19 we're -- looked at their teachings about how their pay-by-time purchase
20 mechanism works, and how the clients can be configured to get keys after
21 playback. And we argue that Peterka teaches a system that meets the claims.
22 Is that -- I know it seems like I might be splitting hairs here, but basically, I
23 want to push back against the potential interpretation that we're mixing and
24 matching different pieces of different embodiments.

1 This is more, we're actually saying that Peterka describes the system
2 that has these various options, and the options that we've chosen would have
3 rendered obvious the claims.
4 JUDGE BEAMER: Yeah, I understand. Thank you.
5 MR. SARWAR: Okay. All right. So the last thing we wanted to
6 highlight -- well, sorry, time is flying when you have fun. The last thing I
7 wanted to highlight about Patent Owner's multiple key argument is about
8 Suzuki, Slide 34. Patent Owner dismisses Suzuki's teachings about bundling
9 multiple keys into a single message when responding to client requests.
10 Their lead reason was that Suzuki doesn't teach transmitting multiple keys.
11 They said that Suzuki only teaches transmitting key information.
12 It took us a while to understand this argument, and eventually we
13 realized that Patent Owner and its expert hadn't really even read Suzuki.
14 Suzuki plainly uses the term key information to refer to key IDs, key
15 expiration times, and the keys themselves. You can see this on Slide 35.
16 And it plainly shows a response message to a client that includes multiple
17 keys.
18 We use these teachings for a pretty focused reason, to help
19 demonstrate that it was known and desirable and would have been obvious
20 to implement Peterka to send multiple keys, current and next, in a single
21 message, consistent with Peterka's server load teaching in paragraph 80, and
22 as corroborated by, you know, the illustration in Figure 7B, which doesn't
23 reflect the system that we're relying on, but corroborates the teachings that
24 we're drawing from Peterka. So, our Suzuki-based arguments on this point,
25 I think, stand unrebutted.

1 And do Your Honors have any questions about Suzuki's multiple key
2 teachings?
3 All right. I'm going to jump now to content key identifiers. So, the
4 argument here is that Peterka does not disclose content encryption key
5 identifiers, and also that using identifiers would not have been obvious.
6 Petitioner provided three arguments about how the identifier's requirement is
7 met.
8 Slide 37. There are two unique pieces of information included with
9 each key that Peterka sends to its clients, and those two unique pieces of
10 information constituted content encryption key identifiers, because they
11 could be used to identify the key. This is the sequence number and the
12 timestamp.
13 We know that these are unique to each key in the message, because
14 the information is used to prevent replay attacks. Replay attack is when a
15 message is intentionally modified and rerouted to try fooling the system, and
16 including unique information like the timestamp or a sequence number helps
17 the system avoid getting fooled when it's receiving a message that it doesn't
18 actually expect to receive again.
19 This doesn't mean that the system doesn't receive the same message
20 over and again, but if it's like, oh wait, I didn't really expect that to come five
21 times, oh no, there's a replay attack. So because this information is
22 associated with only one key and can be used to uniquely identify the key,
23 we said that, look, using this data to identify keys would constitute those
24 pieces of data being content encryption key identifiers.
25 And we pointed out that this use of other unique data on Slide 38 as a
26 key identifier was consistent with the specification's description of selecting

1 key identifiers based on other data. The specification lists a few things,
2 sequential integer values, wall clock timeouts, pop sets, and things like that.
3 This is, all sort of supports the idea that use this other data that might be
4 used to identify other things, but you can also use it to identify keys. On
5 Slide 39, we also offered an alternative argument in the situation.
6 JUDGE BEAMER: Counselor?
7 MR. SARWAR: Yeah.
8 JUDGE BEAMER: I think I recall that Patent Owner said that a
9 message could contain more than one key, in which case it's not uniquely
10 identifying the key.
11 MR. SARWAR: I do not believe Patent Owner is arguing that
12 Peterka discloses more than one key being in an ECM. And Peterka's
13 disclosures all, for example, paragraph 121 of Peterka, always discuss these
14 entitlement messages as containing one key and then information that gets
15 sent with that key. So I don't think there's been any argument suggesting
16 that more than one key is ever sent in one of these messages.
17 JUDGE BEAMER: Okay.
18 MR. SARWAR: Okay. Yeah, and of course --
19 JUDGE BRADEN: And Counsel just -- sorry, I just wanted to let you
20 know you've got 5 minutes until you start eating into your rebuttal time.
21 And this may be a time that you might want to consider reserving to discuss
22 the motion to amend after the break.
23 MR. SARWAR: Okay. Yes, I am happy to address the motion to
24 amend after the break if Your Honors are fine with that. I will do my best to
25 get through the rest of this discussion on the original claims in the next, let's
26 see, seven minutes. You guys are going to discover how quickly I can talk, I

1 suppose, and probably how much less understandable I get when I talk
2 quickly.
3 JUDGE BEAMER: It's already somewhat of a challenge.
4 MR. SARWAR: Oh my God, I'm so sorry, Judge Beamer. Do Your
5 Honors have no other questions about fondant encryption key identifiers?
6 Do you understand our positions on this? I want to make sure that if there's
7 any lack of clarity – okay. All right. So, and I suppose I should ask, do
8 Your Honors want to talk about the '178 only arguments that Patent Owner
9 raised? You can see these on Slide 51. These are the detecting and issuing
10 requirements. These are requirements that Your Honors found at institution
11 to be satisfied by Peterka because Peterka discloses detecting key rotation
12 boundaries in two different ways. One is by monitoring key expiration
13 times, and the other is by looking for signals in the content. One is trying to
14 decide which key to actually apply.
15 If Your Honors have any questions about the detection or the issuing
16 requests limitations and whether or not Peterka's disclosure of those two
17 things are compatible, I'm happy to address them, but otherwise I will take
18 your polite invitation to reserve the rest of the time for rebuttal. Your
19 Honors should let me know.
20 JUDGE BEAMER: I think that makes sense.
21 MR. SARWAR: All right.
22 JUDGE BRADEN: Judge Beamer, Judge Raevsky, do you have any
23 questions for Counselor?
24 JUDGE BEAMER: None.
25 MR. SARWAR: I will reserve the rest of my time for rebuttal.

1 JUDGE BRADEN: And I believe that you will have a total of 37
2 minutes left for rebuttal, and I believe we will have some questions for you
3 during that time. So, thank you, Counselor.
4 MR. SARWAR: Thank you.
5 JUDGE BRADEN: Patent Owner, please confirm the amount of time
6 that you would like to reserve for surrebuttal time.
7 MR. NOROOZI: I believe 40 minutes, Your Honor.
8 JUDGE BRADEN: Forty minutes, very good. And you may begin
9 your arguments when ready.
10 MR. NOROOZI: Thank you, Your Honors. We heard a lot of
11 statements from Petitioner's Counsel, but a few of them are really significant
12 to highlight because they demonstrate why the petition, in fact, fails to meet
13 its burden.
14 With respect to the issue of limitations 1A and 1B, the theory that has
15 been presented relies on pay-by-time. And it's important to understand what
16 pay-by-time is in the context of Peterka. Pay-by-time, Peterka teaches,
17 involves scenarios such as Olympic Games or fashion shows or other such
18 situations where different viewers want to watch discrete segments of long
19 ongoing programs.
20 And so, let's say the Olympics is going on and someone wants to
21 watch the 100-meter race and somebody else wants to watch swimming.
22 And these are spread across time. And so, instead of buying the entire
23 Olympic stream, you buy the segment that you want so you can watch the
24 thing that you want. And each segment that you get under pay-by-time is
25 going to be that unit of content.

1 So then, you only need the one content key for the segment that you
2 bought. You don't need a series of ongoing content keys unless you buy a
3 series of continuous segments. And when you use the poll model in Peterka
4 to say that you want more content segments, then each time you want a
5 content segment, you make your purchase decision known and you get the
6 one key for that segment. So I just want to give this high-level overview and
7 then I want to go into the specifics of their evidence and what's wrong with
8 it in terms of mapping onto the claims --
9 JUDGE BEAMER: Counsel?
10 MR. NOROOZI: Yes.
11 JUDGE BEAMER: If I'm watching some part of the Olympics, why
12 wouldn't, you know, if you want to watch the figure skating contest, it seems
13 to me it's quite possible it could be divided into a whole bunch of segments
14 that are automatically continuing until you stop and each segment clocks up
15 some more of the charge that you're paying. But you still need to get the
16 keys, you know, automatically sent to you. I'm not sure why you assume
17 that you only have one segment and one key for the whole thing.
18 MR. NOROOZI: Yeah. Well, I mean, that's what -- that's the way
19 Peterka designs pay-by-time is that it uses -- and I'll get into Peterka to show
20 you this, but I think it's important to talk conceptually so that I can help the
21 Board understand what Peterka is even trying to do. Peterka is trying to
22 monetize content and make sure that it is able to deliver different
23 subscription models or payment structures for different types of content
24 delivery. And one of those is a subscription service and it says, you know,
25 that's like HBO and you sign up and you get a long period of content for,
26 let's say, a month and you get one key for that, right?

1 So to Your Honor's question, of course, you could divide up the HBO
2 content into lots of segments and give lots of keys, but you get one service
3 key that is for that subscription under that model. Another model is that you
4 have pay-per-view, and in pay-per-view you're going to get this one piece of
5 content. And so for the actual paid portion of the content that you're buying
6 in pay-per-view, you will only get one key. And I think it's important to
7 drill down on that for a minute. That's what's going on in Figure 7B. So let
8 me just share my screen.
9 So if we look at Figure 7 here on Slide 10 of our demonstratives, the
10 reason, Your Honor, you asked why does it end at CK2 and why is there
11 nothing beyond that? And Peterka actually explains this explicitly. It says
12 in the context of pay-per-view, there is no other key to provide because we
13 only need one key, one paid key for the entire pay-per-view content. The
14 keys that come before, CK1 and CK0, are for the free preview and the
15 guarantee period that allows people to make purchase decisions about the
16 pay-per-view content and to acquire that CK2. Does that make sense?
17 And I'd like to show you this in Peterka. So if we look at right here,
18 and this is critical because I believe the Board knows that Figure 7A is
19 identical basically to 7B except for some of these notations about guarantee
20 period and so forth. So the description of Figure 7A and the keys in 7A
21 controls as to 7B and then 7B has some additional details. Peterka, starting
22 at paragraph 92, we can look at, says --
23 JUDGE RAEVSKY: Excuse me, Counsel.
24 MR. NOROOZI: Yes.
25 JUDGE RAEVSKY: Could you please zoom in further?

1 MR. NOROOZI: Yes. So at the bottom of Figure 7A, the distribution
2 of content keys -- excuse me, just for the record, I'm reading from Peterka,
3 paragraph 92. At the bottom of Figure 7A, the distribution of content keys
4 0, 1, and 2 is shown. Content key 0 is provided to the user in one
5 embodiment for obtaining the free preview.
6 Now, this is important because Counsel for Petitioner said that the
7 free preview key has nothing to do with their theory and they're not relying
8 on the free preview key. They're relying on CK0. Well, CK0 is the content
9 key for the free preview and it's provided encrypted under the free preview
10 key in Figure 7B. And Figure 7B shows that, but we'll continue here in
11 paragraph 92.
12 Content keys 1 and 2 illustrate an example where only two keys are
13 required to decrypt the remainder of the program content. As an example,
14 key 0 may be a well-known free preview key, content encryption key
15 encrypted under the free preview key, or the content may not be encrypted at
16 all during the free preview period.
17 Key 1 would represent a group key itself or a content encryption key
18 encrypted under the group key used during the initial viewing period. So if
19 Your Honors -- why don't I direct you back to 7B for a minute so you can
20 track this, right? [Slide 10]. So in 7B, we can see there's an ECM down
21 here. That's a message. It's got CK0 and that's encrypted under the FPK,
22 which is the free preview key. That's the first part of what Peterka just
23 described. And then there's another ECM here and that's got CK1, and that's
24 encrypted under the group key, okay? That's for the initial viewing period.
25 Now, both of these things, as we've explained at length in our
26 briefing, are unrequested and unpaid for. And so if we go back to Peterka, it

1 explains this. It goes on to say, and key 2 would be the actual content
2 encryption key delivered only to those clients that purchase the content.
3 Now, the reason it says the actual content encryption key is because
4 it's saying this is the only key that is used to block people out. The other
5 keys, even though they're encrypted and they encrypt the content, they're not
6 used to block people out because Peterka's system is letting everybody see
7 the free preview and the initial viewing period so that they can decide to
8 make a purchase for the paid period of content, which is key 2.
9 And it goes on to say, thus clients that tune to the content first view a
10 free preview and make a decision to buy. Those who make such requests
11 use the group key to allow their viewing experience to continue. The server
12 would deliver the key 2 during this time so that those viewers could continue
13 viewing the remainder of the content in a continuous fashion. Okay? So,
14 and as it says above, there's no other key. It ends at key 2, right?
15 So there's no example in Peterka of what the petition requires to meet
16 limitations 1A and 1B under their theory. There's no teaching in Peterka of
17 a pay-by-time content delivery model where a user makes a client-initiated
18 request, which is the only kind of request that counts under the petition, a
19 client-initiated request.
20 And in response to this client-initiated request, the user is provided
21 multiple content keys in -- as one response to one request. There is no such
22 teaching in Peterka. And that would not make sense for Peterka because
23 pay-by-time is specifically designed to address situations where different
24 people want different things within a long-lived duration of a stream.
25 And so all the different users are asking for different pieces of
26 content, and they have not purchased multiple different things together.

1 They're each making individual purchases, whereas Peterka is sending out
2 keys in a multicast. So what it's doing is it's saying, okay, I've got this next
3 period of the Olympics coming up. Who are the users that wanted
4 swimming, the swimming event? And it's going to see who that is, and it's
5 going to send out those keys. That key, there's going to be one key, one
6 content key for that swimming event. It's going to send that out to that user,
7 to that set of users.
8 And then when it gets to the next event, let's say the sprint, there will
9 be a different set of people who've wanted that content. So it will have to
10 send out that second key to a different set of users. And because it's sending
11 out a multicast message each time where everyone in the multicast group
12 gets the key, it can't send out multiple periods of keys at once in one
13 multicast without giving people access to content that they did not buy.
14 That's why Peterka -- Judge Braden, I see that maybe you don't quite follow
15 why I say that. So --
16 JUDGE BRADEN: I don't. I'm not sure that I understand that, and
17 I'm not sure exactly how you're interpreting that from Peterka. Perhaps you
18 can explain it a little bit clearer.
19 MR. NOROOZI: Yeah, sure. So let's take the five of us, myself,
20 Petitioner's Counsel, and Your Honors. The Olympics is going on and let's
21 say all five of us decide we want to watch the opening ceremony. And that's
22 going to be one segment that's available for purchases pay-by-time in
23 Peterka. So Peterka will give all five of us in one multicast the key for the
24 opening ceremony.
25 Then the first substantive event after the opening ceremony will be a
26 100-meter race, but only two of us want to watch that and want to purchase

1 that. So if Peterka gave all five of us the key to both the opening ceremony
2 and the 100-meter race, now three of us receive the right to watch something
3 that we didn't purchase.
4 And Peterka doesn't want to do that. It has express teachings where it
5 says, yeah, I want to give people the free preview and the guarantee period
6 so they can get in and buy stuff, but I don't want to let them view content
7 that they were supposed to purchase that they didn't purchase. And it does a
8 lot of things, as we describe in our briefing, to block --
9 JUDGE BRADEN: But, Counsel, these sound like different
10 programs. I mean, just because you say, hey, it's the Olympics, these sound
11 like different programs that you would get a preview for and that you would
12 get the program for. It doesn't sound to me like these are part of the same
13 program. So there's the opening ceremony, okay, and then there's the
14 biathlon. I'm not like, oh, because I purchased the opening ceremony, I also
15 get keys to the biathlon. These sound like two totally different programs.
16 MR. NOROOZI: Well, this is the way Peterka conceives of them. So
17 it says, an example -- so it says, the following example illustrates an
18 embodiment of the pay-by-time model implementation. And this is Peterka
19 paragraph 81. Some content may not be suitable to be sold as PPV, pay-per-
20 view. An example is content that does not have a well-defined beginning
21 and end or a specific plot. This may include content such as fashion shows,
22 certain types of sports events, et cetera, right?
23 And so a fashion show is a great example. It could go on for multiple
24 days. And within that time, there'll be some part of it that will be the Gucci
25 part of the fashion show. And then later on, the Chanel part will come. And
26 later on, the Versace part will come. And you could think of each of those

1 as their own sort of defined content, but really they're part of the overall
2 totality of content of that fashion show.
3 And so, what Peterka has realized is people won't necessarily want to
4 buy the entire fashion show as pay-per-view, but they will want to buy some
5 discrete segmentized portions of it that we could deliver under a different
6 model. And Peterka is all about finding ways to sell content to people. So it
7 says, what about this pay-by-time model? And in this pay-by-time model,
8 then we can let people buy pieces of these long duration content.
9 Now, this is all for context, right? It helps to explain why there is a
10 free preview key. There is a group key. There is a content key that's paid
11 for. And it also helps explain why Peterka would not simply take a bundle
12 of content keys and just shoot them out in multicast messages to users just
13 because they decided to purchase the first segment in a pay-by-time model.
14 That's the reason that I'm providing this background.
15 JUDGE BRADEN: So again, the Gucci show would be its own
16 program. If you're looking at fashion week, each designer is its own
17 program. You're not buying all of -- or maybe you do buy all of fashion
18 week. But what it is, it's like if there's fashion week and each show is its
19 own little program, its own segment. And it says the viewer will be told
20 what pay periods are and what the cost of each pay period is.
21 Each pay period would be like, you've got the program is the Gucci
22 show. The Gucci show is going to be broken up into three pay periods,
23 swimsuits, evening wear, and suits, whatever it is. You got three segments
24 that are three different pay periods.
25 And I'm buying Gucci, so I'm going to get keys for all three portions
26 of Gucci. So I'm not really sure I understand how that doesn't support where

1 you've got this rabbit that's going to be given multiple keys for swimsuits
2 and evening wear of the Gucci program. I get both of them so that I can -- I
3 purchased both of those. I'm watching those. I've got the keys for those, and
4 then I decide whether I want to watch business suits or not. Am I --
5 MR. NOROOZI: Well, yeah, no. Well, there's no teaching in Peterka
6 that a single fashion show, let's say like a Gucci, would then get broken up
7 into three purchasable sub-segments that are, you know, like --
8 JUDGE BRADEN: Is that not what paragraph 81 says? It says that,
9 you know, this kind of content, such as fashion shows.
10 MR. NOROOZI: Right. Because fashion shows are multiple fashion
11 designers, right? So then --
12 JUDGE BRADEN: No, they're not. Each designer gets a fashion
13 show. Gucci does not go in with Prada or Louboutin and put together a
14 fashion show. Gucci hosts its own fashion show. Louboutin is its own
15 separate fashion show. Now, they may all host in Milan during fashion
16 week, but they are their own individual shows.
17 MR. NOROOZI: Okay.
18 JUDGE BRADEN: So what I'm seeing here is that it talks about the
19 fact that these pay periods are -- the viewers being told what the pay periods
20 are and what the cost of each pay period is.
21 MR. NOROOZI: Yeah.
22 JUDGE BRADEN: Not that a pay period is different fashion shows.
23 Maybe that's the information they're getting, but I'm not understanding that
24 from you.
25 MR. NOROOZI: Yeah, the important issue for purposes of mapping
26 Peterka to the claims is evidence in Peterka that when a user makes a client-

1 initiated request for content, it gets multiple content keys in response to that
2 request. That is not taught in Peterka, right? So Peterka never says, never
3 teaches that -- and the places that they rely on are right here, paragraph 80 to
4 82, and then Figure 7B which they relied on, and then they say they don't
5 rely on. Peterka never teaches or discloses that a request is made for content
6 by the client, a client-initiated request, and then multiple content keys are
7 provided in response to that one request.
8 JUDGE BEAMER: If you go back to 7B.
9 MR. NOROOZI: Yes.
10 JUDGE BEAMER: Can you show that? So you've got in that free
11 preview period.
12 MR. NOROOZI: Yes.
13 JUDGE BEAMER: You have two ECM messages, one for the key
14 one, key 0, and the other for key 1.
15 MR. NOROOZI: Yes.
16 JUDGE BEAMER: I understand you'd be saying that those messages
17 are sent without the user requesting them, but how could they be sent
18 without some sort of indication that the user wants to start looking at the free
19 preview? I mean, there has to be some, you know, cause-and-effect
20 relationship there.
21 MR. NOROOZI: Well, okay, let me address that at two levels. First
22 of all, the relevant request for the petition's theory is the client-initiated
23 request. It's what they call the client-initiated request that they get from
24 Peterka. And the client-initiated request in Peterka is the request to purchase
25 content. It's not simply, you know, an interaction that allows you to then see
26 the free preview.

1 However, even for purposes of being able to see the free preview, the
2 client doesn't need to do anything at all because Peterka teaches that that key
3 and the group key are provisioned. So let's, for example, and we have a lot
4 of this evidence --
5 JUDGE BEAMER: Wait a second.
6 MR. NOROOZI: Yes.
7 JUDGE BEAMER: Wait a second. It teaches that the group key and
8 the free key are provisioned. It doesn't teach that the content key is
9 provisioned. The content key is sent in that ECM message and encoded with
10 those provision keys, which had been already -- the user or the client already
11 has the group key. It already has the free preview key through some sort of
12 provisioning process. But they don't get the content key until that ECM
13 message is sent. And I don't see how the ECM message could be sent unless
14 the client does something to say, I want to start looking at this free preview.
15 MR. NOROOZI: Well, let's -- here's a very stark teaching in Peterka
16 that brings this into light. Let's take a look at Peterka's Figure 6. Peterka's
17 Figure 6 teaches here, step 612, provide a free preview for the program to
18 the client computers. And then after that at 614, client requests access to
19 content.
20 JUDGE BEAMER: That's the pay, that's the I want to pay for it. I
21 understand that. But I don't think this answers the question about how you
22 provide the free preview.
23 MR. NOROOZI: Well, the --
24 JUDGE BEAMER: When I sign on to -- when I turn on my TV, I
25 don't suddenly get a free preview. I have to ask for it.

1 MR. NOROOZI: That's not true. When I look, for example, I turn on
2 my -- if I turn on my Netflix, right at the beginning at the top of the banner,
3 it just starts showing me some segment of a content that it's highlighting and
4 I don't have to do anything. And if I hover over that, it will keep showing it
5 to me. And if I click into it, then I can watch the rest of it.
6 JUDGE BEAMER: That preview started when I turned on Netflix.
7 So there must have been something from me to it to tell me -- to tell them
8 that I'm ready to see a preview. I don't know. I can't dive down into the
9 innards of how it works, but there has to be some sort of request.
10 MR. NOROOZI: Well, there was no, in that example, there is no
11 request for that particular content at all. There was just the fact that I turned
12 on the service that is Netflix and it started to give things to me, right? I
13 didn't ask for that content in particular in any way. I made no indication
14 whatsoever of any interest in that content. But I think the most salient thing
15 is it doesn't matter what happens mechanically to cause the content key 0 to
16 come, because it comes without a client initiated request because the client
17 initiated request is the purchase. And that's what's in Figure 6, and it's
18 taught all throughout Peterka.
19 So if there's some other kind of so-called request that Your Honors are
20 contemplating that causes the content key 0 to be provided, that's not the
21 relevant request of the petition's theory. The petition's theory relies on the
22 client initiated request. And that client initiated request is the purchase
23 request.
24 JUDGE BEAMER: Well, I understand your point. And I'm going to
25 consider it seriously and read Peterka again.

1 MR. NOROOZI: I appreciate that, Your Honors. And I think it's an
2 important segue into an argument that Petitioners have about Figure 7B. It
3 plots this number of requests line. This number of requests in 7B does not
4 reflect requests for the free preview or the initial viewing period. These are
5 requests for the paid content.
6 And we know that must be the case because, well, I showed you
7 Figure 6 and that tells us that. But also we're getting CK0 and CK1 at the
8 point when there have been zero requests made at all. And that's what
9 they're for, right? The free preview and the initial viewing period are given
10 to the user so that the user can then make a request for the paid content.
11 JUDGE BEAMER: So I interpret that figure to be showing, for
12 example, GK -- I'm sorry, ECM. The ECM that corresponds to key 0 has an
13 arrow with two heads on it. And that's just showing at some point during
14 that time, you're going to get key 0. You're not going to get key 0 at the very
15 beginning of that. You don't get it until you actually enter the free preview
16 period, which is what I consider to be the first request.
17 MR. NOROOZI: Well, the free preview period is drawn above at the
18 top of Figure 7B. And that arrow goes from the very edge of the left line to
19 that next line on the right. And so that entire period is the free preview
20 period. And so for the user to be able to see the entire free preview, they
21 need that content key 0 at the very beginning of the free preview period.
22 They can't get it after the free preview period has started, you know, unless
23 they arrive late or something like that, right?
24 But if they are there and ready to watch the free preview at the
25 beginning of the free preview period, they must have that content key 0 at

1 the very beginning. And at that point, certainly there's been zero requests
2 made for the paid content.
3 JUDGE BEAMER: Okay, I understand.
4 MR. NOROOZI: And I think, hopefully we all agree, that receiving
5 the free preview is not contingent on making a purchase decision. That's the
6 entire point of the free preview.
7 JUDGE BEAMER: Right.
8 MR. NOROOZI: And these requests, number of requests, Peterka
9 teaches and the disclosure are the requests for the paid content, not for the
10 free preview. The statement was made that that CK1 is for paid content. It
11 is not. It's for the initial viewing period, and the initial viewing period is
12 unpaid content. If there are questions about that, please let me know.
13 JUDGE BRADEN: So explain why that matters, because I believe
14 that Petitioner's counsel made the argument that if you look at that second
15 period where you have the guarantee period and then the group key
16 disallowed period during that time that was in their slides, it looked like I
17 believe it was red. You got both CK1 and CK2. And if I believe what
18 Petitioner's Counsel was saying, that meets the claim limitation right there.
19 If you make this request and you get CK1 and CK2 during this time, you've
20 met this limitation of the challenge claim right there.
21 MR. NOROOZI: Yeah. Thank you, Your Honor. Yeah, that's a great
22 question, because no, we disagree with Petitioner that that suffices. So
23 here's a -- excuse me, an expanded version of that Figure 7B that's annotated
24 from their petition. And this is on Slide 9 for us. And hopefully I can make
25 it big without it moving away.

1 Our briefing and evidence from our expert, which directly quote
2 Peterka in extensive detail, show that CK1 encrypted under the group key is
3 provided without request from the standpoint of the request being the
4 purchase decision. So the purchase decision of the client does not trigger
5 providing the group key --
6 JUDGE BRADEN: Why does it have to be a purchase decision?
7 Why is it not just a request? Why do you have to, at this point in time, make
8 it a purchase decision? Because I think that Petitioner's Counsel was making
9 the comment that that's not required by the claims. They don't actually have
10 to make this purchase decision. They just make the request. They're in this
11 guarantee period. And even during the guarantee period, they're getting both
12 CK1 and CK2.
13 MR. NOROOZI: Right.
14 JUDGE BRADEN: Is that not correct?
15 MR. NOROOZI: And the reason is the petition's theory of what
16 constitutes request for limitation 1A is the client initiated request to access
17 media. Here, and this is bottom of page 19 into page 20 of the petition.
18 They rely on Peterka's disclosed client initiated request to access media, e.g.
19 program content. And the client initiated request to access media, the actual
20 request to access media in Peterka for pay-by-time is the decision to
21 purchase that CK2 content, the content that you have to buy.
22 The rest of it that comes before that, the free preview and the initial
23 viewing period, it's not a client initiated access request. It's provided to the
24 client so that the client can decide to make a request. And so does that start
25 to address your question? Because I have another component to add, but I
26 don't want to move on if I --

1 JUDGE BRADEN: Okay. Maybe the next component will, because
2 that seemed to address the segment that has CK0, but I'm not sure I
3 completely understand why that would kick out CK1, CK2 during the
4 second -- during that red period, the initial key distribution period.
5 MR. NOROOZI: Right. So CK1 is a bridge that allows Peterka to
6 keep getting more requests during the free preview and then give people the
7 paid content without a disruption. So the guarantee period CK1, Peterka
8 teaches can be shortened or lengthened depending on how active the volume
9 of requests it's been getting during the free preview period is. So it's like a
10 buffer zone or a bridge zone. And for that to function, it's also another
11 period of time that Peterka gives away for free to avoid service interruptions.
12 And so let's say that a user decides to make a purchase decision during
13 the free preview period that is like the CK0 period. But Peterka is going to
14 send out the keys in a multicast at once to everyone once it's gathered all the
15 requests, right?
16 So let's go back to Figure 7B. So Peterka is collecting these requests
17 up to this guarantee period that's shown in Figure 7B. And it's defined that
18 by deciding that's the right amount of time to give everybody to decide if
19 they want to buy or not so that I can give everyone the key they need for the
20 purchased content in one multicast without interruptions. And then as Judge
21 Beamer brought up, yes, maybe some people buy it later and out of time, and
22 I'll give them a key too, but they're going to have an interruption.
23 So if a purchase request is made early in this free preview period, the
24 only response to that request is going to be eventually CK2 being provided.
25 Regardless of whether that -- when the request for purchase is made, the free
26 preview and the initial viewing period will be given.

1 And so if the user makes the request during CK0, and then they get
2 CK1, which is for the initial viewing period, and they also later get CK2 for
3 the paid period, it's only CK2 that's being provided in response to the
4 request. CK1 just is provided because it was going to be provided for that
5 initial viewing period as the buffer so that we can transition into the paid
6 time without service interruptions. Does that make sense?
7 JUDGE BRADEN: I believe that I understand your position,
8 Counselor. And I just want to let you know that you've got 14 minutes
9 before you start moving into your surrebuttal time, and you have not started
10 addressing the motion to amend yet. And so I'm not saying you have to
11 during this portion. You can wait until after the break, but I believe that we
12 may have some questions for you.
13 MR. NOROOZI: Sure. So I just want to check my notes for a
14 minute, Your Honors.
15 JUDGE BRADEN: Absolutely.
16 MR. NOROOZI: Quickly on the key identifier issue, moving on to
17 the argument about key identifiers. The key identifiers of the claim have to
18 be assigned unique to the keys themselves. In Peterka, the identifiers are
19 assigned in messages.
20 And Judge Beamer brought up a point that we raised that there's more
21 than one key in a message in Peterka. And that is correct. Again, we see
22 that in Figure 7B, that ECM has, for example, CK2 that's encrypted under a
23 PK. And that PK, the program key, is a key. And CK2 is a key. But these
24 do not have unique identifiers assigned to each of them. There's just one
25 message identifier for the ECM that carries both of those.

1 And then if we look at Peterka, it gets even more direct if we look at
2 Peterka, paragraph 107 because paragraph 107 says, Method 900 illustrates,
3 for example, that two program segment keys can be utilized to transmit the
4 same content key to a client in two different multicast messages. Okay.
5 Well, in this scenario, you have a multicast message 1, and that's going to
6 have one of the message identifiers.
7 And you'll have a multicast message 2, and that will have a different
8 message identifier. But inside both of those messages will be the same
9 content key. And that will not have any different or unique identifier. The
10 identifiers tell the client nothing about that content key. The client doesn't
11 even know if it's the same content key or a different content key. It just
12 knows it got two messages, each with a content key. Peterka does not have
13 the content key identifier of our claims.
14 As for the limitation 1D and 1E issue for the '178 patent, I'd just like
15 to know if there are any specific questions about that. And if so, I'd be
16 happy to address them. Otherwise, I'll move briefly to the contingent motion
17 to amend. Your Honors, hearing no questions on that topic, I think it's very
18 fully briefed and submitted.
19 On the contingent motion to amend, really two issues were raised by
20 Petitioner as to Patent Owner's burden. The first one was an issue of broader
21 scope. We have not broadened the scope as we explained and we show in
22 this diagram. The structure of the claims in terms of the before after
23 requirement remains the same.
24 The amended claims still require that there is a notification to change
25 the key, and then there is a request to get the second key. And then the
26 second key is obtained after the actual notification-based rotation boundary

1 that was defined and that was referenced by the notification. So nothing
2 there has changed. Are there any questions about the claims scope issue?
3 And then as for written description, the Board actually agreed with us
4 in its preliminary guidance that there's ample written description for what
5 the amended claims require, which is effectively early key expiration, right?
6 And so the specification, all the way back to the provisional, teaches this in
7 the context of there can be a security breach.
8 And so you had a defined time based expiration point, but now you
9 get a notification that you need to change the key sooner than that, which
10 makes perfect sense because there's been a security breach. And so this kind
11 of early expiration structure is what's recited in the amended claims. So
12 Patent Owner's burdens are met.
13 As for the Petitioners' showings of unpatentability, number one, they
14 fail as to the message identifiers issue. They rely on message identifiers.
15 They don't show key identifiers. And they have an obviousness contention,
16 but their obviousness contention lacks any motivation. Yes, it was known in
17 the art to have key identifiers, but Peterka takes a different approach and has
18 message identifiers.
19 And Petitioner has identified no benefit or improvement of any kind.
20 That makes sense in the context of Peterka from modifying Peterka's
21 message identifiers and instead using key identifiers. To the contrary, their
22 own petition says that the message identifiers work perfectly to perform the
23 job of making sure that the client knows what it needs to know.
24 In addition, we've made clear in our amendments and limitation 21.5
25 that the request for the second key has to be in response to a notification for
26 a key change. And that this request has to then yield a key that is applied

1 within a very specific timeframe. Neither Peterka nor Traw teaches any of
2 that. They have a reliance on Traw that has to do with a system
3 downloading a whole new set of security protocols in response to a breach.
4 But that's nothing like the requirement of our claims that says in response to
5 a notification, and then you apply that key within the time limit set by the
6 revised claims.
7 So those are very far apart from each other. The general concept that
8 if there's a security breach, you download a whole new set of security
9 protocols, and that includes a bunch of new keys. That doesn't meet these
10 amended claim limitations. Your Honors, are there any questions about the
11 contingent claims that I could address?
12 JUDGE BEAMER: Not at this time.
13 MR. NOROOZI: And to be clear, here's the language of 21.5. And
14 this is in the context of the '178 and the '313 Patent has similar language. It
15 requires issuing requests to a license server in response to detecting said
16 notification-based content encryption key rotation boundary, which Traw
17 does not teach, ahead of set time-based content encryption key rotation
18 boundary for said first key to retrieve a second content encryption key to be
19 used after the notification-based content encryption key rotation boundary
20 for said first key, et cetera. Your Honors, I'll reserve the rest of my time for
21 rebuttal.
22 JUDGE BRADEN: Thank you very much, Counselor. I believe that
23 you have -- you will have 45 minutes for rebuttal -- for surrebuttal time.
24 Would the parties like to take a 10-minute break at this time?
25 MR. SARWAR: That's fine with Petitioners, Your Honors.
26 JUDGE BRADEN: Patent Counsel?

1 MR. NOROOZI: Yes, Your Honor.
2 JUDGE BRADEN: Very good. We will resume at exactly 1:00 p.m.
3 Eastern. Thank you.
4 (Whereupon, the above-entitled matter went off the record at 12:50
5 p.m. and resumed at 1:02 p.m.)
6 JUDGE BRADEN: And we are back on the record for the oral
7 arguments in IPR2025-00003, and IPR2025-00004. We will start off with
8 rebuttal time. For Petitioner, you have 37 minutes for rebuttal. You may
9 begin your argument when ready, Counsel.
10 MR. SARWAR: Thank you, Your Honors. I guess, good afternoon
11 now. I think we're all in the afternoon, I think. I think that's what's
12 happened. I'm going to very quickly rebut a couple of things that --
13 regarding the original claims, and I'll jump into the MTAs. Your Honors
14 heard Patent Owner speak a lot of about pay-per-view and subscription. We
15 never once in the petition even mention the names of those other purchasing
16 mechanisms, and we never rely on any disclosures in Peterka that don't
17 relate to the teachings that are implemented with Peterka's PBT system
18 (audio interference).
19 Your Honors, all of Patent Owner's misreadings of Figure 7B rely
20 entirely on the assumption that their claimed playback request requires a
21 request to purchase content in Peterka. Why? Claims don't require a
22 purchase, and Patent Owner admits in sur-reply that Peterka's clients can get
23 keys without content being purchased.
24 Your Honors hit the nail on the head on the causation point in Patent
25 Owner's argument. They're saying that without requests, specific content
26 keys are arriving at the client. This makes no sense. You can't get keys

1 without your client making some request to access the content that you need
2 the keys for.
3 JUDGE BEAMER: Does Figure 7B and 7A apply to pay-by-time as
4 opposed to just pay-per-view?
5 MR. SARWAR: So, Figure 7A and Figure 7B are actually -- the
6 teachings in Figure 7A and 7B corroborate the Petitioner's understanding
7 and Peterka's teaching regarding sending multiple keys at once. However, if
8 you look at Figure 7A and 7B, there's no indication that it's actually
9 reflecting a pay-by-time scheme in which there is key rotation going on. It
10 only has those three. So, this is why we've been emphasizing that Figure 7B
11 is a helpful figure, and one that corroborates the teachings that we're
12 drawing from Peterka. But, if as Patent Owner has done, you get overly
13 focused on Figure 7B and get into the weeds of the way the different aspects
14 of Figure 7B work, you lose sight entirely of what Petitioner actually argued.
15 On identifiers, Your Honors, it sounds like they're saying ECMs now
16 can include multiple keys. We don't see support for that in Figure 7B. I'm
17 going to direct you guys to one of our slides, Slide 18, for example. That
18 figure is showing one content key in each ECM, and that content key is
19 encrypted by a key that's already at the client. So, that's not showing an
20 ECM that contains the free preview key or contains the group key. It's
21 actually showing just the ECM containing the content key. And that
22 notation, as we explained, as I explained in my initial presentation, refers to
23 the fact that the content key is being encrypted by another key.
24 And also, Your Honors, we did establish a specific reason to use
25 identifiers. In the system we've got multiple keys floating around, and the
26 client and the server both need to keep track of them. You want to be able to

1 use those keys, and you want to be able to identify those keys, and so that's
2 a motivation to include key identifiers in the scenario where information
3 unique to keys isn't being used to identified the keys.
4 Okay, now I'm going to -- unless Your Honors have any questions
5 about the original claims that you'd like me to address, I'm going to try to
6 get us to actually start talking about the RMTA.
7 All right. Let's go to Slide 64 of Petitioner's demonstratives. The
8 main disputes between the parties on this relate to the limitations outlined in
9 red. That's 21.5 and 21.6. The big thing that we would like to try to show
10 Your Honors is that 21.5 and 21.6 try to shift the claims to a new scope.
11 They're now trying to (audio interference) distinctly capture this
12 unscheduled key change scenario, and in doing so, Patent Owner has
13 broadened the scope of the original claims.
14 Now, Slide 65. Remember that the original claims required both
15 asking for a key before a boundary, and then applying that key after that
16 same boundary. The parties don't actually dispute this before/after
17 requirement. Now, we should step back and think about what the
18 before/after requirement means. We're basically talking about a system
19 that's trying to avoid service interruptions, right, asking for keys before
20 they're needed for decryption. So, the original claims say, do two things
21 with respect to one boundary. Request and obtain the second key ahead of
22 or prior to the boundary, and then apply that second key after the boundary.
23 Now, in this slide, on 65, we've added some highlighting to help
24 visualize this. The boundary is blue. The stuff that needs to happen before
25 is green, and the stuff that needs to happen after is orange. So, in both
26 patents, the original claims involve all three colors, okay? So, I'm going to

1 show you on the next few slides that the invented claims don't recite this
2 before/after requirement anymore. This is because they're trying to go after
3 a different scenario, in unscheduled key changes.
4 Now, at first, this might be slightly hard to see. Remember that Patent
5 Owner submitted two sets of amendments. In their first set of amendments,
6 Patent Owner replaced the word "after" with "before," in the limitation
7 about applying the second key for decryption. So it was very clear that the
8 original before/after requirement wasn't there. In the revised amendment
9 claims, they brought "after" back. But when you look closely, the original
10 before/after requirement is still not there. This is because of all the
11 structural changes that Patent Owner added to their revised amendment
12 claims. They split the original boundary into two boundaries. There's a
13 notification-based boundary, there's a time-based boundary, and then that
14 sort of confuses the issue. The issue's really simple. Their amendments all
15 very, very carefully never require requesting and obtaining a second key
16 before one of those boundaries and then applying that second key after that
17 boundary.
18 So, Slide 66. Let's start with the '178 Patent. This is focusing on --
19 JUDGE BEAMER: What slide?
20 MR. SARWAR: I'm sorry, Slide 66. And Judge Beamer, you have
21 reminded me that I need to slow down and talk a little bit more clearly. I
22 apologize for that. On Slide 66, '178 Patent, we are looking at the
23 notification-based boundary. The original claim is on the left. You can see
24 three colors there, a boundary in blue, the stuff that happens before in green,
25 stuff that happens after in orange. The revised amendment claim is on the
26 right. We've highlighted when things are required to happen relative to the

1 notification-based boundary. So, they require the requests to happen in
2 response to detecting the notification-based boundary, and nothing in there
3 requires the request to happen before the boundary, so they can happen at or
4 after. So, that's orange, and then the revised amendment claim also requires
5 that the second key be applied after the notification-based boundary. So,
6 also orange. So, for the notification-based boundary, you don't have three
7 colors. The revised amendment claims don't impose the before/after
8 requirement.
9 Slide 67. Time-based boundary. Let's focus on that.
10 JUDGE RAEVSKY: Counsel?
11 MR. SARWAR: Yes, Your Honor.
12 JUDGE RAEVSKY: Just a quick question. So, the claim still says
13 "ahead of" the key rotation boundary, with a few more words in there. Can
14 you clarify what you mean by there's no more "ahead of," or no more
15 "before" the boundary requirement in the amended claim?
16 MR. SARWAR: Okay. So, on Slide 66, our point here is that the
17 "ahead of" limitations are really carefully placed so that you don't have the
18 situation that was required in the original claims. You need it for one
19 boundary. You need it to be able to look at one boundary and say look,
20 something's happened before the boundary, and something's happening after
21 the boundary. The amended claims, even though they use the word "ahead
22 of," don't actually require hey, something needs to happen with this
23 boundary, this one boundary, and something needs to happen after this one
24 boundary. This is because the boundaries have been split into two, and so
25 everything is happening in between the boundaries. Nothing is happening
26 such that it's like straddling a single boundary, no before or after.

1 So, the "ahead of" language comes up more in Slide 67. In Slide 67,
2 you can see where the "ahead of" kicks in, right? this is for the time-based
3 boundary. The revised amendment claim is at right, and it requires the
4 requests for the second key to happen before the time-based boundary, and it
5 requires the applying the second key before the time-based boundary. And
6 that first "before" that I was talking about, the language that the RMTA uses,
7 the claim uses, is "ahead of." Okay? Judge, did you understand that point?
8 JUDGE RAEVSKY: I understand your position, thank you.
9 MR. SARWAR: All right. So, here again, we have the highlighting
10 only involving two of three colors. So, green for before and blue for
11 boundary. You can see that the revised amendment claim doesn't impose
12 the before/after requirement for the time-based boundary. So, regardless of
13 whether or not you're looking at the notification-based boundary or the time-
14 based boundary, the claims no longer require having to request to obtain
15 keys before that boundary, and applying the key after the boundary.
16 Okay. Slides 68 and 69 show the same thing for the '313 Patent.
17 Again, no after or before requirement for a single boundary. Okay? And
18 because this before/after requirement is not required anymore for one
19 boundary, the claims are broader.
20 Now, on Slide 70, Patent Owner's reply, you can see here that they
21 argue, wait a second, our claims require detecting not the notification-based
22 boundary itself, but instead a notification for an upcoming notification-based
23 boundary. So that means, according to them, look, all the amended claims
24 are actually requiring all of the requesting and obtaining before the
25 notification-based boundary. Now, as we'll discuss, this logic is faulty, even

1 if the claims had required a sort of upcoming notification boundary
2 requirement.
3 And you know, before we get that, I just want to point out that this
4 notion of the claims requiring an upcoming notification-based boundary is a
5 little sneaky. I've reproduced the amended claim language here on the left.
6 The excerpts from Patent Owner's reply supporting its revised motion to
7 amend is on the right, and you can see here that they keep insisting that they
8 claim something about an upcoming notification-based boundary.
9 The amended claims don't recite that. The amended claims don't use
10 the word upcoming. They don't use any similar word to limit when a
11 detected notification is relative to the notification-based boundary. So, this
12 notification could be before, or at the same time as, or after the notification-
13 based boundary. The amended claims don't say otherwise, the specification
14 doesn't either, and the same is true for the '313 Patent on Slide 71.
15 So, do Your Honors have any questions about whether or not the
16 claims are actually requiring an upcoming notification-based boundary?
17 Okay. So, Slide 72. Sleight of hand on this, also extends to this
18 drawing that they provided in their reply as in support of their motion to
19 amend. This drawing does not actually reflect what the amended claims
20 require. Patent Owner actually itself admits this in its footnote, in saying
21 that look, this doesn't cover all the embodiments. At best, this is just one
22 scenario that happens to meet the amended claims, but as you can see on
23 Slide 74 through 77, the amended claims are also met by other scenarios that
24 don't meet the original claims.
25 So, let's go to Slide 74. Here we have a notification for a notification-
26 based boundary that happens at the same time as a notification. You can see

1 this like red and sort of overlapped blue. Remember that the claims don't
2 require an upcoming notification-based boundary. So, this scenario actually
3 meets all of the requirements of the revised amended claims, right. The
4 requests for the second key happen in response to detecting the boundary,
5 and the second key is applied after the boundary. These are the notification-
6 based boundaries. And then, the request for and the application of the
7 second key both happen before the time-based boundary. No before/after
8 for one boundary. Do Your Honors have any questions about Slide 74?
9 Slide 75 shows another scenario covered by the revised amendment
10 claims, not covered by the original claims. This is a situation in which the
11 notification is for a notification-based boundary that already passed, right?
12 It's like, you know, the client receives a notification, hey, the reason why
13 your decryption's not working is because we just had a breach, right, we
14 need to change keys. This scenario also is one of the scenarios that are
15 covered by the revised amended claims but not covered by the original
16 claims.
17 Slide 76. This one's an interesting one. This is actually illustrating a
18 situation in which the notification is for an upcoming notification-based
19 boundary. So, even assuming they had managed to claim that, this scenario
20 actually meets that. So, here, we're still in a situation in which the revised
21 amendment claims are met by scenarios that are not met by the original
22 claims. Here, the client delays in requesting the second key. For example,
23 due to some sort of processing latency at the client. Nothing in the amended
24 claim that excludes this, by the way. The claims only require that the
25 requests for the second key happen in response to the notification-based
26 boundary, and they say nothing about how quickly that needs to happen.

1 So, in Slide 77, this is a scenario where the notification for the
2 upcoming notification-based boundary doesn't give the client enough time to
3 start asking for a new key before the boundary, and we again don't meet the
4 requirements for the original claims. But, the scenario is met by the revised
5 amended claims. So, the revised amended claims are broader.
6 So, these three scenarios in Slide 74 through 77, they help illustrate
7 two things. First, Patent Owner's reply drawing does not reflect what the
8 amended claims actually require, and second, the revised amended claims
9 are broader than the original claims, because they are met by scenarios that
10 are not met by the original.
11 Okay. Any questions about broadening? I really think the claims are
12 broader, so I want to make sure that I can convince you guys, or if you have
13 any questions that would help clarify this, I can address them. Ominous
14 silence. Okay. All right. We're going to move on, then, to -- Your Honor,
15 do you mind if I get a time check on how much time I have left?
16 JUDGE BRADEN: You have 20 minutes and 50 seconds.
17 MR. SARWAR: All right. So, Slide 78. Even if Your Honors found
18 that the amended claims weren't broader, I'll note that we didn't see any
19 support for this limitation on the priority chain. We certainly didn't see any
20 support in the priority chain for Patent Owner's reply illustration. Patent
21 Owner mainly points to portions in the priority chain where the client
22 applies a second key in an unscheduled manner, without really caring about
23 where that boundary is.
24 So, there's no support, we think, for very precisely requiring that the
25 key change must happen before a particular type of boundary and then after
26 a particular type of boundary. So, in our view, that doesn't show that the

1 inventor is possessed with the revised amended claims are currently trying to
2 get at. Our briefing on these points are not in the slides, but it's fleshed out
3 in our sur-reply, opposing Patent Owner's revised motion to amend. And
4 that's at pages 7 through 8, and it just so happens that it's the same citation
5 for both proceedings.
6 Okay, I'll note finally that if Your Honors believe that the amended
7 claims are not broader and believe that they don't introduce new matter, they
8 would certainly have been obvious over Peterka in combination with Traw,
9 and Peterka and Suzuki in combination with Traw. Slides 81 through 82
10 show that Traw teaches both rotating keys on a schedule and revoking the
11 replacing keys as needed due to security issues. And Slides 83 through 84
12 show the arguments Petitioner made to establish that there were reasons to
13 combine Peterka and Traw, so that Peterka's clients using the pull-key
14 method during playback were able to handle scenarios where the key needed
15 to be revoked due to a security compromise.
16 So, you can see on Slide 85, this motivation to handle unexpected
17 security breaches, even though the system is already rotating keys for
18 security reasons, was combined by the Patent Owner's own expert. So,
19 there's agreement between the experts that back in June 2011 there was
20 reason to modify Peterka in view of Traw to handle security breaches. The
21 combination we mapped to the limitations is described on Slide 86.
22 Now, Slide 87 through 105, through the end of my extremely long
23 slide deck, include material about how each of the individual disputed claim
24 limitations and dependent claims are met by Peterka-Traw and Peterka-
25 Suzuki-Traw. I won't go into detail unless Your Honors have any specific
26 questions, but I will note, Patent Owner's main argument against Peterka-

1 Traw largely relies on looking at Peterka and Traw in isolation, and saying
2 that look, neither individually discloses this very specific thing, such as a
3 client asking for a new key in response to a notification that a key has gone
4 bad. This is sort of beside the point.
5 On Slide 92, we've provided concrete, supportive reason for why we
6 implemented Peterka-Traw in the way we described. And in our sur-reply,
7 we showed that both references individually contain teachings that support
8 implementing the combination of Peterka-Traw together in this way.
9 So, Slide 93, Peterka teaches clients requesting a new key in response
10 to any scenario in which the client recognizes that it needs a key. This
11 would include scenarios where, for example, in Peterka-Traw, where it has
12 discovered that the keys that it has in its possession were compromised and
13 are no longer being used to encrypt content.
14 And Slide 94, Traw has teachings about renewing content protection
15 implementations, which may include keys, in the event of revocation, i.e.,
16 caused by revocation. And Traw indicates that such renewals can be
17 through an online download by the client.
18 Patent Owner's argument on this is unclear, but this looks to us like
19 what Patent Owner thinks is missing. Moreover, Slide 95, we show that the
20 specific concept of a client that requests a new key when it finds out a key
21 has been revoked was well-known in the prior art. So, again, it's not
22 something that Patent Owner invented, and it's not surprising that this was
23 disclosed before. So, Patent Owner sweeps all this aside by demanding
24 specific teaching in Peterka or Traw without squarely dealing with the
25 combination in Peterka and Traw, which is what we mapped in Claims 2.

1 Okay. So, that's what I have on the RMTA, in other words, the
2 revised motions to amend. I might circle back to ask whether you have any
3 questions about either Figure 7B and how that plays into Petitioner's
4 arguments, or regarding the content encryption key identifiers arguments.
5 Alternatively, I can give you guys part of your afternoon back, if that is
6 preferred.
7 JUDGE BRADEN: I have no questions for you at this time. Judge
8 Beamer?
9 JUDGE BEAMER: Could you just very quickly point me to the key
10 paragraphs in Peterka that you rely on, in addition to Figure 7A and 7B?
11 MR. SARWAR: Right, and this is regarding -- regarding which
12 limitation, Your Honor?
13 JUDGE BEAMER: The, well --
14 MR. SARWAR: Multiple key?
15 JUDGE BEAMER: Both the multiple keys and then the requesting of
16 new keys when you spot a time-out, a time, you know, a lapse. In other
17 words, we've established that the claim requires an initial response that
18 includes at least two keys, but then further down the pike you've got keys
19 that are expiring and you need to request a new key. So, both of those things
20 need to be in one, you know, one embodiment, and 7B apparently doesn't
21 have it, have the second aspect, so how are you creating the whole thing?
22 MR. SARWAR: Okay. All right. So, if it's helpful, I'm going to
23 show you the slide that collects, I think, most of the stuff in Peterka that's
24 useful for this. Slide 23. So, Slide 23 shows the implementation based on
25 Peterka's teachings. It shows sort of the key elements of it, and it shows that
26 we're relying on paragraphs from Peterka 53, the discussion in paragraphs

1 70 through 82, and the discussion in paragraphs 105 to 106, 110, and then
2 also 130. Now, Your Honor, I don't want to say that this is exclusively
3 everything that we relied on for all of the -- when it came to discussing all of
4 the options that Peterka talks about in sort of building a system that Peterka
5 literally teaches, but those paragraphs should have most of the fun parts.
6 JUDGE BEAMER: Okay. Thank you.
7 MR. SARWAR: And Your Honor, I also want to once again
8 emphasize, just so that it is clear, I am emphasizing that Petitioner did not
9 mix embodiments, different embodiments of Peterka. We're talking about a
10 system that Peterka teaches that has a lot of options, and sort of pointed out
11 the options that we're using for our combination. Make sense?
12 JUDGE BEAMER: Okay, thank you.
13 MR. SARWAR: Anything else from anyone else?
14 JUDGE BRADEN: Judge Raevsky, any questions? Thank you very
15 much, Counselor, we appreciate your time and you answering all of our
16 questions today. So, thank you.
17 MR. SARWAR: Thank you so much, Your Honor.
18 JUDGE BRADEN: Patent Owner's counsel?
19 MR. NOROOZI: Yes, Your Honors.
20 JUDGE BRADEN: You have 45 minutes for sur-rebuttal time, and
21 you may begin your argument when ready.
22 MR. NOROOZI: Thank you, Your Honors. Your Honors, as Judge
23 Braden said at the outset, the burden in this proceeding is with the Petitioner,
24 and the burden is to prove that what was set forth in the petition meets each
25 and every element of the claims. That burden has not been met with respect
26 to Limitations 1A and 1B. Peterka does not provide the evidence that

1 Petitioner needs to meet Limitations 1A and 1B. It's not in Figure 7B, nor
2 could it be in Figure 7B, because Figure 7B is about pay-per-view. And I
3 don't know if Petitioner's counsel adequately made that clear to the Board,
4 but if we look at Figure 7B, and this is from Peterka itself, Figure 7B at the
5 bottom discloses that the key that's encrypting the content key 2, right here,
6 is a PK. If you see that? I don't know if Your Honors can see that. Do you
7 see that that's a PK? And the EMMs, it says there's a PK that goes with a
8 unique key. The PK Peterka teaches is the program key, and the program
9 key is the key type that is for pay-per-view, it is not for pay-by-time. Pay-
10 by-time is the program segment key. So, in the definitions of Peterka --
11 JUDGE BRADEN: So, are you saying that Figure 7B does not apply
12 to the pay-by-time embodiment?
13 MR. NOROOZI: Correct. So, paragraph 98 of Peterka teaches
14 program key, this key is valid for one program, EPOC. It is used to give
15 access to an individual program event purchase using the pay-per-view
16 option. Now, for pay-by-time, the program segment key is used. Paragraph
17 99. It says, this key is used to divide a single program event or an entire
18 service into purchasable segments, and then clients using the pay-by-time
19 purchase option would get the PSK, the program service key, using the key
20 request message exchange, so forth. So, Figure 7B isn't even about pay-by-
21 time.
22 JUDGE BRADEN: So, explain to us why it would not be obvious to
23 make the PK be PSK?
24 MR. NOROOZI: I don't have to do that. They don't have that
25 theory, and it's not our burden to do that.
26 JUDGE BRADEN: Thank you very much.

1 MR. NOROOZI: I just want to really stand firm on this fundamental
2 point that it's not our obligation to justify why Peterka couldn't potentially
3 be modified or amended or enhanced in ways that would maybe get to the
4 claims in some way. It was their burden to prove that it does, and they
5 haven't done that. And on that same exact point, when the question is
6 raised, well, how does the CK0 come without some kind of request? Again,
7 we don't need to answer that. It's whether Peterka teaches the requests that
8 they need for Limitations 1A and 1B. So, if Peterka doesn't have anything
9 to say about it, I don't think it's appropriate to read into Peterka or interpret
10 into Peterka the very teachings that are missing for it to meet the claim
11 limitations.
12 JUDGE BRADEN: And Counsel, point to me where in your briefs
13 you make the arguments that Figure 7B doesn't apply or isn't relevant to the
14 -- what is it, pay per time?
15 MR. NOROOZI: We explained in our briefing that the program key
16 is associated with pay-per-view. We explain that in detail in our briefing,
17 and we also explain that in Figure 7B, you only have a CK2 because there's
18 only one pay key, because that covers the entire programming. I don't think
19 we -- excuse me?
20 JUDGE BRADEN: I'm going to note that your argument regarding
21 the pay-per-view and the program key starts on page 10 of Patent Owner's
22 response. That's for my future reference, but please continue, Counselor.
23 MR. NOROOZI: Right. Yes, that's right, Your Honor. We address
24 the teaching and the relevance of Figure 7B as well as the three different
25 purchase models that Peterka has in detail. I think that's the best that I can
26 say in answer to your question.

1 JUDGE BRADEN: Thank you, Counselor. Help me, though, to
2 understand, because they make an obviousness argument. So, I'm trying to
3 figure out why that wouldn't cover Figure 7B.
4 MR. NOROOZI: Sorry, let me understand the question better. They
5 have an obviousness argument, and as part of their overall attempt to meet
6 the claim limitations, they rely on Figure 7B. But Figure 7B itself relates to
7 pay-per-view. Now, to the extent that one were to make Figure 7B
8 applicable to pay-by-time, it would show what it shows, which is one
9 content key, CK2, which is purchased, and that covers the entire duration of
10 the paid programming. What they don't have, Your Honor, is a theory, a
11 modification theory where they say okay, now take that CK2 paid period,
12 and in the context of a pay-by-time, break that up into multiple pay periods,
13 make it into multiple keys, and then when you buy that entire segment, you
14 now are getting multiple keys, and that meets Limitation 1A and 1B, or
15 something like that. They don't have any such theory, much less a
16 motivation for it in their petition.
17 So, whether it's under obviousness or not, they have Figure 7B, they
18 don't have any modification to Figure 7B that changes anything about what
19 it teaches insofar as relevant to meeting the limitation requirements of 1A
20 and 1B.
21 JUDGE BRADEN: Thank you, Counsel. I think I understand your
22 position.
23 MR. NOROOZI: And so, if we go to -- thank you, Your Honor. If we
24 go to this Slide 23 from Petitioner's demonstratives where they say they
25 have their citations to Peterka for Limitations 1A and 1B, you'll see that
26 these passages don't teach the requirement that they're missing, the

1 requirement that a request is made. It's a client-initiated request, is what it
2 has to be under the petition, and there's a response, and that response
3 provides multiple content encryption keys. None of those paragraphs are
4 going to provide that. It's not something that is taught in Peterka, and they
5 never had a modification theory to Peterka to make that happen other than
6 they have an obviousness theory, that I'd like to address, and this
7 obviousness theory, which is on page 22 of the petition that we address in
8 detail in our briefing, is about something totally different.
9 So, here on page 22 of the petition, they say to the extent playback
10 request response is interpreted to require data transmitted in one message,
11 right? Now, in this obviousness theory, they already presume that Peterka
12 teaches giving multiple content encryption keys in response to a request.
13 They already presume that. So they're not trying to change that about
14 Peterka. Now, they're wrong about that. That's what we've spent the whole
15 day talking about, and we've demonstrated at length in our briefing. So,
16 Peterka does not in fact teach providing multiple content encryption keys in
17 response to one request, but Petitioner had a different concern, and they
18 were worried that the argument would come up that -- what it thought was
19 being done by Peterka, which is multiple keys being sent in separate
20 messages in response to one request, might need to be bundled into one
21 message. And so that's why they have this obviousness theory on page 22.
22 And this obviousness theory actually is not supported by Peterka for
23 reasons we explain in detail in our briefing. This is about sending individual
24 keys to individual clients that are different. Different keys to different
25 clients, but packaging them in one message for expediency. It's not at all
26 what Limitation 1A and 1B require. But, in addition, there's no motivation

1 here for changing Peterka in a way that would actually meet Limitation 1A
2 and 1B with respect to providing multiple keys in response to one message.
3 So, I just want to make sure I'm very clear about this. This obviousness
4 theory already presumed that Peterka needs the multiple keys part. They just
5 were concerned that maybe Peterka doesn't meet the one response part, and
6 this modification theory is about the one response part, not about the
7 multiple keys part. And so, it cannot fill the gap that we have been pointing
8 to, because it also has no motivation for doing that.
9 There's no explanation or reason for why in a pay-by-time scheme in
10 Peterka, where it's trying to make sure people only have keys to what they
11 purchase, Peterka will start multi-casting out keys that people shouldn't
12 have. And Peterka, as we point out in detail on responding to this, makes it
13 very clear it does not want clients to have keys to content that they did not
14 purchase. There was some discussion about us arguing that Peterka teaches
15 sending multiple keys in one message. There's only one relevant key type
16 for their theory, and that's the content key, and that's extensively admitted
17 by their -- or explicitly admitted by their expert. So, there's no question that
18 the only kind of key that counts is the content key. The other kinds of keys
19 that Peterka discussed, and whether they're in the messages or not, is
20 irrelevant to meeting Limitation 1A and 1B.
21 JUDGE BEAMER: Counsel, in the pay-by-time scenario, isn't there
22 room for including a free preview period that is free, and then the client can
23 say okay, I want to embark on my pay-by-time sequence of viewing?
24 MR. NOROOZI: Your Honor, you know, as I think about it, I'm not
25 sure that Peterka ever explicitly teaches using free preview in the context of
26 the pay-by-time delivery model. However, assuming that it did, you know,

1 is there a follow-on question that you have about that that I could address
2 that, you know, where you think that that may lead to?
3 JUDGE BEAMER: Well, I just, since they're relying on Figure 7B
4 and they're also relying on pay-by-time, I assume that they are advocating
5 some sort of system that has both, that has free preview, and then you go on
6 to pay-by-time.
7 MR. NOROOZI: To the extent that it's not clear what system they're
8 really advocating and designing, I think that highlights the failure of the
9 petition, right? We don't know -- where are these multiple content
10 encryption keys that are provided in response to a single request based on
11 either a teaching in Peterka or a clear obviousness theory that's backed by
12 the necessary motivation showings, and so forth? It's just not there. So,
13 now we're in the position of having to hypothecate for the Petitioner
14 whether there is some conceivable theory they could have come up with, and
15 that's not our burden as the Patent Owner, or the Board's duty as the fact-
16 finder in this proceeding.
17 JUDGE BEAMER: Understood.
18 MR. NOROOZI: Now, if I may, I'd like to move to a couple of points
19 about the contingent motion to amend. Your Honors, the argument has been
20 made that the claim, the contingent motion to amend claims allow for the
21 notification to come even after the notification-based boundary, and that's
22 just incorrect. That doesn't make any sense. So, that's an attempt to render
23 the claim meaningless in its interpretation. The notification, and it says here
24 in 21.4 of the '178, for example, the notification is detected, detecting a
25 notification, and this notification includes a notification-based content
26 encryption key rotation boundary. The notification is to tell you that you

1 have this boundary coming up so that you can get the key you need ahead of
2 that boundary. That's the entire point of the notification.
3 And so, in the illustrations where Petitioner's counsel has concocted
4 scenarios where the notification comes after the boundary, well, that's just
5 an inoperable embodiment then, because the system would break down.
6 You're supposed to have changed keys in response to a new boundary that's
7 been defined, but you weren't even notified of that boundary until after the
8 boundary had already passed? Well, that's just a breakdown then. That's
9 not the right way to interpret this claim. And I think this is simple, because
10 we're now no longer in the context of the original claims, we're in the
11 context of the claims that are effectively being prosecuted here.
12 Patent Owner disclaims any of those scenarios that Petitioner has
13 designed in its slides that create the claim-broadening scope issues. We are
14 permitted to use prosecution history disclaimer in the context of the motion
15 to amend, and we can say those scenarios are simply not within the scope of
16 the claim as it's meant to be interpreted. The structure of this claim that
17 would make sense to one of ordinary skill in the art is that a notification is
18 provided. This notification tells you that there's an upcoming notification-
19 based boundary, and in response, the client goes and gets a key, the second
20 key, and applies it after that notification-based boundary. And then --
21 JUDGE RAEVSKY: Counsel?
22 MR. NOROOZI: Yes.
23 JUDGE RAEVSKY: I just want to clarify something. So,
24 referencing Slide 26 of your presentation in the first case -- right, thank you.
25 So, I wanted to get your opinion on Petitioner's characterization of you

1 conceding in your briefing that this only covers one embodiment, and that
2 there are more embodiments encompassed by the claims.
3 MR. NOROOZI: Yes. Is that the extent of your question?
4 JUDGE RAEVSKY: Yes.
5 MR. NOROOZI: Yes, so, we put in a footnote to make clear on this
6 particular aspect of this illustration, where it says, time-based key rotation
7 boundary, and there's a boundary there, off to the left, and then we show
8 below it that the second content encryption key extends beyond the time-
9 based key rotation boundary, as well as before. That's permissible within
10 the scope of the revised claims. They're silent about that. They require that
11 the second key be applied before the time-based key rotation boundary.
12 They don't preclude the second key from continuing to apply after the time-
13 based key rotation boundary, and that's in part because that time-based key
14 rotation boundary is now a nullity, right? It's the boundary that used to exist
15 before it was cancelled and replaced by the notification boundary that comes
16 earlier. And so, at some point in time, there will be another boundary to
17 change from the second key to a third key, but that boundary is not defined
18 in the revised claims, nor is it purported to be set forth in this diagram. Does
19 that help answer the question?
20 JUDGE RAEVSKY: So, you do agree that this is only one
21 embodiment covered by the claims? And there are more? In other words,
22 the claim covers more than just this depiction?
23 MR. NOROOZI: I don't agree with that insofar as it relates to the
24 limitation in dispute as to the before/after requirement. With respect to the
25 before/after issue, this diagram depicts the way the claim is structured,
26 which is, you get a notification, and within an adequate time window you

1 ask for the second key, and then you apply that second key after the
2 notification-based boundary.
3 JUDGE BEAMER: Could you go back to the claim language? I
4 guess, Claim 21 language?
5 MR. NOROOZI: Yes, Your Honor.
6 JUDGE BEAMER: So, I understand your point about the detecting
7 has to come before the boundary, but 21.5 says you issue the request in
8 response to detecting. That kind of leaves open how quickly you issue the
9 request in relation to the detecting. And I think that that's where Petitioner
10 is saying that request could come after the boundary, for various reasons.
11 And so then you don't have a before/after situation.
12 MR. NOROOZI: Well, but the rest of the claim goes on to say, 21.6
13 says, applying the second key for content decryption after the notification-
14 based key rotation boundary and before the time-based boundary, and also
15 21.5 itself says that the second key is, quote, to be used after the notification-
16 based content encryption key rotation boundary, and before the time-based
17 boundary. So, it's set forth very clearly here, we believe, not only that you
18 need to request in response to, but that you need to obtain in sufficient time
19 for achieving this application principle, which has a time limit on it.
20 JUDGE BEAMER: But the issue's not when you apply the key, it's
21 when you request the key.
22 MR. NOROOZI: No, but it says, to be used, in 21.5. To be used. To
23 retrieve a second content encryption key to be used after, right? That's what
24 the request is for. You're issuing the request to get this key that is to be used
25 at this point in time, and 21.6 then tells you to actually apply it at that point
26 in time. And so, if one were to fail to do that, then one would not be

1 meeting the claim. So, in those scenarios that Petitioner has described, those
2 would fall outside the scope of the claim.
3 JUDGE BEAMER: I'm still -- I'm not saying I agree with Petitioner,
4 but I think Petitioner would say that there are conceivable scenarios where
5 you detect the boundary, and let's say you detect it before the boundary
6 occurs, but in response to that detecting you've got to make a request. And
7 the claim doesn't really say when the request has to occur. It has to occur in
8 time for the key to be applied after the boundary, but before the time
9 boundary, but perhaps it could be also after the notification boundary. You
10 could have a request after the boundary, and then soon after that, the key
11 comes in, and you apply it. So, you're applying it in time, you're applying it
12 in accordance with what this claim says, but the request is not necessarily
13 prior to the boundary, the notification-based boundary.
14 MR. NOROOZI: Yeah. So, let's just be clear, though, of what the
15 requirement that we're assessing is. The requirement is simply whether
16 we've broadened the claim, and so it's comparative to the original claim,
17 right? And in this respect, the original claim is the same. It says Limitation
18 1E, issuing request to a license server ahead of a key rotation boundary to
19 retrieve a second content encryption key to be used after a content
20 encryption key rotation boundary is reached. It doesn't say how long after.
21 And 1F, applying the second key after the boundary is reached. Again, it
22 doesn't say how long after. So, we don't need to be any more limiting or
23 precise than the original claim in order to maintain the claim scope issue.
24 This is a comparison of claim scope broadening, you know, not so much a
25 question of how precise do we need to be about what point in time
26 constitutes after.

1 JUDGE BEAMER: Yeah, but I'm talking about ahead. The original
2 claim says you've got to request ahead of the boundary, and I'm saying that
3 Petitioner says that the new claim allows the request to be after the
4 boundary, because the request is timed as being in response to detecting, not
5 timed to be ahead of the boundary.
6 MR. NOROOZI: But if the request were after the boundary, then the
7 key would not arrive in time to be applied within the window of period of
8 time that's set, so therefore the claim wouldn't be met.
9 JUDGE BEAMER: Why not? I mean, the key has to be applied after
10 the one boundary, but before the other boundary. There's some sort of gap
11 there that gives you, in some scenarios, time to do it. Not always, but
12 sometimes. And so, therein lies the broadening, according to Petitioner.
13 MR. NOROOZI: So, broadening is -- well, this claim still recites the
14 ahead. It says, 21.5, issuing requests to a licensed server in response to
15 detecting said notification-based content encryption key rotation boundary
16 ahead of said time-based content encryption key rotation boundary.
17 JUDGE BEAMER: Yeah, but the request is ahead. I'm sorry, the
18 detection is ahead, but the request is in response to detecting, and it doesn't
19 say when the request has to occur, it just has to be in response. It could be
20 immediately, it could be a little bit late, it could be whatever. So --
21 MR. NOROOZI: Your Honor, I think maybe you weren't looking at
22 the specific language I was pointing to. So, in 21.5, the issuing request for
23 the second key has to be, quote, ahead of said time-based content encryption
24 key rotation boundary. So, there's still an ahead requirement explicitly in
25 21.5. That has to do with the issuing request, not with the detecting.
26 JUDGE BEAMER: Okay, I understand what you're saying.

1 MR. NOROOZI: And so, it's not broadening the claim, because
2 there's been a new boundary put into the claim compared to the original.
3 And there's still an ahead of a boundary key obtaining requirement in both
4 the original and the revised claim.
5 JUDGE BEAMER: We have a diagramming the sentence issue.
6 MR. NOROOZI: Is there more that I could clarify on this?
7 JUDGE BEAMER: No. I understand your point, I understand
8 Petitioner's point. It falls down to how you diagram that sentence. Is the
9 "ahead of" modifying "issuing requests"? Or is it "detecting said . . .
10 boundary ahead of"? And I'm not sure I know the answer to that at the
11 moment.
12 MR. NOROOZI: Well, again, you know, for purposes of prosecution
13 of this claim, I think we've set forth our position as the Patent Owner and
14 the proposer of the claim language of the way that it's intended to be
15 interpreted.
16 JUDGE BEAMER: Okay.
17 MR. NOROOZI: And I think just as a matter of principle, the concept
18 of a motion to amend is to allow us to come up with these amendments in
19 compliance, obviously, with the rules and requirements. And so, some
20 interpretive deference or leeway should be given in favor of the Patent
21 Owner being able to achieve the purpose of the amendment process, rather
22 than trying to find every possible, you know, fleeting interpretation, as I
23 think Petitioner has done, to try to nullify the purpose of the amendment
24 process.
25 JUDGE BEAMER: So, we've got some homework.

1 JUDGE BRADEN: Counsel, I want to let you know that you've got
2 14 minutes left in your sur-rebuttal time.
3 MR. NOROOZI: Yes, Your Honor. Judge Beamer, is there more that
4 I could address on this amendment issue?
5 JUDGE BEAMER: No, yeah, this is very helpful, and we'll take all
6 of this into account.
7 MR. NOROOZI: Thank you. Now, the suggestion was made that our
8 expert testified that effectively the limitations of the patent claim were
9 obvious and had motivations in the art at the time of the invention. That's
10 just not accurate. The question was posed to him effectively in the context
11 of the patent and the patent claims, and there's a well-established body of
12 law that the fact that the inventor came up with the idea, whether there was a
13 motivation for that and it's understandable that there was a motivation for
14 that, isn't a basis for concluding obviousness. Of course, every inventor has
15 a reason why they think what they're coming up with makes sense and is
16 desirable. To then rely on that to say well, anyone else could have come up
17 with the same thing, is entirely circular and makes a mockery of the patent
18 process. I think, stated otherwise, it's as if Petitioner is suggesting that our
19 expert really should have said no, there's no sensible reason for the patent
20 claims to recite what they do.
21 And as for the obviousness issue with Traw and Peterka, again, what
22 was explained by Petitioner's counsel is so high-level conceptual and so far
23 removed from the very particular language of these revised claims that it
24 cannot possibly meet their burden of demonstrating obviousness with respect
25 to these limitations. They are conceptually starting from the premise that
26 Peterka supports obtaining a new key whenever you need one. And then

1 they go from there to say, and Traw says that if you have a security breach,
2 you can download a whole new security protocol and somehow magically
3 they end up from there at all the language in 21.4 to 21.6. And that just
4 doesn't meet the specificity requirements of these inter partes review
5 proceedings or the law of obviousness.
6 I will also say that we specifically highlighted two dependent claims
7 that were not addressed. One of them is Claim 23, at least in the context of -
8 - Claim 23 is the right number in both proceedings, and then in the '178 it's
9 Claim 30 and in the '313 it's Claim 27, I believe. But Claim 23, Petitioner
10 relies on an obvious to try theory, but they don't meet the requirements of
11 showing that the finite, an obvious set of options. So, for this limitation, just
12 to show you the language, the claim requires that the expiration time for the
13 second key is equal to the first expiration time plus the remaining life span
14 of the first expiration time at the time of expiration. So, if the original key
15 had a time of one minute, and it was cancelled at 34 seconds, then it had 23
16 seconds left, and under Claim 23, that expiration time for the second key
17 would be a minute, 23 seconds. And Petitioner says that that's obvious
18 under an obvious to try theory. That does not meet the law of obvious to try.
19 That is not one of a finite set of known and obvious options, to end up at a
20 structure like that.
21 And the only way they try to get there is, they say, well, there are only
22 three possibilities, you set it at less time than the original, the same time as
23 the original, or more time than the original. But that's grossly
24 oversimplifying the vast scope of possibilities that you would need to reduce
25 down to get to this particular claim. So, they don't meet this claim.

1 And then as to Claim 30, this claim requires something very specific
2 that Peterka explicitly doesn't do, which is that you apply the second key to
3 decrypt the same content segment for which the first key was used. And we
4 demonstrated that their expert testifies that in Peterka there is one and only
5 one key per segment. And so, the idea of having a key for a segment and
6 then rotating out that key but applying the second key to the same segment
7 without changing the segment boundary, is not disclosed and is not rendered
8 obvious. They don't meet that; they don't show that.
9 Your Honors, unless there are other questions, I'm happy to answer
10 any other questions you have. And if there are none, then I yield my time,
11 and we thank you for your consideration. I know it's been a long line of
12 arguments and a complex series of issues, and we really appreciate you
13 working carefully through these. Thank you so much.
14 JUDGE BRADEN: Judge Beamer, any additional questions?
15 JUDGE BEAMER: No, thank you.
16 JUDGE BRADEN: Judge Raevsky?
17 JUDGE RAEVKSY: No. Thank you everyone.
18 JUDGE BRADEN: Very good. Thank you all for appearing here
19 today and for answering all of our myriad of questions. Your answers have
20 helped the panel. We will work through all of these issues. Again, we
21 appreciate your flexibility in presenting your case virtually today. We will
22 take the cases under advisement and issue decisions in due course. We wish
23 you all a very good day. The hearing is now adjourned.
24 MR. SARWAR: Your Honor, when would be a good time to register
25 an objection to the oral argument?

1 JUDGE BRADEN: We are no longer adjourned. We are not
2 adjourned. If you would like to go ahead, and you have an objection that
3 you'd like to put on the record?
4 MR. SARWAR: Yeah. So, it sounds like Patent Owner tried to insert
5 an attorney argument base disclaimer of claim scope during the oral
6 argument. They didn't argue this before. The disclaimer, whatever it is, it's
7 not in either of their motions to amend or any of their papers. So, we think
8 any such disclaimer was not preserved, and it's waived, and so we would
9 object to this at least under 37 CFR 42.70, since it wasn't raised in a paper.
10 Also, we want to note that the Federal Circuit has foreclosed what
11 Patent Owner is trying to do here, which is amending claims further during
12 an oral argument. That's Cupp Computing AS versus Trend Micro Inc.,
13 F.4th 1376, Federal Circuit 2022. Basically, that case says the Board is not
14 required to accept Patent Owner's arguments as disclaimer in deciding the
15 merits of those arguments. And it's referring to arguments that take place
16 during oral argument. And a rule permitting a patentee to tailor its claims in
17 an IPR through argument alone would substantially undermine the IPR
18 process. Last point on this objection, if the Board is inclined to consider this
19 new disclaimer, we would request some sort of supplemental briefing, you
20 know, on this new amendment, and whether it's been waived. That's what I
21 wanted to argue.
22 JUDGE BRADEN: Thank you, Counsel. We are aware of Cupp
23 Computing, and we are aware of the fact that we are bound by our reviewing
24 court's guidance. So, we appreciate that. Counsel for Patent Owner, do you
25 have a response?

1 MR. NOROOZI: Yes, I do, Your Honor. I believe that case was
2 explicitly talking about the original claims, not proposed amended claims.
3 And that case in fact says that the motion to amend process exists so that
4 Patent Owner has an avenue through which it can change the claims, and
5 therefore it can't do it through disclaimer-type statements with respect to the
6 original claims. It doesn't apply to motions to amend. But we're more than
7 happy to submit a very short briefing on this issue if Your Honors would
8 like.
9 JUDGE BRADEN: Give the panel one moment while we confer.
10 MR. NOROOZI: Thank you.
11 JUDGE BRADEN: Counsel, the panel is going to consider the issue
12 of Cupp and its applicability to motions to amend and to the present
13 proceeding. If we decide that additional briefing is necessary, we will send
14 an order out in the next day or two. Otherwise, at this time, we will take this
15 under advisement, and we will issue decisions in due course. Is there
16 anything else from Petitioner's counsel?
17 MR. SARWAR: Nothing at this time, Your Honors. Thank you.
18 JUDGE BRADEN: Anything from Patent Owner's counsel?
19 MR. NOROOZI: Thank you, Your Honors.
20 JUDGE BRADEN: Very good. The hearing is now adjourned.
21 (Whereupon, the above-entitled matter went off the record at
22 2:11 p.m.)

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