

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,
Petitioner,

v.

INTELLECTUAL VENTURES II LLC,
Patent Owner.

IPR2025-00343
Patent 10,292,138 B2

Record of Oral Hearing
Held: May 14, 2026

Before SCOTT A. DANIELS, FREDERICK C. LANEY, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

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P R O C E E D I N G S

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JUDGE DANIELS: All right. Good afternoon, everyone. This is our final hearing in IPR 2025-00343, Petitioner Tesla and Patent Owner Intellectual Ventures. I'm Judge Daniels. Judge Laney and Judge Meyers are up on screens behind me. I'm looking at them behind you.

And just a few of the normal administrative matters that you know already, but for our court reporter let's do our best not to talk over each other and when we're asking questions or answering them so that she can get everything down that we say, and also at the end, before you leave, let's just make sure she has no questions or spellings that she needs before we all take off.

All right. So I have not operated the timer in a while, but when you come up, tell me how much time you want to reserve and we'll put up the bulk of your time here. I'm pretty good at operating this thing. If I forget to turn it off, feel free to tell me.

We don't -- I just want to make sure there's no confidential subject matter we're going to talk about today, right, we haven't in the other cases. All right? And yeah, I think with that, we're ready to get going. If we could get the appearances for Petitioner?

MR. JARRATT: Good afternoon, Your Honor. I'm Scott Jarratt, lead counsel for Petitioner Tesla, and joining me is Clint Wilkins who will be presenting today. We also have Counsel Jon Bowser and also Ashraf Fawzy of Tesla.

JUDGE DANIELS: Great. Welcome.

MR. GOLUB: I'm Dan Golub. I'm going to be arguing on behalf

1 of Intellectual Ventures and with me are my colleagues Beta King and
2 Brandon Theiss.

3 PARTICIPANT: You know what, excuse me, but it looks like we
4 lost --

5 PARTICIPANT: We lost -- yeah, we lost Chris. All right. Can
6 we go off the record for a second?

7 (Whereupon, the above-entitled matter went off the record at 1:09
8 p.m. and resumed at 1:11 p.m.)

9 JUDGE DANIELS: Mr. Wilkins, you're up. Just let me know
10 how much time you'd like to reserve.

11 MR. WILKINS: Yes. I'd like to reserve 15 minutes for rebuttal,
12 please. And let me know --

13 JUDGE DANIELS: And you're on.

14 MR. WILKINS: All right. Good afternoon, Your Honors. This
15 case is about wireless communications, and more specifically, how a cell
16 phone transmits information to a base station. I'd like to go next to Slide 3,
17 please.

18 Slide 3 has Claim 1, and Claim 1 recites a user equipment, or UE,
19 which is a cell phone. Claim 1 describes the steps the UE takes to transmit
20 data to a base station. I want to briefly walk through the limitations in
21 dispute and then show you how the '138 patent describes these limitations.

22 First, Limitation 1.6 describes a UE receiving a single allocation of
23 uplink resources. So next, I'm going to go to Slide 2 to discuss how the '138
24 patent describes this limitation, and then we'll return to the next limitation,
25 1.7, in a moment.

26 So let's turn to Slide 2, please. Figure 5 of the '138 patent is shown

1 on Slide 2. On the left side is a UE, also known as a mobile station or
2 mobile device. On the right side is a network including a base station. In a
3 cellular system, there are many UEs all connected to the same base station
4 that all want to send data to the base station. The base station controls when
5 each UE gets to send its data, that's called scheduling, and you see a
6 scheduler there in the middle of the right side box for the network.

7 The base station serves essentially like an air traffic controller,
8 directing various UEs to tell them when they can use uplink channel
9 physical resources such as time slots. The base station does this scheduling
10 by allocating uplink resources to each UE. You can see this in Figure 5 in
11 the message labeled 560 in the middle of the -- it's a transmission from the
12 scheduler. And the scheduler and the base station sends a single allocation
13 of uplink resources to a UE telling it when it can send its data.

14 Once the UE receives its allocation, the UE knows when it's
15 permitted to send uplink data. This notion of a base station scheduling
16 transmissions of UEs was not new. In fact, it was a basic part of cellular
17 networks. The background of the '138 patent confirms this. And you can
18 see this if you permit me to go to Slide 41, so I'm going to skip ahead now to
19 Slide 41 and then we'll come back.

20 So the excerpt here is in the background of the '138 patent. The
21 background of the patent at column 2, lines 58 through 61 recites, "The base
22 station, or Node B, is responsible for allocating and distributing the
23 resources to the users within a so-called scheduling task." So here this is
24 noting that allocating and scheduling are synonymous.

25 In essence, scheduling by the base station simply avoids a free-for-
26 all that could result if UEs transmitted whenever they chose, which would

1 lead to damaging interference among transmissions. The main point here is
2 that even the patent itself recognizes that this aspect of the claim of sending
3 an allocation of resources was not new.

4 JUDGE DANIELS: Mr. Wilkins, am I understanding you
5 correctly if when an allocation -- when node B or the system itself sends that
6 allocation, do these allocations -- I know you're going to talk more about it
7 because this is a big issue in the claim, but do you get an allocation -- the UE
8 gets an allocation, and then whatever time frame later gets another allocation
9 and that's because it's balanced among the, who knows, hundreds, thousands
10 of UEs that are out there? They come in in kind of these separate
11 allocations, I guess? Separate single allocations?

12 MR. WILKINS: Yes. So the patent is more about the single
13 allocation that comes in, but you would imagine the way this would work is
14 as the UE transmits data or later -- let's say it transmits data in the first
15 allocation, it may transmit all of its data, but there would be -- it would need
16 to be told again another allocation at some point to then transmit data again.
17 So this is -- it may happen fast enough that the user doesn't notice, but this
18 does have to be a repeated process.

19 JUDGE DANIELS: Right. Because the system itself is balancing,
20 I guess, balancing or trying to balance the resources that are used to send
21 data from the UE to the system itself and then back are finite. There's only
22 so many resources, so that's why the allocation is important for the UE so
23 that it gets the important data, or maybe the prioritized data out, right?

24 MR. WILKINS: Correct. And the claim here is focusing on one
25 UE to the base station, but imagine this going on to multiple UEs because
26 for a given base station, as you would imagine a cellular system, it's

1 balancing resources to all those different UEs.

2 JUDGE DANIELS: So we're focused on the uplink part, you call
3 it, right?

4 MR. WILKINS: Correct.

5 JUDGE DANIELS: Okay.

6 MR. WILKINS: Yes. So the uplink transmissions, of course,
7 receiving the allocation and the downlink.

8 JUDGE DANIELS: Yes.

9 MR. WILKINS: Yes. So let's go back to go to Slide 3, which is
10 the claim. So we just discussed Limitation 1.6. Now we're going to discuss
11 Limitation 1.7, which is select data from the plurality of radio bearers for
12 transmission using the single allocation of uplink resources. Here Claim 1 is
13 referencing selecting data for transmission using the allocation we just
14 discussed. Note, there's this term "radio bearers" in the limitation.

15 Now, let's go back to Slide 2 to discuss how the '138 patent
16 describes this limitation. Figure 5 illustrates a plurality of radio bearers in a
17 UE and that's noted with the annotation on the left side. The radio bearers
18 are represented by those multiple parallel lines. These radio bearers are
19 essentially data pipes that are internal to the UE. These data pipes may, for
20 example, represent different applications or services running on a mobile
21 device such as conducting a video call while sending a text or email at the
22 same time.

23 Each of these applications wants to send data to the base station on
24 the uplink. Data from these radio bearers is waiting in buffers to be
25 transmitted. The UE, now that it's received its allocation, has to decide
26 which data from the radio bearers to send on the allocation of uplink

1 resources that it received. The selected data is then sent on the allocated
2 uplink resources, and that's denoted by the arrow in the bottom left, so
3 there's a transmission on the allocation.

4 The '138 patent is mainly about how a UE selects data to send in
5 its allocated resources, and this is reflected in Claim 1. So again, we're
6 going to turn to Slide 3. So there are only two limitations at issue in this
7 case, but the prior art clearly renders obvious these limitations. This is
8 complex technology but the issues in this case are not complex.

9 Because the prior art looks so similar to what is disclosed in the
10 138 specification, Patent Owner's arguments are based mainly on
11 mischaracterizations of the petition. I'll get to that in just a moment, but
12 first, it's worth walking through the art to show you why it's like the '138
13 patent for Limitation 1.7. And for that, we will turn next to Slide 26, so I
14 will take a second to go to Slide 26.

15 Slide 26 illustrates Figures 2 and 3 of Eckert. This slide shows the
16 same thing as Figure 5 of the '138 patent we just discussed. You see, if you
17 notice in Figure 2 what's colored and annotated with radio bearers 210, that's
18 an explicit description as radio bearers in Eckert. You see the same parallel
19 lines there for those radio bearers as was shown in Figure 5 of the '138
20 patent. The data from these radio bearers 210 goes into buffers 306. The
21 data flow is down through -- this is all, again, internal to the UE.

22 The data flow is internal. It goes down into this functional unit. A
23 detailed diagram of it is shown on the right, so that's Figure 3. Eckert
24 explicitly connects these figures. So again, the data from these radio bearers
25 flows into buffers 306, also like the '138 patent. Data from the various
26 buffers is selected for a time slot on the EDCH channel, and I apologize for

1 the small text, but if you look at the bottom of Figure 3, you see the EDCH
2 at the bottom.

3 So you see the EDCH channel represented at the bottom of Figure
4 3 on the right side. The base station tells the UE which time slot to use for
5 transmission. Bucknell, which is not shown in the slide, simply
6 demonstrates that it would be obvious to iterate over these queues when
7 selecting data for transmission in a time slot.

8 There's nothing new about the '138 patent. Because of this, the
9 Patent Owner does not really dispute what the prior teaches. Instead, they're
10 again based on mischaracterizations of the petition. So let's turn to Slide 4
11 to crystalize the issues.

12 JUDGE DANIELS: Mr. Wilkins?

13 MR. WILKINS: Yes.

14 JUDGE DANIELS: So the EDCH is a channel, if I'm
15 understanding your explanation, that's a channel --

16 MR. WILKINS: Correct.

17 JUDGE DANIELS: -- and it consists of these -- and so we have
18 these buffers where they're going to prioritize some of these data?

19 MR. WILKINS: Yes.

20 JUDGE DANIELS: And then those are going to be allocated onto
21 different some limited resource of the radio bearers within the channel; does
22 that make sense?

23 MR. WILKINS: Yes. So I think what you're noting is that since
24 the data is flowing from the radio bearers into these queues, you're
25 effectively selecting data for the radio bearers to put into the EDCH channel.
26 And as you'll see in a few slides, Eckert has very good disclosure about

1 using a defined time interval within the EDCH channel for transmission.

2 And so we'll get to that in just a second.

3 Do you have any other questions about this slide?

4 JUDGE DANIELS: Is it fair to just understand that a -- I guess the
5 only analogy I can think of is more like just an electrical just a transmission
6 channel that consists of different frequencies or sub-frequencies and it seems
7 like that's essentially the same thing with the radio bearers in the channel?

8 MR. WILKINS: Yeah. I mean, essentially the channel is divided
9 in some way between time slots and, as we'll talk about later, there are also
10 codes, spreading codes, as part of this channel. But essentially, the channel
11 is at a certain frequency, but then it's slotted in time.

12 JUDGE DANIELS: That's what the spreading frequencies do, slot
13 the time?

14 MR. WILKINS: No. The spreading codes is a code division
15 multiple access concept where you can literally allow different transmissions
16 to go on in parallel using these different codes. And it can be either from the
17 same user or different users, but the point is when the UE gets told to use
18 this channel for the defined time interval, it carries associated with that a
19 code, you know, code allocation.

20 JUDGE DANIELS: Yeah. Okay.

21 MR. WILKINS: Okay. And I may have misspoke. If I said the
22 radio bearers are in the channel, it's data from the radio bearers are in the
23 channel. Those radio bearers again are internal -- that's a concept that's
24 internal to the UE, if that makes sense.

25 So there are two main areas of dispute that involve Limitations 1.6
26 and 1.7. Again, for Limitation 1.6, the dispute centers on a single allocation

1 of uplink resources. First, Eckert alone, and also Eckert combined with Lohr
2 1 renders obvious a single allocation of uplink resources.

3 For Eckert alone, Patent Owner argues that Petitioner mapped an
4 infinite number of time slots to an single allocation of uplink resources.
5 Again, Patent Owner is mischaracterizing the petition. For Eckert combined
6 with Lohr 1, Patent Owner does not address the actual combination, but
7 rather makes an argument that amounts to bodily incorporation of Lohr 1
8 into Eckert. Again, Patent Owner is mischaracterizing the petition.

9 The second area of dispute involves the combination of Eckert and
10 Bucknell for Limitation 1.7. Petitioner demonstrated two ways to combine
11 Eckert and Bucknell, both of which render obvious Limitation 1.7. Patent
12 Owner has not addressed one of the ways of making the combination so
13 there is an unaddressed dispositive argument regarding motivation to
14 combine, and we'll discuss that in a moment.

15 So next, we're going to dive in to Eckert's disclosure and
16 demonstrate that Eckert alone renders obvious a single allocation of uplink
17 resources.

18 JUDGE DANIELS: Mr. Wilkins, the '138 patent has a lot of
19 discussion about -- again, am I saying this fairly -- a lot of discussion about
20 prioritization by weight.

21 MR. WILKINS: In the '138 patent?

22 JUDGE DANIELS: In the '138 patent.

23 MR. WILKINS: The '138 patent does have a very complex
24 algorithm for doing this allocation, and there are some weighting factors
25 involved.

26 JUDGE DANIELS: Are those weights different from -- that seems

1 to be one of Patent Owner's arguments, and correct me if I'm wrong later,
2 but that seemed to be one of Patent Owner's arguments that using these
3 weights was different than prior art.

4 MR. WILKINS: So I believe their argument was about Eckert's
5 use of weights and about how we've combined Eckert. So what's disclosed
6 in the specification and what's actually claimed are fairly different, if that
7 makes sense, in terms of the details and the complexities of the algorithm in
8 the 138 specification. The main idea is that there's an iterative process to
9 select data in the claim.

10 JUDGE DANIELS: Okay.

11 MR. WILKINS: We'll get to the Eckert and the weighting -- the
12 weights very shortly so as we dive into Eckert. So --

13 JUDGE LANEY: Before you do, can -- I'm sorry.

14 MR. WILKINS: Yes. Go ahead.

15 JUDGE LANEY: Can you explain to me what you're looking for
16 when you're trying to establish a single allocation of uplink resources? What
17 are the technical signs? What does that require in order to satisfy?

18 MR. WILKINS: Yeah. It may help if I go back to Figure 5. So an
19 allocation is simply a message. So you see in the middle of Figure 5, and
20 this is described in the '138 patent. It actually describes this single allocation
21 as being carried in a message. So the telltale sign is to look for some
22 communication that includes this information that tells the UE, you know,
23 how and when to transmit because it's sitting there waiting for the base
24 station to give it -- the easiest way to understand it is a time, you know, a
25 time to transmit.

26 Similar to aircrafts lined up to land on a runway, you need -- they

1 have to do this at different times.

2 Go ahead, Judge Laney.

3 JUDGE LANEY: So is it a single time that they're going to spend
4 all your physical resources?

5 MR. WILKINS: Yes. And not all -- I want to make sure I'm clear.
6 It's not sending you your physical resources for all time. So it's sending you
7 some bundle of physical resources to use and then it's up to the UE to figure
8 out how to put their data on those resources. Again, the problem is the UE
9 has these multiple services running in parallel, and the base station does not
10 tell the UE how to divide up the bandwidth between these different services.

11 It just gives it an allocation and says, "Here's your allocation. Use
12 it." And then the UE has to decide okay, I'm going to take a little bit of
13 this from radio bearer 1, a little bit from radio bearer 2, etc. So that's how
14 it's working.

15 JUDGE LANEY: So the plain language says, "Cause the circuitry
16 to receive a single allocation of uplink resources." So we're looking at the
17 user equipment, so if I understand what they're saying, the user equipment's
18 going to send a message to the base station saying I want a single uplink
19 resource for you to send me everything. Is that right?

20 MR. WILKINS: Well, the claim -- by the way, I'm on Slide 3. I
21 apologize. I've put the claim language up and that has Claim 1 on it. So the
22 claim is not about the UE. Earlier in the claim, it's transmitting buffer
23 occupancies, so the UE does announce and say here, I have some buffer
24 occupancies. And that --

25 JUDGE LANEY: But it's saying the UE is causing the circuitry to
26 receive a single allocation of uplink resources.

1 MR. WILKINS: Correct. So it's got certain -- that's just basically
2 saying the circuitry is receiving. The circuitry is receiving, so this is internal
3 -- that's internal to the UE. It's causing circuitry in the UE to receive that
4 single allocation that's coming from the base station.

5 I believe in Claim 8, maybe --

6 JUDGE LANEY: So how does the process there -- and I don't
7 want to get into the prior art, I just want to understand the claim language
8 first. How does the processor of the user equipment cause the circuitry to
9 receive a single allocation of uplink resources?

10 MR. WILKINS: That's just simply when that allocation message,
11 if you go back to Figure 2 --

12 JUDGE LANEY: Figure 5?

13 MR. WILKINS: Yeah. I'm sorry, Slide 2, Figure 5. That's just
14 saying essentially the message is there to be received, so something in the
15 processor has to cause the circuitry to receive it. It's not causing the base
16 station to transmit it in that step; it's just causing the UE to receive it, to
17 receive what's already there.

18 JUDGE LANEY: Okay. In other words, the processor -- what's
19 you're saying, the processor's doing whatever it has to do to allocate
20 resources so that the circuitry will receive a single allocation of physical
21 resources?

22 MR. WILKINS: The base station is the one that decides to send
23 the single allocation. Let's go to the claim and just walk through. We'll
24 walk through some limitations that are not in dispute. If you can go to Slide
25 3.

26 JUDGE LANEY: Yeah.

1 MR. WILKINS: So the cause and effect here is the transmitter -- if
2 you look just above 1.6, the transmitter transmits a message including a
3 plurality of buffer occupancies. And again, that limitation's not disputed.
4 That basically tells the network, hey, I've got data ready to send, and so I
5 need -- because otherwise the buffers would be empty. And so the UE is
6 announcing, "I have data to send," and the base station's simply responding
7 in the next step with a single allocation.

8 So now the UE has transmitted its buffer occupancies, and now the
9 base station is simply responding and saying, "Here's your allocation."
10 Now, the next step is 1.7. Now --

11 JUDGE LANEY: So what do I make of a single -- I mean, what is
12 a single allocation? It's not just an allocation; it's a single allocation.

13 MR. WILKINS: It means it's in one message. That's all it means.

14 JUDGE LANEY: Okay.

15 MR. WILKINS: And that's the way it's described in the patent. It
16 says, "A message includes the single allocation."

17 JUDGE LANEY: Well, let's say that the message and the single
18 allocation aren't the same thing. A message can include a single allocation --

19 MR. WILKINS: It's the information, but that's one in the same
20 thing as the message.

21 So let's keep going on Eckert alone disclosing this single
22 allocation. So Eckert -- and we're back to Slide 6. So this is the portion of
23 Eckert relied upon in the petition to disclose the single allocation of uplink
24 resources. And here it's saying data which is transmitted within a defined
25 time interval via the EDCH channel. So it's a defined time interval.

26 And so this portion of Eckert describes how the UE sends data on

1 the uplink to the base station. In the petition -- and this is what was relied on
2 in the petition is this exact language. And so by assigning the ED -- and this
3 goes to your question earlier, Judge Daniels, by signing -- by being assigned
4 the EDCH channel for a defined time period, the UE is assigned the
5 resources that constitute the channel for that time period rendering obvious a
6 single allocation of uplink resources.

7 Let's go to the next slide, Slide 7.

8 JUDGE DANIELS: So, Mr. Wilkins, and I think maybe you're
9 going to talk about it here, but I think in follow-up to Judge Laney's
10 question, can we understand that this single allocation is time frame?
11 There's a time it's sent, time it ends, and that -- and then in that respect, the
12 UE knows that that is an allocation of resources that it's going to use to send
13 the next data packets?

14 MR. WILKINS: Yes. And that's why I'm going back to Slide 6.
15 That's why Eckert uses the language, "a defined time interval." The
16 allocation is what's defining the time interval for it to use. So --

17 JUDGE LANEY: What are other ways of doing this? In other
18 words, if this is it ends with -- let's presume for the sake of argument this is
19 just one way to do it. What are the other ways that it was done prior to this
20 way?

21 MR. WILKINS: I don't believe that's in the record of describing
22 the other ways of doing this.

23 JUDGE LANEY: Right.

24 MR. WILKINS: I mean, the focus was on Eckert and its way.

25 JUDGE LANEY: Well, but in the background of the patent itself,
26 it talks about previous ways of doing it, right?

1 MR. WILKINS: Well, yes. It basically tells you that scheduling
2 and allocating were synonymous and that that's what the base station did, so
3 yes, that's admitted in the background.

4 JUDGE LANEY: Okay. So how is that different than this? How
5 is the previously different than what Eckert's doing?

6 MR. WILKINS: I'm not sure -- I'm not sure that's relevant to
7 showing the obvious, to demonstrating obviousness.

8 JUDGE LANEY: Well, I respect that that's your view, but I'd just
9 like to understand more so that I --

10 MR. WILKINS: Give me just a second and I'll -- I think the one
11 thing I can say is that here's how it was doing -- this was referencing the
12 current system, HSDPA. I'm at Slide 41. I'm back to the background.
13 Okay?

14 And so this is talking about in the context of HSDPA, which was
15 an existing system. And there's not really a lot of detail given on how that
16 actually works other than you just know that it was scheduling/allocating.

17 JUDGE LANEY: But presumably, it wasn't doing it in a single
18 allocation, right? It was doing it in multiple allocations?

19 MR. WILKINS: Well, the single allocation, again, is not really the
20 novel feature. The novel feature was the iterative process of selecting data,
21 and that was what was -- those were parts of the reasons for allowance in the
22 prosecution history. And those limitations aren't even disputed.

23 So the iterative part of Claim 1, and I'm going to go back up to
24 Slide 3, all that white text below what's highlighted, that gets into the details
25 of the selection. You know, there's a first iteration, there's a second
26 iteration, all that, all those steps. That's what got the claim allowed. So

1 that's what was allegedly new, but those aren't disputed here because our art
2 clearly shows that.

3 So a single allocation of uplink resources is not anything new.
4 That's just basically how cellular systems work.

5 JUDGE LANEY: Okay.

6 MR. WILKINS: Okay.

7 JUDGE DANIELS: Mr. Wilkins, let me follow up one more
8 question on his line of questioning. What is the 138 description, I think you
9 pointed us to it in your briefs, but the '138 patent has some language about
10 what an allocation is. Is that helpful?

11 MR. WILKINS: Yeah. Yes. Having a concrete example helps,
12 and this is what the Patent Owner -- the Patent Owner made this argument,
13 and I'm going to go -- why don't I just skip ahead to slide -- I'm going to go
14 to Slide 9.

15 So the argument was a single allocation, the example from the
16 specification is some combination of spreading codes and time slots, so
17 that's what you and I had spoke about earlier, Judge Daniels. And so this is
18 not a construction of the term, but it's reflecting the one example from the
19 spec, so however this is defined, you know, this example should be
20 encompassed.

21 And we showed -- we responded to this by showing that our
22 EDCH channel uses spreading codes and that there would be a finite
23 number. And when we deposed Patent Owner's expert, we asked him, and
24 again, Judge, for the benefit of judges that are remote, I'm on Slide 9.

25 We asked would an EDCH be expected to have available a finite
26 number of spreading codes, and the answer was yes, it would be expected.

1 And we had our own expert testify to the same thing. So both experts
2 agreed that there's a finite number of spreading codes associated with the
3 EDCH channel.

4 And so under Patent Owner's understanding, Eckert matches Patent
5 Owner's understanding exactly of what a single allocation of uplink
6 resources is.

7 JUDGE DANIELS: And could you stay right here for one second?

8 MR. WILKINS: Yes.

9 JUDGE DANIELS: And then so that finite number of spreading
10 codes is what is given in a single allocation for that first time --

11 MR. WILKINS: Yes.

12 JUDGE DANIELS: Okay.

13 MR. WILKINS: When it says, "Use this channel for this time,"
14 that's telling the UE use the resources that are associated with this channel
15 for this defined time period. That's exactly what it's doing.

16 So in conclusion, Eckert's defined time interval of an EDCH
17 channel -- did we lose Judge Laney?

18 JUDGE DANIELS: Judge Laney, are you still here?

19 JUDGE LANEY: No. I'm still here.

20 MR. WILKINS: Okay. I'm sorry. I heard a ring.

21 Eckert's defined time interval of an EDCH channel, which we just
22 discussed is comprised as a finite number of time slots and spreading codes,
23 discloses and renders obvious the single allocation of uplink resources.

24 So that shows for Eckert alone, Eckert alone is dispositive as to the
25 disputed limitation. However, we also went a step further in the petition and
26 demonstrated that Eckert combined with Lohr 1 also renders the disputed

1 limitation obvious. For that, I would like to go next to Slide 13 and the top
2 portion -- and I'll give you a second to get to Slide 13. The top portion of
3 Slide 13 is an excerpt from Eckert, and Eckert says that scheduling is
4 controlled by the base station.

5 In the bottom portion, this is what Lohr 1 says. So Lohr 1 says,
6 and I'll read it, "With a grant message sent in the downlink from the node B
7 to the UE," and the node B is a base station, "the node B assigns the UE the
8 time interval the UE is allowed to send." So here you have the message,
9 which is the allocation, and the time interval is the assigned uplink
10 resources. And I should mention that Lohr 1, although it's not in this
11 excerpt, this is in the same section where it's describing the EDCH.

12 So Lohr 1's context is exactly the same as Eckert. It's all about the
13 EDCH channel. Lohr 1's disclosure essentially matches the only example
14 we have from the 138 specification, which is in Figure 5, of a message
15 providing a single allocation of uplink resources. Therefore, Eckert
16 combined with Lohr 1 also renders obvious a single allocation of uplink
17 resources.

18 And so that concludes what we wanted to discuss about Limitation
19 1.6. There are two separate bases for rendering that limitation obvious.
20 Now, I would like to go to the second disputed limitation, which is
21 Limitation 1.7. And what is actually disputed is not that the art shows the
22 limitation, but the motivation to combine Eckert and Bucknell.

23 So there are two main propositions here -- so I'm on Slide 15, by
24 the way. There are two main propositions here that form the basis for the
25 combination. We're going to start with the first proposition which is that
26 Eckert describes selecting radio bearer data in the context of flows and

1 buffers based on priorities or weights as alternatives. Again, priorities or
2 weights.

3 Let's go to Slide 16. This is just reminding you again what the
4 claim language is, which is select data from the plurality of radio bearers for
5 transmission using the single allocation of uplink resources. Let's go again
6 to Slide 26.

7 JUDGE DANIELS: Wait, can you just --

8 MR. WILKINS: Yes.

9 JUDGE DANIELS: Before you leave this, select data using the
10 single allocation -- I think you said this before, and it seemed -- it registered
11 with me that the UE decides they're not -- the UE decides based on what is
12 allocated what it's going to use. So it may not use all that's allocated; does
13 that make sense?

14 MR. WILKINS: Yes. That makes sense.

15 JUDGE DANIELS: So the single allocation of uplink resources,
16 whatever that allocation is, that's not an instruction as much as, you know, I
17 kept thinking it was an instruction, but really it's not an instruction to use,
18 you have to use these. It's an allocation you have available this resource and
19 you can use it as you want, but the UE makes that decision.

20 MR. WILKINS: The UE does make that decision, and that's what
21 the claim says. The expectation by the base station is that it's going to use
22 those resources because if the base station says, "Here's your allocation," the
23 base station is then going to be listening. You know, it has to know what to
24 listen for. So it's going to be listening to those time slots for information
25 from the UE that it told to send. I know that's not part of the claim, but I'm
26 just giving you context of how it works.

1 JUDGE DANIELS: Right. Thank you.

2 MR. WILKINS: Okay. So let's go to Slide 26, please. As shown
3 in Figures -- so we had visited this slide earlier, and this has Figures 2 and 3
4 of Eckert. As shown in Figures 2 and 3, data from a plurality of radio
5 bearers flows into priority queues 306, shown in the figure on the bottom
6 right, and is waiting to be transmitted on the uplink in the EDCH channel.

7 And again, that figure shows the EDCH channel at the bottom of
8 that Figure 3. Limitation 1.7 again is how to select this radio bearer data
9 buffered in those queues. And Eckert describes two alternatives ways to
10 make the selection: one way based on queue priorities and one way based on
11 queue weightings. And you can see this in Slide 20.

12 So now I'm going to go from Slide 26, we're going to go to Slide
13 20. So this is an excerpt. The top part is an excerpt from Eckert, and this is
14 an excerpt that was relied upon in the petition. Data -- and it says -- and I'll
15 read what it says. "Data from the various queues in Eckert is read on the
16 basis of" -- and this is what's underlined, "the priority of the data or the
17 weighting," so it's presenting alternatives. And the petition addresses both
18 alternatives and renders obvious 1.7, Limitation 1.7 by showing two
19 different ways to make the combination of Eckert and Bucknell.

20 And we're going to cover those two ways now.

21 JUDGE DANIELS: Mr. Wilkins, if we determine what weight to
22 give data, isn't that just another way of determining a priority?

23 MR. WILKINS: You can think of it that way. I mean, weighting
24 is more quantitative than priority. Priority is more qualitative. You could
25 imagine you have two queues and you say this one is higher priority than
26 this queue. That's just kind of a qualitative assessment whereas weightings

1 is a quantitative. You know, I'm going to weight this queue -- I'm going to
2 give this queue 35 percent of the resources that I receive and the other one
3 65 percent. So that's a very, you know, more definitive thing.

4 JUDGE DANIELS: So it might weight them, for example, the
5 weighting might -- I mean, let's say video data, for instance, that has to -- it
6 doesn't make sense if there's a break in it, right? It might get a higher
7 weighting than text data --

8 MR. WILKINS: Yes.

9 JUDGE DANIELS: -- which gets total, right? Is that --

10 MR. WILKINS: Yes. Or a higher priority --

11 JUDGE DANIELS: Higher priority.

12 MR. WILKINS: -- depending on which method you use. Yes. So
13 let's go to Slide 22, and this is with respect to Eckert's priority method. So
14 with respect to that method, Eckert doesn't provide many implementation
15 details as far as selection based on priority. It just calls its queues priority
16 queues, says there's a priority, but Bucknell provides a lot of detail about
17 how to use the different priority, about how to make the selection.

18 And this is one quote, and I'm on Slide 22, from Bucknell, and it
19 talks about the invention of Bucknell is providing for handling, flexible
20 handling of priorities. And the combination of data is having different
21 priorities may be transmitted. And there's a lot of detail and that's in our
22 petition, and that gets into the iterative process. But the point here is about
23 motivation to combine and here is what we said. The bottom part's what we
24 said in our petition.

25 In the section called "Motivation to Combine Eckert with
26 Bucknell," "Bucknell specifies implementation detail for how to select data

1 for a MAC ePDU," that's essentially the name of the data unit transmitted on
2 the EDCH. According to "the priorities of the data," so that's quoting that
3 excerpt from Eckert that we just described. And that fits seamlessly into
4 Eckert's framework to address the issue, because Eckert already says you
5 can use priorities.

6 So the Patent Owner addressed only the Petitioner's argument with
7 respect to the weighting techniques of Eckert, and this is just an excerpt
8 from their brief where they say, "We propose eliminating from Eckert the
9 weightings." That's just one of the alternative -- again, one of the
10 alternatives in Eckert.

11 JUDGE DANIELS: So wait, tell me what you're -- why are you
12 telling me about that argument again?

13 MR. WILKINS: Just to say that the argument with respect to
14 Eckert's disclosure on priorities has not been addressed by the Patent Owner.
15 They addressed the second essentially foundation or way to make the
16 combination. So the point here is that -- sorry, let's go back to that slide.
17 The point here is that it's an unaddressed -- our motivation to combine is
18 unaddressed in their response. And so you could find -- use that as a basis
19 for finding a motivation to combine in this case that's dispositive.

20 JUDGE DANIELS: So what you're saying is they're not
21 addressing the fact that both Eckert and Bucknell talk about priorities, about
22 using priorities?

23 MR. WILKINS: Correct.

24 JUDGE DANIELS: And Bucknell just goes into further detail --

25 MR. WILKINS: Correct.

26 JUDGE DANIELS: -- in particular with respect to the weighting

1 as well --

2 MR. WILKINS: Exactly.

3 JUDGE DANIELS: -- which is what they talked about?

4 MR. WILKINS: Yes.

5 JUDGE DANIELS: Okay. Gotcha.

6 MR. WILKINS: And so Petitioner basically pointed this out. We
7 pointed out in our reply, this was a dispositive motivation to combine. But
8 as I mentioned, there -- so I see I have about two minutes left. I want to
9 cover the second motivation to combine. So the first one again is
10 dispositive, but there's a second way to implement the combination, and that
11 was modifying Eckert's technique of selecting data based on weighting.

12 So now I want to go to Slide 29. And so Eckert has a discussion of
13 -- in the top excerpt, as Eckert explained, data is transmitted from queues
14 proportionally in line with their weighting values, and that's what we talked
15 about, Judge Daniels, with the percentages assigned to the different queues.

16 And one issue with this is that these weighting values have to be
17 transmitted to the UE from the base station. And one of the benefits of the
18 combination with Bucknell is that if you use Bucknell's iterative method
19 based on priorities instead, you eliminate this extra transmission of the
20 weight values that you need to assign to queues. So this is one benefit. And
21 if you go to Slide 30, there's actually a second benefit.

22 So in Eckert's original method, the UE has to do a calculation to
23 select based on weights. And by replacing Eckert's method based on
24 weights with Bucknell's method based on priorities, you eliminate this
25 calculation. And so the Patent Owner's expert has admitted that the
26 calculation is eliminated, but argues that it's trivial. But it's not trivial when

1 the calculation has to be done repeatedly.

2 So I think we've covered what I wanted to cover on my initial
3 presentation, and I'll just sum up by saying by concluding, and I'm in Slide
4 34, that again, to reiterate, Eckert alone, and also Eckert combined with Lohr
5 1 renders obvious a single allocation of uplink resources. And remember,
6 Eckert combined with Lohr 1 renders it obvious in a way that actually looks
7 exactly like the '138 patent where there's a grant message that tells the UE
8 the allocation.

9 The Petitioner has demonstrated the motivation to combine Eckert
10 and Bucknell for Limitation 1.7. We actually demonstrated the combination
11 in two ways, one of which is not -- there's no argument in Patent Owner's
12 response about making the combination based on priorities. And I see I'm in
13 my rebuttal time, but that's okay.

14 And so I will leave the rest of my time for rebuttal if there are no
15 further questions.

16 JUDGE DANIELS: I think I have one last question. Is the issue
17 with Bucknell for 1.7, is it just the motivation? Are we -- is it just the
18 motivation to combine with respect to the weighting system, or is it that
19 -- let me just leave it there. Is it the motivation to combine that the dispute is
20 with Bucknell's weight?

21 MR. WILKINS: Yes. That's where the dispute -- that's what
22 Patent Owner's dispute is, the motivation with respect to Eckert's weighting
23 methodology and how that's modified with Bucknell's priority methodology.
24 But again, there's a combination that does not -- that's not disputed, which is
25 Eckert's priority methodology with implementation detail from Bucknell's
26 methodology.

1 JUDGE DANIELS: Okay. Thank you.

2 MR. WILKINS: Okay. Thank you.

3 JUDGE DANIELS: All right. You still have 13 minutes.

4 MR. WILKINS: Thank you.

5 JUDGE DANIELS: All right. Mr. Golub, how much time are you
6 going to reserve?

7 MR. GOLUB: Judge Daniels, may I have 50 minutes and reserve
8 ten?

9 JUDGE DANIELS: Sure. This is why they don't let me run the
10 clock at my children's lacrosse games. Fifty minutes.

11 MR. GOLUB: Everything is going to be mirrored on the big
12 screen that you're seeing here.

13 JUDGE DANIELS: All right. Whenever you're set.

14 MR. GOLUB: Good afternoon. May it please the Board. I'd like
15 to begin with a single allocation of uplink resources. There's a lot of
16 discussion about that and I'd like to actually go to the '138 patent which uses
17 the phrase "a single physical allocation" seven times in the specification
18 each time it precedes "physical allocation" with the term "single."

19 So right now, I'm in the summary of the invention, column 4, lines
20 32 to 35. This feature provides the advantage that the UE can then properly
21 prioritize traffic while receiving a single physical allocation from the
22 network. At the end of the summary, this is in column 5, lines 25 to 27.
23 Again, the summary stresses that it's noteworthy that a single user will
24 receive only a single allocation message, even if they have multiple services.

25 Then, let's go to column 9. Starting at line 36, again, there's a
26 reference to a single physical allocation of radio resources being made to the

1 UE. Two lines later, it's referred to again, and it says, "This single physical
2 allocation provided to the UE is shared among the services." Then a few
3 lines down on line 47, it says that "only a single physical allocation is
4 signaled to the UE. All physical allocations associated with each queue are
5 summed together."

6 And what this is saying is the UTRAN, or the base station, figures
7 out how much resources each queue is spending at. It sums them all
8 together and sends one number to the unit. Again, line --

9 JUDGE LANEY: If I can get one number.

10 MR. GOLUB: Excuse me?

11 JUDGE LANEY: What do you mean by -- one number?

12 MR. GOLUB: Okay. Judge Laney, let me go to the top of column
13 11. The example of Figure 6 uses the term free RAAU as an example of a
14 single allocation uplink resources, and free RAAU is the number of resource
15 allocation units that the UE can share out. Now, those units, and I'm
16 referring to a couple of lines above, so this is lines 7 and 8, those units
17 represent a quantum of physical resources, and the examples are codes and
18 time slots.

19 So imagine that in any given time slot, the UE has five codes that it
20 can transmit on during that time slot. That would be five units, one time
21 slot, five codes. If the UE had eight time slots and five codes, that would be
22 40 units. So I think the point, Judge Laney, is that it's a fixed number of
23 units that in the example is expressed as a combination of codes and time
24 slots.

25 Now, I'm still on column 11, and I'm really at lines 1 to 10. And
26 what the patent does here is it explains that the allocation algorithm itself

1 uses this single allocation as an input to the allocation algorithm. So as you
2 can see in line 5, the allocation process determines, in a first iteration, this
3 value RAAUQ. RAAUQ, in a first iteration of the algorithm, is the number
4 of units that's going to be assigned to each of the Qs. So if there are 40
5 units, it might be that it's 2 and 2 and, I don't know, 18 and 18. But the way
6 that it's done is by multiplying this value, free RAAU, by a weighted.

7 I'm going to walk through the algorithm in some gory detail, but I
8 want to make clear that the way the specification describes it is that the
9 process uses this single allocation as part of figuring out how much data to
10 select. So it's a multi-iteration process.

11 At column 11, lines 1 to 10, they're talking about one iteration.
12 But if we go lower, column 11, say, lines 55 to 60, we'll see that in a later
13 iteration, there's another number that's calculated for each Q. It's called
14 RAAU double prime. And again, you'll see that this term free RAAU,
15 which is the single allocation, is used to make the calculation of how much
16 data is going to be allocated for each Q.

17 JUDGE DANIELS: Mr. Golub, I'm looking at the column 11 and
18 I'm at line 7. And it says, through your discussion here, it says the RAAU
19 represents a quantum, which is some discrete part of the physical resource,
20 codes and time slots. It sounds an awful lot like what Mr. Wilkins was
21 talking about.

22 MR. GOLUB: It's not. Can I show you why?

23 JUDGE DANIELS: Sure.

24 MR. GOLUB: So before I go to -- I'm going to go to Slide 27 for a
25 second. But I think it's pretty clear here in column 11 that there's one
26 amount, free RAAU, that is allocated to the UE and that the UE shares out,

1 in the words of the patent, to all of the Qs. So let me go to Slide 27 for a
2 second from the Patent Owner slides. This is how it was done previously.
3 And this is the way that it's done in both Eckert and Lohr.

4 The table on the left is something called a transport format
5 combination set. The way it works is the base station sends this entire set to
6 the UE. Now, each row in the set is a transport format that the UE can select
7 from in the time slot that it has. And if you look across the row, what you
8 see is the left column is the transport format. And then for each transport
9 format, from priority Q1, how many transport blocks are going to be in that
10 transport format for Q1? And in the next column, what's the size? How
11 many bits are going to be in that block? So if you look across, say, row 3, in
12 that --

13 JUDGE LANEY: Real quickly, before you go ahead.

14 MR. GOLUB: Yeah.

15 JUDGE LANEY: I'm sorry, what does PQ stand for at the very
16 top?

17 MR. GOLUB: Priority Q.

18 JUDGE LANEY: Okay.

19 MR. GOLUB: So if you look across row 3, if the UE were to
20 choose transport format 3, it would be transmitting 100 bits total, because it's
21 not transmitting anything from PQ1, nothing from PQ3, and one transport
22 block with 100 bits for Q2. But let's contrast that with transport format 12 in
23 the green box. There, you're going to have two transport blocks, each of 300
24 bits for PQ1, one transport block of 200 bits for PQ2, and two transport
25 blocks of 100 bits for PQ3, or a total of 1,000 bits.

26 Now, the way it works in Eckert and in Lohr is the UE gets this

1 entire set of transport formats and autonomously selects which one it is
2 going to use. And it does that based on parameters like how much power it
3 has to transmit. This is not a single allocation of resources. This is multiple
4 potential allocations of resources. In the example I just went through, it
5 could be anywhere from 100 bits to 1,000 bits that's ultimately transmitted.

6 And the Petitioner never explains why transmitting ten potential or
7 N potential numbers of bits equates with a single allocation. And the patent
8 couldn't have been more clear that there should be one and only one
9 allocation.

10 JUDGE DANIELS: Where in the specification does it talk about
11 -- where in the specification does it talk about a single allocation being a
12 single number?

13 MR. GOLUB: In column 11, if we go down to line 7, where it
14 says RAAU represents a quantum of physical resources. And then in the
15 next line, when it describes free RAAU, it says it is a number of free RAAU
16 that can be shared out. So the specification is clear that free RAAU is
17 simply a number that can be shared out. It's not ten potential values that
18 could be shared out. It's one.

19 JUDGE DANIELS: This is interesting. So you're saying free
20 RAAU is a singular number?

21 MR. GOLUB: Yes.

22 JUDGE DANIELS: And this is not plural? It's not talking about a
23 plural of free RAAU?

24 MR. GOLUB: No, it's talking about one. And, can I walk through
25 how it works? How the allocation algorithm actually works? I think it'll be
26 more clear. So I'm on Slide 4 of the Patent Owner slides. And I just want to

1 step back to talk about one of the problems that the '138 patent was trying to
2 solve.

3 One of the problems was that if you have multiple Qs, there may
4 be situations where there's only a minimal amount of data from some Qs that
5 gets allocated, and that that was inefficient. And so one of the parts of the
6 solution in the '138 patent is to limit the number of Qs that actually get data
7 in any given transmission.

8 I am now on Slide 5. And I'm going to walk through this
9 allocation algorithm in gory detail. I'll try and do it fast, but I think it's
10 important. But by way of overview, on the left side of the slide is Figure 6,
11 and on the right side is a high-level discussion. So in the allocation
12 algorithm, a single allocation of physical resources, free RAAU --

13 JUDGE LANEY: Can I interrupt?

14 MR. GOLUB: Yes, sir.

15 JUDGE LANEY: I don't want to interrupt too quickly. I know it's
16 too long for you. I want you to get through what you're going through. I'm
17 just wondering, if you find a way, what would be helpful as you're going
18 through, if you can -- or maybe even after you're done, if you could
19 juxtapose it to what you just showed us on page 27 of your exhibit.

20 MR. GOLUB: I will.

21 JUDGE LANEY: Okay, thank you.

22 MR. GOLUB: I will. So let me go to this slide. I know this is
23 really busy, okay? But this is complicated technology. And if we just want
24 to look at it at 10,000 feet, we're missing what's been invented here. So at
25 the top two steps, in red, the algorithm starts in a first iteration by
26 determining RAAU sub-Q for each Q. So that if there are four Qs, the sub-

1 Q could be 1, 2, 3, or 4. And the RAAU value represents how much was
2 allocated to that Q. If free RAAU was 40 and the weight was 25 percent,
3 RAAU sub-Q for Q1 would be 10. You're simply multiplying free RAAU
4 by a weight, and all of the weights add up to one.

5 In the next step, you're going to do another calculation. Here,
6 there's a prime next to RAAU, if you see in the green. RAAUQ prime. This
7 is the second calculation you make. And here, you're going to add a running
8 total called running RAAU delta to the original RAAU that you calculated in
9 the red. Then, you're going to order the Qs from highest to lowest. The Q
10 that got the most allocation will be at the bottom -- will be at the top. The Q
11 that got the least will be at the bottom.

12 Now, you're going to determine if you're basically sending data
13 over too many Qs. So the whole point was, we don't want to have situations
14 where there's only a minimal amount of data in a given Q. So what we do is,
15 we set a value. If we have four Qs, we might set the max at three. And if
16 we have data in all four Qs, now we're going to eliminate what we were
17 doing for the fourth Q and focus now on the top three.

18 And after we do that, we get to the yellow, which is, now we're
19 going to determine RAAU a third time. RAAUQ double prime based on
20 modified weights, where the unselected Q gets nothing. And then we're
21 going to make some adjustments, which I'll go through. That, at a high
22 level, is what it is. Now, I want to go through it.

23 JUDGE DANIELS: Mr. Golub --

24 MR. GOLUB: Yes, sir.

25 JUDGE DANIELS: -- with this, I appreciate you walking through
26 this. My question, I guess, and when we conference this case, I think this is

1 sort of the crux. This is what we were focusing on in your argument. And I
2 won't -- the other judges can ask their own question, but this does seem to
3 explain more of how these weightings and Qs are being prioritized. But
4 what we couldn't quite figure out is how that pertains to the claim. None of
5 this seems to be in the claim. So it's the tie between a single allocation and
6 this explanation that you're giving us here that's not entirely clear.

7 MR. GOLUB: Okay. So I just brought up the patent again,
8 focusing on column 14. And I apologize for this, but Claim 1 gets split
9 between 13 and 14. The top of column 14 are the elements 1.6 and 1.7 that
10 my colleague was focusing on. And I want to focus on the select data step.
11 So the select data step is all about selecting data, and it requires data
12 selection based on three things.

13 One, it says you need to select data using a single allocation, using
14 a first iteration, and using a second iteration. That is exactly how the
15 specification explains it. The single allocation free RAAU is used as part of
16 the data selection process twice during each iteration. So that is how it
17 relates to the claim language, Judge Daniels, because the Petitioner never
18 shows in any of the prior art that it selects data using single allocation.

19 So in my example, free RAAU is used as an input to the equations
20 that determine the allocations in different iterations of the algorithm. None
21 of the prior art does that. So if you look at Slide 27 again --

22 JUDGE LANEY: Real quick, before you go to 27, just go back to
23 your 5.

24 MR. GOLUB: Five?

25 JUDGE LANEY: And I just want to -- your slide. I know -- I'm
26 sorry, 5. But you're saying in the red where you say free RAAU, you're

1 saying that's the single allocation?

2 MR. GOLUB: Yes, that is the single allocation. That is what the
3 patent says at the top of column 11.

4 JUDGE LANEY: And that single allocation is basically the
5 number of blocks --

6 MR. GOLUB: That's right.

7 JUDGE LANEY: -- that you have?

8 MR. GOLUB: So I'm looking at column 11, lines 9 to 10. Free
9 RAAU is a number of free RAAU that the resource allocator can share out.
10 It's a number.

11 JUDGE LANEY: Okay. I'm sorry. Now go to 27.

12 MR. GOLUB: So in Slide 27, none of these data amounts are
13 shown to be used at all in the selection of data in Eckert or Lohr. It's not
14 even clear how you would do that, given that the transport format in red has
15 only 100 bits of data and the transport format in green has 1,000 bits of data.
16 So --

17 JUDGE LANEY: But if you apply -- so take what you've done on
18 Slide 6 and how would that be applied to just what's shown on 27? In other
19 words, what would be the -- you can make whatever something that you
20 don't have enough on there, but I'm just saying how would you approach
21 -- what is the free RAAU on this example shown on page 27 of --

22 MR. GOLUB: I would say transport format number one, the top
23 row, conveys zero bits of data. Transport format N at the bottom conveys
24 2,700 bits of data. So I would say free RAAU in the prior art is a range
25 between 0 and 2,700 bits.

26 JUDGE LANEY: Okay. Whereas you're saying in the invention

1 what it would do is it wouldn't give you a range. It would give you -- so tell
2 me what you would have to do to make this comply with what you're saying
3 the invention is. And by this, I'm referring to page 27. So for example, if
4 you take out -- this is like 1 through 4.

5 MR. GOLUB: I think what you would perhaps need is for the total
6 number of bits in each row to be identical, which isn't how transport format
7 combination sets work, because the UE is autonomously selecting among
8 these based on its power level. So the higher power it can transmit, the more
9 data it can transmit. But I think if you had a fixed power level, then you
10 would be looking at a transport format combination set with equal amounts
11 of data on each row, in each transport format.

12 JUDGE LANEY: I guess, are you saying that I'm basically asking
13 to do something that can't really be done, which is kind of shove this table
14 into what's claimed?

15 MR. GOLUB: I don't know how it would be done, and there's
16 certainly not an inkling of an argument by the Petitioner or their expert on
17 how it would be done.

18 JUDGE LANEY: Maybe if you could flesh out a little bit more,
19 how is what's being done -- point out, maybe point out a little bit -- one more
20 time, maybe quickly if you can, how what's being done in 27 is different
21 than what you've shown as far as the different steps.

22 MR. GOLUB: Okay.

23 JUDGE LANEY: I mean, they're both communicating
24 information, right? And you're saying the claimed way is done a different
25 way than what is shown in the table.

26 MR. GOLUB: Exactly.

1 JUDGE LANEY: Okay.

2 MR. GOLUB: I am now on Slide 7, and I am going to try and
3 walk through this the way that it's done in the '138 patent. And I'm going to
4 do it with an example where there are four Qs. I'm going to call them Q1,
5 Q2, Q3, and Q4. In my example, the free RAAU value communicated to the
6 UE would be 40. The maximum --

7 JUDGE LANEY: And real quick, a single allocation of uplink
8 resources is 40?

9 MR. GOLUB: Yeah, 40.

10 JUDGE LANEY: Okay.

11 MR. GOLUB: Then the maximum number of Qs serviced would
12 be three. So even though we have four Qs, we're never going to transmit
13 data on more than three. And this term cell edge minimum, if we get to it,
14 seven. Then, I'd like to talk about the table. So the Q numbers you can see
15 are on the columns. Then, the second row are what the patent calls S-tier
16 values or weights. The weights are basically derived from the S-tier values
17 and they add up to one.

18 So you can see that Q1 and Q2 have higher S-tier values, meaning
19 that they're supposed to, over time, get more of an allocation than Q3 and
20 Q4. This running RAAU delta value, the patent says, starts out in the first
21 iteration as 0. I'm going to talk about that as I get into it. And then at the
22 bottom, the initial fill level for each Q. This is what the UE communicates
23 to the base station before the base station sends back the single allocation.
24 And I basically put units for each of Q1 through Q4 there as starting values
25 for the illustration.

26 Now, in step 605, we make an initial calculation of weights for

1 each Q. Initial calculations are W prime. And there's a formula, equation 6,
2 you can see -- Basically, you're normalizing the weights based on the S-tier
3 values that were sent and how much data is in each Q. And at the bottom,
4 you will see the four weights that are calculated. And you might have to
5 trust me, but they all add up to one. That's the way it works.

6 On slide -- did I lose one of them? I'm sorry. Now I'm on Slide 9.
7 At step 610, we determine Q allocations for the first time, RAAU with no
8 prime. This is equation 7 from the patent. And the way that we do it is we
9 take free RAAU, which in my example is 40, and we multiply it by each of
10 the weights for each Q. I have the weights next, and you can see that at the
11 bottom there's 15.7 allocated for Q1, 14.2 for the second Q, 5.23 for the third
12 Q, and 4.7 for the fourth Q. That's the first string.

13 JUDGE LANEY: And that would be the first iteration?

14 MR. GOLUB: That's the first iteration.

15 JUDGE LANEY: Okay.

16 MR. GOLUB: Now, we look to whether we're sending data on
17 more than the maximum number of Qs. So again, we have four Qs and in
18 our example, the maximum number that we're going to send data on is three.
19 So we have a situation where the maximum number of Qs serviced is
20 exceeded based on the initial allocations.

21 I'm going to skip this step, 620, and go to 625, where now that we
22 know that the number of Qs exceeds the maximum number, we do the
23 ordering that I mentioned. And this is at the top. So we rank the four Qs
24 based on their initial allocations. Q1 is at the top --

25 JUDGE LANEY: So are you doing -- so is that the buffered data?

26 MR. GOLUB: This is --

1 JUDGE LANEY: Is the same?

2 MR. GOLUB: No.

3 JUDGE LANEY: This is the second, right? And this has to be the
4 selection of data is based on the buffered data of respective rate operators.

5 MR. GOLUB: Well, are you transitioning to the claim language?

6 JUDGE LANEY: Yeah.

7 MR. GOLUB: Okay.

8 JUDGE LANEY: So I mean, we want to make sure we're not just
9 going off into the weeds. We're making sure we understand that it applies in
10 the claim as well.

11 MR. GOLUB: Yeah. So, Judge Laney, I have this in the petition.
12 Can I walk through this and then tie it back to the claim language at the end?

13 JUDGE LANEY: Yes.

14 MR. GOLUB: I'm still on Slide 12. And the ordering that takes
15 place, the RAAUQ values, those are allocations, not what is in each Q, but
16 how much is going to be allocated to send data from each Q. They're
17 ordered from highest to lowest. And then in step 628, we pick the top three.
18 Q number 4, which is at the bottom, isn't picked. Now, we set the end value.
19 This end value actually has to do with the amount of data in each Q for the
20 unselected Q to zero.

21 And so you can see here for Qs 1, 2, and 3, it's just 110, 155.
22 That's how much data they had at the beginning of the process. But now, the
23 algorithm drives the amount of data in Q4 to zero. It sets it to zero. Now, it
24 determines a new set of weights based on the fact that no data is going to be
25 transferred from the fourth Q. And so you can see, I'm on Slide 14, that the
26 weighting value for Q4 goes to zero. And the weight that had been allocated

1 to Q4 is dispersed using the algorithm among the other three Qs.

2 Now, we determine RAAU again. This is called RAAUQ prime.
3 This is using the modified weights. And as you can see here, Q4 gets zero
4 allocation, Q1 gets 18, Q2 gets 16, and Q3 gets 6. The algorithm then does
5 some checks like, based on rounding, have we exceeded the number of free
6 RAAU? We don't in my example. And then, it does some other things for
7 cell edge state that I don't think are pertinent. It updates this running raw
8 delta value, which is how the algorithm achieves fairness over time but
9 doesn't pertain to the claim language.

10 So let me just pull up -- so getting to your question, Judge Laney.
11 And I'm at the Patent Owner response on page 28. And this is how the claim
12 language maps to the algorithm. The first iteration requires selection of data
13 from a subset of a plurality of radio bearers based on the received
14 parameters. Step 628 is the selection of the subset. The received parameters
15 are the S-tier parameters. And it uses equation 10, which I've shown there,
16 which is based on a plurality of the S-tier values.

17 And then, on the bottom of page 28, the second iteration requires
18 the selection of data based on buffered data for respective Qs. And here,
19 after RAAUQ double prime is determined in step 645, in step 660, we will
20 set RAAUQ prime for Qs below a certain minimum and do a reallocation.
21 And that is what we're mapping to the second iteration.

22 It is complicated, Judge Laney. I'm sorry that I can't say it in a
23 soundbite, but I have mapped it out in excruciating detail on pages 27 and 28
24 of the Patent Owner response.

25 JUDGE DANIELS: Mr. Golub, let me ask about column 11 again.
26 I want to revisit this number.

1 MR. GOLUB: Yeah.

2 JUDGE DANIELS: I think I get what you're saying now. And it's
3 lines 7, 8, 9, to 10, basically. So you're saying that the free RAAU is a
4 number, and you've used it in your examples here in your slides -- I'm just
5 trying to look for one of the slides that has the 40. It's Slide 7, your Slide 7,
6 free RAAU equals 40. Okay. So that's -- if I'm understanding you correctly,
7 that number 40, if I read -- if I go back to lines 7 and 8, that 40 is the
8 quantum of physical resources that are available. So there's 40 free
9 resources available?

10 MR. GOLUB: 40 resource units.

11 JUDGE DANIELS: Okay.

12 MR. GOLUB: So you could think of this type of cellular system
13 as having a unit that's defined by a unique combination of a time slot and a
14 spreading code. So if you have five spreading codes and five time slots, you
15 have 25 units. It's almost like a matrix.

16 JUDGE DANIELS: But that's a plurality. That's not just a single.
17 That's where I'm a little confused with your argument, is that you're saying
18 it's just a single number, but that single number represents some discrete unit
19 of the resources that are available.

20 MR. GOLUB: I'm not -- I am missing the, I am missing what you
21 were saying. So you have --

22 JUDGE DANIELS: You're saying that -- my understanding of
23 your argument is that you're saying that a single allocation of resources is
24 basically a single number 40.

25 MR. GOLUB: I'm saying it reduces to a single number. So you
26 would -- if you were the base station, you're going to say you have five

1 codes and these five time slots, which will be --

2 JUDGE DANIELS: What does that have to do with 40?

3 MR. GOLUB: It's 25.

4 JUDGE DANIELS: Right.

5 MR. GOLUB: Okay.

6 JUDGE DANIELS: You just said 25 is also a number.

7 MR. GOLUB: Let me just step back. Let me use 40 as my
8 example, because that's what I used.

9 JUDGE DANIELS: Yeah.

10 MR. GOLUB: So if --

11 JUDGE DANIELS: Don't ask me to check your math on these.

12 MR. GOLUB: If the base station sends a message that you have
13 five time slots and eight codes, then free RAAU is 40.

14 JUDGE DANIELS: Got it.

15 MR. GOLUB: So it reduces to a number.

16 JUDGE LANEY: And just so I'm clear, five slots -- what did you
17 say? Five slot and eight --

18 MR. GOLUB: Codes.

19 JUDGE LANEY: -- codes. But the five slots and eight codes are
20 uplinked resources.

21 MR. GOLUB: Correct.

22 JUDGE LANEY: And then the single allocation, you're saying, is
23 a number, a single number that represents those uplinked resources.

24 MR. GOLUB: Yes. And that, I think, is very clear from column
25 11, line 7 to 10. Now, I'd like to go to Slide 21 and talk about Ground 1,
26 which is that the independent claims are obvious over Eckert in combination

1 with Lohr and Bucknell. And I'd like to just start for a second with Eckert.

2 So the background of Eckert talks about an existing high-speed
3 data channel where all of the data from the same Q is transmitted in the
4 transmission. And Eckert says, in that situation, it's relatively simple to
5 signal to the base station the makeup of the data that's being sent. But then
6 Eckert identifies a problem, which is, well, what if I'm going to send data
7 from multiple Qs in this unit, how am I going to signal to the base station
8 where this data comes from?

9 And this is, now I'm on Slide 24. This is from Eckert. He's
10 basically saying, I'm basically going to have to transmit in my header the
11 number of each Q as well as the amount of data in each Q. And that is going
12 to create an enormous amount of signaling overhead. He wants to get rid of
13 that signaling overhead.

14 And so he comes up, and I'm on Slide 25. You can see the quote
15 from paragraph 40. He wants to reduce the signaling complexity. And so he
16 wants to reduce the amount of data it's going to take to tell the base station
17 the makeup of the data that's being sent, because it's coming from multiple
18 Qs. And the way that he does this is somewhat elegant. It's with the
19 transport format combinations. So the base station sends this transport
20 format combination set, which has different amounts of data for each Q. But
21 it's fixed.

22 And so if the UE sends back, I'm going to use transport format
23 number three, and he can do that simply with an index to this table, now the
24 base station knows exactly what the makeup is of the data. And the UE
25 doesn't need to individually call out the amount of data from each Q, which
26 would have taken a lot more overhead.

1 To simplify the mapping of the data to the transport formats,
2 Eckert uses --

3 JUDGE LANEY: I'm sorry to interrupt, real quick. When you say
4 this table, where you referring to the table that is shown on page 27?

5 MR. GOLUB: Yes.

6 JUDGE LANEY: Okay.

7 MR. GOLUB: So Eckert mentions these weighting values. And
8 his examples of them are like this, 50 percent for one Q, 30 percent for
9 another, 15, 5. And then he says that he's going to tie the transport format
10 combinations to the weightings so that basically when you pick one of the
11 transport format combinations, it's going to fit with one of the predefined
12 weightings. These things are married together. So since you have a discrete
13 set of transport formats, you have a discrete set of weights, you have
14 basically a limited set of combinations of data that you can pick.

15 JUDGE LANEY: So you're saying what -- I'm asking a question,
16 I'm not answering. What I understand you've been saying is what Petitioner
17 is identifying as the single allocation of uplink resources is really nothing
18 more than an identification of which particular row in their pre-established
19 table the format that's going to be used, or the identification of what's in each
20 of the Qs.

21 MR. GOLUB: So I'm not sure I totally -- am on the same page in
22 understanding what you're saying. But to be clear, Judge Laney, the base
23 station sends this entire table on Slide 27 to the UE, and then the UE picks
24 one of the rows. And when they send the data back, they include in the
25 header the row number so that the base station knows the makeup of the data
26 that's being sent.

1 JUDGE LANEY: Okay, thank you. But the UE is sending -- I'm
2 sending the row identified 12, and the base station will know then that for
3 PQ number 1, you have PB2 and Psy 300, et cetera, et cetera.

4 MR. GOLUB: Et cetera, et cetera.

5 JUDGE LANEY: Okay.

6 MR. GOLUB: Now because Eckert ties the weights to the
7 transport formats, he has this elegant way of signaling the makeup of the
8 data with basically an index to the table. Now the Petitioner wants to
9 basically get rid of that and substitute Bucknell. And I'm going to Slide 34.
10 So this is a picture of Bucknell. And Bucknell shows a method of
11 multiplexing data from the Q50 into this construct that's basically 90 and 95
12 on the bottom, which Bucknell refers to 90 as a first part and 95 as a second
13 part. But this is basically the data unit or the unit with all of the data that's
14 going to be transmitted from the UE to the base station.

15 JUDGE DANIELS: Mr. Golub, aren't 90 and 95 what Petitioner is
16 referring to as the first and second iteration?

17 MR. GOLUB: No, I don't think so.

18 JUDGE DANIELS: What is it? What's the difference between 90
19 -- I thought I understood when I looked at this. Maybe I'm wrong, but 90
20 and 95 are separate sections of data. There's two boxes there, two buckets,
21 and you can choose to put data into either of the buckets, bucket 95, bucket
22 90.

23 MR. GOLUB: So I'm now on Slide 48, and this is examples 1
24 through 3 of Bucknell, which is the three examples that the petition relies on.
25 And the way this works is you start filling the first part, 90, with the highest
26 priority Q, which is yellow. And that goes from B sub-X to B sub-Y. But

1 you're still in 90. You still have space left, but you don't have any more data
2 from the first Q. So now Bucknell says, now we are going to take one data
3 packet in turn from each of the subset of Qs.

4 So starting at B sub-Y, we're going to take data from Q2, then Q3,
5 then Q4, and we're going to keep doing that until all of 90 is filled. Then
6 we're going to go to 95, the second portion, and we're going to continue to
7 fill it that way.

8 Now the problem with this is it's never going to line up with this,
9 these transport format combinations. These are linked to a very precise set
10 of weights. There's a limited number, in this case 12 or so, possible
11 combinations. And there's simply no way that what the Petitioner is
12 proposing with Bucknell, the combination of examples 1, 2, and 3, is going
13 to magically fit within one of those transport format combinations.

14 And so what's going to happen is the very problem that Eckert
15 identified, how in the world is the UE going to signal to the base station
16 what's in 90 and 95? Well, he's going to have to say, well, from B sub-X to
17 B sub-Y, I have Q1, then I start interweaving Q2 through Q4 at B sub-Y. I
18 continue that to B sub-X, then I go and do the same thing in 95.
19 Tremendous amount of data. So this combination would destroy the whole
20 premise of Eckert, which was to reduce the amount of signaling. I want to
21 say a couple other things --

22 JUDGE LANEY: Before you do, I just want to summarize what I
23 understand you to be saying there. But even if you accept that combination,
24 it undermines what Eckert was trying to accomplish. Because in order to
25 undo the way that they're suggesting you build it, in order to make use of it,
26 you would have to, in a different way, have even more information than

1 Eckert was trying to avoid.

2 MR. GOLUB: Exactly.

3 JUDGE LANEY: Okay.

4 MR. GOLUB: I think I'm into my rebuttal time. So if there are no
5 other questions, I think I'd like to stop there.

6 JUDGE DANIELS: Okay. Are we done? Just one more. All
7 right. Not to nickel and dime anybody, to keep this fair, you all were pretty
8 close to your time you asked for. So make sure you have plenty of time.
9 We can go through 15 minutes, and we'll -- all ten minutes. Okay.

10 MR. WILKINS: All right, I'm ready to go on my rebuttal. Sorry, I
11 may be jumping around in some documents. So one argument that I want to
12 address is counsel's argument. And I'm going on to Slide 3 and looking
13 specifically at the claim language 1.7. And I believe the argument is that the
14 phrase, using the single allocation of uplink resources is intended to modify
15 or go with select data. And that was a new argument in the surreply, by the
16 way, this claim construction argument.

17 The argument in the response was about motivation to combine,
18 but I'll nonetheless address his argument. It's contradicted simply by the
19 claim language of the claim. It says select data from the plurality of radio
20 bearers, and then for transmission using the single allocation. That's the
21 logical way to read it. You're going to transmit using the single allocation.

22 And I'll point you to the next phrase in the claim. It says, wherein
23 the selection of the data occurs using a first iteration and a second iteration.
24 The drafter of the claim knew exactly how to say selecting data using
25 different things. If that's what they intended, then they knew how to draft it.
26 And that's as shown in the next limitation. So their argument about selecting

1 data using the single allocation, somehow a number in the data selection,
2 that doesn't --

3 JUDGE LANEY: Do you disagree with the patent specification
4 that it shows using the single allocation of uplink, or that the RAAU link is
5 used to select the data?

6 MR. WILKINS: So this free RAAU, I believe he's referring to the
7 single number. And I couldn't tell if there's also an argument there that the
8 single allocation means a single number. It looks like the specification is
9 using a single number somehow in this algorithm. But I believe he said the
10 base station would tell the UE the number of codes and the number of time
11 slots. That's the same thing we're saying that Eckert shows. Eckert
12 combined the four --

13 JUDGE LANEY: And is it single that represents those two things?

14 MR. WILKINS: Well, he's saying that reduces. If you have five
15 codes and eight time slots, that reduces to a number 40. But if all the base
16 station gave the UE was the number 40, that's not enough for the UE to
17 know how many time slots and to know when to transmit. Because the
18 number 40 could be five time slots or it could be ten time slots. You don't
19 know the number of time slots. So it just simply logically doesn't even make
20 sense if all that was given to the UE was a number. So the UE needs to
21 know the number of codes and time slots in order to be able to transmit.

22 So in the other -- let's see. Another argument that I believe was
23 made was this argument about transport formats in Eckert, and somehow
24 these transport formats are tied to weights. And there's no support in Eckert
25 for the transport formats being tied to weights. That's characterizing Eckert
26 a certain way. You can't point to any paragraph in Eckert, I believe, that

1 says the weight and the transport format is tied together.

2 We had discussion in our reply about how Eckert addresses two
3 different problems. And one problem was how to actually fill -- so it
4 receives the allocation and it's got to decide how it's going to fill the
5 allocation. The separate problem is how do you signal to the base station
6 how the allocation is filled? And that's what the transport format is intended
7 to do.

8 And I believe the Patent Owner made a big issue about the UE
9 autonomously selecting between the different formats. There's absolutely no
10 contradiction between doing that and our position, because that's exactly
11 what the UE is intended to do when it receives an allocation.

12 So Eckert, in solving the second problem, says you've got this list
13 of transport formats, how do you signal what you've -- how you've allocated
14 the data? So how is the UE filling the data? So there needs to be a large
15 number of options for it to be able to cover all the different possibilities that
16 are going to occur (CROSSTALK) -- I'm sorry.

17 JUDGE LANEY: In Eckert, the table that's on Patent Owner's
18 Slide 27, that gets sent from the base station to the UE?

19 MR. WILKINS: That does get sent to the UE. And that occurs if
20 -- you know, so the weighting and how the data selection is done, again, is a
21 separate problem. If the UE is going to have this table of transport formats
22 in order to signal to the base station how it's filled its allocation, the base
23 station and the UE have to have a common understanding of what that is. So
24 it makes perfect sense that the base station tells the UE what this table is.

25 JUDGE LANEY: And then the UE will say number three is the
26 format?

1 MR. WILKINS: Correct.

2 JUDGE LANEY: And you're mapping that onto that number. The
3 identification of number three is a single allocation of uplink resources?

4 MR. WILKINS: No. So the UE would have already received, you
5 know, some allocation and now it's deciding how it's going to fill the
6 allocation. And so it decides how it fills the allocation, then it looks over
7 and sees which line of the table that maps to, and then it sends that index
8 back to tell the base station.

9 Again, these are separate issues in Eckert. This this transport
10 format table is a completely separate issue from the how to fill the allocation
11 that it received, and we explained that in our replies 16 and 17 and with
12 support from our expert. And Bucknell addresses one of the two problems,
13 which again is how to fill the allocation.

14 JUDGE LANEY: Let me ask you this, if we agree or we think that
15 there's an issue with the select data using the single allocation of uplink
16 resources, but if you want to look at that way, I understand from your first
17 remarks that you don't -- that Petitioner does not agree. You have an
18 opportunity to address that.

19 MR. WILKINS: Well, we didn't because that was not an argument
20 they made in their response.

21 JUDGE LANEY: Okay.

22 MR. WILKINS: But even -- but I'll say again the argument is
23 wrong. The argument is contradicted by the claim language, and again the
24 applicant knew exactly how to specify that.

25 JUDGE LANEY: I mean, when you say contradicted by the claim
26 language, I mean, I guess, I do kind of -- I can see merit in the argument that

1 -- data plurality of random bearers forward transmission using the single
2 allocation of uplink resources. I mean, it's telling me what you're selecting it
3 from, and then it tells you how you do it using the single allocation of uplink
4 resources. I mean, that seems to be the plain meaning of what that clause
5 says.

6 MR. WILKINS: Well, in our view, the plain meaning is the
7 transmission that you're doing is using the single allocation. That it's for
8 transmission.

9 JUDGE LANEY: But you're not talking about transmitting
10 anything. I mean, it says for transmission. In other words, it's telling you
11 what the -- it tells you what the purpose of the radio bearers are for and that's
12 telling you the -- this data from which you're selecting from, but it doesn't
13 tell you how you're making the selection. The only thing that tells you how
14 you're making a selection is the using the single allocation of uplink
15 resources --

16 MR. WILKINS: Well, let's say -- I'm sorry. Go ahead.

17 JUDGE LANEY: -- otherwise you're reading doesn't -- I guess I'm
18 not following it because it's just saying select from, but it's not telling you
19 how you're -- what you're selecting. Well, in other words, selection, the only
20 thing that tells me how I'm making the selection is using the single
21 allocation of uplink resources.

22 MR. WILKINS: Respectfully, the rest of the claim is actually
23 what tells you how to do the selecting. Wherein the selection of the data
24 occurs using a first iteration and the second iteration, and then wherein in the
25 first iteration it's all those remaining details of the claim, that's exactly what
26 it's about is data selection.

1 JUDGE LANEY: Yeah, but all that to me -- yes, I agree with you.
2 But that's saying, I'm having to use the single allocation uplink resources
3 when I'm doing my first iteration and my second iteration.

4 MR. WILKINS: I don't see that in the claim language. In the first
5 iteration, the data is selected from a subset of the radio bearers based on
6 received parameters. So that's a very specific iteration. In the second
7 iteration, the selection of the data is based on buffer data for respective radio
8 bearers. So all that detail is telling exactly how the data selection is being
9 done, and that single allocation back up in limitation 1.7 is tying it all back
10 to all that -- all those iterations or are for transmitting ultimately for a
11 transmission in the single allocation in the allocation that's been given.

12 JUDGE LANEY: Yeah, I think -- okay. I guess from what I
13 understand from both of you, I think that -- I don't think they're so divided as
14 you're suggesting. Yes, you have a single allocation, yes, that obviously
15 -- it's a single allocation of uplink resources, in order to select the data and
16 use that single allocation, you have to use that single allocation in order to
17 make the selection of the data that you're going to send. And so I guess, I
18 don't know -- I'm not sure I'm following your argument that somehow
19 they're not interrelated.

20 MR. WILKINS: I see what you mean. I mean, basically, Eckert
21 would also -- it knows it's single allocation. And so when it selects the data,
22 it's doing it so that it fits within the single allocation. So even under this
23 understanding that you're selecting data using the single allocation, that
24 single allocation is accounted for in the data selection. It has to be.
25 Otherwise if you select too much data, you're going to overfill -- you're
26 going to use more than the allocation you've been given.

1 So I think even under -- again, we haven't had briefing. But I think
2 even under Patent Owner's construction, this has to be the case. This has to
3 be the case for Eckert and Eckert combined with Lohr. So I believe those
4 are the points I wanted to make on rebuttal. Thank you, Your Honors. Do
5 you have any further questions?

6 JUDGE LANEY: No, thank you.

7 MR. WILKINS: Thank you.

8 MR. GOLUB: I'd just like to be brief and make a few points.
9 Patent Owner is not saying that the UE just gets a number. What we're
10 saying is that the UE gets a quantum of physical resources like codes and
11 time slots, five codes, eight time slots, and that quantum of physical
12 resources reduces to a number, which in the allocation algorithm is free
13 RAAU.

14 My colleagues said that there was nothing in Eckert that linked the
15 transport formats to the weights. I'm looking at Eckert right now. I've
16 brought it up, paragraph 109, by prescribing a set of transport formats with
17 the weighting values and/or weighting value ranges preferably linked to the
18 transport formats to prescribe a selection of possible weighting value or
19 weighting value ranges, at least to some extent.

20 There is no single allocation in Eckert. There's no allocation other
21 than sending the table or the transport format combination set, as it's called,
22 and basically telling the UE when it's going to transmit the transport format
23 that it selected. There's no other allocation.

24 I think it's pretty clear. I'd just like to sum up, that the Petitioner
25 hasn't shown that the references that they rely on teach the use, either the
26 transmission or the use of a single allocation as described and claimed in the

1 '138 patent.

2 There are other arguments we make in our brief that they haven't
3 shown their motivation to combine. I don't have time to get into them, but I
4 refer the Board respectfully to those arguments because they have a lot of
5 merit. Thank you.

6 JUDGE LANEY: Do you agree with the Petitioner that you never
7 raised the issue that the select data has to be used for single allocation of
8 uplinked resources?

9 MR. GOLUB: It's described at length in the surreply, and it wasn't
10 raised --

11 JUDGE LANEY: The question was, did you raise it in the
12 response brief?

13 MR. GOLUB: No. What we said in the --

14 JUDGE LANEY: No?

15 MR. GOLUB: No.

16 JUDGE LANEY: Why not?

17 MR. GOLUB: I'm going to show you. This is what the petition
18 said about a single allocation. The petition mapped a single allocation -- I'm
19 sorry, I'm on Slide 39. The petition mapped a single allocation to a transport
20 channel as a whole, and you can see that here on Slide 30. Right in the
21 highlighted language, the allocated EDH channel, which is a transport
22 channel and also an uplink channel, is an example of a single allocation of
23 uplinked resources. They mapped the entire channel to the single allocation.

24 Then in the reply, they said, no, no, no, what we meant was that a
25 defined time interval up here is really the single allocation. They certainly
26 weren't crystal clear about that. That's what they said in their reply. And so

1 in our surreply, we said, well, if that's your position, it doesn't work given
2 the claim language. That's how it came up.

3 JUDGE DANIELS: So you're saying they brought up this issue of
4 a defined time interval in their reply?

5 MR. GOLUB: Yes, I am.

6 JUDGE DANIELS: Okay. And you're just answering?

7 MR. GOLUB: Any further questions? Thank you for listening.

8 JUDGE DANIELS: Thank you. Okay. So these have been really
9 helpful to us. I mean, this is -- this is not easy technology. Thank you for
10 being patient with us and our questions. You've been great advocates for
11 your clients. It's impressive. Thank you.

12 I also want to thank our hearing staff who came up with us getting
13 ready. Thank you so much for the technology problems we have. The case
14 is submitted, thank you very much.

15 (Whereupon, the above-entitled matter went off the record at
16 3:11 p.m.)

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