

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MEDIATEK INC. and MEDIATEK USA, INC.,
Petitioner,

v.

NIPPON TELEGRAPH AND TELEPHONE CORPORATION,
Patent Owner.

IPR2020-01404
Patent 7,280,551 B2

Record of Oral Hearing
Held Virtually: Thursday, November 18, 2021

Before GREGG I. ANDERSON, CHARLES J. BOUDREAU, and
NORMAN H. BEAMER, *Administrative Patent Judges*.

APPEARANCES:

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The above-entitled matter came on for hearing on Thursday, November 18, 2021, commencing at 1:02 p.m. EST, by video/by telephone.

PROCEEDINGS

JUDGE ANDERSON: All right. Well, good afternoon I guess to most of us. This is a hearing for IPR2020-01404. The petitioner is MediaTek, Inc. and MediaTek USA, Inc. The patent owner is Nippon Telephone and Telegraph Corporation. The patent is U.S. Patent number 7,280,551.

Before we begin let's do a little bit of introduction. I am Judge Anderson. I am joined by Judges Boudreau and Beamer. We are participating via telephone conference and video. Keep in mind that the demonstrative exhibits are important to your presentation and to our understanding and be sure to identify them by slide number when you are discussing them so that we can follow your arguments.

Per the hearing order each party will have 60 minutes to present the argument it wants to. Because petitioner has the burden to show unpatentability of the original claims, petitioner will proceed first followed by patent owner. Petitioner may reserve time to rebut patent owner's opposition and patent owner may reserve time for surrebuttal. We do not have a timer available readily but we are going to keep track of the time and we will try to let you know, counsel know, the time remaining when you are nearing the end of your opening arguments but you should be aware of that as well.

At this time let's have counsel introduce themselves. So we'll start with petitioner who is going

1 to -- and you should also introduce anybody who is on the line
2 with you please. So petitioner, first who is going to take
3 the lead in the argument and then if there's anybody else to
4 introduce please do so.

5 MR. SPEED: Good afternoon, Your Honor. My name is
6 Nathan Speed. I'll be arguing on behalf of petitioners. I'm
7 joined by my colleague Rich Giunta as well.

8 JUDGE ANDERSON: I didn't get that second name.
9 Who is that?

10 MR. SPEED: Richard Genta, G-I-U-N-T-A.

11 JUDGE ANDERSON: I have seen Mr. Giunta's name and
12 I apologize for not picking that up.

13 All right. Patent owner, who is on the line for
14 patent owner and please introduce anybody else with you. You
15 are muted.

16 MS. LU: Apologies. Thank you for letting me know.
17 Good afternoon once again, Your Honors. My name is
18 Jacqueline Lu and I will be arguing on behalf of the patent
19 owner NTT. With me on the line is my colleague Steve
20 Daniels.

21 JUDGE ANDERSON: Ma'am, could you spell your name
22 for me please so I get it?

23 MS. LU: Yes. J-A-C-Q-U-E-L-I-N-E, last name is
24 Lu, L-U.

25 JUDGE ANDERSON: Yes. And just like Mr. Giunta, I
26 have seen your name as well so I apologize for having to ask
27 that but now I'm in good shape and we're all in good shape to

1 proceed.

2 We've not received any objections to the
3 demonstratives. We're going to proceed on the basis that
4 there are none. Unless somebody says something very quickly
5 that's how we're going. If you do have an objection to an
6 argument that's made by counsel, please save those for your
7 portion of the presentation and highlight them. We will keep
8 track of them. And for example, if you have a problem with
9 the scope of the argument being beyond the papers filed, say
10 that, explain it, and we will file that away in the
11 transcript record and we will deal with it come final
12 decision time.

13 I believe that's everything we need for right now.
14 Mr. Speed, how much time do you want to -- or do you want to
15 reserve any rebuttal time and, if so, how much?

16 MR. SPEED: Yes, I do. I would like to reserve ten
17 minutes if possible.

18 JUDGE ANDERSON: How much do you want?

19 MR. SPEED: Ten minutes, Your Honor. Sorry.

20 JUDGE ANDERSON: Okay. Ten minutes. Very good.

21 Ms. Lu, we'll get to you when it's your turn but
22 you might think about what you want too while Mr. Speed is
23 doing his argument. Okay. With that out of the way, Mr.
24 Speed please proceed.

25 MR. SPEED: Thank you, Your Honor. If we could
26 start with slide 6 of our demonstratives to begin this
27 afternoon. On slide 6 we see independent claims 1 and 5.

1 Claim 1 recites a method and claim 5 recites an apparatus
2 that performs essentially the method of claim 1.

3 As the highlighting indicates on slide 6, the
4 preamble of claim 1 recites three transmitting -- three
5 techniques for transmitting wireless packets. The first
6 technique highlighted in yellow transmits packets using two
7 or more wireless channels. Essentially, if you have two
8 channels and two packets you would use one packet on each
9 channel. The second technique highlighted in green uses a
10 single wireless channel in MIMO, also known as multiple
11 input/multiple output technology. The technical details of
12 MIMO are largely irrelevant in this proceeding. Conceptually
13 though, MIMO uses a single channel and subdivides it into
14 multiple MIMO subchannels each of which can be used to
15 separately transmit a wireless packet. And the third
16 technique highlighted in blue is a combination of the first
17 two. It uses multiple wireless channels and implements them
18 using MIMO techniques.

19 In addition to the three different transmission
20 techniques the claim recites two steps. First, the claims
21 require setting a mandatory channel that is always used for
22 transmission. And second, the claim requires transmitting
23 packets using a wireless channel or wireless channels that
24 include the mandatory channel and only when the mandatory
25 channel is idle.

26 JUDGE ANDERSON: Mr. Speed?

27 MR. SPEED: Yes, Your Honor. Your Honor -- I'm not

1 hearing your audio, Your Honor. I'm still not hearing your
2 audio.

3 JUDGE ANDERSON: Okay. Okay. I'm good now and
4 you're good too. So if you want to give a quick overview of
5 what you just said that might be helpful because I didn't
6 hear any of it.

7 MR. SPEED: Oh, my apologies. So I was just
8 walking through claim 1. It has three transmission
9 techniques where it transmits the packets in different ways.
10 It has two steps. The first step is setting a mandatory
11 channel that's always used for transmission and the second
12 step is transmitting the packets by using a wireless channel
13 or wireless channels that include the mandatory channel and
14 only when the mandatory channel is idle.

15 The correct interpretation of mandatory channel is
16 disputed by the parties in this proceeding, but the board
17 need not wrestle with that issue for it to consider the first
18 ground that I would like to address which is ground 2, the
19 Shpak-Lundby combination. That is the combination that the
20 board found at the institution stage warranted a trial.

21 If we turn to slide 12 we see the Shpak reference.
22 Shpak discloses a wireless communication system that uses
23 802.11 compliance access points. In Shpak's system there are
24 multiple access points in close proximity to one another and
25 they send data wirelessly to mobile stations in the system
26 using a common frequency channel. In addition to
27 communicating wirelessly with the mobile stations on the

1 common frequency channel, the access points also communicate
2 with one another by a wired connection. Now they do this so
3 that they can arbitrate amongst themselves to determine which
4 access point should respond to a mobile device that is within
5 the system and seeking to transmit data.

6 In practice, a mobile device enters the Shpak
7 system, sends up an uplink message to all the access points
8 on the common frequency channel, and then the access points
9 each receive that message and communicate with each other
10 over their wired connection to determine who is going to
11 respond to the mobile device. The winning access point, as
12 Shpak calls it, is the one that's been chosen to respond to
13 the device and it transmits data wirelessly to the device
14 over the common frequency channel. The second reference in -
15 -

16 JUDGE ANDERSON: So Mr. Speed, I've had this
17 question almost since the beginning of this case, and I know
18 you're going to get to Lundby here in a minute, but which of
19 Lundby and Shpak is your citation for showing the mandatory
20 channel? Is it the common frequency channel of Shpak or is
21 it the primary channel of Lundby?

22 MR. SPEED: So it would be the common frequency
23 channel of Shpak which would implement -- if we could turn to
24 slide 13 I might be able to address that more easily. Lundby
25 discloses a technique for optimizing communication systems.
26 It's pretty straightforward. It says sometimes you might
27 want to use two channels and it says there's a primary

1 channel and a secondary channel. In the proposed combination
2 the common frequency of Shpak is the primary channel that
3 Lundby describes. It's treated as a primary channel and it's
4 augmented with a secondary channel with the other available
5 802.11 channels. So we used common frequency channel/primary
6 channel interchangeably with the ground but the channel in
7 the actual implementation would be the common frequency
8 channel. It's treated as the primary channel when it's
9 implementing the teachings of Lundby if you will.

10 JUDGE BOUDREAU: Mr. Speed, this is Judge Boudreau.
11 I have a question about Shpak. Does Shpak disclose a
12 determination that the primary channel is or is not idle
13 before reaching its decision in this flowchart?

14 MR. SPEED: The flowchart on slide 13 is from
15 Lundby and Shpak --

16 JUDGE BOUDREAU: For the record, I'm referring to
17 the flowchart that's on slide 13, which is figure 2 of Lundby.

18 MR. SPEED: So Lundby is a CDMA reference. It
19 doesn't use carrier sense in the same way that the 802.11
20 system of Shpak would use carrier sense. The Shpak system is
21 802.11 compliant and there's no dispute that 802.11 compliant
22 access points use carrier sense as the standard technique to
23 assess whether a channel is idle or being used at that time.
24 So applying Lundby's teachings to Shpak you would maintain
25 the carrier sense functionality.

26 JUDGE BOUDREAU: My question is a
27 little bit different. My question is whether Shpak makes a

1 determination a primary channel is idle.

2 MR. SPEED: The winning access point would continue
3 to use -- would be 802.11 compliant, would continue to use
4 carrier sense to ensure that the common frequency channel is
5 available for use even in the novel arbitration scheme of
6 Shpak because there's going to be other access points or
7 other devices in the area that could be using that channel
8 for some other purpose and so it would maintain that carrier
9 sense functionality to ensure that the channel is idle when
10 it's being used.

11 JUDGE BOUDREAU: So you're saying that the
12 determination that it's idle is inherent in the 802.11
13 specification?

14 MR. SPEED: Yes. And in the petition we explain
15 that a person of skill in the art using Shpak and modifying
16 it in Lundby would not have altered the carrier sense
17 functionality that you have with those access points. So it
18 would continue to use carrier sense to determine whether or
19 not the channel is idle. There hasn't been any argument from
20 patent owner that Shpak doesn't sense the channel prior to
21 sending the data over it.

22 JUDGE BOUDREAU: Is there evidence in the record
23 that carrier sense requires the determination that the
24 channel is idle?

25 MR. SPEED: There is, Your Honor. The evidence
26 from -- the '551 patent itself conceived that carrier sense is
27 part of the prior art standard 802.11 system. Dr. Williams

1 in his opening declaration explained that carrier sense is
2 how 802.11 compliant Wi-Fi networks ensure that there's not
3 going to be any -- or try to minimize interference over the
4 channels and so it can -- so page 7 of the petition cites to
5 relevant testimony from Dr. Williams on the carrier sense
6 functionality that's inherent or a part of the 802.11 system.
7 Unless there's any further questions.

8 JUDGE BOUDREAU: Well, my question is really what
9 is there in the record that links carrier sense with the
10 determination that a channel is idle and following a
11 determination of -- following the designation of the
12 mandatory channel. As I think I understand what you are
13 arguing, the mandatory channel is selected based on carrier
14 sense but the claim requires a determination that the
15 mandatory channel is idle after the mandatory channel is
16 selected. And so my question is really whether Shpak
17 discloses a determination that the mandatory channel is idle
18 after the mandatory channel has been selected?

19 MR. SPEED: I think I understand the question. In
20 Shpak the access points, prior to wanting to transmit data to
21 any device, they agree that we're going to set the common
22 frequency channel as the channel over which we're going to
23 transmit data. When they receive an association request from
24 a mobile device they all talk to each other and say, okay,
25 access point 1 you're the closest, or for some other
26 parameter, you're the one that's going to respond. So that
27 winning access point then knows it's supposed to respond to

1 the mobile device. Using 802.11 -- in accordance with the
2 802.11 standard that access point would then sense the
3 channel to ensure that it's still idle before it transmits
4 data to the mobile device because if the channel was not idle
5 then the transmission would not be able to go through to the
6 mobile device.

7 JUDGE BOUDREAU: All right. I think I understand
8 your position.

9 MR. SPEED: Okay. In page 45 as well in the
10 petition, that's where we also cite evidence from Dr.
11 Williams specific to this issue of whether or not the access
12 points in the modified environment would still use carrier
13 sense and so there's additional evidence at that point.

14 If we turn to slide 14, in the proposed combination
15 what the petition set forth is that a person of skill in the
16 art in light of Lundby's teachings of the benefits of
17 augmenting a channel with a secondary channel, they would
18 have applied that to Shpak such that Shpak's common frequency
19 channel, which is in the language of Lundby the primary
20 channel, can be augmented on an ad hoc basis by a secondary
21 channel, one of the other 802.11 available channels, and
22 that's shown at slide 14. As the petitioner explains --

23 JUDGE ANDERSON: So it's -- your basis for going
24 from this -- we don't have any dispute here that Shpak -- and
25 I have a hard time pronouncing that. I apologize to him in
26 absentia. We don't have any dispute that that is a single
27 channel.

1 MR. SPEED: Right. The common frequency channel is
2 a single channel.

3 JUDGE ANDERSON: And there are -- right. And Shpak
4 doesn't disclose multiple input/multiple output, MIMO, right?

5 MR. SPEED: Correct.

6 JUDGE ANDERSON: Okay. So the combination -- the
7 reason for the combination that you're advancing here is that
8 a person of ordinary skill would like more bandwidth and we
9 show more channels in Lundby -- one more, but more -- and
10 that would suggest to a person of ordinary skill in the art
11 to modify Shpak to add additional channels.

12 MR. SPEED: Correct. If we look at slide 15 of our
13 demonstratives, that's where we set forth one of the bases or
14 reasons that would have motivated the combination.
15 Specifically, it's the ability -- it provides the winning
16 access point, the access point in Shpak, the ability to on an
17 ad hoc basis augment the bandwidth that is provided to a
18 mobile device for a client. And an example of when that
19 would be beneficial to do would be if the access point
20 determines that the mobile device is requesting a significant
21 amount of data such as streaming a video. It determines
22 that -- on the winning access point I determine that my
23 mobile device wants to stream data and it would be beneficial
24 to give it an additional channel of bandwidth. It then
25 proceeds to provide that second channel as a supplemental
26 channel for the device.

27 JUDGE ANDERSON: But Shpak is always active, isn't

1 it? I mean it's never idle, the channel there.

2 MR. SPEED: Sorry. I don't think I'm following
3 the -- the common frequency channel would only be active if
4 someone is -- if one of the devices is communicating over it.

5 JUDGE ANDERSON: So go ahead. I want you to tell
6 me. I'm here to hear you. Go ahead.

7 MR. SPEED: Yeah. So in the system all the access
8 points are told we're going to communicate on this common
9 frequency channel. A device comes in and says I would like
10 to talk to somebody and the access point says, okay, access
11 point A, you're going to talk to the mobile device and
12 they'll have their transmissions. And if that device leaves
13 then the common frequency channel is idle and not being
14 active. So it's not always used. It's only used when a
15 device is requesting data from the access point in the
16 system. And so with the combination we provide the
17 additional benefit that when the access point is
18 communicating with the device if it determines that it would
19 be beneficial to increase the bandwidth what they do is they
20 just add a second channel and provide that second channel on
21 an ad hoc basis to provide the bandwidth augmentation, as we
22 call it, for that particular mobile device.

23 JUDGE ANDERSON: Well, just because it's beneficial
24 to have more bandwidth -- we'd probably all agree to
25 that -- the issue in the claim is, as Judge Boudreau was
26 touching on, the determination of whether or not that
27 mandatory channel, the common frequency channel, is idle. So

1 to go back a little bit, you're saying that the common sense
2 multiple access sensing determines whether there is in
3 fact -- I'm going to use the word traffic, I'm not sure it's
4 actually accurate -- on the single channel of Shpak. Right
5 so far?

6 MR. SPEED: I believe that's correct, yes. On page
7 45 of the petition we explain that because Shpak's access
8 points are 802.11 compliant. There would be no reason to
9 remove that compliancy. And so when the common frequency
10 channel -- when an access point wants to use the common
11 frequency channel it will sense it using carrier sense to
12 determine whether or not there's a transmission occurring on
13 it whether it's from another access point that isn't part of
14 the arbitration scheme or a different device.

15 JUDGE ANDERSON: Okay.

16 MR. SPEED: And then if it's idle it can then
17 transmit data to the mobile -- it says to the mobile device,
18 I'm here, let's transmit data, and at that point it enters
19 into Lundby's figure 2 method and says is this a situation
20 where it makes sense to augment my common frequency channel
21 with a secondary channel? And if so it augments the
22 bandwidth for that common frequency channel.

23 JUDGE ANDERSON: Okay. Go ahead.

24 MR. SPEED: All right. If we turn to slide 18, the
25 dispute between the parties in the briefing is fairly focused
26 here. There's no dispute that POSAs could have implemented
27 the proposed combination as we set forth. There's no dispute

1 that there would be benefits to augmenting bandwidth. And
2 the real dispute is shown on slide 18 from the patent owner's
3 slides which is patent owner's position is that if you are
4 going to add a second channel to Shpak you would just make it
5 an independent channel that could be used. So rather than
6 having a true secondary channel it would just be another
7 channel that could be used independent of what's going on
8 with the common frequency channel. And as we see on slide
9 18, they allege that that what I'll call channel independent
10 type of implementation is consistent with Shpak. And we
11 disagree. It's completely inconsistent.

12 If we turn to slide 22 to begin, in Shpak the
13 common frequency -- or sorry. In patent owner's channel
14 independent implementation Shpak's common frequency channel
15 is no longer the primary channel in the system. It's simply
16 another channel that can be used when idle but it need not be
17 used. That implementation ignores the fundamental nature of
18 the common frequency channel in Shpak. It has a special and
19 central purpose in Shpak's novel arbitration scheme.

20 As seen in figure 3 of Shpak, it's the channel over
21 which all the access points transmits beacons. It's the
22 channel that the mobile station uses to receive beacons from
23 the access points. And it's the channel that the mobile
24 device then uses to send an association request to the
25 various access points. Only when the access points receive
26 that association request over the common frequency channel
27 does Shpak's novel arbitration process begin at all. And

1 when the winning access point is identified, that access
2 point uses the common frequency channel to transmit the
3 packets to the mobile device.

4 In Shpak -- again, we're modifying Shpak. In Shpak
5 the common frequency channel has a central -- is a central
6 critical channel for the arbitration scheme. Petitioner's
7 proposed implementation -- our implementation keeps the
8 common frequency channel as that primary central channel in
9 the system and simply augments it on an ad hoc basis when
10 needed. That's entirely consistent with Shpak's treatment of
11 the common frequency channel as the principal or primary
12 channel within its system.

13 Our combination is also consistent with Lundby. If
14 you turn to slide 23, as the petition explains, patent owner
15 concedes, and the panel correctly found in the institution
16 decision, Lundby discloses only two options: use the primary
17 channel or use the primary channel along with the secondary
18 channel. It never discloses using two channels
19 independently. That Lundby also calls its channels
20 fundamental and supplemental at column 14 underscores their
21 distinct roles, roles that are consistent with our proposed
22 implementation which the common frequency channel maintains
23 its fundamental role in the system and the second channel
24 serves as a true supplemental channel. It's petitioner's
25 proposed implementation, not patent owner's alleged default
26 channel independent implementation, that is most consistent
27 with Shpak or Lundby. That should be fatal to patent owner

1 on ground 2 because there's no dispute that if the
2 combination is implemented as petitioner has proposed then
3 the challenged claims would have been obvious.

4 Apart from being consistent with Shpak and Lundby
5 there's also no dispute that our proposed combination is
6 better at achieving the bandwidth augmentation benefits that
7 the petition identified as motivating the combination. If we
8 turn back to slide 19 -- all of these are going backwards.
9 Again, at slide 19 we see the petition. The petition
10 identified the motivation for the combination as the desire
11 to augment bandwidth for a particular client. If you're
12 servicing a client you want to augment it for something like
13 streaming video.

14 And if we turn to slide 20, Dr. Williams explained
15 in his reply declaration using the images that we see on
16 slide 20 that petitioner's proposed implementation better
17 achieves that augmentation benefit. We can see on the left-
18 hand side of slide 20 there is patent owner's channel
19 independent implementation and on the right-hand side is the
20 petition's what I'll call bandwidth augmentation
21 implementation.

22 At time T0 they're the same. They're both
23 servicing a client in the system. At T1 you start to see a
24 difference which is in patent owner's proposal of what they
25 said the default implementation would be at that point
26 because the channels are used independently. If another
27 device came into the system it would be immediately serviced

1 with that other channel if it was available. In our proposed
2 combination the other client would not be immediately
3 serviced because you only use the secondary channel when it's
4 being used to augment the common frequency or primary
5 channel.

6 And then when we get to T2 we see the benefit of
7 that. The benefit is that when the second -- when the new
8 client enters the system and it captures the common frequency
9 or primary channel it's immediately able to augment its
10 bandwidth because the secondary channel has been held in
11 reserve for that purpose. So as soon as the client comes in
12 if it says to the access point I need more data, send me
13 data, it immediately is allowed to do that.

14 In the patent owner's proposal that's not true
15 because the channels are used independently. As soon as one
16 channel is done being used to service a client it becomes a
17 contested channel and there's no guarantee that the new
18 client, even if it wants to have augmented bandwidth, would
19 be able to capture that channel. It's a contested channel.
20 It's not reserved for that purpose.

21 And if we turn to slide 21, Dr. Williams in his
22 reply declaration, he explained all of this. He explained
23 the benefits and why the petition's proposed combination
24 achieves the reason for the combination better than the
25 default -- the alleged default in patent owner's proposal.
26 Patent owner chose not to depose Dr. Williams regarding his
27 reply testimony and thus his testimony that we see on 21 and

1 the images he talked about on 20, it's all unrebutted at this
2 point.

3 So to summarize, our combination is not only the
4 one that's most consistent with Shpak and Lundby's teachings,
5 it's also the one that achieves the rationale -- that best
6 achieves the rationale petitioner has identified for
7 motivating the combination in the first place.

8 And if we turn to slide 24 we can see some of the
9 arguments that patent owner has raised against this
10 combination. At slide 24 they first argue that POSAs desired
11 increased speed would not have led to our proposed
12 implementation. This fails for two reasons.

13 First, patent owner only supports it with testimony
14 from their expert Dr. Geier and that testimony really
15 repeats -- it's literally verbatim the response's conclusion
16 without any independent analysis or corroborating evidence
17 and the board has previously found such testimony to be
18 entitled to little or no weight.

19 Second, patent owner's suggestion that a POSA
20 desiring to increase speed would design the system to send
21 data whenever a channel is idle ignores that the speed the
22 petition sought to improve was not overall system speed but
23 the speed of a particular access point to client
24 communication. We were focused on particular access point to
25 client communication. We wanted to get ad hoc bandwidth
26 augmentation for particular devices. That's explicit at page
27 42 of the petition. And there's no dispute on this record

1 that our petition's proposed combination is the one that best
2 achieves that benefit.

3 If we turn to slide 25, patent owner faults Lundby
4 and Shpak for neither -- attacks them in isolation and says
5 that neither talks about the power leakage problem that the
6 551 patent purportedly solved, but the law is clear that the
7 motivation to combine references need not be the same
8 motivation that the patentees had. So this argument is a
9 non-starter.

10 If we turn to slide 26, again attacking Shpak in
11 isolation. Patent owner argues that Shpak is not a multi-
12 channel system. That's both wrong and largely irrelevant.
13 It's wrong because it's an 802.11 system so there are
14 multiple channels and Shpak's access point select one of the
15 14 available channels as their common frequency channel. So
16 it's a multi-channel system. They set one as the common
17 frequency channel. It's also irrelevant because the issue is
18 not what does Shpak say per se, it's what's in the
19 combination. In the combination indisputably we've added a
20 second channel so it's a multi-channel combination.

21 If we turn to slide 27, patent owner also argues
22 that Lundby does not address the decision of whether to
23 transmit or not, but again this ignores that in the proposed
24 combination the decision to transmit, and we've kind of
25 touched on this already, it comes from Shpak. Shpak
26 discloses a use of carrier sense to transmit when a channel
27 is idle and its access points would not transmit over the

1 common frequency channel unless it was idle. We made this
2 point at page 45 in the petition.

3 So in Shpak-Lundby the access point continued to
4 use Shpak's carrier sense and transmit only when the common
5 frequency is available. If the common frequency channel is
6 not idle then the winning access point would never check to
7 see whether it would be beneficial to use two channels and
8 thus if the common frequency was not idle then the access
9 point would never transmit over the secondary channel. As
10 patent owner itself notes, Dr. Williams repeatedly explained
11 at his deposition that Lundy's figure 2 method would only
12 have been performed after the winning access point determined
13 if it could send data over the primary channel. That Lundby
14 does not disclose the decision to transmit is therefore
15 irrelevant because that teaching comes from Shpak in the
16 proposed combination.

17 And then if we turn to slide 28, in its sur-reply
18 patent owner argues that the proposed combination fails
19 because nothing in it suggests permanently reserving a
20 secondary channel. That argument fails. To begin, there's
21 no limitation in the challenged claims requiring that a
22 channel be held in reserve, but the claims require that you
23 have a channel that is always used for transmission. Shpak's
24 common frequency channel is such a channel. It's always used
25 for transmission in Shpak.

26 The relevant question then becomes if you modified
27 Shpak to add the ability to use a second channel would you

1 modify the common frequency channel so it's no longer always
2 used for transmission? The petition provided reasons why
3 POSAs would not modify the central role that the common
4 frequency channel plays in Shpak and, as I explained earlier,
5 those reasons are completely consistent with the teachings of
6 both Shpak and Lundby. Lundby need not explicitly disclose
7 reserving a secondary channel when, as here, a natural
8 consequence of applying Lundby's literal teachings to Shpak
9 to achieve ad hoc bandwidth augmentation would be that a
10 secondary channel is reserved only for such augmentation
11 purposes.

12 And if we turn to slide 29 to summarize this
13 ground, Shpak-Lundby's common frequency channel is a
14 mandatory channel under any proposed interpretation of the
15 term. Patent owner does not contend otherwise. Their only
16 argument against it is on whether or not you would actually
17 implement it as we identified in the petition. We've
18 established why express teachings from Lundby and Shpak would
19 have led to that combination and Dr. Williams' unrebutted
20 reply testimony corroborates that rationale. Unless there's
21 any questions on Shpak-Lundby ground I'll move to ground 1 in
22 the mandatory channel issue.

23 JUDGE BOUDREAU: Mr. Speed, this is Judge Boudreau.
24 I noticed that you haven't addressed claim construction. Does
25 your argument with respect to the Shpak-Lundby ground depend at
26 all on the construction of mandatory channel?

27 MR. SPEED: It does not. There's no argument that

1 any of the parties or the board's proposed claim
2 constructions would impact the Shpak-Lundby ground. The
3 construction of mandatory channel influences the ground 1.
4 It could be dispositive for ground 1 and it's also relevant
5 for ground 3 and that's where I was about to turn to now.

6 JUDGE BOUDREAU: And that would be the case even if
7 we were to adopt patent owner's construction of mandatory
8 channel as "one channel on a wireless multi-channel
9 communication system whose idle state determines whether
10 there can be a transmission over the other channels"; is that
11 correct?

12 MR. SPEED: That's correct because in Shpak -- in
13 our combination you would have two channels: the common
14 frequency channel and then the second channel that's
15 augmenting it, and you would never transmit over the second
16 channel unless the common frequency channel was idle because
17 you always attach it with the common frequency channel. So
18 it would satisfy patent owner's proposed construction if the
19 board adopted that.

20 JUDGE BOUDREAU: Thank you.

21 MR. SPEED: No problem. If we could turn to slide
22 31. So in ground 1 the petition established that a POSA
23 would have had reason to implement Shpak's common frequency
24 channel such that it was a MIMO implemented channel. In no
25 dispute the POSA's would have had reason to pursue the
26 proposed combination, no dispute POSA's had a reasonable
27 expectation of success in pursuing it, and no dispute that

1 the combination renders obvious claims 1, 3, 5, and 7 if the
2 board adopts petitioner's plain meaning construction of a
3 mandatory channel. Adopting our construction can therefore
4 be dispositive for ground 1.

5 If we turn to slide 32 we can see the various
6 proposed constructions for a mandatory channel that have been
7 proposed in the proceeding. I see on the right-hand side
8 patent owner has provided two proposed constructions but at
9 the end of the day what the real fight is whether or not a
10 mandatory channel can be the only channel provided between
11 two stations or if there can be -- or if there has to be one
12 of two channels.

13 If we turn to slide 33, while Your Honors agreed
14 with patent owner at the institution stage we respectfully
15 don't believe that that finding can be maintained now in the
16 slowly developed record. One new item that has come up is we
17 were able to explain to the board the proceedings that
18 happened before the district court and particularly the
19 *Markman* proceedings. Before the district court we advanced
20 the same plain and ordinary meaning construction that we
21 advanced in the petition.

22 Just as they do here, patent owner argued that
23 mandatory channel needed to be limited to one of
24 several -- or one of at least two channels provided between
25 stations, the district court after reviewing the parties
26 briefing, having a *Markman* hearing, adopted a plain meaning
27 construction and clarified, as you can see on slide 33, that

1 the mandatory channel, quote, may be the only channel and its
2 idle state determines whether there is transmission
3 regardless of idle states of other channels, if any. The
4 district court heard all of our arguments and agreed with the
5 petitioners on this construction.

6 The board should adopt the district court's plain
7 meaning construction not only because it's correct in light
8 of the intrinsic evidence, which I'll address shortly, but
9 also because doing so would ensure a consistency between the
10 two forms which is a motivating factor behind the board
11 moving to the Phillips standard in the first instance.

12 If we turn to slide 34 just briefly we can see that
13 the district court in adopting petitioner's proposed
14 construction and clarifying that it needs -- the mandatory
15 channel be the only channel, it was doing so understanding
16 full well what the dispute was between the parties. Patent
17 owner's briefing identified the dispute as whether or not the
18 mandatory channel could be one channel or if it had to be two
19 channels. They had pointed to these proceedings and they
20 pointed to the Shpak reference as evidence of the scope of
21 the dispute between the parties. So patent owner teed this
22 exact issue up for the district court and the district court
23 agreed with us.

24 And if we turn to slide 35 we can see the
25 transcript from the *Markman* hearing. At the Markman hearing
26 the issue was again teed up for the district court and the
27 one -- the question that the district court asked of patent

1 owner's counsel was how they could justify their multi-
2 channel construction in view of the preamble's reciting of a
3 single wireless channel transmission technique. Patent owner
4 provided the exact same argument that we see in the papers
5 that you can have -- you need to have two channels provided
6 but you only need to use one, and the district court after
7 hearing from patent owner told petitioner's counsel they
8 didn't even need to argue it, they don't want to hear
9 rebuttal, and they adopted the construction that we saw
10 earlier which does not limit mandatory channel to two
11 channels. Respectfully, the board should follow along with
12 what the district court found not just to keep consistency
13 between the two forums but because the district court got it
14 right.

15 If we could start with slide 36, beginning with the
16 claim language -- again the word being -- or the phrase being
17 construed as mandatory channel. There's no fight over what
18 channel means. It's really just about mandatory. The word
19 mandatory however has a plain meaning and does not require
20 further construction. It's a channel whose use is mandated.
21 Indeed, the claim language as we see here on slide 36 already
22 clarifies what it means to be mandatory by stating that it's
23 a channel that's always used for transmission. There's no
24 need to construe mandatory beyond what the plain language
25 already says.

26 Indeed, this is precisely what the patent owner
27 told the European patent office when prosecuting an identical

1 claim in a foreign counterpart with an identical
2 specification claiming priority toward the identical Japanese
3 priority document. Patent owner explicitly said the claims
4 already define a mandatory channel by stating that it is a
5 channel that is, quote, always used for transmission. Patent
6 owner's statement to the EPO was right. The claims
7 explicitly clarify what the mandatory channel is. It's a
8 channel that's always used for transmission.

9 Nothing in the claim's plain language requires that
10 the mandatory channel be one of at least two channels
11 provided between two stations. This makes sense -- this
12 understanding also makes complete sense in light of the
13 preamble. If we look at the preamble again, there's three
14 techniques, transmission techniques, that were cited in the
15 alternative. So the method can be performed by any one of
16 those. Two of them require multiple channels. So for that
17 one the mandatory channel is one of multiple channels because
18 those steps require multiple channels be used. But the third
19 technique highlighted in green is different. It only
20 requires transmitting packets over a single wireless channel.
21 The claim is less explicit and both parties experts agree
22 that the preamble broadly covers not only transmissions over
23 multiple channels but, alternatively, over a single channel.

24 Despite the preamble's plain language, under patent
25 owner's proposed construction a station that transmits
26 packets using a single MIMO implemented channel sets that
27 channel as one that the station always uses for transmission

1 and transmits only when that channel is idle does not
2 practice method claim 1 unless it had some other channel that
3 it could use but didn't use for some reason. Nothing in the
4 record justifies such a strained reading of the claims.

5 JUDGE ANDERSON: I'm interested -- excuse me,
6 Counsel. I'm interested in a little bit of amplification on
7 what you just said and maybe I need a little understanding.
8 Are you proposing that using a single wireless channel -- I
9 don't think you're proposing a single wireless channel would
10 be covered by your construction, are you?

11 MR. SPEED: The claim -- looking at the claim
12 language, the claim simply recites using -- transmitting
13 packets using a single wireless channel determined to be idle
14 in MIMO. So you would need a single MIMO channel that has
15 been set -- that has to still do the remainder of the claim.
16 You still have to set it so that it's always used for
17 transmission and you have to transmit over that single
18 channel only when it's idle. So you do need additional steps
19 to be performed. Shpak does that. It sets -- it's an 802.11
20 system that's 14 channels. It says we're picking this
21 channel as the one that everybody in the system is going to
22 use. You have to use this channel. So it sets a channel
23 that's always used for transmission and you transmit packets
24 only when that channel is idle in this combination.

25 And what we've done is we've added Ho in as a
26 reference disclosing the use of MIMO. So the common
27 frequency channel in ground 1 uses MIMO and so we have a

1 common frequency channel that's a single wireless channel
2 determined to be idle in MIMO, sets a mandatory channel
3 that's always used for transmission, and transmits the
4 wireless packets by using that channel only when that channel
5 is idle. That's what the claim -- the plain language of the
6 claim covers such a system.

7 JUDGE ANDERSON: So one more time. How does MIMO
8 fit into the single wireless channel? Because that's what
9 the preamble says that's what you're relying on, a single
10 wireless channel determined to be idle by -- determined to be
11 idle and MIMO.

12 MR. SPEED: If we -- thank you for the question,
13 Your Honor. If you turn to slide 38, this was an issue that
14 came up in institution decision and it seemed like the panel
15 was recognizing the tension between the preamble reciting a
16 single wireless channel and the patent owner's proposed
17 construction that there would be multiple channels. There's
18 a tension there. And it appears that preliminarily how you
19 resolve that tension was by finding that MIMO requires at
20 least two channels.

21 That's not -- respectfully, that's not correct.
22 The parties experts all agree there's no dispute that you can
23 use a single channel and use MIMO to divide that single
24 channel up into multiple what they call subchannels that
25 allows the data to be sent over. So you can have a single
26 channel in MIMO and so you can send multiple packets
27 simultaneously over that single channel. And the parties

1 experts agree on that. The patent itself actually at column
2 1, line 61 to 63, says explicitly that, that a single channel
3 is all that's necessary for MIMO.

4 If we turn to slide 40, Your Honors, another
5 argument that Your Honors found compelling at least at the
6 preliminary stage was the argument that there could be
7 nothing mandatory about our channel if it's the only one
8 provided. So this is on slide 40 from the institution
9 decision. At the institution stage you didn't have the
10 benefit of the European Patent Office's file history in which
11 the patent owner told the European Patent Office, quote, The
12 fact in the case of only one channel, this channel is defined
13 as the mandatory channel, does not lead to any
14 inconsistencies. Patent owner made this explicit statement
15 in response to the examiner saying that he was interpreting
16 the claim such that, quote, if only one channel is present
17 then said only channel is automatically defined as mandatory.

18 Patent owner can't have it both ways. It can't
19 tell the European Patent Office that there is no
20 inconsistency in the fact that when only one channel is
21 present it automatically becomes the mandatory channel and
22 then later tell the board that such an interpretation of the
23 claims would be inconsistent with the word mandatory. But
24 apart from the European file history, the fact -- the word
25 mandatory has meaning in the claims.

26 There are two transmission techniques that require
27 multiple channels. Multiple channels and then multiple

1 channels with MIMO. Two of the three require multiple
2 channels. Mandatory has clear meaning there because you need
3 to distinguish between those channels of which one is the
4 mandatory channel. With the single channel transition
5 technique calling that channel mandatory makes explicit what
6 would otherwise be implicit but there's nothing wrong or, in
7 the words of patent owner, inconsistent with calling a single
8 channel mandatory if it's the channel that has to be used,
9 which it is. Patent owner wrote a broad claim that covers
10 both multi-channel transmissions and single channel
11 transmissions that mandatory might make unnecessarily
12 explicit what otherwise would be implicit for single channel
13 transmissions is no reason to narrowly limit the claims to
14 multi-channel transmissions.

15 If we turn to slide 42, at the institution stage
16 Your Honors also preliminarily determined that construing the
17 claims to cover a single wireless channel would be contrary
18 to the purpose of the invention which was purportedly to
19 prevent leakage between multiple channels. As an initial
20 matter, the cases recited at page 26 of our reply demonstrate
21 that the federal circuit has long warned against limiting
22 claims to an invention's goals or objective where the plain
23 language is broader.

24 Regardless however, the leakage the patent purports
25 to prevent occurs in single channel systems too. The patent
26 at column 3, lines 27 to 32 as shown on slide 42, is explicit
27 that the problem of power leakage is not limited to

1 transmission between two stations over multiple channels but
2 also occurs, quote, in a conventional case where wireless
3 packets are transmitted by using one wireless channel, end
4 quote. The reference to a conventional case in column 3
5 refers back to the conventional 802.11 system described in
6 column 1 at lines 24 to 26 which uses a single channel. The
7 patent is less explicit the problem of power leakage is not
8 limited to simultaneous transmissions between two stations
9 but includes transmissions over a single channel as well.

10 And if you turn to slide 43, we had Dr. Williams
11 explain this in his reply declaration. What he did was he
12 took figure 15 from the patent and said, well, figure 15 in
13 the patent is designed to show one station on the left and
14 one on the right both -- and they're using two channels
15 between them. He said a POSA would understand you could just
16 as easily have four stations there with two pairs where you
17 have station A and station B communicating on channel one,
18 station C and station D communicating on channel 2, and the
19 same power leakage problem would occur because they're
20 adjacent channels.

21 And then he explained that by setting a mandatory
22 channel and thereby eliminating what channel A and B can use
23 and what channel C and D can use we are able to, as shown in
24 the Bugeja reference at figure 1, you're able to put access
25 points in different spots near each other but assign them to
26 different channels to ensure that they're using non-adjacent
27 channels.

1 So a mandatory channel in a single channel system
2 would help resolve -- to the extent it's relevant would help
3 resolve the leakage problem that we see or that the board
4 seized upon in the institution decision. So there's no need
5 to confine the claims to multi-channel systems just to give
6 meaning to the alleged purpose of the invention. The purpose
7 of the invention applies to both types of systems.

8 If we turn to the file history at slide 44 we see
9 that the applicants confirmed again that the claims cover
10 wireless packet transmission using one or more channels and
11 they gave mandatory its plain meaning, i.e. indispensable.
12 Patent owner points to the file history and says, oh, this
13 supports us because the examiner rejected the claim over a
14 multi-channel reference, but there's no dispute that the
15 claims cover multi-channel transmissions. It's broad.

16 So a multi-channel prior art reference would
17 anticipate the claim. The question is are they limited to
18 multi-channel transmissions? And they're not. By the
19 preamble's clear plain language they include a single channel
20 transmission technique. And as patent owner explained in its
21 patent owner response, the issue of whether or not the
22 mandatory channel can be the sole channel provided never came
23 up during -- simply never came up during prosecution of the
24 patent. But as we saw earlier, it came up during the
25 European prosecution.

26 And if we turn to slide 46, again we see this issue
27 that we're dealing with today was squarely before the

1 European Patent Office and then, when they weren't trying to
2 avoid the prior art in this case, they made clear statements
3 that if it's one channel present there's nothing wrong with
4 calling that the mandatory channel. And they earlier -- as
5 we saw earlier they said that it's already defined. It's the
6 channel that's always used for transmission.

7 And if we turn to 47 real briefly, I think it's
8 telling to see that the European Patent Office, it didn't
9 allow the claims with the scope that they were allowed in the
10 United States. On the right-hand side you can see one of the
11 revisions that they made they explicitly took out the single
12 channel wireless -- single channel -- single wireless channel
13 determined to be idle in MIMO. They took that out because
14 they couldn't get the claim allowed there and that's because
15 the claims are not patentable when they're that broad. They
16 should be held to the consequence of getting broad claims in
17 the United States.

18 Finally, if we look at slide 48, even if the board
19 were to adopt some type of multi-channel construction it's
20 important to note Shpak is a multi-channel system. It's an
21 802.11 system. There are 14 channels that it could use and
22 it sets one of the 14 channels. So there's other channels
23 provided and available for it to use if it had chose to do so
24 but it picked one in choosing that one, but it's a multi-
25 channel system. Given the time, unless Your Honors have
26 questions I would move onto ground 3 in the Bugeja plus Ho
27 combination.

1 JUDGE ANDERSON: Go ahead.

2 MR. SPEED: If we could move to slide 50. So with
3 Bugeja the -- Bugeja has a multi-channel access point meaning
4 it can use multiple channels at the same time. In the multi-
5 channel access point in Bugeja and the technique disclosed in
6 Bugeja is it picks one of those channels, broadcasts it at
7 full power so it reaches further away. That's what they call
8 a primary channel. And then they have two secondary channels
9 which are the other two channels that they do at sort of half
10 power so it reaches a further distance. And so you've got
11 one access point transmitting on three channels, one at full
12 power and two at half power. So you can have channel 1 at
13 full, half power at 11 and 6.

14 And when a device comes into the system Bugeja
15 reads a message from the device to determine the strength of
16 the signal and then determines what to do -- what channel to
17 assign to the device based on the signal strength. If it's
18 a -- if the device is in the outer region then it's always
19 assigned the primary channel and if it's in the inner region
20 Bugeja discloses a preference for assigning it to the
21 secondary channels.

22 And with -- on slide 51 we see the Ho reference.
23 Again, Ho is just added here to disclose MIMO. There's no
24 dispute it would have been obvious to add Ho or advantageous
25 to add Ho's MIMO technique to Bugeja. The question again is
26 just whether or not Bugeja has a mandatory channel.

27 And if we turn to -- if we turn to slide 54, the

1 combination of Bugeja-Ho reads directly on the claims. For
2 claim 1 the primary channel in Bugeja, the primary MIMO
3 implemented channel, is a channel that's set, that's always
4 used for transmission of outer region clients. If you're an
5 outer region client you can only use the primary channel.

6 For claim 2, which is an independent claim, it
7 introduces this distinguishing step. The Bugeja-Ho
8 combination discloses that -- all of those steps exactly. It
9 distinguishes between outer region clients that are always
10 assigned to the primary channel and it distinguishes them
11 from inner region clients that are not assigned a primary
12 channel and are assigned to both of the secondary channels of
13 the multi-channel inner region clients. So the claims -- the
14 Bugeja-Ho combination reads directly on the claims. The only
15 dispute between the parties is whether or not there's a -- if
16 the primary channel is a mandatory channel in Bugeja-Ho.

17 And if we look at slide 56, at the institution
18 stage Your Honors preliminarily found that the primary
19 channel was not a mandatory channel because the access points
20 in Bugeja-Ho could send data to the inner region clients
21 regardless of what was going on with the primary channel. As
22 Your Honors found on slide 56, you stated that there
23 was -- there's no showing that there is no transmission on
24 the secondary channel when the primary channel is
25 transmitting, i.e. not idle. So essentially the way I
26 understand it Your Honors were saying that because the
27 Bugeja-Ho access point could talk to inner region clients,

1 regardless of whether it was talking to outer region clients,
2 then it didn't have a mandatory channel. Respectfully,
3 that's based on an overly narrow interpretation of the
4 mandatory channel.

5 If you look at slide 57, the patent is explicit
6 that not every station in a system needs to be assigned a
7 mandatory channel. You treat them differently. So if you
8 are a system -- if (indiscernible) has a mandatory channel
9 then, yes, you need to use that and you'll only get data if
10 that channel is idle. If you're one that hasn't been
11 assigned a mandatory channel then you get data when channels
12 are idle. There's no restriction on when you get the data.

13 JUDGE ANDERSON: Counsel, you've got ten minutes.

14 MR. SPEED: Thank you. So real briefly, on slide
15 58 we have evidence from -- their expert agrees with our
16 interpretation there. So if we turn to slide 60, the real
17 fight is whether or not the primary channel -- because it's a
18 single channel assigned to the outer regions, is that a
19 mandatory channel? Again, if you -- but if the board agrees
20 with the district court and adopts our plain meaning
21 construction then the primary channel is clearly a mandatory
22 channel under any -- under that interpretation of the claim.

23 Their argument that it also fails even if you
24 require it to have a multi-channel system -- because Bugeja-
25 Ho is a multi-channel system. It's a multi-channel access
26 system. It has three channels provided to it that it
27 communicate over and so it meets it even under that narrower

1 construction which we submit is wrong. And moreover, even if
2 the mandatory channel had control of all transmissions in the
3 system it still satisfies that because in a scenario where
4 you just have outer region clients the only transmissions
5 occurring are to the outer region and that's all dictated by
6 the idle state of the primary channel.

7 And one last slide, slide 63. For claim 2 patent
8 owner's additional argument is that the claims require
9 distinguishing between two stations based on whether they
10 have a mandatory channel. Respectfully, that's not what the
11 claims say. The claims just recite distinguishing one
12 station from another station. The fact that one station has
13 a mandatory channel and one doesn't is not the basis on which
14 the distinction is made. The claims are broad. They would
15 cover any type of distinction including the one Bugeja does.
16 It identifies outer region clients. Those ones happen to
17 have a mandatory channel. And it distinguishes them from
18 inner region channels with some signal strength and they
19 don't have a mandatory channel. It is directly on the
20 literal language of claim 2. And with that I'll reserve the
21 remainder of my time for rebuttal.

22 JUDGE ANDERSON: Okay. Very good. I believe you
23 have about eight minutes left and I'll give you a little
24 credit for me extending things there at the beginning. So
25 eight more minutes, Mr. Speed.

26 And with that, Ms. Lu, are you ready to proceed?

27 MS. LU: Yes, Your Honor.

1 JUDGE ANDERSON: Okay. When you're ready. Oh, do
2 you want to reserve some time for rebuttal, surrebuttal?

3 MS. LU: Your Honor, if you also wouldn't mind
4 telling me when I have ten minutes left. I guess I could
5 decide then if I really, really feel compelled to finish
6 something.

7 JUDGE ANDERSON: We'll do our best.

8 MS. LU: Thank you.

9 JUDGE ANDERSON: So you're starting at 60 minutes
10 and we'll tell you when ten minutes are left and then you'll
11 decide if you want to use that for rebuttal, right?

12 MS. LU: Good.

13 JUDGE ANDERSON: Okay.

14 MS. LU: Thank you.

15 JUDGE ANDERSON: Go ahead.

16 MS. LU: Okay. So the first thing I want to start
17 with is to talk a little bit about the 551 patent, what the
18 problem it addresses actually is and how it addresses that.
19 I feel like this is actually one of the major points of
20 contention here. So if we can start on patent owner
21 demonstrative slide 7.

22 So petitioner has argued repeatedly that what the
23 problem the 551 addresses is power leakage in a general
24 sense. That's just not true. That's not what it says in the
25 specification. It's a much narrower problem than that.
26 Power leakage can happen whenever you have two channels close
27 to each other. Sure. But the problem that the 551 is

1 actually addressing is specifically the effect that power
2 leakage has on multi-channel systems and what that does to
3 the throughput of multi-channel systems.

4 The first time that the specification describes or
5 introduces that problem really is in this quote that's shown
6 on slide 7 of NTT's demonstratives on column 2, lines 26
7 through 30. And it states, I quote, In the case where center
8 frequencies of multiple wireless channels used at the same
9 time are close to each other an effective leakage from one to
10 the other becomes large. So there already you have language
11 specifying that it's not just that power leakage can occur.
12 It's that power leakage can occur in the context where you
13 have multiple channels for simultaneous use. You can't have
14 channels for simultaneous use in a single channel system.
15 That is something that only a multi-channel system can do.
16 So it's not just power leakage in the abstract. It's power
17 leakages effect on a multi-channel system.

18 Now the specification makes that even clearer in
19 the two illustrations of the potential consequences that that
20 problem can have and both those illustrations are rooted in
21 the multi-channel context. There's the figure 15 which was
22 discussed pretty extensively in the briefing. If you turn to
23 slide 8 of patent owner's slides, so just a quick recap.
24 Figure 15, what you see on the slide here, shows a multi-
25 channel system, right? One station is able to transmit on
26 both channels 1 and 2 but there it's transmitting packets of
27 different time lengths, right. So that channel 2 is still

1 busy at a time when channel 1 has already become idle.

2 Now in theory the station that was using both
3 channels 1 and 2 should be able to receive an ack for the
4 shorter packet that is sent on channel 1 but it can't do that
5 because power is leaking from its own channel 2 onto channel
6 1. And this is where the patent introduces the idea of the
7 effect of power leakage on throughput. As a result of what's
8 shown in the situation in figure 15, throughput cannot be
9 improved even if you can have a system where you do
10 simultaneous transmission using multiple wireless channels at
11 the same time. So normally you have a multi-channel system.
12 You could use all these channels at the same time. You get
13 increased bandwidth, right. There's no dispute about that.
14 But because of power leakage if you are using those channels
15 to send packets of different time lengths it's actually not
16 going to work as well as you think. It's not going to work
17 as well as it should because of the phenomenon of power
18 leakage. But it's the effect of power leakage on throughput
19 in a multi-channel system. That's the problem.

20 Now figure 16 is another example of a similar
21 situation where the only difference is here you have a multi-
22 channel system that has provided three different channels and
23 you are able to structure a transmission such that you have
24 packet lengths be the same duration as opposed to having
25 different packet lengths as you do in figure 15. But this is
26 still a multi-channel system and the specification describes
27 the problem shown in figure 16 this way.

1 At the time that this station -- a transmitting
2 station, a single transmitting station, wants to send packets
3 channel 3 is already busy so it sends a simultaneous
4 transmission using both channels 1 and channel 2. Now during
5 this time while those two packets are being transmitted on
6 channels 1 and 2, channel 3 has become idle. So in theory
7 this station -- the station that is using wireless channels 1
8 and 2, and as shown in the last bullet point here on slide 8,
9 this is a quote directly from the spec, the transmit site
10 station that is using channels 1 and 2 should in theory be
11 able to receive a packet on channel 3, you know, taking
12 advantage of that multi-channel throughput, using a channel
13 whenever it becomes idle, but it can't do that because there
14 is leakage from channels 1 and 2 onto channel 3. The same
15 station --

16 JUDGE ANDERSON: Ms. Lu, let me interrupt. Ms. Lu
17 --

18 MS. LU: Yes. Yes.

19 JUDGE ANDERSON: Let me interrupt you for just a
20 second. So petitioner says that power leakage is maybe a
21 motivation for the invention but that's not a motivation to
22 modify the prior art reference. What's your response to
23 that?

24 MS. LU: That is a slightly different issue than
25 the one I'm addressing now but I will answer your question.
26 The reason that we address --

27 JUDGE ANDERSON: I'd like that.

1 MS. LU: -- motivation for the invention in -- I'm
2 sorry, Your Honor?

3 JUDGE ANDERSON: I'd like that. And let me add one
4 thing to it. I don't want to take you off track. Please try
5 to remember where you are and go back to it. So the claims
6 really don't say anything about power leakage and I realize
7 that that's a big deal in the description of the patent. So
8 let me add that to my question. What about the claims with
9 respect to power leakage? How do you pull that in? Is that
10 all about motivation to combine references? And then
11 secondly -- well, motivation as I already asked. So take it
12 from there please.

13 MS. LU: Okay. Will do. So if I may I'll address
14 your first question which is why do we talk about the power
15 leakage motivation? Why is it important at all? The reason
16 that it's addressed particularly in the briefing on ground 2,
17 Shpak-Lundby, is they're -- Your Honor, to be honest, I'm
18 really trying to give petitioner the benefit of the doubt
19 there. These claims, as when I get back on track I'll
20 explain, are really about changing the way that you decide to
21 transmit in multi-channel systems. Normally in a multi-
22 channel system it's just kind of an extension of single
23 channel systems except you have multiple channels. You use a
24 channel when that channel is idle. You don't decide whether
25 or not to use that channel based on the idle state of some
26 other channel. You look at the channel's own idle state.

27 And because of that what the claims say is that it

1 limits transmission to times only when the mandatory channel
2 is idle. That's where that limitation comes from. And the
3 effect of that claim language is that it would prevent use of
4 otherwise idle channels based on the status of the mandatory
5 channel. That prevention of transmission on otherwise idle
6 channels is what the 551 does differently from multi-channel
7 systems in the prior art. But that characteristic does not
8 appear anywhere in Shpak-Lundby, nor in the single channel
9 references obviously because they're single channel.

10 But it doesn't appear anywhere in Shpak-Lundby and
11 in the briefing I'm really trying to give petitioner the
12 benefit of the doubt here. That feature doesn't appear in
13 their references. I don't think it appear -- you could imply
14 it or somehow arrive at that feature from their motivations.
15 So I'm really digging hard here and I'm looking at the
16 references to see if there's anything like the suggestion of
17 a problem that might lead you to want to not use any channels
18 at all under certain circumstances and I'm not finding one.

19 The power leakage problem that the '551 addresses
20 would fit the bill. So something hinted at like that problem
21 might lead you to create that feature when the references
22 don't explicitly disclose it. And so I really think of it as
23 kind of checking off a box. That's not there either. And
24 that's why that's addressed in the briefing.

25 Now relevance of the motivation to the claim
26 language itself, Your Honor you're absolutely correct that
27 the words power leakage do not appear anywhere in the claims.

1 They don't need to. But understanding the problem and the
2 context that the claims come from can help you understand
3 what it is that the claims mean and in this case
4 understanding the problem can show that -- that context shows
5 you that what the claims are talking about are preventing
6 transmission, limiting transmission to times when a special
7 channel out of multiple channels has been identified and that
8 channel is not busy. So that's why that's relevant to the
9 claims. It provides context.

10 And the *Phillip* standard tells us that you have to
11 put the claims in context of the entire specification. That
12 includes not only the embodiments, the description of the
13 background, but other claims as well. So this is kind of
14 following along that structure of analysis setup in Phillips
15 where you just want to look at the whole context and try to
16 arrive at kind of a common sense reading that gives effect to
17 the whole thing rather than based on words in isolation or
18 just word parsing. I hope that answers your question, Your
19 Honor.

20 JUDGE ANDERSON: Yeah, but it raises another one
21 for me. So petitioner has a problem -- I shouldn't say that.
22 That's way too negative. Does not agree with our
23 construction of mandatory channel and says we should go
24 forward on plain meaning. Why is petitioner -- tell me your
25 response to petitioner's construction of plain meaning which
26 is supported by the district court. The district court said
27 plain meaning. Go ahead.

1 MS. LU: Sure. I hadn't planned on going there yet
2 but since you've raised the question, Your Honor, if we can
3 skip ahead to slide -- sorry, just let me navigate a bit
4 here. To slide 31. Well, actually -- well, 31 just
5 summarizes the current posture of what the constructions are,
6 the preliminary construction NTT has proposed (indiscernible)
7 what the dispute is actually about.

8 If we go to slide 32, so the problem is -- and this
9 is a little bit of a legal point or a procedural point.
10 Plain meaning is always appealing as a construction because
11 to a large extent you want claims to be able to speak for
12 themselves. However, whether or not construction is required
13 is a creature of context too. The district court, just like
14 Your Honors, the board here, construe claims with a view
15 towards resolving a specific dispute and the specific dispute
16 here is whether or not the claims are broad enough to
17 encompass single channel systems. So while you could rest on
18 plain meaning the truth is that in itself is not sufficient
19 to resolve the dispute. So depending on what the dispute is
20 it may or may not be appropriate to go with plain meaning.

21 Here I think there are other reasons, namely
22 including that the mandatory channel itself is not a term of
23 art and petitioner has never contested that there is a
24 definition that persons of skill in the art use. When you
25 say mandatory channel they automatically know what it means.
26 It's a term that's coined specifically for this patent. So
27 in order to make sense of these claims in a way that would

1 resolve factual issues that come along with the ultimate
2 question of validity it makes sense to construe it. And also
3 here the plain language of the claims. You view the claims
4 in full context actually do not support the single channel
5 system reading. Just as a matter of common sense, the claims
6 say -- I'm sorry. Was there --

7 JUDGE ANDERSON: No. No. I need to mute myself.
8 I'm just shuffling papers here. Go ahead please, Ms. Lu.

9 MS. LU: Okay. So just as a matter of common sense
10 what do the plain language of the claims tell you here? The
11 claims say that one channel is mandatory, that is always
12 used. As a matter of common sense why would that language
13 even be there? Why do you need to say that a channel is
14 mandatory or that it will always be used if but for that
15 language it would be possible for it to not be mandatory or
16 for it possible to not always be used?

17 Now under petitioner's reading it's really less
18 about giving effect to the specification than it is about
19 word parsing. In theory if you have only have a channel
20 where there's only one -- if you have a system where there's
21 only one channel ever available must that channel always be
22 used? Maybe. But it kind of begs the question of why you're
23 bothering to say that it's always used at all if that was
24 always the only option. It's like if I went and I told my
25 little girl you're my favorite daughter. Yeah, but I'm your
26 only one. Why are you even bothering to say that? That
27 reading kind of makes the whole point of that language

1 superfluous.

2 And it has the same effect on the specific
3 limitation saying you can only transmit -- and this is the
4 second step of claim 1 -- you can only transmit when the
5 mandatory channel is idle. And that's important. It's so
6 important that it's the second step in the claim. And when
7 you see how that claim language maps to the embodiments in
8 the specification, this is how it distinguishes itself from
9 the prior art. What's the point of that language at all
10 unless it were possible to transmit under other
11 circumstances? The single channel reading renders both steps
12 really kind of superfluous. It collapses the entire claim
13 down to saying there's a channel, use it the way that you've
14 always used it. So this is why the common sense reading, the
15 plain meaning of all the claims really supports the idea that
16 we're talking about multi-channel systems here.

17 And I'd also like to point out that under the
18 Phillips standard it's proper to consider the context of the
19 other claims too. The claim language is part of the
20 specification after all. So if you look, for example, at the
21 language of claim 2 -- and I apologize for making Your Honors
22 jump around like this, but if we can scroll all the way back
23 to slide 13 of patent owner's slides.

24 Here I have a screenshot from the patent -- you
25 know, why not go to the source -- of claims 1 and 2. So
26 claim 1 says you set a mandatory channel and you transmit
27 only when that mandatory channel is idle. But claim 2 makes

1 it really, really apparent that the language that's used in
2 claim 1 means something other than what it -- than merely
3 checking to see if a channel is idle. Claim 2 is different
4 from claim 1 because it also adds the ability to distinguish
5 a station that does not have a mandatory channel set, but it
6 also describes a station for which a mandatory channel is set
7 and that language that's used is the exact same language that
8 shows up in claim 1.

9 The station A for which a mandatory channel is set,
10 that mandatory channel is always used, the mandatory channel
11 being always used for transmission. And when transmitting to
12 that station A you transmit only when the mandatory channel
13 is idle. But for station B that does not have a mandatory
14 channel set, all we have to do is check to see if there are
15 idle channels. All you have to do is check idle state.
16 There's not a separate consideration of whether or not that
17 channel is mandatory. But for a single channel system, if
18 you read that language in such a way so that it would
19 encompass a single channel system, that distinction between
20 transmitting only when the mandatory channel is idle versus
21 transmitting when the channel is idle, that distinction goes
22 away and that again renders all of this claim language
23 superfluous. Your Honor, I hope I've addressed your
24 question.

25 JUDGE BOUDREAU: This is Judge Boudreau. If I
26 could ask a couple of questions.

27 MS. LU: Yes, sir.

1 JUDGE BOUDREAU: Is it your position that
2 transmission must occur over multiple channels or only that
3 there must be multiple channels in the system? That's my
4 first question and I'll let you address that before I ask the
5 second question.

6 MS. LU: Sure. So it's always been patent owner's
7 position that at any given moment in time you could use one
8 channel. That's fine. You could use one channel in a multi-
9 channel system. Suppose you don't have a lot of data in your
10 queue. You only need to send one small packet. Why bother
11 using more than one channel? You can because you're in a
12 multi-channel system, but you only need to use one channel.
13 So the ability to use one channel is a very, very different
14 thing from only ever having that one channel as an option in
15 the first place.

16 And I think this is one of the major errors in
17 logic or disconnect in petitioner's argument is their only
18 support, if you can call it that, that they keep pointing to
19 in the intrinsic record are examples where you say, oh, look,
20 in the preamble it says you could use one channel. You could
21 use one channel here in lines whichever, whichever in the
22 spec. That's fine. That's true. But just because you could
23 use one channel does not imply that what you're talking about
24 is using one channel in a single channel system. You can use
25 one channel in the multi-channel system. But whether or not
26 a channel can be considered mandatory, whether you're
27 actually conveying a real limitation of the decision to

1 transmit by saying that you can transmit only when the
2 mandatory channel is idle, for that to have any meaning the
3 mandatory channel exists in a system that is multi-channel.

4 JUDGE BOUDREAU: Thank you for clarifying that. So
5 my second question is that, as you recognized a few minutes
6 ago, we only need to construe claims to the extent necessary
7 to resolve the dispute, and petitioner's counsel in his
8 opening arguments stated that the claims would still be
9 unpatentable under Shpak and Lundby even if we were to adopt
10 patent owner's construction. I imagine that you're planning
11 to go there shortly but I wanted to see if you could address
12 that for us.

13 MS. LU: Yes. So with that, Your Honor, unless
14 there are other questions about the claim construction based
15 on the intrinsic record I do plan on going back and
16 discussing Shpak-Lundby in greater detail. Shall I do that
17 now?

18 JUDGE ANDERSON: Let me just ask one thing. What's
19 your response, which it kind of relates to what you were just
20 talking about, a single channel being a mandatory channel and
21 the argument that was made in the European Patent Office that
22 seemed to confirm that and the argument that was made that a
23 single channel could -- I think there was an argument made
24 that a single channel could infringe the claim. What's your
25 response to the European Patent Office arguments that were
26 made by your client?

27 MS. LU: Right. So if I can direct Your Honor's

1 attention to slide 38 of patent owner's slides now. There
2 are two reasons, two logically completely independent reasons
3 why the arguments based on the European prosecution history
4 fail here and the first is a threshold issue of legal
5 relevance.

6 Now the petitioner cited to this European history
7 and they say like, oh, look, they come from the same parent
8 specification. They share the same priority and what not.
9 Therefore, look at these statements and you just kind of take
10 them for what they are and use them as is. But the federal
11 circuit law is very clear that you cannot simply do that.
12 There are very important and complicated threshold questions
13 about whether or not statements made in a foreign proceeding
14 can be considered legally relevant in the first instance.

15 So I'll direct you to a couple of quotes from the
16 federal circuit cases that petitioner cites in their briefing
17 actually, *Caterpillar v. Berco* and *Apple v. Motorola*. Both
18 of those cases -- neither of those cases stand for the
19 proposition that when you have foreign prosecution statements
20 on a related application that they are automatically relevant
21 and you can consider them and treat them alongside statements
22 in U.S. prosecution or U.S. patent applications. That's very
23 different because of the wrinkle of foreign law. Both
24 *Caterpillar* and *Apple* cautioned that statements in a foreign
25 prosecution are not relevant. They are relevant only if they
26 are not addressing unique aspects of foreign patent law and
27 there needs to be some threshold showing, some explanation

1 that the law that's being addressed in the European
2 prosecution is at the same or at least comparable to U.S.
3 law.

4 And petitioner even now is making no attempt to do
5 that at all. We can pull up the exhibit -- the full exhibit
6 of the European prosecution history but in the interest of
7 time and being productive here I'll just go ahead and say
8 that if you go to the appropriate citations to those portions
9 of the European history that petitioner is relying on, those
10 statements, those amendments do not relate to a law that
11 exists in the United States. They're not statements
12 distinguishing away the scope of the prior art from the scope
13 of the claims or the scope of the specification. Nothing of
14 the sort. That's actually addressed under a separate
15 subheading and is readily visible when you take a look at the
16 exhibit itself.

17 Now those sections address something called EPC
18 Article 84 which relates to specific clarity standards and
19 even now petitioner refuses to address the fact that that law
20 or to make any showing that it has -- that it's at all
21 comparable to anything that exists under U.S. law. So that
22 as a threshold matter they have not shown legal relevance of
23 these statements.

24 Now second of all, even assuming they did, they're
25 misinterpreting and taking out of context the statements that
26 were made. Here actually I'd like to direct you back to
27 MediaTek slides where they have those screenshots from the

1 European history. I'm sorry. Let me pull that up in my
2 notes. I hope this is not counting too much against me in
3 terms of time to navigate through someone else's slides. But
4 it's on slide -- okay. Slide 46 of MediaTek's slides for
5 example.

6 So they have two screenshots here. The first one
7 comes from the European patent examiner where it includes a
8 statement of "if only one channel is present" et cetera, et
9 cetera. Now this statement is also made under a specific
10 subsection tied to the clarity standards of Article 84 but
11 we're setting that issue -- the legal relevance issue aside
12 for a moment. Then they have a second screenshot saying the
13 patent owner is saying there are no inconsistencies. But
14 they're taking these statements out of context. The patent
15 owner never actually agreed with the statement of if only one
16 channel is present.

17 If you pull up Exhibit 1059 which is the European
18 file history and go to page 129 I believe it was of the PDF.
19 This is the beginning of the document from which MediaTek
20 gets their second screenshot relating to the applicant's
21 statement. On page 129 here at the very get-go the applicant
22 is explaining their view of what the invention is and it
23 states there at page 129 of Exhibit 1059, The object of the
24 present invention is to avoid leakage power from affecting an
25 adjacent channel so as to improve throughput by simultaneous
26 transmission. So there again you have the emphasis on what
27 the invention is about. It's improving throughput by

1 simultaneous transmission, something that only a multi-
2 channel system is capable of.

3 You know, you scroll several pages in all the way
4 down to the section on the requirements of Article 84.
5 Somewhere in here they pull up that second screenshot that
6 they use on MediaTek slide 46 but it's not directed to the
7 statement from the European examiner's office action about
8 only one channel being present at all. It's just taken out
9 of context. If anything, if you read the European exchanges
10 as a whole -- which honestly, Your Honor, NTT's position is
11 you don't have to because MediaTek has failed to establish
12 legal relevance -- but if you did, putting those statements
13 back in context you see that the applicants never actually
14 agreed with that statement.

15 And this again is a huge contrast from some of the
16 cases that they've cited in their briefing where foreign
17 statements were credited, first of all because the party
18 putting them forth actually met the threshold for legal
19 relevance and demonstrated enough similarity with foreign
20 law, but also the statements that were being relied on were
21 repeated admissions by the applicant and there's just nothing
22 like that here.

23 Your Honor, I hope that addresses your question.
24 I'm not sure if someone is speaking or if they're on mute. I
25 hope I'm not on mute.

26 JUDGE BOUDREAU: You're not on mute.

27 MS. LU: Okay. So if I've addressed that issue

1 sufficiently I'd like to turn back to Judge Boudreau's
2 question about Shpak and Lundby and go into a little more
3 detail about Shpak and Lundby. Is that okay?

4 JUDGE BOUDREAU: Yes, please do.

5 MS. LU: Okay. All right. Will do. So if we can
6 turn back to patent owner's slides and go to slide 11. This
7 is still from the section kind of introducing the main point
8 of the 551 patent, the problem it solves, and the way that it
9 addresses it. And actually, you know what, I'm sorry. Can I
10 have you turn back to slide 18? So slide 18 is still
11 describing the problem addressed. Not 18, 8. My apologies.
12 Back to slide 8 of patent owner slides.

13 So slide 8 is still showing those two figures,
14 figures 15 and 16 which give examples of situations where
15 throughput of multi-channel systems are negatively impacted
16 by leakage. And I want to point out specifically this figure
17 16 because it's very relevant to how the patent shows the
18 solution to this problem works.

19 Now if you turn to slide 9, slide 9 includes
20 figures 1 and 2 from the 551 specification showing the first
21 embodiment and this is the first description of in practice
22 how does the solution work. And in practice what figure 1
23 shows you is that you have a mandatory channel that is set.
24 In this case channel 1 is mandatory. You go through the
25 flowchart of figure 1 and the flowchart of figure 1 shows
26 that there are two distinct considerations that are relevant
27 to this solution.

1 First of all, at step S2 in the flowchart of figure
2 1 you search for idle wireless channels. You figure out who
3 is idle, who is available to be used. But separately from
4 that, in box S3 the system has to consider is the mandatory
5 channel idle? So it's not just that there are idle channels
6 and you can just use a channel when it's idle. There's a
7 special consideration for whether or not that channel is
8 idle. And if the mandatory channel is idle you go ahead and
9 send your transmission but if it's not then you avoid
10 transmission altogether and that is illustrated in the time
11 chart that corresponds to this embodiment in figure 2.

12 Now I just want to point out that figure 2 is
13 almost kind of like a mirror image of figure 16 and the
14 problem addressed in figure 16. If you go back to slide 8
15 you see figure 16 when the station that is channels 1 and 2
16 to send a simultaneous transmission where the two packets
17 have the exact same length at a time when channel 3 is idle,
18 channel 3 becomes idle while that simultaneous transmission
19 on channels 1 and 2 is still going on. But because of
20 leakage you have a problem of inability to receive on channel
21 3 for that same station.

22 But in figure 2 you've changed that. Instead of
23 dealing with that problem -- and figure 2 is shown on slide
24 9. On figure 2 you've dealt with that problem. Instead of
25 having the little dotted line box as you did in figure 16
26 saying, oh, problem here, no reception, you've replaced that
27 with a decision on part of the system to permit no

1 transmission. There's no transmission in that same time slot
2 and that's how you avoid the problem. You avoid the problem
3 by preventing transmission. There are circumstances where
4 you do not want to transmit at all and that's what the
5 limitation in the claims shown in slide 13, that's what that
6 language limiting transmission to times only when the
7 mandatory channel is idle means. It's a multi-channel
8 problem and you change it by providing a multi-channel
9 solution where one channel out of those multiple channels in
10 the multi-channel system gets special consideration. It's
11 idle state governs system transmissions just as Your Honors
12 said in the institution decision.

13 So another way to look at this conceptually -- if
14 you'll turn back to slide 12 of patent owner's slides -- is
15 that what the 551 does is it changes the way you make the
16 decision to transmit from multi-channel systems. You change
17 how the decision to transmit in multi-channel systems is
18 made. And this is made abundantly clear in, for example, the
19 second embodiment where you compare explicitly what happens
20 when you're transmitting to a station that does have a
21 mandatory channel set versus one that does not. And it shows
22 you that the transmissions to these types of stations works
23 in a different way. The transmission itself functions
24 differently. Not that you could just tell that station A is
25 not literally the same as station B, but the way that you
26 transmit to them is different. That's really the point of
27 these claims.

1 So here in figure 5 you're showing channels 1, 2,
2 and 3, all of which could be used to transmit to either
3 station A or station B. The only difference is station A has
4 a mandatory channel set that is channel 1 while station B
5 does not. So at the time on channel 3 when channel 3 becomes
6 idle you have technically the ability to use channel 3 to
7 transmit to either of channel -- to transmit to either
8 station A or station B but something different will happen
9 depending on which station you're looking at. For station A
10 who has a mandatory channel set as channel 1, you look at
11 that time slot when channel 3 becomes idle and you're like,
12 oh, well, channel 1 is not idle so I'm just not going to
13 transmit. No transmission to station A. But to station B
14 which does not have a mandatory channel set, all it sees is I
15 have an available channel. I don't care about the idle state
16 of any other channels. I'm going to go ahead and transmit to
17 station B.

18 So the language that's written into the
19 claims -- if you'll turn back to slide 13. The language
20 that's written in the claims that differentiates how the
21 transmission itself works is that to station B which does not
22 have a mandatory channel you use idle wireless channels. The
23 only consideration is whether that channel is idle. But to
24 station A you also need to check whether the mandatory
25 channel is idle. Idleness by itself is not enough. So with
26 that I'd like to turn more --

27 JUDGE ANDERSON: Before you do that, Ms. Lu. So

1 your discussion that you just had here, is that most
2 pertinent to claim 2 which does distinguish --

3 MS. LU: I would argue -- it is particularly
4 pertinent to claim 2 but the truth is I think it's pertinent
5 to both. So under the *Phillips* standard you look at the
6 context of the entire patent in interpreting the claims,
7 especially how the language of the claim that you're
8 construing is used throughout the specification and also how
9 that same language is used in other claims.

10 You know, this is, for example, where doctrines
11 like claim differentiation come into play. If you
12 have -- say I have claim 1 directed to a hat and then I have
13 claim 2 directed to a hat and a sock. Well, claim 2 also
14 uses the word hat and it differentiates it from sock. So
15 that is part of the context of the specification as a whole
16 and it informs the meaning for claim 1 so I know that a hat
17 is not a sock. You can't really consider the claim language
18 in a vacuum under any event.

19 So in that sense, yes, that embodiment and claim 2,
20 the language of claim 2, informs the meaning of claim 2. But
21 because claim 2 reproduces and uses the exact same language
22 to describe claim 1 -- to describe the mandatory channel as
23 does claim 1 that context can also inform your understanding
24 of claim 1 and that is proper under *Phillips*. I hope that
25 addresses your question, Your Honor.

26 JUDGE ANDERSON: Yes.

27 MS. LU: I think that's enough. Sorry. The window

1 has your face a little bit small here so if you're nodding
2 sometimes it's a little difficult for me to tell. My
3 apologies.

4 So Shpak-Lundby. So I think the discussion of what
5 it is that the 501 patent does is important is because it's
6 important to understand that the meaning of the claim
7 language is that it changes the way that the decision to
8 transmit at all in multi-channel systems is made and that is
9 the critical gap in ground 2 Shpak-Lundby. Now Shpak does
10 not tell you how to make the decision to transmit in multi-
11 channel systems in a way that fits the 501 patent because
12 Shpak actually does not address how you make the decision to
13 transmit in multi-channel systems at all. Now Lundby, as
14 MediaTek's expert Dr. Williams repeatedly admitted in his
15 deposition, does not address the decision to transmit at all
16 because by the time you get to Lundby you've already made the
17 decision to transmit. So Lundby is not about changing the
18 decision to transmit.

19 So the petitioner takes issue with looking at the
20 references individually as opposed to the combination but
21 that's not what NTT is trying to do. In order to understand
22 what's in the combination it's not wrong to consider what's
23 in each of the references individually. And I think at the
24 end of the day it just kind of begs the question if changing
25 the decision to transmit in the multi-channel system is not
26 in either reference either explicitly or implicitly, where is
27 it coming from? You can put them together. Sure. But that

1 is a critical feature. That is the whole point of these
2 claims. Where is that feature coming from if not from these
3 references? And that's why I think it's important to
4 understand as a critical piece of the background here what
5 each reference teaches individually.

6 Now I don't think there's any dispute -- if we turn
7 to slide 16 of patent owner's slides -- what each reference
8 is allegedly contributing to this combination. Decision to
9 transmit comes from Shpak. Deciding to use one channel as
10 opposed to two after you've already decided to transmit, that
11 comes from Lundby. Patent owner never had a dispute with
12 this. In fact, it took the deposition of MediaTek's expert,
13 Dr. Williams, to really clarify where each piece is coming
14 from.

15 Now I want to address for a moment whether or
16 not -- or MediaTek's argument that NTT is not addressing
17 their proposed combination and that's just not true. For
18 example, if you turn for the moment to MediaTek's slide
19 number -- my apologies. I need focus on my notes. To their
20 slide 18 I believe. Yes.

21 So MediaTek's slide 18, they have a big screen
22 capture from the patent owner's response and say -- and they
23 argued using that screenshot, look, patent owner is proposing
24 an alternative combination. This is not what our combination
25 is. We've never said that what's addressed in this paragraph
26 is the proposed combination. So that's really just not
27 relevant here. What is this paragraph saying? This

1 paragraph is saying in the absence of any teaching modifying
2 the decision to transmit a person of skill in the art would
3 understand how the decision to transmit is made in default
4 systems. All this paragraph stands for is the idea that
5 Shpak and Lundby, these are patents -- these are references
6 that exist against a backdrop of existing technology and so
7 it's not true that each of these references disclose in
8 minute detail every single part that's necessary to implement
9 their system.

10 Take Shpak for example. And I think -- and I
11 apologize. I don't remember which judge it was that asked
12 this question, but the idea of carrier sensing and how
13 carrier sensing works is not altered by Shpak at all. Shpak
14 is really about how multiple access points can talk to each
15 other and decide which one of them is going to send the
16 payload. But as far as the decision to use a channel to
17 actually send that payload, how you make that decision and
18 how that works, all of that is governed by a carrier sensing
19 that was already defined and described in the older -- the
20 Legacy 802.11 standards. Shpak does not change that at all.
21 Shpak takes that for granted. So if you want to look at
22 Shpak and figure out what it's teaching about how to make the
23 decision to transmit, it doesn't say much at all. Shpak is a
24 single channel system and it takes for granted that carrier
25 sensing works the way that it has always worked up to that
26 point in time.

27 So with that if I can direct your attention back to

1 patent owner's slide 16. Here is what NTT takes as the
2 proposed combination. And as you can see here, all the
3 descriptions of what the proposed combination is come from
4 MediaTek's petition or quotes from their expert's deposition.
5 And putting all these things together the proposed
6 combination is you not only have Shpak's common frequency
7 channel but you've added another channel to form a multi-
8 channel system in their combination. Fine. You know, at the
9 preliminary stage we disagreed to some extent whether that
10 would actually be the combination but for the purposes of
11 evaluating this combination let's just kind of take their
12 word for it. Yeah, you can do this. You have two channels
13 now instead of one, instead of just the common channel.

14 And according to Dr. Williams, MediaTek's expert,
15 how do you make the decision to transmit? Well, he says you
16 would have to add a block before figure 2 of Lundby
17 addressing the decision to transmit because Lundby just tells
18 you whether to use one or two channels. So the decision to
19 transmit has to be informed by the teachings of Shpak and
20 that's why it's important to look at what Shpak is actually
21 teaching individually because Dr. Williams has said that's
22 where the decision to transmit comes from.

23 So with that if you'll turn to patent owner's slide
24 17. This is just -- I have a quick recap of what's in Shpak.
25 The teachings relating to how the access points are betrayed
26 amongst each other is really kind of besides the point. What
27 petitioner is citing Shpak for is that there is a channel,

1 it's the only channel that's available, right, and in their
2 petition they've acknowledged that this is a conventional
3 single channel system, and carrier sensing, which Shpak does
4 not alter from basically background technology that it takes
5 for granted.

6 What does Shpak say, if anything, about multi-
7 channel systems and how you might make the decision to
8 transmit there or what carrier sensing would look like in a
9 multi-channel system? Nothing. Nothing at all. It's
10 completely silent on it. And Dr. Williams in his deposition
11 actually agreed with that. We specifically asked him what
12 does Shpak say about checking the idle state of the secondary
13 channel? It doesn't say anything. He believes that Shpak is
14 silent on that and that's correct. We also asked him, Okay,
15 well, is there any reason to not check the idle state of
16 another channel in a multi-channel system? And he said, No,
17 there's nothing in Shpak that would restrict determination to
18 the common frequency channel. So Shpak does not address
19 any -- Shpak also does not address any scenario where the
20 common frequency channel is busy and another channel is idle
21 because Shpak presumes the existence of only one channel.
22 There's only ever one option in Shpak.

23 Now if you'll turn to patent owner's slide --

24 JUDGE BOUDREAU: Ms. Lu, if I could interrupt for a
25 minute.

26 MS. LU: Yes.

27 JUDGE BOUDREAU: Judge Boudreau again. I

1 understood Mr. Speed to say that Shpak uses carrier sense to
2 determine which of multiple channels to set as the mandatory
3 channel and that petitioner is arguing that it is a multi-
4 channel system. Is that simply incorrect or did I
5 misunderstand Mr. Speed?

6 MS. LU: You did not misunderstand but there are
7 two reasons why that argument is, shall we say, wrong. First
8 of all, in the petition they did not rely on Shpak as
9 disclosing multiple channels at all. It was agreed that Shpak
10 disclosed only a single channel and that channel is the common
11 frequency channel. And in the petition itself petitioner said
12 that it's understood that this is a conventional
13 (indiscernible) channel. So the fact that they're kind of
14 backtracking now and trying to recast this as a multi-channel
15 system is a new argument. This is not what they said out in
16 their petition. And they started backing away from it in
17 their reply but have apparently gone all the way as of this
18 hearing. So for that reason I think Your Honors would be well
19 within your rights to disregard that argument.

20 But first, regardless, that argument is also
21 incorrect even if we were to address it on the merits. And
22 here I'd like to direct your attention to slide 36 of patent
23 owner's slides. Okay. So what petitioner is saying now
24 clearly for the first time to my ears is that Shpak is not a
25 single channel system as they said in their petition. Shpak
26 is actually a multi-channel system but that's not true. The
27 reason they're saying that is because in theory under FCC

1 regulations for the unregulated bands that you could use for
2 things like Wi-Fi there could in theory exist 14 channels of
3 20 megahertz with (indiscernible) gigahertz band.

4 While that's true what we're talking about here are
5 systems. A system is not a channel hanging in the air by
6 itself unconnected to anything. If that were true there's a
7 channel in my hands right now. But it doesn't matter as far
8 as Shpak is concerned because unless and until you already
9 have two associated devices that know what channels are
10 available to them for use, those other of the 14 channels are
11 not actually part of any system. And here's a little bullet
12 point on slide 36 that just kind of sets that out in a
13 nutshell.

14 And also, the specification itself, the
15 specification of the 551 itself contradicts the idea that
16 something like Shpak which negotiates for and determines a
17 single channel to be used as part of a single channel system,
18 that that something like that could be considered multi-
19 channel because in the very first paragraph of the background
20 section of the 551 patent it uses very different language to
21 describe what that process is.

22 It states here -- and this is the screenshot from
23 that part of the specification that's shown here. I believe
24 this is in column 1 and I apologize for not having the pin
25 cite but I will read the text to you. In a conventional
26 wireless packet communication apparatus a wireless channel to
27 be used is determined in advance. And thereafter it cites to

1 Legacy 802.11. So this is Shpak basically. This is what
2 happens in Shpak.

3 Of the theoretical 14 channels that might be put
4 into a system, you determine one in advance. You determine in
5 advance. You're not setting it as a mandatory channel. The
6 specification describes what that process in Shpak is and it
7 deliberately uses very, very different language. Now this is
8 all a part of the context of the claims, correct, and under
9 the Phillips standard you have to consider language usage and
10 the specification as part of informing what the claims means.
11 And here this context tells you that picking one out of a
12 theoretical 14 channel to be the one channel you use in a
13 single channel system is not called setting a mandatory
14 channel. It's called determining a channel in advance. But
15 the claims do not say you determine a channel in advance and
16 that channel happens to be mandatory because it's the only one
17 you have. The claims say setting a mandatory channel. So
18 there you already have something contradicting the idea that
19 something like Shpak could be a multi-channel system. I hope
20 that addresses your question.

21 JUDGE ANDERSON: Ms. Lu, you've got ten minutes
22 left.

23 MS. LU: Yes. Oh, okay.

24 JUDGE ANDERSON: So do you want to -- do you want
25 to do any surrebuttal or do you want to just keep rolling?

26 MS. LU: I will keep rolling. Thank you for the
27 warning. I appreciate that. I just want to say that I take

1 all of Your Honor's questions very seriously. I know you're
2 all very well informed and know the briefing very well so
3 hopefully basic introductory material from me would be
4 unnecessary and I suggest that you do also look at the slides
5 to the extent they might be helpful. But I'd like to go back
6 to Judge Boudreau's original question about Shpak and Lundby
7 which is where the major disconnect is between petitioner's
8 argument and what they're saying that combination is.

9 If I can direct your attention all the way back to
10 patent owner's slide 22. Now the major underlying assumption
11 referring to ground 2 is that when you put together the
12 combination of Shpak and Lundby, Shpak's common frequency
13 channel is necessarily the primary channel in Lundby. That is
14 the major underlying assumption. That is the elephant in the
15 room if you will hiding underneath the banner that they're now
16 calling the natural consequences or channel reservation by
17 implication and what not.

18 But the truth is there is not a reason why the
19 common frequency channel is always the primary channel based
20 on either the teachings of Shpak or Lundby and that is the big
21 hole in ground 2. What does Lundby say about the primary
22 channel? All it says is that it's a channel that you're
23 already going to use. You've already decided that you can
24 transmit and you already know that the primary channel is
25 available. Other than that Lundby does not say a thing about
26 how you assign the primary channel.

27 Now as I mentioned earlier, it's important to keep

1 in mind that each of these references is set against the
2 backdrop of existing technology so that unless this reference
3 is adding or changing something about that existing technology
4 a person of skill in the art would presume that that
5 technology is still in place. Since Lundby doesn't tell you
6 how this primary channel is chosen, logic tells you that the
7 primary channel is chosen or the decision to transmit in
8 Lundby is made the way that it always has been in CDMA systems
9 that rely on Walsh codes to generate code channels. You just
10 keep trying codes until you find one that's available.

11 And in fact, Dr. Williams confirmed this at his
12 deposition. He was specifically asked, Okay, at the beginning
13 of the transmission you know you have a pool of existing Walsh
14 codes. Some might be available, some might not, whatever.
15 You can go through and check them. Does Lundby teach or
16 suggest any reason why one particular code channel should be
17 preferred over any other to serve as the primary channel? And
18 he says, Not that I recall. And the truth is that's because
19 it's not in there. There's no reason why any particular
20 channel has to be the primary channel.

21 Similarly, if I can direct your attention to slide
22 23, the same thing goes for the secondary channel and this is
23 probably the reason why petitioner is walking away from the
24 idea of channel reservation that they introduced in their
25 reply for the first time is because for the secondary
26 channel -- Lundby also tells you that the secondary channel is
27 not reserved. In figure 2, Lundby's decision tree, at block

1 246 Lundby's specification tells you that you need to check
2 whether or not there's a code available to be used as a
3 secondary channel. There's no reservation of any channel to
4 be used as a secondary because you have to check every single
5 time.

6 And by the same token, because you have to do this
7 check before you even know that a secondary channel is
8 available, Lundby cannot guarantee you the use of a secondary
9 channel. Petitioner has argued repeatedly that their version
10 of events, their version where the common channel is always
11 primary and the other channel that is not the common channel
12 is always secondary, why that's better is because then you're
13 always guaranteed the ability to use two channels whereas
14 under patent owner's interpretation you're not always
15 guaranteed that. That's fine but the truth is Lundby doesn't
16 guarantee you that either. Lundby tells you you don't know if
17 you're going to have a secondary channel to use. You have to
18 check.

19 As a whole Lundby teaches you that the secondary
20 channel -- assignment of secondary status to a channel is
21 dynamic. You have to go through and figure that whether or
22 not any channel could be secondary at any time and Lundby
23 doesn't tell you that there's permanent assignment or a way to
24 prefer any one channel over another to serve as the primary
25 channel. And with that major disconnect it is not true to say
26 that the common frequency channel of Shpak and Shpak-Lundby
27 always has to be the primary channel. It is not true to say

1 that the natural consequence is some kind of system of channel
2 reservation where you have another channel permanently
3 reserved only for secondary use.

4 At any given moment in time all that Lundby tells
5 you is that you've already made the decision to transmit. All
6 that Shpak tells you is that you have to check idle state
7 before you can use it. But Shpak does not tell you that the
8 idle state of one channel matters more than any other either.
9 Both channels' idle states will matter and there's no reason
10 why you would limit the decision to transmit based on only one
11 of those channels in the combination. And I -- Your Honor, if
12 you can tell me how much time is left?

13 JUDGE ANDERSON: I got on mute here. Three minutes
14 and you can have a little bit more.

15 MS. LU: I'm sorry?

16 JUDGE ANDERSON: You have three minutes remaining
17 of your 60 and because of some of the questioning we'll give
18 you a little bit more. So say four minutes from now. Go
19 ahead.

20 MS. LU: Okay. Thank you. So with that I think
21 I'm just going to have to go ahead and address Bugeja. It's a
22 very difficult to pronounce name. I see the G precedes the J
23 so I've been calling it Bugeja rather than Bugeja but I
24 believe we all know what I'm talking about. So here Bugeja,
25 one of the -- if I can direct your attention to slide 49 of
26 patent owner's slides.

27 One of the issues that petitioner takes with the

1 board's institution decision is they say the mandatory channel
2 only needs to exist for one particular device and the idea
3 that you need to control system admissions is therefore not
4 sustainable. I believe those are the words that petitioner
5 used on their slides, not sustainable. Well, you know, in
6 fairness, they have never and they still have not clearly
7 delineated what they're calling the system of Bugeja.

8 If I can direct your attention to slide 53 of
9 MediaTek's slides, there's a bit of a contradiction with the
10 arguments that they're making about focusing on a single
11 device and the way that they're describing what their proposed
12 combination is here because on 53 they're making it quite
13 clear that they're considering not just one device to be
14 relevant for explaining their understanding of what a
15 mandatory channel is. They're looking at an outer region
16 client that's assigned a primary channel and you're also
17 looking at inner region clients that are assigned one or more
18 secondary channels. So to the extent that there's any
19 confusion about what controlling system admissions means, it's
20 a confusion of petitioner's creation because they never really
21 clearly delineated what the system is.

22 And that's important because Bugeja, if I can turn
23 you back to patent owner's slide 49, actually describes two
24 different kinds of systems. Single channel systems where you
25 have the access point communicating on a single channel with a
26 single channel client and also multi-channel systems where you
27 have that access point communicating with multi-channel

1 clients that can use all three channels that are described in
2 Bugeja and they deserve separate consideration.

3 I mean to the extent that petitioner is saying,
4 well, you only want to look at one device and that one device
5 only exists in the outer region where only the primary channel
6 could be used, I mean that's fine but that's a single channel
7 system and that at the outset fails the test of the Court's
8 claim construction. It's also not mandatory because it is not
9 treated in a way that's different from any other channel as
10 far as decision to transmit is made. If I can direct your
11 attention to --

12 JUDGE ANDERSON: Ms. Lu, you've got one minute.
13 You've got one minute.

14 MS. LU: Okay. In petitioner's proposed
15 combination they say that you can understand the primary
16 channel is mandatory because you can compare it to an inner
17 channel client that's a multi-channel client, but there's
18 nothing in Bugeja limiting the inner region to multi-channel
19 clients. Bugeja in the figure excerpted from Bugeja shown on
20 patent owner's slide 50 pretty plainly shows single channel
21 clients in the inner region as well. Under their definition
22 that is -- that would also be a mandatory channel because a
23 single channel client in the inner region has a channel that
24 is always used. And logically that's simply absurd. You
25 would have both primary channels and secondary channels being
26 mandatory and if both are mandatory really none are.

27 JUDGE ANDERSON: Okay. That's a good place to

1 stop.

2 MS. LU: Can I say one more thing?

3 JUDGE ANDERSON: Okay. But I'm going to have
4 to -- I'd rather you'd stop but if you've got something really
5 important, go ahead and we'll give petitioner a little bit
6 of -- we'll give petitioner a little bit of time. Go ahead.

7 MS. LU: That's fair. Thank you, Your Honor. I
8 really appreciate it. Okay. And the last thing I wanted to
9 say is specifically about what -- if I can direct your
10 attention to patent owner's slide 52. And this is pretty
11 important. So petitioner says that all the claims
12 require -- here referring specifically to claims 2 and
13 6 -- all the claims require is distinguishing between a
14 station that has a mandatory channel assigned and one that
15 does not. But that's not all it requires. They are really
16 only reading the first of three steps under claim 2. Sure.
17 The first step under claim 2 says distinguishing station A
18 from station B, but the next step says when you're
19 transmitting to packets that are addressed to station A you
20 transmit only when the mandatory channel is idle and that is
21 in direct contrast to the language used for transmissions to
22 station B which says you use idle wireless channels. That
23 distinction as I pointed out before disappears entirely for
24 single channel systems. It's not just that you can tell one
25 from the other based on whatever criteria, it's that the
26 transmissions to these stations function differently and
27 they're ignoring two out of these three steps. I'm done, Your

1 Honor. Thank you very much for the extra time.

2 JUDGE ANDERSON: Okay. That's great. Thank you,
3 Ms. Lu.

4 Mr. Speed, you are --

5 MR. SPEED: Thank you, Your Honor.

6 JUDGE ANDERSON: Yeah, go ahead. And I got that
7 you get an initial three minutes. So I think from before you
8 had eight minutes so you have 11 minutes should you use them.
9 You don't have to use them all.

10 MR. SPEED: Understood. I'll try not to. I'll
11 start with Bugeja ground. That's just how I've been
12 pronouncing it. And looking at slide 53 where patent owner's
13 counsel actually drew your attention to, this argument on
14 claim 2, I mean the petition at page 70 couldn't have been
15 clearer. The access point in Bugeja can distinguish between
16 outer region client, so a station A in the terminology of
17 claim 2, it's an outer region client and that outer region
18 client has a mandatory channel it's assigned to. You have
19 to -- if you're an outer region client you're only going to
20 get service on whatever that access point has designated as
21 its primary channel.

22 And then we say when you have multi-channel inner
23 region clients inside they would -- in order to download data
24 twice as fast they would be assigned both channels. And then
25 for those either channel would be used just based on its idle
26 state. That's entirely what Bugeja is about. If you're in
27 the outer region you're restricted to one channel and if

1 you're in the inner region you're not restricted to either of
2 the secondary channels. It reads directly onto claim 2 and
3 claim 6 in turn.

4 Going back to the very beginning argument about
5 claim construction. I think there was a lot of emphasis again
6 on this being a patent about multi-channel communication and
7 power leakage between multi-channel communications and there
8 was emphasis on figure 16. And the important thing that
9 patent owner did not talk about is the last sentence in the
10 paragraph describing figure 16 which we showed on slide 42 of
11 our demonstratives. That paragraph or that concluding
12 sentence could not be more explicit than this problem, the
13 problem that patent owner's counsel described and tried to
14 limit to multi-channel transmission environments, it says this
15 problem occurs not only in cases of simultaneous transmissions
16 using multiple wireless channels but also in a conventional
17 case where wireless packets are transmitted by using one
18 wireless channel.

19 The patent couldn't have been clearer that while
20 there was a problem that they saw or they alleged existed in
21 multi-channel environments, they also recognize that it
22 occurred in single channel environments and they wanted to
23 have a -- provide a solution to that problem for both
24 environments and that's what they claimed. Our expert talked
25 about this in his reply declaration, went into detail as to
26 how -- explaining what that meant. They didn't depose him.
27 It's un rebutted testimony that in this patent there are multi-

1 channel and single channel systems (indiscernible) both and
2 setting a mandatory channel resolves both of them. So to the
3 extent that we -- that the Court or the board would like to
4 look at the purpose of the invention, which again is not what
5 the federal circuit would suggest should happen, but if you
6 were to look at it, it doesn't support narrowly construing the
7 claims to require multi-channel systems.

8 There is -- following up on the problem emphasis
9 from patent owner's counsel, there's a lot of discussion of
10 embodiments in specification, spent a lot of time talking
11 through what the patent is talking about. They didn't talk
12 about the claims. None of those limitations of multi-channel
13 systems are found in the claims. The question for the board
14 to decide is what does the claim say? And the claims clearly
15 recite both multi-channel transmissions and single channel
16 transmissions.

17 And I think that European history is very telling
18 here. It's highly relevant. All the cases that the parties
19 have cited from the federal circuit, in those cases the
20 federal circuit consistently looks to the file history of the
21 European counterparts to see whether or not it sheds light on
22 the meaning of the term under construction for the U.S.
23 patent. Apple v. Motorola, they said that there couldn't have
24 been a clearer statement from Motorola's counsel when they
25 were talking to the Japanese patent office and they used that
26 statement to help construe the term at issue in that case.

27 It's the exact same thing here. We've got

1 identical specification, a common claim of priority, and
2 you're talking about a claim that when they made the statement
3 was identical to the claim we have here. The notion of that
4 there's no clarity requirement in U.S. patent law, there might
5 not be the word clarity under patent statute but the second
6 paragraph of 112 requires that applicants particularly and
7 distinctly claim their invention. A clarity rejection which
8 goes to whether or not the claim language is clear and concise
9 so that POSAs understand the scope of the claim, respectfully
10 that is about as close to -- as relevant as you can get from
11 the European file issue for an issue of claim construction in
12 the U.S.

13 The examiner clearly said, Well, I'm reading this
14 claim to say that if there's only one channel present that's
15 automatically the mandatory channel. If patent owner was
16 being consistent with its position here they would have
17 responded and said, no, it actually requires two channels.
18 But they didn't. They said, That's exactly right. There's no
19 inconsistency with that, that if there's only one channel
20 present, not used, but one channel present that channel is the
21 mandatory channel. There's no inconsistency there because
22 that's what the plain language says and they should be held to
23 that in this case as well.

24 On the Shpak-Lundby, there is a lot of suggestion
25 that we're walking away from arguments. That's not true. The
26 petitioner -- you can go back. I would implore Your Honors to
27 go back and re-read the part of the petition where we spell

1 out in detail what the implementation would be. In Shpak pre-
2 modified it's a multi-channel system because there's 14
3 channels you can select from. They set one of the channels as
4 the common frequency channel, right. It's not -- and Judge
5 Boudreau, you asked if they used carrier sense to set the
6 common frequency channel. I don't -- if I had said that
7 earlier then I misspoke. They don't use carrier sense to set
8 the common frequency channel. Some administrator or someone
9 sets all those access points onto the common frequency channel
10 and that's the one that they're going to use for
11 communications with any mobile device that enters the system.
12 It's subsequent when the mobile device comes in and they need
13 to communicate to that mobile device that they would then use
14 carrier sense to make sure that the channel is idle before
15 they transmitted on it.

16 And so the question that the petition set forth is
17 if you started with Shpak, not a generic 802.11 device, not
18 some Legacy device that they want to focus on, but Shpak which
19 has this common frequency channel, this novel arbitration
20 scheme that depends on the common frequency channel, what
21 would a POSA do? And our expert explained in detail that in
22 order to achieve the benefit of ad hoc augmentation of
23 bandwidth, which patent owner has not said a POSA wouldn't
24 have wanted to achieve that, he explained that in order to do
25 that what you would do looking at Lundby is you would use a
26 secondary channel that's only used when necessary to add
27 bandwidth to that particular device.

1 He explained this in his reply declaration. He
2 explained why the proposed combination that we set forth in
3 the petition better achieves the rationale that we set forth
4 in the petition. Again, not deposed, not challenged,
5 unrebutted. Patent owner essentially is saying that if you
6 took Shpak you would scrap -- forget everything that Shpak
7 says. This is why they keep emphasizing Legacy systems. They
8 want to ignore Shpak and its teachings. They want you to just
9 start with a generic 802.11 and say if you start with generic
10 802.11, you make it multi-channel, you're just going to do
11 what generic multi-channel 802.11 did.

12 That wasn't our combination. We started with Shpak
13 as teachings. Our expert explained why those express
14 teachings would lead a POSA to the proposed implementation
15 especially when you read it in light of Lundby. Lundby
16 literally says you have a primary channel and secondary
17 channel, or fundamental channel and a supplemental channel.
18 The common frequency channel couldn't become -- couldn't be
19 more primary or fundamental Shpak and so the natural
20 consequence is that you would only use the secondary channel
21 when the common frequency channel is available. That reads
22 right on the claims.

23 JUDGE ANDERSON: Wait a minute. Excuse me, Mr.
24 Speed. I know you're on a roll there. So do you agree
25 with -- I don't know whose slide it was because patent owner
26 used -- Ms. Lu used both yours and theirs. Do you agree that
27 Lundby is the point at which a decision is made? I can't

1 remember which slide that was but it's the decision part of
2 the combination.

3 MR. SPEED: Lundby -- the decision that Lundby
4 triggers is whether or not we are now at a point where
5 we -- there's a reason to use two channels. I think we're all
6 on the same page that the way that the combination works is a
7 device comes in, says, hey, I'm here, I want to talk to
8 someone. The access points arbitrate amongst themselves and
9 say, hey, access point A, you're going to talk to this device.
10 The access point before it sends a message to the device is
11 going to use carrier sense to determine whether or not the
12 common frequency channel is still idle at that point. If it
13 is it talks to the device and then it enters Lundby's figure 2
14 and says is there something about what this device wants that
15 suggests I should use a second channel? If yes, you go and
16 you add a secondary channel for the period of time that you
17 need it and you let it go so it can be used by someone else at
18 a different point. If no, perhaps the power -- you're not
19 transmitting at a high power so you're fine just using a
20 single channel, then you just proceed as normal as in Shpak
21 unmodified.

22 So the decision that Lundby introduces is not to
23 transmit. It's whether now that we know we can transmit
24 should we use a second channel? So Shpak addresses the
25 decision should we transmit in the first place. When you have
26 a winning access point that says, yeah -- sorry.

27 JUDGE ANDERSON: Okay. How does that address the

1 claim language that says only when the mandatory channel is
2 idle? It doesn't seem to even worry about that. As I
3 understand it, Lundby says, okay, we can use additional
4 channels. Let's go ahead and use them and they'll give us
5 better bandwidth but it says nothing that I've heard so
6 far -- and maybe it's in your papers, I'll look for it -- that
7 says only when the mandatory channel is idle which is the last
8 part of the claim, claim 1.

9 MR. SPEED: Thank you, Your Honor. It's the
10 natural consequence of the winning access point will first
11 determine whether or not the common frequency channel is idle
12 so that it can communicate with the device. Only then, only
13 when it knows that common frequency channel, which is the
14 mandatory channel in the claim language, when that channel is
15 idle that's the only time it ever even asks, hey, should I use
16 a second channel? So you transmit only -- you transmit on one
17 channel or two channels only when the mandatory channel, the
18 common frequency channel is idle. If it's not idle, if for
19 some reason the device came in, said hey I want to talk to
20 someone, the access point said, hey, access point A, you
21 respond, but in the interim some other device came in and
22 captured the common frequency channel or there's interference
23 with something else, the winning access point would say I
24 can't transmit because that channel is not idle and so I'm not
25 going to transmit at all and so I'm not going to even go to
26 the Lundby figure 2 method and say should I transmit on 2.
27 It's only when you can transmit that you would ever actually

1 transmit on the secondary channel. You transmit only when the
2 mandatory channel is idle in the language of the claim.

3 JUDGE ANDERSON: Okay.

4 MR. SPEED: Does that address -- great. Unless
5 Your Honors have any additional questions I think I've
6 addressed everything that the patent owner raised in her
7 argument.

8 JUDGE ANDERSON: Actually, that's your 11 minutes
9 anyway so we're done. On behalf of the panel, Ms. Lu, thank
10 you. Mr. Speed, thank you. We'll take it under advisement as
11 is the normal course. We'll write a final written decision
12 and we'll get it to you within the statutory deadline period.
13 With that, it's near the holidays. I hope everybody has a
14 great and festive Thanksgiving followed by Christmas and New
15 Years and we'll be in touch probably after all of that has
16 transpired. So thank you both very much again and we are
17 adjourned.

18 (Off the record at 3:17 p.m.)

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