

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FORD MOTOR COMPANY, GENERAL MOTORS LLC, and
NISSAN NORTH AMERICA, INC.,
Petitioner,

v.

NEO WIRELESS LLC,
Patent Owner.

IPR2023-00763
Patent 10,447,450 B2

Record of Oral Hearing
Held: June 10, 2025

Before KRISTEN L. DROESCH, HYUN J. JUNG, and STEPHEN E.
BELISLE, *Administrative Patent Judges*.

IPR2023-00763
Patent 10,447,450 B2

APPEARANCES:

ON BEHALF OF THE PETITIONER:

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The above-entitled matter came on for hearing on Tuesday, June 10, 2025, commencing at 10:00 a.m. EST, at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

P R O C E E D I N G S

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JUDGE DROESCH: All right. Good morning, everyone. We're convening for oral arguments for IPR2023-00763 that's challenging Claims 7 and 11 of Patent 10,447,450. I'm Judge Droesch. Joining me are Judge Jung and Judge Belisle.

We'll get started with appearances for both parties. So who will be arguing today, including any LEAP practitioners? If anyone else is attending in person or remotely with you today but will not be speaking, please identify them as well. For example, state if your client is attending or not.

And following the hearing, please confer with the court reporter to ensure there are no questions regarding the spelling of names or terms.

Let's start with the appearances for Petitioner.

MR. LEROY: Good morning, Your Honors. My name is John LeRoy with the firm Brooks Kushman on behalf of Petitioner Ford Motor Company. And with me today is my colleague, Kyle Konz, K-O-N-Z. I will be arguing. Mr. Konz will not.

JUDGE DROESCH: Okay. Thank you.

Patent Owner, Counsel for Patent Owner?

MR. HENDIFAR: Good morning, Your Honors. Parham Hendifar with the firm Lowenstein & Weatherwax LLP, and I will be presenting Patent Owner Neo Wireless' case.

JUDGE DROESCH: Thank you.

All right. Per the order regarding the oral hearing, Petitioner will

1 be allotted 60 minutes for its presentation, and Petitioner will go first and
2 may reserve some of its time for rebuttal, but that rebuttal time shall not
3 exceed 30 minutes. Following Petitioner's presentation, Patent Owner will
4 make its presentation, and Patent Owner will also have 60 minutes and may
5 reserve some of its time as well that may not exceed 30 minutes.

6 A couple of quick reminders before we begin. To aid in the
7 preparation of the hearing transcript, please identify your demonstrative
8 slides by the slide numbers. And also, please remember that your arguments
9 should be limited only to the arguments that were presented in your briefs,
10 and then make it clear which challenges and claims you are addressing at all
11 times. We ask that the parties hold any objections regarding a party's
12 arguments until it's your time at the podium to note any objections.

13 Counsel for Petitioner, would you like to reserve some of your
14 time for rebuttal?

15 MR. LEROY: Yes, Your Honor. I'd like to reserve 15 minutes.

16 JUDGE DROESCH: Okay. Counsel for Patent Owner, would you
17 like to tell us if you'd like to reserve some time for rebuttal? You can also
18 wait until later as well.

19 MR. HENDIFAR: Just 10 minutes.

20 JUDGE DROESCH: Okay. Great.

21 I'm going to have the clock behind us running, and I'll try my best
22 to give a five-minute warning. There are also some lights here. I'm not sure
23 if they work or not, but just keep in mind the time on the clock behind me.

24 And Counsel for Petitioner, you may begin your presentation
25 whenever you are ready.

26 MR. LEROY: Well, good morning, Your Honors. May it please

1 the Court. It's nice to all be here together in person. That's a nice change.
2 As indicated, my name is John LeRoy on behalf of Petitioner Ford. And
3 today I'm going to go through Petitioner's demonstratives, which are
4 marked as Exhibit 1035, and I'll do my best to cite the individual pages as
5 we go.

6 In my presentation, Your Honors, I don't spend a lot of time on the
7 background of the patent because I know this is not the first IPR. My
8 demonstratives jump sort of right into the disputes as we understand them.

9 And on Slide 2, we just have a high-level overview to identify the
10 two big issues that we understand are in this IPR proceeding at this stage.
11 From Patent Owner's Response, we know they focus on two limitations of
12 independent in Claim 7: the mobile device limitation, which appears two
13 times in the preamble, which is limiting -- the parties agree is limiting -- and
14 also the limitation N equals 2, 4 or 8, which comes later in the claim.

15 I'm going to take those each in turn, and I'm going to begin with
16 the Petitioner's -- what I call our affirmative evidence, the evidence why we
17 think we're right on the interpretation and application of those terms, and
18 then I try to address as best I can the Patent Owner's rebuttal.

19 I'd like to jump right into the mobile device limitation. There is a
20 dispute as to whether the prior art reference would teach a person of ordinary
21 skill in the art to apply his invention to a mobile device, and the Petitioner
22 asserts that a person of skill in the art reading Park wouldn't have to read for
23 very long to come across paragraphs 4 and 5, which expressly state that
24 next-generation mobile communication systems are related to the invention.
25 That's what it states, and it states so twice.

26 But we know in the Specification of Park, there are other

1 indications that a POSITA might view as directing the invention to
2 specifically the implementation in the mobile context. There's reference in
3 paragraph 75 to the application of the present invention to WiBro or IEEE
4 802.16. WiBro, I'm going to take up in a moment, but Your Honors will see
5 it's undisputed that WiBro supported mobile devices. There's a dispute in
6 terms of exactly how. We're going to talk about that.

7 But I also want to focus on the reference in paragraph 75 to IEEE
8 802.16, and that is because the '450 Patent tells us that -- in the background
9 of the invention -- tells us that the 802.16 standard provides, quote, "multiple
10 packet streams that are established for each mobile station".

11 That is the challenged patent, the '450 Patent, in the background of
12 the invention, column 1, lines 42 to 44, stating that those of skill in the art
13 would recognize that 802.16 supports mobile devices.

14 And I think that's an important starting point to understanding
15 because we cite in our Reply, the ex parte McBrady decision, which states,
16 when an applicant in the background of the invention describes the prior art,
17 those statements are binding on the applicant.

18 So what we have is, in paragraph 75 of Park, reference to WiBro,
19 which the parties agree supported mobile devices, and we also have
20 reference to 802.16, which the '450 Patent tells us in the background
21 supported mobile devices.

22 So these two statements, together with the introductory statement
23 in paragraphs 4 to 5, from Petitioner's viewpoint, comfortably would
24 demonstrate to a POSITA that Park intended to and did apply his innovation
25 to mobile devices. What you don't find in the Specification of Park or the
26 background, the summary of the invention, is that it is limited to only fixed

1 devices. We're going to talk about the reference in the background to fixed
2 devices in a moment. But before we do that, I want to develop the WiBro
3 evidence.

4 JUDGE DROESCH: Before you move on, Counsel --

5 MR. LEROY: Sure.

6 JUDGE DROESCH: -- can I ask you a question? What is
7 Petitioner's position regarding how we should construe "mobile device"?

8 MR. LEROY: A mobile device is a device that can be used to
9 communicate when it is mobile, when it is moving, but that doesn't mean
10 that when it stops moving, like the cell phone in my bookbag, it is no longer
11 a mobile device. And the actual construction of mobile device, the details of
12 it, are not as consequential because the Yoon reference specifically states
13 that mobile stations leverage both band AMC and the diversity channels.

14 And so whatever construction you apply to mobile device, we feel
15 confident that both Park expressly states and Yoon, which we're going to get
16 into as Exhibit 1023, expressly states that that device leveraged band AMC,
17 which is where the innovation of Park arises.

18 JUDGE DROESCH: Thank you.

19 MR. LEROY: So on Slide 7, just for the record, we just
20 summarize the fact that both parties acknowledge that WiBro supported
21 mobile subscribers, and on Slide 8, we jump into Exhibit 1023, which is the
22 Yoon publication by Samsung.

23 This is something that was cited in the Petition and in our
24 supporting Declaration. The Board in its Institution Decision cited the
25 portion of our expert's Declaration describing this reference, specifically
26 with respect to mobile, and it answers the question that the Patent Owner

1 raised in its Response. In its Response, it said WiBro may have supported
2 mobile devices, but the mobile devices in WiBro did not leverage band
3 AMC and therefore did not benefit from the invention of Park, and we
4 dispute that. And we dispute that with the evidence presented in Exhibit
5 1023, specifically page 16.

6 Page 16 is a section of Exhibit 1023 that talks about the technology
7 of how WiBro was to be implemented, and this slide expressly references
8 mobility at the top of the slide. And I'm in Demonstratives Slide 9,
9 referencing Slide 16 of Yoon, which is Exhibit 1023.

10 The second bullet of this slide references band selection AMC and
11 the diversity subchannels and how they would be implemented in WiBro.
12 And it expressly states, quote, mobile stations request to select band
13 selection AMC or diversity subchannel by monitoring channel status.

14 So it's the mobile devices that are telling the base station which
15 band should I use -- not should I use -- which band am I going to use? They
16 do that based on monitoring channel status. That's what this exhibit states,
17 and that's, of course, how a person of ordinary skill in the art would interpret
18 it. And this statement is consistent with the references in Park to next-
19 generation mobile communication systems.

20 So we view this slide as a dispositive rebuttal to the Patent
21 Owner's argument that a person of skill in the art would not have known that
22 WiBro leverages band AMC on mobile devices. And this is true, Your
23 Honors, whether it's moving or not. When I offered a construction for
24 mobile device, it's a mobile device -- I'm sorry -- it's a communication
25 device that could communicate while it's moving, but the motion itself is not
26 a limitation of these claims. These aren't method claims. There's no

1 particular speed or velocity that's recited in the claims.

2 And as Your Honors pointed out in the Institution Decision, we
3 feel that so long as the prior art of record demonstrates to a person of
4 ordinary skill in the art that a mobile device can leverage band AMC in
5 Park's invention, it doesn't matter whether the device is actually moving or
6 not.

7 So Demonstrative Slide 10 just points out that, you know, we
8 looked very carefully at the Patent Owner's papers. By the way, there's a
9 typo in our second bullet. It says Patent Owner's Reply. I think that under
10 the ordinary course of documents should say Patent Owner Sur-reply. But
11 we looked very closely to how the Patent Owner responded to Exhibit 1023
12 on this point because it's central in this mobile device dispute. The Patent
13 Owner doesn't state that the reference itself is incorrect or that we're reading
14 it incorrectly. They just state that it's neither scholarly nor peer-reviewed.

15 In the *GeneriCo v. Dr. Falk Pharma* -- that's an IPR decision. It's
16 2016-00297 from May of 2007 -- the Board, citing the Federal Circuit,
17 rejected a very similar challenge, where a Patent Owner said there's a
18 particular piece of prior art, but it's not peer-reviewed, and the Board, like
19 the Federal Circuit, said whether a particular piece of prior art is peer-
20 reviewed is not relevant in an obviousness analysis. The point of
21 Demonstrative Slide 10 is that there's no real merits dispute to what page 16
22 of the Yoon Samsung publication states.

23 But we don't have to stop there because in addition to the WiBro
24 material that we cited in the petition, the Patent Owner in its Patent Owner
25 Response cited its own WiBro publication, and they retitled it, WiBro
26 Article, I think, or something to that effect. But the actual title is listed on

1 Demonstrative Slide 11, is Directive to Mobile Internet Access, WiBro.
2 And in the details of that publication, we find a paragraph describing the
3 uplink control, which very similar to Slide 16 of the Yoon, Exhibit 1023,
4 Patent Owner's Exhibit 2027 states: in the uplink, also, the proportion of
5 diversity to band selection can be changed every frame.

6 So we see that there's this dynamic leveraging of both band AMC
7 and diversity subchannels in the deployment of WiBro, which makes sense
8 as the mobile devices, depending on their channel quality status, they can
9 elect band AMC or diversity subchannels. So there's a consistency among
10 the evidence in the record about the disclosures of WiBro, in our view, that
11 unanimously indicate to a POSITA that WiBro would have leveraged Park's
12 invention as Park teaches. On --

13 JUDGE BELISLE: Counsel?

14 MR. LEROY: Yeah.

15 JUDGE BELISLE: This is Judge Belisle. Can you just highlight
16 for me the significance of this band AMC to your argument?

17 MR. LEROY: Oh, yes. Thank you, Your Honor. So I don't think
18 there's any dispute among the parties that Park's innovation -- let me back
19 up. The communication frame that was used in WiBro has three sections: a
20 preamble section, a diversity subchannel section, and a band AMC section.
21 We could argue it applies elsewhere, but there's no doubt that Park's
22 innovation applies to the band AMC section.

23 The Patent Owner doesn't dispute that. The Patent Owner states
24 that that section is only used by fixed or non-mobile devices. That's their
25 big argument on mobile device in their Patent Owner Response. We said,
26 oh, okay. If that's your argument -- we went and looked at Yoon, which is

1 Exhibit 2023, and on page 16 of Yoon, it says -- and I'll go back to it just
2 very briefly. We see in this slide -- this is Demonstrative Slide 9 -- it
3 expressly states that mobile stations, they go back and forth between band
4 AMC and diversity.

5 And Your Honor, just to be clear, diversity subchannels have a
6 better performance when things are in motion, or I should say they have a
7 sufficient performance when things are in motion, but when they stop, band
8 AMC would have a higher performance. So there's a natural need in the
9 system to go back and forth depending on whether that phone is driving
10 down the road at 70 miles an hour or going 10 miles an hour or just sitting in
11 my bookbag. Does that --

12 JUDGE BELISLE: Yeah. Thank you.

13 MR. LEROY: So Demonstrative Slide 13 is just our expert's
14 analysis of the exhibit that Patent Owner raised, Exhibit 2027, and how it's
15 consistent with the other WiBro materials about how mobile devices
16 leveraged band AMC in WiBro. And that cites our expert's second
17 Declaration in paragraphs 22 and 23.

18 Demonstrative Slide 14 begins to respond to what the Patent
19 Owner states, which is primarily based on a statement in the background of
20 Park that describes this frame, describes Figure 1. I have an example of it.
21 This is it right here, Demonstrative Slide 16. The Patent Owner looks at this
22 Figure 1 and says, a-ha. Right here, as you can read in the highlighted
23 language, Park's acknowledging that band AMC is for fixed subscribers.
24 And they say, we've gotcha. That's not mobile. The claim requires a
25 mobile device. That's their argument, just to set the stage.

26 A couple of responses to this. Number one is this is in regards to

1 the prior art. It says right under Figure 1, Prior Art. And you'll see in the
2 Patent Owner's slides, nine times they show Figure 1, and they crop the
3 word prior art off every single time, because they want this statement to
4 refer to limit the applicability of Park when an argument doesn't limit the
5 applicability of Park at all. Park expressly says it applies to mobile devices.
6 This statement is about the prior art.

7 But there's more. The '450 Patent states, and they acknowledge
8 this, that a mobile device may be fixed. Okay? This is the paragraph of the
9 '450 Patent. I have a pinpoint cite for it. It's Exhibit 1001, column 3, lines
10 40 to 42. And this is an important statement because there's this
11 mystification over what does the word fixed mean. You know, some might
12 think fixed means bolted down. Right?

13 But what I've come to understand and what a POSITA would
14 come to understand and what this passage of the '450 Patent expressly states
15 is a mobile device can be moving in some instances and fixed in others. It's
16 just a term that they use. Fixed does not necessarily mean bolted, but to the
17 extent there was any doubt about that, the '450 acknowledges that.

18 And why do I raise this? I raise it because even the background
19 section of Park that talks about the frame, the Figure 1 frame, when it says
20 there's this diversity portion for mobile and there's this band AMC portion
21 for fixed devices, it's not saying that a fixed device is not mobile. What the
22 '450 Patent says is that sometimes mobile devices stop moving and they're
23 described as fixed. And this is how a POSITA would understand these
24 terms are used and what the record supports.

25 The other point I will make is this middle bullet here. You will
26 hear from the Petitioner describing the claimed invention as requiring

1 motion, requiring a certain speed, or wondering what is the threshold of
2 speed that's required to perform the claimed invention, whether user
3 actions -- whether a user is moving swiftly or not. They will make these
4 distinctions, but these are temporal distinctions that are not claimed. There's
5 no reference to motion in the claim. We've talked about it before.

6 And Your Honors in the Institution Decision, page 28, have
7 already effectively rejected the notion that to satisfy the claim, there has to
8 actually be motion. Even if that were a limitation of the claim, Yoon Exhibit
9 1023, page 16 tells us that slowly moving devices still may leverage band
10 AMC, and a POSITA would understand that that makes sense based on
11 signal quality as we've articulated.

12 Okay. That wraps up my presentation on mobile device. Before I
13 jump to the next limitation, I just wanted to raise one more issue. In the
14 Patent Owner Response and in its Sur-reply and in its demonstratives, you
15 will see a lot of references to other documents. There will be reference to
16 our expert who published a book. I think it's Exhibit 2025. Yes, Exhibit
17 2025. You will hear reference to the Marks publication, Exhibit 2022.
18 You'll hear about the evolution of 802.16e. You'll hear about these
19 peripheral materials and how they don't describe the claimed invention.

20 And the point I just want to make is they may not, but they're also
21 not part of our Petition. We are not relying on our expert's book or some
22 other materials. We're relying on the materials that we've cited and
23 identified, and for the reasons articulated, we believe they comfortably
24 demonstrate a mobile device as claimed or capable of satisfying Claim 7 to a
25 person of ordinary skill in the art.

26 I'll move on, unless Your Honors have any questions about mobile

1 device. Okay.

2 JUDGE DROESCH: I don't believe there's any questions.

3 MR. LEROY: Okay. So the next dispute concerns N equals 2, 4,
4 or 8, and I think I can confidently say this is just a claim construction
5 dispute. I don't believe there's any dispute that Park, the same Exhibit 1005
6 that we rely on for mobile device limitation, also discloses N equals 2, which
7 is obviously one of 2, 4, or 8.

8 On Demonstrative Slide 18, I've just provided the aspects of Park
9 that disclosed N equals 2. That's explained because it doesn't come out and
10 say N equals 2, but that is explained in our Petition. I'm not sure why my
11 pinpoint cites are not appearing on the slides. So the upper-left-hand box is
12 the Petition on page 34 and the lower-right-hand box is our expert
13 explaining that N equals 2 in this example, and that's Exhibit 1003,
14 paragraph 172. And just for the record, I'm referring to Demonstrative Slide
15 19.

16 So I don't think there's any dispute about these points. The dispute
17 arises from the reality, to be candid, that Park discloses other values for N
18 that aren't only 2, 4, or 8. That's true. We don't dispute that. So then the
19 argument is that -- I'm sorry -- the Patent Owner's argument shown on
20 Demonstrative Slide 21 is that N equals 2, 4, or 8 should be interpreted as
21 excluding other plural values for N other than 2, 4, or 8.

22 So I've captured the Patent Owner Response, page 38, and their
23 Sur-reply at page 18, but essentially, this is their argument, that this N equals
24 2, 4, or 8 should be interpreted very narrowly. And more than being narrow,
25 it should exclude any prior art that discloses, in addition to 2, 4, or 8, any
26 other value. That's the dispute for this claim limitation.

1 And our response to that, we have several responses to that.
2 Number one, let's just read the '450 Specification and see what it says about
3 values of N. And you cannot help but notice Table 1 that discloses N values
4 of 1, 2, 4, and 8 on Demonstrative Slide 22. We've highlighted N equals 1.
5 So we know right out of the gate that the inventor of the '450 Patent believes
6 that other values of N can work.

7 It may not follow in the scope of the claimed invention. I
8 shouldn't say that. N equals 1 is not N equals 2, 4, or 8, but it would teach a
9 POSITA that nothing would exclude other value. A system that supports 2
10 and 1 wouldn't be excluded because Table 1 provides 1 as an example. The
11 introduction to Table 1, as Your Honors noted in the Institution Decision,
12 describes Table 1 as merely representative.

13 Also, right after Table Number 1, there is reference to using
14 different MCSs. It says, some with MCS equals 1, some with MCS --
15 should say MCSI -- equals 1. Some with MCSI equals 4, so on and so forth.

16 What does so on and so forth say to a person of skill in the art? If
17 you look at Table 1, which is representative, it certainly doesn't say these are
18 the only values you can use. We found no intrinsic reason for limiting N to
19 only 2, 4, or 8, exclusive of other values. In our Petition on page 4 and in
20 our supporting Declaration -- that's Exhibit 1003, paragraph 33 -- we also
21 pointed out that the MCS value can be 4-bit, and 4 bits is up to 16 values.

22 All of these are indications from the intrinsic record that values
23 other than N equals 2, 4, or 8 could be implemented and that the fact that a
24 system might implement them doesn't somehow pull it out of the scope of
25 the claim so long as the system also practices 2, 4, or 8.

26 Okay. What is the Patent Owner's response to all of this? Well,

1 they say if you use other values of N, you won't achieve benefits of the
2 invention. And so I have on Demonstrative Slide 23 on the left-hand
3 column, I'm quoting the Patent Owner, where it identifies two benefits. And
4 on the right, we respond to that.

5 But before I get to the column on the right, I need to point out that
6 neither of these benefits are claimed. There's a debate as to whether they're
7 even described in the Specification, but they're certainly not claimed. In our
8 Reply at page 19, we cited *Ex Parte Negley* -- that's 2016-02222 -- and *Ex*
9 *Parte Holt*, which is 2012-007857. They both say unclaimed benefits have
10 no role in the obviousness analysis. If they're not claimed, they ought not be
11 used to distinguish prior art.

12 But beyond that, we have a response to both of these. The first
13 response to both of them is the one I already covered, which is the
14 Specification doesn't suggest that only these values achieve these benefits.
15 It's entirely extrinsic, which we'll see on another slide. But most
16 importantly for me, the Patent Owner admits in its Patent Owner Response
17 on pages 43 and 45 that N equals 1, which is described in Table 1, achieves
18 both of these benefits. So they've admitted that there's a value other than 2,
19 4, or 8 that can achieve these advantages.

20 And then our expert in the third bullet, which I'll demonstrate, he
21 takes the so on and so forth suggestion and just goes to the next level and
22 demonstrates that if you set N equal to 16, it satisfies these criteria and
23 provides similar benefits.

24 I'll -- let's see. Yeah. These slides are --

25 JUDGE BELISLE: Counsel.

26 MR. LEROY: Yes.

1 JUDGE BELISLE: This is Judge Belisle again. Is there any
2 prosecution history surrounding that N equals 2, 4, or 8?

3 MR. LEROY: I don't believe so.

4 JUDGE BELISLE: As to how that showed up in the claim? Is that
5 original to the claim?

6 MR. LEROY: I'll have to check that, but I don't believe that
7 there's any file history on N equals 2, 4, or 8. My co-counsel can check that.
8 And before our time is up, I'll get an answer to that question for you.

9 Okay. Demonstrative Slide 25, this is a snapshot of the Patent
10 Owner's -- I apologize. For some reason, these demonstratives aren't
11 showing the pinpoint cites. But on Demonstrative Slide 25, the box on the
12 left is the Patent Owner's Response where they raise this claim construction
13 issue, and on the right is the Patent Owner's Sur-reply, page 18, where they,
14 you know, are readdressing this issue.

15 And the point of this slide is to show that their evidence to support
16 their exclusionary narrow claim construction is exclusively extrinsic. The
17 Spec. doesn't say this; the file history doesn't say this; their expert does.
18 And of course, as already demonstrated, we don't agree with it. Our expert
19 doesn't agree with it.

20 And Your Honors are probably aware, it's difficult enough to
21 narrow a claim term beyond its plain and ordinary meaning. You need some
22 basis in the intrinsic record for it. It's exceptionally difficult in my
23 experience to give an exclusionary construction. That requires a disclaimer
24 or some really strong statement in the Specification, neither of which exist in
25 this case.

26 Okay. Next I'd like to talk about this comprising issue, and then if

1 I may set the table for what that is. This claim uses the term comprising in
2 the context of the 2, 4, or 8 limitation. I'll take you back to that limitation
3 just so you can see it. So I'm on Demonstrative Slide 17. I didn't highlight
4 the word comprising, but you can see that there's reference to comprising N
5 time-frequency resource units within a time interval, each unit containing a
6 set of frequency subcarriers in a group of OFDM signals, where N equals 2,
7 4, or 8.

8 So this is not a scenario where comprising is used up in the
9 preamble, transition. And the Patent Owner has come back -- oh, I'm sorry.
10 And so we interpret this comprising language in this operative claim
11 limitation as being open-ended, according with traditional principles of
12 claim interpretation. And the Patent Owner has come back, citing cases
13 saying, you know, not so fast. If comprising is used as a transitional phrase,
14 there's no doubt that's open-ended, absent some strong intrinsic indication to
15 the other, to the contrary. But where its used in the body of the claim, it
16 doesn't automatically have that presumption, the presumption that it's open-
17 ended.

18 But there's two points I want to make. Number one is the cases
19 that they cite say that even in that scenario, even if you adopt that principle,
20 ordinary rules of claim interpretation apply. The law they cite doesn't
21 change comprising to consisting of. The laws they cite just say if it's in the
22 body of the claim, it's not entitled to that presumption. You got to go back
23 and look at this intrinsic record and Specification to decide would a POSITA
24 interpret that limitation as open-ended or not.

25 That's the law they're presenting. And in our view, even if that
26 law applies in all cases -- and there's a dispute on that -- the Specification

1 clarifies that N equals 2, 4, or 8 means what it says: you have to meet that
2 limitation, but having other values of N is not somehow excluded from the
3 scope of the claim, provided 2, 4, or 8 are satisfied.

4 So that's the top-level issue with respect to -- with this comprising
5 issue, but I -- and I apologize. Maybe when I made a PDF of these slides it
6 crashed or something. The cases that the Patent Owner cites are cases where
7 comprising was not ultimately held to be open-ended, and those cases
8 absolutely exist. You could describe them as outliers or not.

9 But what I want to say, if there's ever a consideration of taking the
10 word comprising in challenged Claim 7 and changing it to consisting of or
11 requiring an exclusionary limitation that they propose, we have to focus on
12 the actual facts of these cases, because *Moleculon Research*, the Federal
13 Circuit went out of its way to expressly say, we are not limiting this claim
14 based on the word comprising. They limited the claim based on the way the
15 claim was drafted. It was a very specific eight cube composite -- eight piece
16 composite cube claim, and it's not just what it was, but the Federal Circuit
17 said, we are not deciding based on the word comprising.

18 And *Moleculon* in a lot of ways in several of the decisions are not
19 necessarily indicative of broader statements of law that that case didn't hold.
20 That was a very specific, narrow case.

21 The other case, *Araujo v. Mishan & Sons*, that claim has, as you
22 can see on Demonstrative Slide 31, that has consisting of in the preamble
23 and then a comprising that came after the preamble. And in that case, the
24 Southern District of New York held in this case, comprises does mean
25 something narrower than it normally would mean because the preamble says
26 consisting of. And if we interpret comprises as an open-ended, we're sort of

1 erasing the consisting of. They had to pick a winner, and they did, but we
2 don't have consisting of in our claims. We don't have consisting of in our
3 Specification or any other indication that the claim should be limited.

4 JUDGE BELISLE: Counsel.

5 MR. LEROY: Yes.

6 JUDGE BELISLE: Judge Belisle again. The challenge to
7 patentability here is based on obviousness, correct?

8 MR. LEROY: That's correct.

9 JUDGE BELISLE: So even if this were to be interpreted to be
10 limited to 2, 4, or 8, what's the argument for why some other value would
11 not have been obvious to a skilled artisan in communication technology?

12 MR. LEROY: Your Honor, that's my concluding remark, so I
13 agree. We are the Petitioner, and we think even if the claim was limited to
14 N equals only 2, 4, or 8, and we had a piece of prior art that said N equals 1,
15 2, 4, or 8 or 9, the claimed configuration is so obvious because it's disclosed
16 in the prior art. This whole claim construction dispute doesn't make the
17 claim less obvious.

18 So I agree with you. This is not, obviously, this is an interpretation
19 we've ever raised. It's one that the Patent Owner raised and we dispute at
20 the claim construction level, and we make that argument because it's frankly
21 intrinsic and easy. But we certainly agree and assert that, as we do in the
22 case, that Park discloses many values of N. They argue any value. I don't
23 know if it's any value, but it definitely discloses N equals 3, N equals 2, and
24 other values, and we view that whether they were right or wrong, the claim
25 is obvious because N equals 2, 4, or 8 is disclosed in Park.

26 JUDGE BELISLE: And do you have a understanding of the

1 significance of N being 2, 4, or 8 versus some other number?

2 MR. LEROY: That's a great question, and it's one -- we talk
3 about the file history. We're trying to figure out why wasn't 1 included,
4 why aren't other values indicated. I don't find anything anywhere in the
5 '450 Patent that would suggest why that's the case, but the absence of it
6 means it suggests what it says: a piece of prior art that satisfies 2, 4, or 8
7 satisfies the claim regardless of whether it discloses other values. Their
8 expert has an opinion on it, but that's extrinsic, and even if it were intrinsic,
9 it's a unclaimed benefit.

10 Do Your Honors have any other questions?

11 JUDGE JUNG: Mr. LeRoy, this is Judge Jung. You said Park
12 discloses N equals 2 and N equals other numbers. Is there any further
13 description that says there's an embodiment that just uses a subset of those N
14 values?

15 MR. LEROY: There's other examples. The short answer is yes
16 because, you know, Park addresses segments of all different shapes and
17 sizes, and it's using these index values to isolate and identify where they are
18 in the time-frequency resource. And it has examples of all different sizes, so
19 yeah, they use all different values of N to achieve its objective, just like the
20 '450 Patent, frankly.

21 JUDGE JUNG: But just to put a fine point on it, Park does
22 describe using just three values of N, for example, a past claim.

23 MR. LEROY: Oh, no. No, it does not. In fairness, Park describes
24 that you can use N equals -- and we haven't gone through all the examples --
25 but it expressly discloses N equals 2, N equals 3, and there's no indication
26 that you couldn't use N equals 251. I mean, it depends on the nature of the

1 data you're trying to transmit, so it's not limited to some specific set of N.

2 JUDGE JUNG: Thank you.

3 MR. LEROY: Okay. Any other questions?

4 JUDGE DROESCH: I don't believe there's any other questions.

5 MR. LEROY: Thank you.

6 MR. HENDIFAR: If I could have a moment to set up, please.

7 JUDGE DROESCH: Sure.

8 MR. HENDIFAR: Whenever Your Honors are ready.

9 JUDGE DROESCH: Go ahead.

10 MR. HENDIFAR: Thank you. May it please the Court or Your
11 Honors. Going to Slide Number 2, the Claims 7 and 11 are challenged
12 under the single ground based on the combination of Park and the 802.16-
13 2004, and the dash 2004 is significant as we will show why later on.

14 Going to Slide 3, there is one independent claim, Claim 7, which
15 fails for two independently sufficient reasons as my friend on the other side
16 pointed out. The first dispute is regarding whether the mobile device
17 limitation is disclosed, and the second dispute is whether the limitation of N
18 equals 2, 4, or 8 is disclosed as well.

19 Going to Slide 4, this is for Your Honors' reference. I'm not going
20 to go through it. If there are questions about the specific documents
21 referenced, we can go back to this slide.

22 Going to Slide Number 5, Claim 7 requires -- excuse me -- the
23 mobile device that is configured to do certain things, specifically, the mobile
24 device that it configured to the limitations 2(b), 2(d), and 3.

25 Going to Slide 6, this a high-level roadmap of what I will be
26 presenting. Going from the left side of Slide Number 6, the claim requires a

1 mobile device that is configured to do certain things. For those limitations
2 that a mobile device must be configured to do, Petitioner undisputedly relies
3 on Park's embodiments.

4 It is also undisputed that Park's embodiments apply to the AMC
5 area of the frame. Furthermore, the AMC area of the frame, and we will
6 show based on Petitioner's expert's book, Petitioner expert deposition,
7 extrinsic evidence, evidence after evidence. The AMC area of the frame did
8 not support mobile devices. Therefore, we will show that Petitioner has
9 failed to show a mobile device that is configured to perform Park's
10 embodiments upon which they rely.

11 Now, I want to highlight something. Everything you heard my
12 friend on the other side say is undermined by their expert's book, expert's
13 deposition testimony, and we will show all of that and other exhibit
14 evidence. Counsel came to us, said, well, we are not relying on our expert's
15 book, but what their expert said outside of this litigation is very relevant to
16 what, for instance, a mobile device is or what the AMC region of the frame
17 does. So it's not as if we can just pick out the Patent divorced from the
18 technology, divorced from the understanding of a POSITA, divorced from
19 reference books on this topic, as if we are just going to ignore all of that,
20 given that our own expert said that before this litigation.

21 Going to Slide Number 7, I'm going through these slides a bit
22 more quickly the beginning ones because these are undisputed. It's
23 undisputed that Petitioner relies on Park embodiments for the limitations
24 2(b), 2(d), and 3 that a mobile device must be configured to perform. This is
25 undisputed.

26 Going to Slide Number 8, it is also undisputed that Park's

1 embodiments allocate resources within the AMC area of the frame. I'm
2 going to jump a couple of slides and I'll come back because Your Honors
3 asked a question about the significance of the AMC area. This is a high
4 level -- I'm going to go through the evidence for this. But when a base
5 station is supporting a bunch of devices, let's say 100 devices within my
6 base station, there are some devices that are mobile, some devices that are
7 not mobile.

8 And to support of all of this, and we will show this through
9 evidence, there is a frame that is sent out. The frame essentially is a
10 timeframe which has different OFDM modules on it, and that frame is
11 divided into two relevant parts here. One is a diversity part showing in
12 green, and one is the AMC part showing in red. And we will show based on
13 the evidence that the AMC part of the frame is for stationary reasons, so a
14 stationary device when it wants to receive the data that it's going to receive
15 from the base station, it is going to only look at the AMC area of the frame.
16 In contrast, a mobile device in that base station, when it wants to receive the
17 data that it's receiving, it is going to look in the green region of the frame,
18 the diversity area.

19 So what we will show is that what Park employs is for that AMC
20 region where stationary devices, only stationary devices, look for the data.
21 So there is no mobile device that is going to utilize Park's embodiments.

22 JUDGE DROESCH: Counsel, before you move on, I'd like to ask
23 you the same question that I asked your counterpart. What is your
24 understanding of the meaning of mobile device?

25 MR. HENDIFAR: Thank you for raising that. Let me just
26 jump to the relevant slides here. I'm now going to jump to Slide Number

1 35.

2 So mobile device in different contexts can mean different things.
3 So you can imagine if you have a user interface patent that's talking about
4 this slide gesture. So mobile device in that context may be relevant to what
5 is the size of that device. Is it a bigger user interface or whatnot? In this
6 field for this patent, where you talk about a mobile device in the context of,
7 for instance, the 802.16-2004, a mobile device, when somebody talks about
8 a mobile device, what it means is that is that device able to perform its
9 function while it is mobile, not while it is stationary. That's what mobile in
10 this context is.

11 And I'm going to go through the slides when I get to this slide, but
12 I want to highlight Slide 35 and a couple slides after that in response to Your
13 Honor's question. This is Petitioner's expert's books, which is why my
14 friend on the other side said, ignore out expert's book, but you can't ignore
15 it. This is their expert's book on the same topic of the same 802.16 standard
16 that is at issue here. It's a reference book that he testified at deposition
17 applies to the 2004 version of the standard that is one of the references
18 Petitioner relies upon.

19 In his book, when he discusses what a POSITA would understand
20 in this field, he says there are two types of stations to distinguish between:
21 portable and mobile. A fixed or slowly moving station, fixed or slowing
22 moving station, is considered portable. Again, they are distinguished
23 because a mobile station is not a fixed or slowly moving station. A mobile
24 station, on the other hand, can participate in a network while in motion. This
25 is their expert's book.

26 So our position is -- and let me just -- I'll explain that. So going to

1 Slide 37, this is another one of Petitioner's references, another reference
2 within this field. And this book also explains devices may be classified as
3 fixed or moving during a communication session.

4 Now, going to Slide 38, so when a POSITA talks about a mobile
5 device or a mobile station of a mobile subscriber, what is meant in this field
6 is, does that device or can that device perform its functions while it is being
7 mobile? Because if you interpret it the way Petitioners are interpreting it --
8 and this is again, this Petitioner's experts book. So what they are really
9 saying is we have a cell phone, that cell phone can use Park's embodiments
10 when it is not moving, and then it can at other times move around. And
11 they're saying by that logic, therefore, Park's embodiments apply to mobile
12 devices, but that's not what mobile device means to the skilled artisan.

13 And all we need to do is we have Slide 38, that's the Petitioner's
14 expert's book. When Petitioner's expert says, the 802.16e, being developed
15 at present to support mobile subscribers, it is talking about a device that can
16 actually implement the standard while it is moving. It's not talking about a
17 device that can implement the standard when it is not moving and that in its
18 spare time when it's not using this standard, it can be moving.

19 So in this field, when we talk about a mobile device holding the
20 standard and a mobile device configured to do certain steps, what it means is
21 that the mobile device has to be able to perform those functions, not only
22 when it is stationary or slowly moving, but also when it is mobile. And we
23 will prove that with evidence. I overviewed some of those here, but our
24 position is supported by every piece of evidence that's in the record. There
25 is not one piece of evidence.

26 I want to highlight their expert submitted a reply Declaration. He

1 ignored his book. He just didn't address his book. He didn't address the
2 other book. Their expert provided no opinion on the plain meaning of
3 mobile device, so we presented a 70-page POR, expert Declaration, his
4 book, his deposition testimony, evidence after evidence on why a device that
5 can only practice the invention when it is stationary or slowly moving is not
6 considered a mobile device in this book. He submitted a reply Declaration,
7 he does not address the plain meaning of mobile device.

8 JUDGE BELISLE: Counsel. Judge Belisle. Help us then
9 distinguish between slowly moving and mobile.

10 MR. HENDIFAR: Thank you for raising that. So, we don't
11 have to. The reason we don't have to is Petitioner's Slide Number 9, the
12 only piece of evidence on why the AMC region can even support slowly
13 moving is that presentation by the Samsung employee, Exhibit 1023, where
14 it said, a mobile device when it is stationary or slowly moving can receive
15 the AMC allocation.

16 Now, their evidence doesn't provide this speed. It just says
17 slowly moving. Well, going to Slide 35, their own expert in his book said,
18 slowly moving stations -- using the same terminology -- slowly moving
19 stations are not mobile.

20 So we don't have to come up with a speed at which the motion
21 becomes mobile versus slowly moving because their references at most say
22 Park can be implemented with slowly moving devices, and their expert's
23 book says, slowly moving devices are not mobile. Same terminology, same
24 everything. So you don't have to decide that speed. But even if you had to
25 decide that speed, that's not our burden.

26 So going to Slide Number 43, we have cited the *Google v.*

1 *Neonode* case. In that case, the patent claimed a gliding motion.
2 Petitioner's references disclose a flick motion. And I actually argued Patent
3 Owner's case, so I can tell you the judges asked the same question: Why is
4 the drawing line between a flick motion and a glide motion? How do we
5 know that the reference's flick motion does not disclose a glide motion? We
6 don't have to because it was Petitioner's burden to show that what their
7 references discloses makes obvious what the claim requires.

8 In that case, Petitioner didn't show that its reference is saying
9 the flick motion discloses the claim gliding. We didn't have to decide what
10 the velocity is. We didn't have to explain what the acceleration may be for a
11 flick to become a glide. They have to do it. They did not meet the burden.

12 But this case is even easier than that because the language that
13 is used in their expert's book is exactly the language that is used in the
14 references. The references say AMC can be implemented at most in slowly
15 moving devices. Their expert says same terminology, slowly moving
16 devices are not mobile, and that's all we need.

17 Does that answer your question?

18 JUDGE BELISLE: Yes.

19 MR. HENDIFAR: Thank you.

20 Now, going back to Slide Number 12.

21 JUDGE BELISLE: And Counsel, actually, let me just follow
22 up with one additional question. So is it Patent Owner's position that the
23 skilled artisan would not have deemed it obvious given a slowly moving
24 device, to use that in a mobile system?

25 MR. HENDIFAR: The evidence here is that you couldn't use
26 the AMC region for a mobile device. You could at most use the AMC

1 region for a fixed device, and if you give up carrying for a slowly moving
2 device. But the evidence is that that's the most you could use the AMC for,
3 so it's not that you could use AMC for anything and nobody thought of
4 using it for a mobile device. We will show their expert's book, their
5 expert's deposition, their certain evidence, the evidence in the record is
6 undisputed that you couldn't use the AMC for a mobile device.

7 JUDGE BELISLE: Okay.

8 MR. HENDIFAR: Thank you.

9 Going to Slide Number 12, we are now back. We established
10 that Petitioners rely on Park's embodiments for the configuration that a
11 mobile device must have. We have established, as it's undisputed, that
12 Park's embodiments only apply to the AMC area of the frame. Now we are
13 going to establish that the AMC area of the frame, undisputed evidence,
14 does not support mobile devices. Again, it's not a question of obviousness.
15 It did not support them.

16 Now, Slide Number 12, this is Park, and Park explains that in
17 the frame for a system that supports both mobile devices and stationary
18 devices, the frame is divided into two parts. And throughout this
19 presentation for consistency, I'll be using the green color for mobile regions
20 and mobile devices and the red color for stationary regions of the frame and
21 stationary devices. What Park says is that the diversity area 12 is used for
22 mobile subscribers and the AMC area is used for fixed subscribers.

23 Going to Slide 13, we already touched on this. Petitioner's
24 expert, Dr. Cooklev, authored a reference book on the same standard that
25 Park implements, and that's the second reference to Petitioner's grounds, the
26 802.16 standard. So their expert authored a reference book on this same

1 topic. Then when I note it, they say, don't look at our book. We are not
2 relying on this book.

3 But this book will give you the technical background to
4 interpret the technology.

5 JUDGE DROESCH: Counsel, I have a question for you.

6 MR. HENDIFAR: Yes.

7 JUDGE DROESCH: Slide 12, you've got a figure reproduced,
8 and, I think, paragraph 11 of Park reproduced. Is that discussing the
9 invention disclosed by Park, or is that disclosing maybe the prior art?

10 MR. HENDIFAR: Thank you for raising that question. This is
11 discussing -- and we have citations in our papers. I'll be happy to provide
12 those. Undisputed that the frame that is disclosed in Figure 1 of Park is the
13 802.16e, E as in echo, standard, that is a later version of the 802.16-2004
14 standard Petitioner relied upon. And that standard supports mobile and
15 stationary users.

16 Now, Park assesses this figure in the context of its background
17 of invention, but Park's invention is undisputedly applying to the AMC area
18 of the frame. So Park's invention is not an invention that says, I have this
19 bright idea and how to use the AMC region for mobile devices. That's not
20 Park's invention.

21 Park's invention is we have a mobile communication system, so
22 therefore we are going to have a million more devices coming in because
23 now we are able to support mobile in addition to stationary devices, so
24 bandwidth is going to be an issue. I am going to provide an indexing
25 method on how more efficiently to allocate resources in the AMC region
26 that supports stationary users. So Park's invention is about how to index

1 that red region. It's not an invention that somehow magically tells you how
2 you can use an AMC area for mobile devices.

3 And we have that Figure in Slide 10, as you can see. I've tried to
4 put the two figures together. So what Park does is, how do you index the
5 AMC region? It has no relevance to how you can use that AMC region for a
6 mobile device. And the fact that the AMC region does not support mobile
7 devices is supported by every piece of evidence in the record that I'm going
8 to go through.

9 So Slide 13, I will explain Dr. Cooklev has a book on this same
10 topic. That's their expert reference book. Going to Slide 29, he explained at
11 deposition that what the discussion he has in his reference book applies to
12 the 802.16-2004 standard that the Petitioners have relied upon.

13 Now, what does Dr. Cooklev's book say? So Dr. Cooklev's book,
14 going to Slide Number 14, says, the 802.16-2004 did not support mobile
15 devices. To support mobility, so to change that frame structure in the prior
16 art, to support mobility, what you have to do -- and this is Dr. Cooklev's
17 book -- is to divorce, not use together with mobile, to divorce one part of the
18 frame for fixed stations and one part for mobile stations.

19 And that answers Your Honor's question, devote one part to fixed
20 stations. So that part that is for fixed stations is devoted to fixed stations. It
21 is not used for fixed and mobile or a device can decide on mobile, whether it
22 wants to use the AMC. That part is devoted to fixed stations. Again, that's
23 their expert's book. He did not dispute, he submitted two Declarations. He
24 did not even -- said nothing about his book.

25 Going to Slide 15, it's not just Dr. Cooklev's book. The same --

26 JUDGE BELISLE: Counsel, before you -- not to interrupt you, but

1 earlier you emphasized the date that the 802.16 art being used by Petitioner,
2 that that 2004 was relevant. Is that because 802.16e was not around at that
3 time?

4 MR. HENDIFAR: What time exactly?

5 JUDGE BELISLE: The 2004.

6 MR. HENDIFAR: Correct. So, actually, that's why I have Slide
7 Number 4. So, let me just maybe (INDISCERNIBLE) on this so that we
8 have the background straight.

9 So, there are two references that Petitioners rely on as their
10 grounds. That's the 802.16-2004 and Park. 802.16-2004 did not support
11 mobility. This is in their expert's book we'll get to, and he says in his book
12 a major weakness of that standard is that it is not upward mobility.

13 Then later, 802.16e, it was published -- the e version was published
14 after the priority date of the patent. The evidence is that some people in the
15 field knew the frame structure, which is why Park prefers this date, and
16 probably our Patent also. And the e version came later that did support
17 mobility, but the way it supported mobility was by devoting one part of the
18 frame for fixed structures, one part for mobile structures. Does that answer
19 Your Honor's question?

20 JUDGE BELISLE: Yes.

21 MR. HENDIFAR: Thank you. Now, going to Slide 15, the WiBro
22 standard -- and Petitioner keeps pointing to WiBro, WiBro, WiBro. WiBro
23 does the same thing that Dr. Cooklev said, that Park says, and Dr. Cooklev's
24 book says, which is WiBro similarly divides its frame into an AMC region
25 for fixed devices and a diversity region for mobile devices.

26 So the same thing, even in WiBro, you have the AMC region for

1 fixed devices and the diversity for mobile devices, which is not surprising
2 because WiBro also is based on the 802.16e standard. So, all of these are
3 based on that e standard, which the undisputed evidence is, to make that
4 support mobility, you have to devote one part to fixed devices, one part to
5 mobile devices.

6 And going to Slide 16, Petitioner's expert at deposition, again, he
7 submitted a reply Declaration, nothing about (INDISCERNIBLE).
8 Petitioner's expert at deposition explained that the WiBro Figure is
9 consistent with Figure 1 of Park. It has a diversity zone that's dedicated to
10 mobile devices. And then there's a band selection, which is the AMC zone,
11 that's for fixed users. Again, their expert confirmed the same thing at
12 deposition, same thing as his book.

13 Going to Slide 17, this slide is really just a summary just to show
14 how Park's disclosure is consistent with Petitioner's expert's book, his
15 deposition testimony, and the WiBro standard.

16 Now, going to Slide 18, Petitioners use some terminology a bit
17 ambiguously. So Park, as WiBro, are directed at mobile communication
18 systems, yes, but they are not directed at mobile devices within those
19 systems. So, that's the point. So, in Slide 18, even though Park is
20 implemented in a mobile communications system, it supports stationary
21 devices within that system.

22 Now, going to Slide 20, therefore, it is not surprising that if you
23 search for the word mobile, you will not see that Park ever in its
24 embodiments referring to its devices as mobile. Do a PDF search, you will
25 not find it.

26 Now, Petitioner's Slide 21, they -- as I pointed out, they keep

1 pointing to, well, Park says it's related to next-generation mobile
2 communications systems, yes, but in those system, it is clear Park says its
3 applying its invention to the AMC region of the frame that only supports
4 stationary devices. And as I explained earlier, Park's invention is still
5 relevant to the mobile communications systems, even though it's for
6 stationary devices in those systems, because once the 802.16 standard was
7 able to support mobile users, the expectation was there is going to be a lot
8 more devices and, therefore, you need to include bandwidth efficiency.
9 Wherever you can do it, it's beneficial.

10 And while we are on this slide, I also want to point to a point that
11 my friend on the other side made, and that was in Exhibit 2027, there is a
12 disclosure that the uplink frame can change the ratio of the AMC to the
13 diversity area. So, I just want to add in some technology behind that. As
14 you see in this frame on Slide 21, there is a green zone for mobile devices,
15 and then there is a red zone for stationary devices. And this is a frame that's
16 transmitted either by the base station or by -- it can go either way.

17 Now, this frame is not only for one device, so there are 100
18 devices in that cell, and the mobile devices, go look in their allocated portion
19 of the green area; stationary devices, go look in their allocated portion in the
20 red area of the frame. And if you have a lot more stationary devices than
21 mobile devices, then the red portion of the frame is going to get bigger. If
22 you have a lot more mobile devices than stationary devices, the green
23 portion is going to get bigger. And that's all the Exhibit 2027 is saying. It
24 says nothing about a device being able to use AMC region when it's mobile.

25 Now, going to Slide 22, Petitioner's ground is, of course, not just
26 based on Park. It's Park implemented in the 802.16-2004, but that does not

1 change any of the analysis we just presented. Even if 802.16-2004
2 supported mobile devices, which it did not -- I will point to the evidence,
3 and I don't believe at this point it is indicated. At this point, I don't believe
4 that it was alleging that 802.16-2004 supports mobile devices. But even if it
5 did, Park is clear that even in the context of a system that supports mobile
6 and stationary devices, its embodiments are for the AMC area that only
7 supports stationary users.

8 But 802.16-2004 does not support mobile devices anyways. Slide
9 23, the standard clearly says it is for fixed broadband wireless access
10 systems. Going to Slide 27, the chair of the 802.16 working group, Roger
11 Mark, published articles. For instance on Slide 26, he explained that 802.16
12 did not support mobility until the E amendment, which is after the 2004 job
13 in 2005.

14 Let's go on to Slide 27. Petitioner's expert, as we discussed
15 already, authored a book where he explained 802.16's major weakness is
16 that it does not support mobility and that later versions of this standard, the E
17 version, are the ones that will support mobility, and the way they do that is
18 they dedicate one part to fixed stations, one part to mobile stations.

19 So going to Slide 31, and this is just a summary that Petitioner's
20 IPR opinions from their experts are contradicted by every piece of evidence
21 in the record, from Park itself to Dr. Cooklev's own book to Dr. Cooklev's
22 deposition testimony to WiBro technical articles. They all say -- so in his
23 IPR opinion, Dr. Cooklev said, Park and 802 apply to mobile devices even
24 though they don't say mobile. Now, we have presented evidence after
25 evidence after evidence that Park's embodiments do not apply to mobile
26 devices; they apply to stationary devices.

1 Now, going to Slide 32, we submit, and we will show that
2 Petitioners essentially concede, that the theory Petitioners presented or the
3 allegations they presented in the Petition are not thoroughly rebutted. What
4 they said in the Petition and the institution decision quoted, and we have it
5 on the left-hand side of Slide 32, was that Park references WiBro. WiBro
6 supports vehicles. They move 60 kilometers per hour, 70 kilometers per
7 hour, so it's obvious that Park applies to mobile devices.

8 Now, at this point, we've proven by every piece of evidence in the
9 record that Park embodiments apply to stationary devices within a mobile
10 system. So, what does Petitioner do? Going to Slide 33. They have
11 essentially abandoned what they alleged in the petition. You will not find in
12 their Reply any reference of vehicles moving at 60 miles per hour, anything
13 like that. What they have now said in their Reply, which is a new theory, we
14 submit, is that when a mobile device is stationary or slowly moving, it
15 would have used Park embodiments. That's their new Reply theory.

16 And we submit that the plain meaning of mobile device in this
17 field, based on Petitioner's expert's own book, based on the other reference
18 book they have submitted into evidence, means that a device that can only
19 practice the invention when it is fixed or slowly moving is not considered a
20 mobile device. Now, granted, a device can practice the invention sometimes
21 when it's mobile, sometimes when it's not, but if a device can only practice
22 the invention when it is not mobile, then it's not a mobile device configured
23 to practice the invention. It's just the plain meaning of how that term is used
24 in this field.

25 And going to Slide 34, Petitioner's expert agreed at deposition that
26 they are applying the plain and ordinary meaning of mobile device, but you

1 will not find an analysis of what that plain and ordinary meaning is.
2 Petitioners either of the two are correct, even though he has a book that
3 contradicts their opinion.

4 Now, Slide 35, we already touched upon this. So in this field, a
5 device that can only perform the relevant function here, the configurations of
6 Claim 7, it can only perform those when it is fixed or slowly moving. It's
7 not a mobile device configured to perform those intentions. And that's
8 based on Slide 35, Petitioner's expert's book.

9 And Slide 36, Petitioner's expert at deposition testified that even
10 pedestrian speed of 5 kilometers per hour was not considered mobile in this
11 field. And you have to decide what that dividing line is because the
12 references say slowly moving, the book says slowly moving is not mobile.
13 Same terminology. There's no specific speed that you have to decide is that
14 mobile or not.

15 Slide 37, Exhibit 1025, another reference they put in the record, is
16 consistent. Exhibit 38 -- I'm sorry, Slide 38, we already discussed. So in
17 this field, when we talk about a mobile device, a mobile station, mobility, we
18 are not talking about, for instance, the device has to be small and have a
19 hand user. Mobility, mobile device in this field is about can you do what
20 you're supposed to do when you are mobile? So, this is not like a user
21 interface patent. The issue here is the movement itself.

22 Now, going to Slide 39, I already highlighted this point. There is
23 no expert opinion that Petitioner has submitted on the plain meaning of
24 mobile device. They haven't submitted any other piece of evidence. They
25 haven't submitted any article that says a device that can only implement the
26 802.16 standard when it is a stationary or slowly moving is considered a

1 mobile device. There's just nothing in the record that supports their
2 position.

3 And their interpretation, going to Slide 41, essentially leaves out
4 the word mobile from the claim, because if their position is a device is
5 configured to perform the limitations when it is not mobile, but it can't
6 mobile in its spare time in the evening, that's not what the claim is about.
7 And the whole point of a mobile device that's configured to do something in
8 this field is the mobility itself.

9 Going to Slide 42, they point to the Specification that explains a
10 mobile device can be fixed or may move at some point. That's not really a
11 controversial point. The point is that the device needs to implement the
12 invention also when it is moving. And we already discussed the *Google v.*
13 *Neonode* case.

14 I also want to now briefly touch on the slowly moving aspect. So,
15 going to Slide 69, that's the last slide we have. We already established
16 that -- the evidence in the record established that even slowly moving
17 devices are not considered mobile in this field. That's Petitioner's expert's
18 verbatim language in this quote. So it's irrelevant whether the AMC region
19 of the frame can support slowly moving devices. But I want to highlight that
20 Petitioners have not even shown that. So they haven't even proven that the
21 AMC region can support slowly moving devices.

22 And to assess that allegation, let's weigh the evidence we have in
23 the record. The only piece of evidence, the only piece of evidence that
24 Petitioners have that even suggests AMC can use slowly moving devices --
25 again, nothing says mobile -- AMC can't even support slowly moving
26 devices. The only evidence they have is one bullet point in one slide in a

1 presentation by a Samsung employee. That's Exhibit 23 -- 1023. That's the
2 only evidence they have, not a scholarly article, not a peer reviewed article.

3 Petitioner's expert, as we have pointed out on Slide 69 on the left-
4 hand side, their expert at deposition said that Samsung, who produced that
5 presentation, had not succeeded in developing a mobile device for WiBro
6 even at the time of the invention. And Petitioner's expert had never even
7 seen the WiBro standard. So even if they did something to the AMC region
8 that could support slowly moving devices, we don't know if that would meet
9 the other limitations of the claim. So the only evidence they have is one
10 bullet point in one presentation, for a company that was not able to make a
11 mobile device that implements WiBro as of the time of the invention.

12 What is on the other side of the scale? Their expert, at deposition,
13 stated that WiBro -- again, the same WiBro -- uses the band AMC region for
14 fixed users. The WiBro article says WiBro uses the band region for the
15 fixed users. There's a WiMax article which uses the same 802.16 standard
16 that also says the AMC region is for fixed devices. So, even though slowly
17 moving devices are not mobile anyways, they haven't established even that.

18 Are there any questions on the mobile device part that I can
19 answer?

20 JUDGE BELISLE: Counsel. Judge Belisle. This question may be
21 better posed to Petitioner, but we've spent quite a bit of time talking about
22 the distinction between the diversity aspect and the band AMC region. Why
23 is the case not focused on the diversity side, then, if that's what applies to
24 the mobile environment?

25 MR. HENDIFAR: Because Park's -- okay, thank you for raising
26 that. Slide Number 6. Because the claim requires certain things to be done

1 by a mobile device. For those certain things that need to be done by the
2 mobile device, Petitioner undisputedly and exclusively rely on Park
3 embodiments. And Park embodiments, by their own terms, are for the AMC
4 region. Park doesn't apply its embodiments to the diversity region. It
5 doesn't say you could apply its embodiments to the diversity region. There
6 is no analysis from Petitioner that a POSITA would even be able to apply
7 Park embodiments to diversity region. So that's why they're focused on the
8 AMC region of the frame.

9 JUDGE BELISLE: Thank you.

10 MR. HENDIFAR: Going to Slide 44 -- and I'm probably going a
11 little bit into my rebuttal time, and that's fine.

12 JUDGE DROESCH: You have eight minutes left.

13 MR. HENDIFAR: I hope I'll finish in eight minutes, but we'll see.

14 Going to Slide 45, the claim requires that the segments that's
15 allocated to that mobile device comprising N time-frequency resource units,
16 where N equals 2, 4, or 8.

17 Now, Your Honor asked if there is anything in the prosecution
18 history. There is no Office Action in the prosecution history, but if -- I'll get
19 the page number. The claims initially -- and that's Exhibit 1002, the file
20 history. The claims initially only recited N being an integer. And then,
21 later, they were amended to be N equals 2, 4, or 8.

22 There is no Office Action that I could find, or Applicant statement,
23 that explains why that happened. But, on its face, it suggests that the claim
24 was narrow for a purpose. If N could be anything, then there would have
25 been no need to narrow it to 2, 4, and 8. But I will get the page number. But
26 that's toward the bottom of Exhibit 1002, the initial application that was

1 submitted.

2 Going to Slide 46, Judge Jung asked if Park has any embodiment
3 that limits N. It does not, and that's undisputed. Slide 46. Park basically
4 says N can be anything, have at it. And that's the issue. The issue is not that
5 Park discloses N equals 2; the issue is that the claim, as we'll show, requires
6 a set of N, where if you use that set, you get certain benefits that if you could
7 just use anything you couldn't.

8 So the issue is limiting it to a specific set that allows you to save a
9 control messaging, that allows you to address -- and I'll get to those later --
10 that allows you to address the irregular second allocation of the prior art,
11 which Park still does not address. So the point is limiting N to those specific
12 values allows you to get benefits that if N could just be anything does not get
13 you there.

14 And we submit, and we will try to prove, and will prove, I believe,
15 that both the plain meaning and Specification support Patent Owner's
16 position on what this issue is. So this is not a case where the plain meaning
17 is broad and we are trying to have a narrow reading of it. This is a case
18 where we believe and have Federal Circuit cases that said comprising here
19 means, and I'm quoting Federal Circuit, having but not having at least.
20 That's language from Federal Circuit PTAB cases. District court cases,
21 we'll get to those cases.

22 So it's not a case where the claim is broad, we are trying to use the
23 specs to narrow it. This is a case where the plain meaning of the claims is N
24 equals 2, 4, or 8. It doesn't say N can equal at least 2, 4, or 8. It doesn't say
25 any of that; integer, which was initial claim. So our position is plain
26 meaning confirms that. Specification further confirms that, but I just want to

1 emphasize this is not a case, at least in our view, that the plain meaning is
2 just broad and we are trying to narrow it based on this set of rules.

3 So going to Slide 47, Mr. Alberth submitted a Declaration, and
4 some of these points may contrast the credibility. All of this is purely claim
5 construction. I agree with my friend on the other side for the N limitation is
6 purely claim construction. But the part of claim construction is what a
7 POSITA would understand within the claims in the context of the Spec.
8 And they did not depose our expert. There is nothing in the record that
9 shows any inconsistency with Patent Owner's expert Declaration. They did
10 not even depose him. They were so sure that there's nothing out there to get
11 that they didn't. And Mr. Alberth was the chief technology officer at
12 Motorola. He developed these devices. He is a very credible witness.

13 Their expert is very knowledgeable, Dr. Cooklev, but his IPR
14 testimony is not credible. I have slide after slide on how it contradicts his
15 book, it contradicts his deposition testimony, it contradicts the other
16 reference books and articles in the record. So to the extent Your Honors
17 need to reach expert's credibility, we submit Mr. Alberth should be given
18 more weight. They did not even depose him.

19 So Slide 47, Mr. Alberth explains that the plain meaning of the
20 claim says N equals 2, 4, or 8. It doesn't say N can equal at least 2, 4, or 8.
21 It doesn't say N equals at least 2, 4, or 8. It says N equals. And we have a
22 Federal Circuit case on Slide 47 that explains when the claim is specific as
23 to the number, adding elements eliminates an inherent feature of the claim.
24 And we will show that the inherent feature of the claim is by using that
25 specific set 2, 4, 8 to get benefits that an unbounded set would not achieve.

26 JUDGE BELISLE: Counsel.

1 MR. HENDIFAR: Yes.

2 JUDGE BELISLE: Judge Belisle. Same question I asked
3 Petitioner. What is the significance of N being 2, 4, or 8 versus any other
4 number?

5 MR. HENDIFAR: If you allow me about two minutes, I'll get to
6 the Specification and finish on time. I want to just finish the plain meaning,
7 and then I'll jump to the Specification. I don't want to disregard your
8 question, but I'm going to address it straightforward.

9 JUDGE BELISLE: All right.

10 MR. HENDIFAR: Slide 48, the Institution Decision preliminarily
11 disagreed with our position, but really the main reason that the Institution
12 Decision cited was use of the word comprising in the body of the claim to
13 argue that the claim is open-ended.

14 Now, we respectfully submit that the Federal Circuit binding
15 authority, it's a published decision, Federal Circuit, is clear that comprising
16 has an open-ended presumption only when it is a transitional phrase. When
17 it is in the body of the claim, it has its plain meaning, which is, and I'm
18 quoting the Federal Circuit, having but not having at least. Federal Circuit
19 decision quoted, and that's not a one-off case. That's not an outlier. We
20 have many cases that apply.

21 Going to Slide 50, PTAB has applied the *Moleculon* case. It
22 explained, in contrast, the word comprising here is in the body of the claim,
23 so it has no special legal effect. Therefore, consistent with *Moleculon*, we
24 interpret comprising here as having but not having at least. Same with
25 district court cases that we have also cited.

26 Going to Slide 51 -- I'm going to go back to Slide 49. I want you

1 to focus on the *Moleculon* quote and how similar the language in *Moleculon*
2 is to our case. And that's third line in Slide 49. Rotating a first set of cube
3 pieces comprising four cubes about a first axis. Petitioner said, okay.
4 Comprising four cubes. If there are five cubes, we still have at least four
5 cubes, so comprising four cubes is met. Federal Circuit said no.
6 Comprising here means having, not having at least. So you need to have
7 exactly four cubes.

8 And there are even cases with even closer language to our claim.
9 So going to Slide 51, that's a district court case that applies the *Moleculon*
10 case. In the *Barnes & Noble* case, the limitation at issue was the signal
11 comprising K different frequencies. And the reason I highlight this is that is
12 used a variable K, similar to our patent's variable N. So it doesn't even use
13 an actual number.

14 And even in that case, the district court said, Courts have held that
15 when used in the body of a claim, and not as a transition, the term
16 comprising should be interpreted according to the normal rules of claim
17 interpretation. It would be highly unusual for the writer to use the term
18 comprise as open-ended in this context given this express numerical
19 limitation.

20 So *Moleculon*, it's not an outlier. Even if it was an outlier, which
21 it's not, it's a binding Federal Circuit case. There is no rule that says you
22 need to have two binding Federal Circuit decisions for it to apply. One
23 binding Federal Circuit decision is sufficient, but it's not even an outlier.
24 We've provided case after case.

25 And I want to emphasize, Petitioners have not provided one case.
26 They have not provided one case that says comprising in the body of claim

1 is open-ended. There is not one case they have submitted. So they say
2 *Moleculon* is outlier. They don't have one case on the other side.

3 Going to Slide 52, Petitioner's only response to plain meaning is to
4 focus on the term comprising. They don't have an analysis of the claim
5 language divorced from what comprising is. All their focus is comprising is
6 open-ended, but that's already refuted by the Federal Circuit.

7 Going to Slide 53, the cases that Petitioners do cite all have
8 comprising as a transitional phrase. So, for instance, as shown in Slide 53,
9 reply pages 17 and 18 cite the *Gillette* case, and this is the claim in the
10 *Gillette* case: A safety razor blade unit comprising, and then the body of the
11 claim.

12 So in those cases, comprising was used as a transitional phrase and
13 therefore had the open-ended presumption. There is not a single case they
14 cite where comprising is in the body of the claim, nor do they cite a single
15 case that discredits, criticizes, undermines, or in any way refutes the
16 *Moleculon* case we have cited.

17 So going to Slide 54, we submit that all of the evidence in the
18 record -- plain meaning analysis, Federal Circuit case, PTAB's application --
19 are on our side of the claim interpretation, and Petitioner's focus on
20 comprising is incorrect.

21 Now, prefacing Your Honor's question on why it matters for N to
22 be limited to 2, 4, or 8. The Specification -- and let me jump to first, Slide
23 57. This is Table 1 in the Specification.

24 JUDGE DROESCH: Counsel, I just wanted to let you know that
25 you're going two minutes into your rebuttal time.

26 MR. HENDIFAR: Thank you so much. I have about maybe five

1 more minutes, and that's fine.

2 Going to Slide 57, what the inventors did was it relinked the
3 modulation and coding scheme with the unit size and have the unit size a
4 certain number. We're going to be able to use a single index, the MCSI
5 index on the left-hand side, to convey both the modulation and coding
6 scheme and the size of the segment allocated to the N.

7 So what the inventors did as that they linked all these variables
8 together. As a part of their linking, N ended up being 1, 2, 4, and 8. And by
9 doing that, they get multiple benefits, but one of them is that single index
10 MCSI on the left-hand side can convey the modulation scheme, coding rate,
11 and the size of the segment allocated to the N.

12 So going back to the slide -- and that's a high-level, but let me then
13 go into more detail. Going back to Slide 55, Dr. Alberth explains, and their
14 expert does say it's unfounded, but he does not actually tackle the content of
15 Mr. Alberth's Declarations. So they dispute it, but they don't provide any
16 analysis on why it's wrong.

17 Mr. Alberth explains that the limiting N to 2, 4, and 8, two distinct
18 benefits -- and this is from the Spec. We didn't just make it up. We have
19 citations from the Spec. that explained that. Two distinct benefits was
20 achieved. One -- I'll go through them one by one -- by eliminate N, we can
21 reduce overhead because you could use that single MCSI index to convey
22 multiple pieces of information, and two, you address what the Patent
23 explains the irregular arrangement of segments in the prior art.

24 Now, going to Slide 57, I already touched upon this. So by
25 limiting N to 1, 2, 4, and 8, that's a byproduct of the linking of all these
26 variables, which will then allow you to use one index on the left-hand side,

1 the MCSI index, to convey multiple pieces of information. So, therefore,
2 you're saving on overhead in the control messaging.

3 Now, my colleague pointed to the part in Park's Specification,
4 where it says, MCSI 1, MCSI 4, and so on and so forth in the Specification.
5 So that so and so forth, if you read that sentence carefully, it's not talking
6 about N values; it's talking about the MCSI values, which can be 1, 2, 3, and
7 4. It gave a 1 example, it gave an example of 4, but it can be 2, it can be 3,
8 so on and so forth. It's not talking about the portion of this text in the Patent
9 they point to, not talking about the N values, which is the value on the right
10 side of the chart. It talks about the MCSI value on the left-hand side of the
11 chart.

12 But the Patent also achieves a second benefit by limiting N in the
13 way that's claimed. That's Slide 58. The Patent explains that in the prior
14 art -- and I'm quoting the Patent here -- the allocated resources region is
15 irregular from connection to connection. What does that mean?

16 Going to Slide 59, and we have on Slide 59 Park's regions on the
17 left-hand side and the '450 Patent on the right-hand side. And as you'll see,
18 Park regions are all over the place. There's a big one and then there's a
19 small one that is long. I think the game name is called Tetris. Is that -- so
20 you can imagine a Tetris game. The '450 Patent will have a winning hand
21 and Park will have a losing hand. And as you see, Park's use of the region is
22 not efficient in any way. It has a lot of voids, all different shapes. That is,
23 by limiting and as described and by linking it to the segment size and the
24 modulation scheme, it's able to much more efficiently use that frame area
25 that's being allocated to the user.

26 Going to Slide 60, given that the plain meaning is clear, even if

1 there was any ambiguity, the Board should give way to what the
2 Specification explains is the benefit of the invention and not read the claim
3 so broadly so as just making the claim devoid of any of the benefit that the
4 invention was supposed to achieve.

5 Going to Slide 61, the Reply relies what they say is other values of
6 N described in the Patent Specification. The only other value of N that they
7 point to is N equals 1, and we point out that the claim addresses plural
8 values of N. N is the unit, so what the invention does is it defines a unit
9 that's larger than usual and then it assigns segments that are multiples of
10 that.

11 So the claim doesn't address N equals 1 because it's directed
12 toward the plural value of N. Now, we pointed this out in our Patent Owner
13 Response; they ignored it in their Reply. So you will not find in Petitioner's
14 Reply anything addressing this point which we have made that, yes, the
15 Specification says N equals 1, but the claim is addressing plural values of N.

16 Going to Slide 62, Petitioner's expert says, well, I can use the
17 inventor's road map and arrive at different sets of N that have the same
18 benefit. So, for instance, you use a different coding rate as a patent, a
19 different modulation and can have powers of three that have the same
20 benefits. Yes, it can, but you're using the claim's insight by linking those
21 variables and coming up with the sets of N. Even in Petitioner's expert's
22 example on Slide 62, if you use all values of N, you wouldn't get those of
23 the invention. You would have to use the specific set of 3 to the power of
24 7 -- 3, 9, whatever it is -- to get that benefit.

25 So his example actually confirms that you need the specific set to
26 get those benefits, not just anything. And in the context of the Specification,

1 the inventors figured a specific coding scheme and modulation scheme and a
2 specific segment size that they thought is more useful, which was 1, 2, 4, 8,
3 and they claim those. Somebody else wants to use that insight, use different
4 values of N, you might guessed, they haven't claimed those embodiments.

5 Any questions on the N?

6 JUDGE BELISLE: One question, Counsel. It's Judge Belisle.
7 If we put aside the issue of mobile and focus only on this N issue, why
8 would the skilled artisan not be familiar or have, you know, knowledge of
9 these types of coding patterns for purposes of selecting N?

10 MR. HENDIFAR: Sure. So the question is would it be obvious
11 for a POSITA to link all those variables together, define a segment size as
12 the invention does, and then limit N to just 2, 4, and 8. There is zero
13 evidence in the record that a POSITA would know how to do that. Zero.
14 Parks says N can be anything. If it was so obvious to limit N as claimed,
15 Park would have at least hinted to that.

16 But as you see in Slide Number 59, in Park, N is unlimited, so
17 there is zero evidence as to why a POSITA would know to look at Park,
18 which says N can be anything. We have the Figure, N is zero, N is not zero.
19 But it is 1 and it's 100 and it's 251, as my friend said. There's no evidence
20 that a POSITA can look at that and says, gee, I should have limited N to 2, 4,
21 or 8. There's no evidence of that.

22 JUDGE BELISLE: Okay.

23 MR. HENDIFAR: Thank you very much.

24 JUDGE DROESCH: Thank you. You have about four or five
25 minutes left in your rebuttal.

26 MR. HENDIFAR: Thank you.

1 MR. LEROY: So I'd like -- oh, I'm sorry. Are you all set?

2 JUDGE DROESCH: Yes.

3 MR. LEROY: May I proceed?

4 JUDGE DROESCH: I believe you have 20 more minutes because
5 I think you did not use 6 minutes of your primary time.

6 MR. LEROY: Thank you. Thank you, Your Honor.

7 In my rebuttal, I'd like to take up the claim limitations in the same
8 order, beginning with mobile device and then the N value. As anticipated, a
9 fair amount of the Patent Owner's argument on whether the Petition and the
10 materials cited in the Petition would demonstrate to a POSITA the
11 application of Park in mobile devices, which spent about 20 to 30 minutes
12 talking about other materials, such as Mr. Cooklev's book, an Eklund book,
13 and there are variety of references that are not part of our Petition that the
14 Patent Owner relies on to say they failed to disclose the invention.

15 And the question is not how would a POSITA interpret materials
16 that are not cited in the Petition as a basis for the petition. The question is
17 how a POSITA review the materials we're relying upon, which in this case
18 is Park, Exhibit 1005, together with the Samsung publication, which is
19 Yoon, which is Exhibit 1023, as well as some admissions that are in the
20 background in the invention of the '450 Patent.

21 And just stepping back, Your Honors, you could have an entire
22 industry, you could have every textbook, every treatise going in one
23 direction. If you have one printed publication or a combination of two
24 printed publications that proceed against conventional wisdom, but define a
25 claimed invention, it's disclosed. Section 102 of the Patent Act doesn't say
26 you have to have an industry that agrees with you or defines a claimed

1 invention. It says you can have just one publication, or in some cases, more
2 than one.

3 And so I just want to refocus us back on the materials that we've
4 cited and identify very clearly not just -- our argument isn't just that Park
5 could be used in a system with mobile devices and devices that aren't mobile
6 or that WiBro didn't do the same. Our argument, demonstrated by the
7 evidence, which we're going to show you so we're very clear, is that in Park,
8 which applies to mobile systems, which expressly include WiBro, in WiBro,
9 band AMC is used for mobile devices.

10 And as Patent Owner's representative indicated, the Park
11 innovation is to band AMC, so if in WiBro, mobile devices were using band
12 AMC and were combining with Park, we arrived at the invention, the
13 utilization of Park's innovation on band AMC in mobile devices.

14 This is Demonstrative Slide 9. This is Exhibit 1023, the Samsung
15 Yoon reference. This is it. This slide, which Patent Owner describes as --
16 well, not peer-reviewed, not scholarly, and visionary. I think that was the
17 word used in the papers anyhow. This slide answers the question. You can't
18 undo what it stated here with other documents because these are the
19 documents on which the Petition is based, these are documents on which a
20 POSITA would rely to answer the question.

21 And the bullets state a band selection AMC and diversity
22 subchannel, so this is Samsung who's behind WiBro. Okay? They're
23 telling the public and POSITAs how do we use band AMC and diversity,
24 and does it say that only fixed devices use band AMC? Does it say that? It
25 does not. It says that mobile stations -- first of all, they ask, Am I moving?
26 Based on monitoring channel status, would I like to use band selection AMC

1 for communication or would I like to use diversity subchannel? And it says,
2 slowly moving users might use the AMC subchannel.

3 So all users are receiving both band AMC and diversity. Those
4 individual users, the tower doesn't know who they are. The tower doesn't
5 know if it's a refrigerator connected to Wi-Fi or with a cellular connection or
6 whether it's a phone in my pocket or a telematic system in a vehicle. It
7 needs that device to say, would you like to use band selection AMC or
8 would you like to use diversity? That's what this slide teaches.

9 This is not about an expert or an expert's book or interpretations
10 about a direction that an industry was going in. That's not what this is
11 about. It's about what does the document say about a POSITA, and this
12 slide conclusively resolves that.

13 JUDGE BELISLE: So Counsel. Judge Belisle. Can a fast moving
14 user -- can that device use band AMC?

15 MR. LEROY: That would depend on the channel status. That's
16 what this slide says. If a fast moving user has sufficient channel quality, it
17 can use band AMC, and there would be a reason for that because band AMC
18 has a higher throughput. It just depends on the quality of your channel. The
19 quality of your channel decreases, which would typically happen for faster
20 moving vehicles, so the reality is the faster you go, lower your channel
21 quality, it would indicate that to the base station as indicated as Slide 9 and
22 use the diversity subchannel. So in general, something moving very quickly
23 would use diversity, and something moving more slowly might use band
24 AMC, but they're all mobile devices.

25 JUDGE BELISLE: But --

26 MR. LEROY: And that's a --

1 JUDGE BELISLE: So let's stick on what you just said. Fast
2 moving would use diversity, slow moving would use band AMC. Is that
3 what you just said?

4 MR. LEROY: Slower moving would, yes. And our expert, in his
5 second Declaration, explained where that line is is not very sharp. You
6 know, it depends, and it really depends on other things. It's not like there's
7 an algorithm that says, are you moving over 60 miles an hour? Then only
8 use diversity. It's just looking at the quality of the channel, which could be
9 interfered with by all sorts of things.

10 But to answer your question, generally speaking, fast moving
11 devices would benefit from diversity, or said another way, slow moving or
12 stationary devices would benefit from the enhanced throughput through band
13 selection AMC, which is just generally available for poor connections.

14 JUDGE BELISLE: And it's your position that Park, the
15 disclosures of Park apply not only to band AMC but also to the diversity
16 subchannel?

17 MR. LEROY: No. To be clear, we agree that the innovation of
18 Park applies to band AMC, but mobile devices use band AMC, and that's
19 what this slide says.

20 JUDGE BELISLE: Okay. But I think the rub here is when all of
21 us use this word mobile, I think we're all using a different meaning for that,
22 meaning we have stationary and we have really, really fast moving, but
23 somewhere in between there, we have disclosures using the reference of
24 slowly moving. And the slowly moving tends to be tied with fixed.

25 So it's like the references seem to disclose fixed or slowly moving
26 as if that's different than something else, such as fast moving. I'd like to

1 have clarity on whether or not Park, in your view, applies to a fast moving
2 mobile device versus what is disclosed in one of your expert's books as
3 stationary or slow moving versus not stationary or slow moving.

4 MR. LEROY: Sure. So I think the issue here is are we going to
5 add motion or a speed limit, if you will, to the claim, because -- and this is a
6 point I want to make very clear. All of the devices in WiBro as described by
7 this reference are mobile devices. It says right there on page 9, mobile
8 stations request. Okay? So they're all mobile devices. The only question is
9 what's their status, their temporal status. Are they moving quickly or
10 slowly, or would you call them fixed? Whatever label you would put on
11 them, I don't think there's a genuine basis to dispute they are mobile devices
12 because that's what this slide says.

13 It's our position, based on just the claim language as written, that
14 this claim requires in inanimate mobile device. It doesn't require it perform
15 at any specific speed. And it's also disputed at the very least -- and I think
16 we're in agreement on this -- at the very least, a slowly moving mobile
17 device, which is what is described on Exhibit 2023, page 16 in
18 Demonstrative Slide 9, leverages band AMC, and that a person of skill in the
19 art wouldn't look at the claim and say, well, that doesn't apply because it's
20 not a mobile device. Well, of course it's a mobile device. And if the Patent
21 Owner wanted to limit the claim to a mobile device going above whatever
22 the heck slowly moving means, they should have claimed it.

23 And Your Honors in the Institution Decision have already
24 acknowledged this, that it's not a method claim and there's no specific
25 motion implied. And the prior art of record says that mobile devices use this
26 while moving slowly and clearly, while stationary. But they're still mobile

1 devices. That's our argument.

2 And that's why I said earlier that we can construe what a mobile
3 device is, we can debate that, but the prior art of record teaches a POSITA
4 that the innovation of Park applies to them, because Park expressly says, My
5 invention relates to next-generation mobile systems, not next-generation
6 fixed systems, next-generation mobile.

7 We have Exhibit 1023, which is in front of us, which Park is
8 expressly applied to, which is WiBro. And Park also says you can apply his
9 innovation to 802.16, and I have it here for Your Honors. I've highlighted.
10 This is Exhibit 1001. It's the '450 Patent. This is challenged Patent. It
11 says, on column 1, lines 42 to 44, the 802.16 provides -- or establishes
12 multiple packet screens for each mobile station. Their own Patent says
13 802.16, which is exactly what Park tells us to apply his invention to -- right
14 here, paragraph 75, 802.16.

15 So the challenged Patent acknowledges that 802.16 referenced in
16 paragraph 75 of Park supports mobile devices. No one is talking about --

17 JUDGE BELISLE: Counsel. Judge Belisle here.

18 MR. LEROY: Yes, Your Honor.

19 JUDGE BELISLE: Which 802.16 standard is that referencing?

20 MR. LEROY: Excellent question. To a POSITA, it's all of them.
21 I mean, all those known to a POSITA. It says, 802.16 standards, and every
22 one of them, Your Honor -- and I didn't say this before -- every one of them
23 had band AMC, whether it was 802.16 the first version, 802.16-2004,
24 802.16e. They all had band AMC, and they all benefited from the invention
25 of Park.

26 JUDGE BELISLE: Counsel, do you disagree that the skilled

1 artisan would not have understood 802.16-2004 not to apply to mobile
2 phones, mobile communication devices?

3 MR. LEROY: In isolation, just reading that document without the
4 documents we rely on in this Petition, I would agree with you. I mean, it
5 says fixed. There's a lot of debate about whether it was used for mobile
6 systems, but we know that both Park -- you know, Park was an inventor,
7 after all. An invention is taking prior art and advancing it, and he advances
8 802.16 in WiBro. Here, I will show you. The Exhibit 1023, because this is
9 something that came up in the briefing, expressly says -- this wasn't in my
10 demonstratives, but it is expressly in their papers. WiBro, which is mobile,
11 used 802.16-2004 and 802.16e.

12 And Your Honor asked Patent Owner a question: Was 802.16e
13 known in 2004? I believe he said either no or I don't know. And it
14 absolutely was. It's referenced on page 23 in Exhibit 1023. It's also
15 asserted by Patent Owner that Figure 1 of Park is 802.16e. So I think a
16 person of skill in the art reading the collection of materials that we are citing,
17 maybe they'd come to different conclusions reading other industry
18 publications and treatises and so on, but I don't know how you read this
19 record and come to the conclusion that Park's innovation, specifically for
20 band AMC, that a POSITA wouldn't recognize that it was applied to band
21 AMC, because that's what the documents say. And it doesn't really matter
22 if other documents say something else.

23 I was taking some notes. There was a reference during Patent
24 Owner's presentation. He says no mobile device is going to use band AMC,
25 and it is undisputed that mobile device can't use band AMC, and nothing
26 says mobile. This evidence, which is what we're relying on, just refutes

1 that. It is highly disputed, and it's Slide 16 and Exhibit 1023, together
2 with -- and I don't want to minimize the reference in Park of next-generation
3 mobile communications systems and some of the other things we've pointed
4 to -- but this is heavily disputed, and this is the evidence.

5 JUDGE BELISLE: Counsel.

6 MR. LEROY: Yes.

7 JUDGE BELISLE: Judge Belisle. So that statement you just
8 made, does that not depend on mobile being defined to include more than
9 stationary or slowly moving users?

10 MR. LEROY: I want to make sure I understand your question.

11 JUDGE BELISLE: You were saying the prior art that's being
12 asserted has mobile all over it, and so therefore, we should, you know,
13 basically continue with how we found in the Institution Decision and that we
14 shouldn't take what Patent Owner is saying about trying to move mobile
15 away to just being only, like, superfast moving users.

16 But when I hear your arguments, it strikes me that we keep sliding
17 back to Petitioner needing mobile to include slowly moving users. Is that
18 the case? If Petitioner could not rely on the slowly moving users to
19 constitute mobile, what would your case be?

20 MR. LEROY: Well, it would be the earlier bullets, says it depends
21 on channel status. The reality is slower moving users generally can benefit
22 from the band AMC, and higher speed users have a lower signal quality.
23 But it doesn't -- it's not -- my point is they're all mobile devices. The only
24 question is what's their status at any particular time. That's what this says.

25 And so, yes, slowly moving devices would be able to benefit from
26 a higher bandwidth, which is available in band AMC, so they would use it as

1 slowly moving devices. And in this example, higher moving devices
2 wouldn't. There's no real dispute about that. The issue is they're all mobile
3 devices, and whether they're using it or not -- really, there's no speedometer.
4 Okay? Nobody set a GPS monitor. It's just signal quality.

5 My phone -- I don't think many POSITAs back at the time of the
6 invention would think that my phone is not a mobile device because it's
7 sitting in my bookbag. It clearly is. It's there. The only merits question is
8 whether it was using Park's invention, because the claim is written. It's an
9 apparatus claim. It says mobile device. It doesn't talk about slowly moving
10 or fast moving. It's just is it a mobile device. And would a person of skill in
11 the art have considered that preamble limitation disclosed when faced with
12 not just Park saying his invention applies to mobile systems, but when we
13 get into the details, WiBro? An example -- this slide. I don't -- you know.

14 If the claim recited slowly moving or fast moving, or if there were
15 some other claim limitations, we would have the debate, but it's an
16 apparatus claim directed to inanimate objects that have certain capabilities.
17 And I don't know how -- yeah. This slide discloses slowly moving mobile
18 stations. It's what it said. Slowly moving mobile stations are using band
19 selection AMC, and that, from Petitioner's perspective, is sufficient to
20 satisfy the claim language.

21 JUDGE DROESCH: Counsel, you have about two minutes left of
22 your rebuttal time.

23 MR. LEROY: Thank you, Your Honor.

24 There was a chart where the Patent Owner showed the
25 Specification of Park, just the Specification, and noted that it doesn't use the
26 word mobile, that the reference to mobile is used earlier, doesn't use mobile

1 in the Specification. It also doesn't use the word fixed. And I think the
2 reason is because of what's disclosed in Exhibit 1023, page 16. These
3 devices, whether they're using band AMC or diversity, it just depends on
4 their momentary status, but they're all mobile devices. And that's why Park
5 didn't draw a distinction in the examples, but you can't deny a POSITA
6 would read Park as applying to mobile because that's what Park expressly
7 says.

8 Okay. On N equals 2, 4, and 8, and I tried to be forthright about
9 this, that we're not asserting that the use of comprising in the body of the
10 claim always means one or more. We're saying if there's a debate about it,
11 let's look at the spec. There was no pushback on the word representative.
12 The Specification says Table 1 is representative. That can only mean other
13 values can be used.

14 And the Specification also says that the MCS value is a 4-bit. It's
15 a 4-bit value. That's up to 16. Our expert presented N equals 16 as an
16 example, and there was no pushback in the Patent Owner's materials that
17 that was wrong or didn't achieve the benefits. It does achieve the benefits
18 for the reason our expert stated. So we think to the extent there's any
19 ambiguity in the claim language -- I don't think there is -- but to the extent
20 there is, under old-fashioned principles of claim construction, the intrinsic
21 record resolves that a system that satisfies N equals 2, 4, or 8 satisfies the
22 claim even if it has other values, and it certainly renders it obvious.

23 Do Your Honors have any other questions?

24 JUDGE BELISLE: Counsel, what do you make of the case law
25 that Patent Owner is citing regarding comprising in the body of the claim?

26 MR. LEROY: I guess at the end of the day, Your Honor, I agree

1 with the concluding statement that if comprising used in the body of the
2 claim, you got to look at the intrinsic record to figure out did the applicant
3 intend to limit it to just those values, or were those representative examples?
4 In our case, the table has N equals 1, so we already know that, you know, the
5 Applicant thought you could 1, and it satisfies the benefits which aren't
6 claim limitations to begin with anyhow.

7 JUDGE DROESCH: Okay. I don't believe there's any questions.
8 Thank you, Counsel.

9 MR. LEROY: Thank you, Your Honors. Thank you.

10 JUDGE DROESCH: I'll give you a minute to set up.

11 MR. HENDIFAR: Thank you.

12 Whenever Your Honors are ready.

13 JUDGE DROESCH: Thank you.

14 MR. HENDIFAR: So I want to highlight one point. Petitioner's
15 ground is based on Park in view of 802.16-2004. It's not based on Exhibit
16 1023. It's not based on anything else they cite. The ground is Park review
17 of 802.16-2004. Their expert is clear in his book, 802.16-2004 did not
18 support mobile users. Park is clear undisputed, its embodiments apply to the
19 AMC region, and Park says the AMC region supports fixed users. It's a
20 different region that supports mobile users. Park never describes its stations
21 as mobile. So the notion that somehow we are trying to contradict what Park
22 discloses is false.

23 They bring in Exhibit 1023 as extrinsic evidence to contradict what
24 Park says. They bring in -- I'm going to go -- it's Slide 9 of Petitioner's
25 deck. They go to Exhibit 1023 to say, no, don't believe what Park says. The
26 AMC region could also support slowly moving devices. So they are going

1 to extrinsic evidence to contradict Park.

2 And what we are saying is twofold: One is if they are going to
3 extrinsic evidence, there is your expert's books, there is five other pieces of
4 evidence -- all of it said, consistent with Park, that AMC does not support
5 mobile users. It's only for fixed stations. But even beyond that, even if --

6 JUDGE BELISLE: Counsel, let me just stop you there, just to
7 clarify what you're saying. Your position is that Park's disclosure regarding
8 the AMC band is only for fixed, and it would use its diversity for any form
9 of mobile, whether slow, medium, or fast.

10 MR. HENDIFAR: Well, slow moving is not mobile, so Park uses
11 the AMC region for fixed devices. It uses the diversity region for mobile
12 devices and for slowly moving devices. Park's position is, and I have on
13 Slide Number 35 on our deck, slowly moving devices in this field are not
14 understood to be mobile devices.

15 Now, I want to point out because that ends up being a semi-plain
16 meaning construction issue. My friend said, well, my cell phone in my
17 pocket is a mobile device. Everybody knows it's a mobile device. It doesn't
18 depend on movement. But what a mobile device means depends on the
19 context. A car may not ordinarily be understood as a mobile device. If you
20 have a user interface patent, nobody thinks of a car as a mobile device.

21 In this field, a car is a mobile device, and it's undisputed -- WiBro
22 supports 60 miles per hour car movement -- because what a mobile device
23 means in this field is not about the size of the device, the battery power.
24 What mobile device in this field means is can you do what you're supposed
25 to do when you are actually mobile. And the claim expressly requires
26 mobile, so the claim didn't have to say when you are mobile at 60 miles per

1 hour.

2 The claim requires a mobile device, and the plain meaning of
3 mobile device in this field requires not being only fixed or slowly moving,
4 based on the plain meaning of what mobile device is in this field. This is
5 Petitioner's expert's book. Don't take my word for it. And it's not just his
6 book -- their other book, Exhibit 1025.

7 And the expert deposition, Slide 36, he confirmed that. He didn't
8 say, Oh, no. Slowly moving really depends. We don't know. I asked him,
9 what do you mean by slowly meaning when you say, slowly moving is not
10 mobile? He said pedestrian speed is considered slowly moving. So he was
11 able to draw the line. He was able to say slowly moving is not mobile. So I
12 submit that everything you heard from my friend on the other side is
13 undermined by their expert's book.

14 Also, one more point. I want to go to Slide 68. Counsel keeps
15 pointing to the Patent's reliance on 802.16 standard, and I want to establish
16 their expert at deposition testified that the DL-MAP message that the '450
17 Patent modifies, meaning the message for region of the frame that the '450
18 Patent modified, is a different DL-MAP message than the one Park modifies.
19 So this is not a case where the '450 Patent is modifying the same
20 (INDISCERNIBLE) table as Park, and the '450 Patent is saying, oh, that
21 support mobile devices, and we are saying it doesn't.

22 Their expert at deposition said, on the top, Park modifies Table 97
23 in this standard. At the bottom of deposition, he said, the '450 Patent
24 modifies Table 16 in the later standard. So the fact that the patent says
25 802.16 and it doesn't say 2004 is mobile, that is neither here nor there
26 because the Patent is modifying a different part of the standard based on

1 Petitioner's expert than our expert is modifying.

2 So also the last point is, Slide 9 does not say, slowly moving
3 mobile devices. It says, you have a device. If it's slowly moving or fixed, it
4 gets AMC. If it's fast moving, it gets diversity. So this is entirely consistent
5 because even if AMC is allocated to fixed or slowly moving devices, their
6 expert in his book says that's not mobile.

7 So with that, if there are any questions, I'm happy to answer.

8 JUDGE DROESCH: I don't think there's any questions.

9 MR. HENDIFAR: Thank you very much.

10 JUDGE DROESCH: Thank you very much for your presentations,
11 Counsel, and please be available to answer any questions from our court
12 reporter. We are adjourned.

13 MR. LEROY: Thank you, Your Honors.

14 (Whereupon, the above-entitled matter went off the record at 12:09
15 p.m.)

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