Trials@uspto.gov
571-272-7822

Paper 27
Date: August 5, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COPELAND COMFORT CONTROL LP AND
ECOBEE TECHNOLOGIES ULC1
Petitioner,

v.

OLLNOVA TECHNOLOGIES LTD.
Patent Owner

IPR2023-00624 (Patent 8,224,282 B2)
IPR2023-00626 (Patent 7,746,887 B2)

Held: July 9, 2024

BEFORE: BRIAN J. McNAMARA, ARTHUR M. PESLAK, and ROBERT J. SILVERMAN, Administrative Patent Judges.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

JAMES DAVIS, ESQUIRE.
Ropes & Gray, LLP
1900 UNIVERSITY AVENUE
6th Floor East
Palo Alto, CA 94303-2284
james.l.davis@ropesgray.com
(650) 617-4794

DANIEL RICHARDS, ESQUIRE
daniel.richards@ropesgray.com
(650) 617-4028

ON BEHALF OF THE PATENT OWNER:

SETH LINDER, ESQUIRE
BC Law Group, P.C.
200 Madison Avenue
24th Floor New York, NY 10016
slinder@bclgpc.com
(212) 951-0100

The above-entitled matter came on for hearing on July 9, 2024, commencing at 1:00 p.m., U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia

P R O C E E D I N G S

- - - - -

JUDGE PESLAK: Good afternoon everyone, welcome, please be seated. Just a second to get set up. Okay, good afternoon again. We are now on the record. This is a consolidated oral hearing for IPR 2023-00624 and IPR 2023-00626. The parties are Comfort Control LLP and Ecobee Technologies ULC, only in the 626 case, versus Ollnova Technologies Limited.

I'm Judge Peslak, Judge McNamara is joining me here in the hearing room in Alexandria and Judge Robert Silverman is joining us by video. Would Counsel for Petitioner please state your name and firm affiliation for the record?

MR. DAVIS: Yes Your Honor, Jim Davis and Daniel Richards of Ropes & Gray for the Copeland Petitioners.

JUDGE PESLAK: Okay, thank you. Has there been any changes in Petitioner's real-parties-in interest since the last time you filed mandatory notices?

MR. DAVIS: No Your Honor.

JUDGE PESLAK: Okay, thank you. Who do we have for Patent Owner today?

MR. LINDER: Hi, Seth Linder and Brett Cooper for Ollnova Technologies Limited.

JUDGE PESLAK: Okay, have there been any changes in Patent Owner's real-parties-in interest since the last time you filed mandatory notices?

MR. LINDER: No Your Honor.

JUDGE PESLAK: Okay, thank you. Okay, so we have a court reporter here today transcribing the hearing, so please speak clearly and slowly so we can have an accurate record. The transcript constitutes the official record of the proceeding. We have the entire record before us including the parties' demonstrative exhibits, if you're referring to a demonstrative paper or other exhibit please do so clearly and explicitly by slide or page number. Also note, please pause a few seconds after identifying it to provide us time to find it. We'll be keeping track of the time today on the clock behind us. There is a public line open today, and members of the public may be listening in. I'll note that neither party informed us that confidential information will be discussed today.

As set forth in the hearing order, the hearing is going to be conducted in two parts; we'll first hear the parties' arguments for IPR 2023-00626, each side -- excuse me. We'll hear 2023-00624 first, then we're probably going to take a short break, and then hear the argument for IPR 2023-00626. Each side will receive 60 minutes of argument time total, including any rebuttal time for each case. We'll start now with IPR 2023-00624. Mr. Davis, how much time do you wish to reserve for rebuttal?

MR. DAVIS: Your Honor, if we can -- I don't think we're going to need the full time anyway, but if we can reserve up to half for rebuttal.

JUDGE PESLAK: 30 minutes? Okay, you have -- starting 30 minutes here, and you can begin when you're ready.

MR. DAVIS: Yes Your Honor, may it please the Board. As I just mentioned, I do think we'll be able to cede some time back to the panel here, there are just a discrete number of issues for this IPR and actually for both of

the IPRs that we'll be discussing today. As a preliminary matter, Mr. Richards is going to be handling the particular grounds and I will be handling the claim construction issues along with more of an administrative matter regarding a co-pending proceeding.

I'm on Exhibit 1054, Petitioner's demonstratives, slide six. There were several co-pending district court proceedings between Ollnova and Emerson, now Copeland, Carrier and Ecobee. One of those proceedings went to trial, that was the Ecobee case, and in that proceeding as recognized by Patent Owner in their surreply, several claims were found to be invalid, the claims that were presented in that proceeding for the 282 Patent, claims one, three, six, and 21. And we understand from the surreply that it doesn't seem that Patent Owner's going to be raising any arguments with respect to claims one to five or 20-21, and so we understand that leaves just claim seven to 11 and 13-16, but we're going to address all of the issues that were raised across all of the claims, but there is a co-pending proceeding that we wanted the panel to be aware of.

JUDGE PESLAK: We understand. Petitioner still has the burden regardless of what Patent Owner does.

MR. DAVIS: That's correct Your Honor. We gladly accept that, I just wanted to note that out of the gate, and that's why we've arranged the issues in a particular order, focusing on the claims that Patent Owner appears to be still pursuing. I've lost -- okay. I think I've got the connection back.

Moving on to the claim construction issues, and there are three particular issues that have been flagged by the parties, the first two do concern claims that weren't found invalid in the Ecobee proceeding, the third one is solely focused on claims that were found invalid in the Ecobee

proceeding, and I'll address all three. On slide nine, as the Panel is well aware, as the Federal Circuit has repeatedly held, the Board doesn't need to reach issues of claim construction that aren't necessary to resolving the controversy here from Petitioner's perspective under either parties' proposed constructions, the claims are unpatentable, and Mr. Richards will be addressing that, but to the extent that the Board is going to reach any of these particular claim construction issues, we do believe that Petitioner's proposed constructions are the correct ones.

I'll start first with the multi sensor package term, which is in all of the independent claims at issue here. Petitioner in its petition as indicated there in the top center box for this term had proposed a construction that the parties had actually agreed on in the underlying district court proceedings, and that agreement actually came from Patent Owner's proposed construction in another proceeding against Carrier, the construction of a single packaged sensor device, not a group of individual sensors. Patent Owner in its Patent Owner response changed what it had previously proposed and agreed to and now is proposing a construction of a single packaged sensor device with multiple operational sensors, as Petitioner briefed, that frees operational, or operable as it was occasionally referred to in their briefing, was ambiguous as to whether Patent Owner was requiring that all sensors in that multi sensor package be operable at the same time or operational at the same time. In the surreply briefing from Petitioner, and this is on slide 23, excuse me, surreply briefing from Patent Owner, it seems that Patent Owner has abandoned that position or at least made clear consistent with Petitioner's reply arguments that operational does not require that all sensors must operate simultaneously, because the 282 Patent teaches

selective powering of sensors and selectively reading one sensor, citing to some of the same passages of the 282 Patent including column nine, lines nine to 13 that Petitioners had cited in the reply.

JUDGE PESLAK: From a claim construction point of view, is there any difference between multiple operational sensors and sensor that's configured to sense and report on numerous variables?

MR. DAVIS: There was ambiguity before from Patent Owner's proposal and arguments, but I think that ambiguity has been removed from the surreply, so any construction we'd submit should make clear that the operational requirement isn't something that -- it doesn't need to be operational all the time, you can have different sensors operating at different times, but beyond that, I don't think there's much of a dispute between the parties. The surreply does raise issues as to whether there have to be multiple sensors, I think there's remaining portions of the claim limitation that indicate that already, but as indicated here at the bottom of slide 10, the bottom bullet there, Petitioner would agree to the construction of a single packaged multi sensor device, not a group of individual sensors. Again, the claim limitation is met under any of these constructions as Mr. Richards will address, but if that would address Patent Owner's concern, Petitioner is fine with that as well.

JUDGE McNAMARA: So Counsel, this is Judge McNamara, the question I have then is, is this sort of just a configuration packaging kind of thing? I mean, multiple sensors in one package versus five or six sensors in one package isn't -- or five or six individual sensors as located in the same general area, I'm just trying to get a sense as to what this means.

MR. DAVIS: Yes, there was some discussion of this in the file

history where the prior art, the Petite reference was distinguished, and that's why the parties had agreed to not a group of individual sensors, so that's why we had included that caveat in the agreed construction from the District Court. I hope that addresses your question, I think that's what -- it doesn't belong in this group, what otherwise would exist of a device of some sort that senses multiple things would seem to meet the requirements.

JUDGE McNAMARA: So it's not one sensor that performs multiple functions, but it could be multiple sensors in the same box, is that right?

MR. DAVIS: Right, there is not individual sensors. I'm trying to adhere to what the intrinsic record indicated. For purposes of this prior art, Your Honor, I don't think it matters. As you'll see from Mr. Richards, either way it's met, that's why it's Petitioner's position that under Nidec none of this really matters that much.

JUDGE McNAMARA: Okay, thanks.

MR. DAVIS: Unless there's any further questions on that I'll flip to the next term. Second automation component in communication with the building automation system, here Petitioner submits the plain and ordinary meaning of that term is perfectly sufficient. Patent Owner has proposed a construction that adds in a negative limitation, it's that language in red there on the slide in the upper right hand corner. Patent Owner has proposed construction is an automation component that communications with but is not within the building automation system. There's just no support in the intrinsic record for that negative limitation, the Patent Owner's argument seems to be that if someone is communicating with a group, that person cannot be part of that group, and they're hinging it off of the language

'with,' but if I'm with a group of my friends, I'm part of that group of friends and I can communicate with those group of friends. Just grammatically, there's no support to say 'but is not within' has any support from the claim language. I think that's further illustrated in the intrinsic record itself, it's the second automation component that Patent Owner in this upper quote from the Patent Owner responds, Patent Owner indicates that that could be a field panel or a reduced function device, and as we've highlighted there in Figure 1 in the bottom right hand corner, those are elements 120 and 116A-G, all of those are part of that entire system, control system 100 that's depicted there in Figure 1. So the intrinsic evidence also shows that the second automation device is part of the building automation system, and thus there's no support for the negative limitations as Patent Owner is proposing.

Unless there's any questions on that, I'll move to the last of the terms in dispute for claim construction, and that's receive sensor control information related to sensor data in control, this is only in claim one. I will note that that last phrase, sensor data in control, the Board had asked in its institution decision at page 21 whether that means the sensor data is used by the second automation device to affect control. Petitioner's position is the plain language is all that's necessary for purposes of construction, Petitioner doesn't oppose the Board's interpretation of that for purposes of this proceeding, but it doesn't believe that it's necessary of that any of the issues here hinge on that construction. Patent Owner has proposed construction, as we've indicated here, again, rewrites the term a bit, I will note that overall it doesn't seem like any of Patent Owner's arguments really hinge on this construction at all, so we're -- again, it doesn't seem like the Board needs to

reach it, but if it does, the one piece in particular in that we'd point out is that it seems like Patent Owner is rewriting that language related to, to instead be identifies, and this is on slide 16. The specification as we've quoted there, the second box from the bottom says, the sensor usage or control information relates to or identifies, it uses that disjunctive 'or' to distinguish between relates to and identifies, again indicating that it's improper to rewrite the claim language to narrow it further from related to, to identifies.

JUDGE PESLAK: But doesn't it also just eliminate second automation device from the claim?

MR. DAVIS: It --

JUDGE PESLAK: Unless I'm reading it wrong.

MR. DAVIS: Second automation device, Your Honor? Maybe you're referring to the prior construction, on slide 11 for example?

JUDGE PESLAK: No, I'm referring to the claim language. It says, 'receive sensor control information related to sensor data in control at a second automation component in communication with the building system.'

MR. DAVIS: I don't think the parties have proposed construing the rest of that term, Your Honor, so it would still have that --

JUDGE PESLAK: So you would glom this onto before add a second automation component?

MR. DAVIS: Your Honor, we don't propose construing it.

JUDGE PESLAK: That's what I think is happening, isn't it? The way the claim reads right now, prior to in communication with the building automation system there's at a second automation component. So if you put this construction into the claim, you've lost an element out of the claim, I

think.

MR. DAVIS: Your Honor, we're not proposing any construction, so if that's a problem with Patent Owner's construction, that would be an additional issue with it. I had taken their position to be that phrase 'add a second automation component' was still going to be in the claim, but they can perhaps clarify that.

JUDGE PESLAK: Okay.

MR. DAVIS: Either way, we don't think that the construction is appropriate. There was a related issue concerning self-identifying information that really I think is better presented in the context of the particular grounds and Mr. Richards will address that. But unless the Board has any further questions on claim construction I'll pass the podium to Mr. Richards.

JUDGE PESLAK: Judge Silverman, do you have any questions? Judge McNamara?

JUDGE McNAMARA: No, I'm good.

JUDGE PESLAK: Okay, thank you.

MR. DAVIS: Thank you.

MR. RICHARDS: Good afternoon Your Honors, and may it please the Board, Daniel Richards, on behalf of the Petitioner in this case. I'm going to be focusing in on the substantive questions of the grounds of disclosure, I'm going to be focusing predominately on the specific issues that were raised by the Patent Owner, which have to do with the specific terms that are shown on slide five, the multi sensor package, the second automation component in communication with the building automation system and receive sensor control information related to sensor data in

control. I will note that that third argument is specifically relating to only claims one through five, which as Mr. Davis noted before it seems that Patent Owner is no longer disputing the patentability of, but as Your Honors had noted before, Petitioner recognizes that we continue to have the burden on demonstrating patentability here. Jumping into first the McFarland based grounds and the disclosure of multi sensor package, I'm going to start off on slide 21.

JUDGE PESLAK: Could you just go back to slide 20 for a second?

MR. RICHARDS: No problem.

JUDGE PESLAK: One thing that is a little frustrating in the petition is you seem to put a lot of disclosure into each claim limitation, so let's just break this down so I understand. The preamble talks about a building automation system, right, so is it Petitioner's position that that's 100 the entire system, the building automation system?

MR. RICHARDS: In the petition, the Petitioner's position is that Figure 1, the system 100 there is the building automation system. There is, however, the issue of Patent Owner's construction, which gets to the third claim construction issue that Mr. Davis was alluding to, which is creating a little bit of a question of a box drawing exercise in Petitioner's view.

JUDGE PESLAK: Okay, so before we get to that, I want to understand, just make sure I understand. So then, as a building automation system, that's 100.

MR. RICHARDS: Yes, Your Honor.

JUDGE PESLAK: And there's the preamble's an automation component, so is that -- when I look at this drawing, I understood from the

Petition that the automation component was the entire device 207, but it looks like from this drawing, is Petitioner saying that the first automation component is just the sensor, not the entire box?

MR. RICHARDS: No, Your Honor. So the way that this is drawn here, the intention is that it is device 207 that is being referred to as the automation component. In Figure 1 when describing system 100 the system shows examples of sensors and actuators in the system and you can see sensor 109a, what that's referring to is a device that has a sensor in it, and so what Petitioner is using the system to show there is an example of such a device that is communicating with the controller within the system. So it is the device 207 that includes a sensor that Petitioner maintains is the automation component.

JUDGE PESLAK: And then the second automation component is the controller?

MR. RICHARDS: Yes, Your Honor.

JUDGE PESLAK: Okay, all right. Go ahead.

MR. RICHARDS: So focusing in on slide 21 where we really look at Figure 2 of McFarland. McFarland's Figure 2 shows an example of device 207, and you can see on slide 21 we've drawn a red box around the sensor 209, and if you look at McFarland's corresponding disclosure discussing sensor 209, it really in three different ways explains why sensor 209 can be a multi sensor package. The first way is in the first sentence that is highlighted on the right side of slide 21 where it says the sensor 209 may include a device or a collection of devices that sense conditions, parameters, and/or events such as an environmental condition in a building. That highlighted language there uses the plural, devices, and the plural,

conditions, and the plural, parameters there. What that tell us is that this one sensor can sense multiple different things, multiple different types of conditions, for example, and it's a collection of different devices within a single box. Apropos to Judge McNamara's question earlier, that shows that you have a single device that's capable of sensing multiple things, hence multi sensor package.

In case that wasn't clear enough, however, there's then further down, about two thirds of the way down, an additional highlighted clause here that says if a sensor 209 is configured as any of a temperature sensor, humidity sensor, fire sensor, combinations thereof. So you could have within sensor 209 a combination of things such as a temperature sensor, humidity sensor, or fire sensor. Again, in a single box, so you have a multi sensor package there. And then if you drill down even a little bit further into that, the paragraph then says it a third way, describing a physical implementation of this. What McFarland then goes on to say is you could have this implemented as it quotes at the bottom of -- the quote on the right side of slide 21, micro electromechanical sensors MEMS for sensing any condition or parameter. What that tells us is you could have a single piece of silicone, piece of silicone that has multiple different sensors on it. Again, single device, multiple different sensors.

In case Your Honors wanted there to be something more to tie this idea of a MEMS sensor to, Petitioner also included in the petition as a secondary ground a combination of teachings between McFarland, as well as the secondary reference Ahmed. If we look at slide 26, Ahmed provides additional teachings of how you would implement a MEMS sensor suite. Slide 26 quotes from Ahmed paragraphs 47 and 48, and you can see that it

describes the first sensor module 28 includes a MEMS sensor suite 42. In paragraph 48 it continues on to say, the sensor suite 42 is a collection of MEMS sensors incorporated into a single substrate, for example a MEMS module that includes both temperature and humidity sensing functions is commercially available. Again, that tells us you have now a single module, multiple different sensors, single silicone. That tells us that we know there is here a multi sensor package, as is required by this claim element.

If Your Honors don't have any further questions on the multi sensor package claim element I'll move onto the in communication with element next. We'll start that on slide 29. Taking a step back before we dig into some of the details of what we're talking about for this claim element, the way that Patent Owner's presented its argument in both the Patent Owner response as well as in Patent Owner's surreply, is it's not attacking whether there's a disclosure of this term under the plain meaning of the term but is instead attacking whether or not McFarland has a disclosure of this term under Patent Owner's construction, including the negative limitation that is not within the system. As Mr. Davis explained, that negative limitation lacks any intrinsic support and absent to that argument there is no argument that was presented by the Patent Owner explaining why this limitation is not met.

Setting that aside, looking at the disclosures from both McFarland itself as well as the secondary reference that was added in some of the later grounds, you'll see the Stoner reference. There are two different reasons why even applying Patent Owner's proposed construction, this claim element is still met. The first one is as I alluded to previously, in the 282 patent, the way that Patent Owner is presenting this argument is largely a

box drawing exercise, because you can see in the two figures shown on slide 30 here, in the middle of the slide where it should be saying 282 patent Figure 1, you can see what it is that the Patent Owner is saying the system looks like, which is you have a building automation system and then the carving out, what was described as the second automation components, which are things such as field panels 120 and certain limited functionality devices 116, and saying that those are outside of the building automation system.

That same logic can be applied with support from the specification in McFarland that's shown in McFarland Figure 1. We're going to describe the building automation system to exclude parts of the system. If you look at McFarland, it talks about wireless floor level networks, and if you see in the bottom right corner of McFarland Figure 1, you can see a wireless floor level network in which you have three different controllers, 108c, 108d, and 108e. If we characterize those as second automation components as is described in the Petition, which points to these controllers as a second automation component, then you have a building automation system that is the rest of what is in Figure 100 and the second automation components that is in the bottom right corner there. That is consistent with McFarland's disclosure that you can organize the system 100 into sub groups, including wireless floor level networks, and that's explained in paragraph 27 of McFarland, and Dr. Neikirk further explains why it is that at least renders obvious that the building automation system can be drawn to exclude this floor level network. So, that's way number one that the prior art discloses this term under Patent Owner's construction.

Way number two, which it might be a little bit more

straightforward, is the secondary reference Stoner, that is identified in some of the grounds. What Stoner teaches is taking a controller in a system and making it a remote controller. We see that in slide 31, we have a couple quotes from the Stoner reference here, the first one at the top of slide 31 being from column four, lines 28-40, and what it says is that you can have a remote controller 14 that provides for user interaction with the HVAC controller 12. Remote controller 14 may include a temperature sensor and may transmit a temperature, sensor value to HVAC controller for use in controlling the comfort level of at least a portion of the building or structure. That tells us that the remote controller described by Stoner implements a lot of the same things that were being done by the controller in the McFarland reference and is part of the reason why it would have been straightforward to apply those teachings to modify the McFarland reference by making it a remote controller. The reason that's important is if you have a remote controller, as taught by Stoner, Stoner at column five, lines 24-36, teaches that the remote controller 14 is portable and goes on and says, the remote controller 14 may be moved to a location outside the building or structure. Outside the building or structure, so outside the building automation system. Applying that teaching to the McFarland grounds would at least render obvious the idea of having the second automation component be something that is outside the building.

If Your Honors have no further questions about that ground, I will then briefly touch on the prior art disclosure piece that was addressed in the Patent Owner's response, which is receiving sensor information related to sensor data in --

JUDGE PESLAK: Counsel, before you get into that, we have a

question about actually limitation 1e that this phrase is part of, but this isn't really the claim construction issue, right, that you're going to address, but so, limitation 1d says you have a memory that's in communication with the processor, correct? So that's, memory is 226, element 226 in McFarland's device, that's what you mapped it to. And it says the memory is configured to store sensor data and computer readable instructions that are executable by the processor, okay? And you've mapped the computer readable instructions to the programs 234 in McFarland, and McFarland says those computer readable instructions are resident in the memory. So then the limitation says wherein the computer readable instructions are programmed to receive sensor control information related to sensor data in control at a second automation component. And you've mapped in the petition McFarland's report instruction from the controller back to the device 507, as that's what's received by device 507, but when I read the petition for that limitation I'm having trouble understanding how that report instruction is received by the computer readable instructions, because the report instruction can just be a wake-up command. Why would that, if it's received at the device, be received by the computer readable instructions?

MR. RICHARDS: So let me just jump back to slide 20 because I think it will be a little bit easier to talk about this in the context of the figures shown on slide 20 here, and especially the device 207 there. What the component is, and maybe we can have actually the zoomed in version of device 207 which is shown on the next slide, from Figure 2 on slide 21, you see the sensor device there and you have a processor 214, as Your Honor was mentioning a second ago. The processor 214 communicates with the transceiver, the memory, the programs, the storage, each of those different

components there, and what the computer readable instructions stored in the memory do is that they're something that are instructions that are used by the processor in order to understand how to operate the device. What the Petitioner's trying to explain there is that the disclosure in McFarland is describing how the processor using those memory instructions understands how to interact or communicate with the transceiver, those instructions provide it with the ability to then both send information and receive information through the transceiver, and it's either at least disclosed or is obvious that the ways that McFarland does this is that the processor uses the computer readable instructions that are stored in the memory that includes, for example, those programs 234 to understand what it should do with information that comes in, and what it should do in order to transmit information out, and that includes receiving the sensor control information related to sensor data and control at a second --

JUDGE PESLAK: So can you just tell us where exactly that's explained in the petition and/or in your expert's declaration?

MR. RICHARDS: I don't have the exact page number in front of me at the moment, I believe it's around page 21 of the petition. Yeah, so I'm sorry, it's starting around page 25 of the petition, and it says the -- starting on page 25 there's an explanation of receive sensor control information, where we're pointing to disclosures of the wireless automation device receiving control instructions including the report instruction. And it says that the computer readable instructions are programmed based on disclosures of the programs instructions being programmed using software, such as C. So we then use that to then go to the quotes down below and let me just find the exact quote I'm looking for. Yeah, so for example, the

quotes I think from paragraphs 25 and 26 there explain how a controller controls and provides control functionalities to the sensors, it also describes how the controller is programmed with set points and sets forth instructions on how to this using those sensors, and then there's a reference from Element 1e 2, the expert report there, and it's paragraphs I believe two -- it's paragraphs 84 to 88, but I think it's 84 to 86, I can try to give you a more precise quote on that in a little bit.

JUDGE PESLAK: Well what about McFarland's disclosure of the report instruction in paragraph 62? All it says is -- because this what you're relying on for 180, 'in response to a report instruction, the device 507 may wake up from a sleep mode and sends in report.' What does that have to do with the computer readable instructions?

MR. RICHARDS: Because what it's saying there is that the device wakes up, so you receive something in from transceiver 216 that causes the device to wake up, which means that there is an instruction that would have to go through the processor, and in order for the processor to be able to actually report a current indicator, which is something that's part of the sensor, the processor then responds to that by then communicating or retrieving the sensor value, because those processors are responsible for controlling the sensor.

I think, I'm hoping I'm answering Your Honor's question there, but my point for that being that the way that the processor knows how to do each of those things is because it is disclosed in McFarland that the way the processor operates is that it uses instructions, computer readable instructions that are read by the processor, including those programs, in order to dictate what the processor does with that sensor data. So using that information that

is stored in that memory, the processor there, therefore it understands how to respond to those instructions, including by sending sensor data response.

JUDGE PESLAK: Okay, I understand your position.

MR. RICHARDS: Very briefly on the last two arguments here that we are discussing, first is the sensor information related to sensor data in control, slide 32. I'll briefly discuss those quotes relating to what we were just mentioning, of McFarland disclosing reporting the indicator for these sensors in response to instruction. Really in response to these positions, as noted at the bottom of slide 32, the position that Patent Owner is taking is that there is no such information that is provided because of their self-identifying claim interpretation, because McFarland discloses multiple different sensors. That self-identifying idea that Patent Owner was describing, which is referring to more of the general concept of if there's sensor data and you receive sensor data requesting sensor data then it goes out, because you only have one sensor and that would be understood that's not the way that McFarland works, because McFarland actually has explicit disclosures of using multiple sensors.

The second way that this is disclosed is because of the secondary reference, Stoner, which actually discloses that there are indicators of what these specific sensors that is currently being used for control within the system, and that the sensor information, the sensor data and control actually provides updates saying instead of this sensor data over here, there's a different sensor that is actually being used for the full. Very briefly, since I'm running a little bit over our initial time here, I'll touch on the Kates ground.

JUDGE PESLAK: Just go back to Stoner for a second. So in the

Stoner ground you're essentially saying replace the remote controller -- excuse me, put the remote controller of Stoner in place of the controller in McFarland?

MR. RICHARDS: Yes Your Honor.

JUDGE PESLAK: Okay.

MR. RICHARDS: Turning to the Kates grounds, starting on slide 36, this is just a high level overview of it. There was no longer, as Mr. Davis mentioned, any argument about claims 20 and 21, and therefore the Kates ground which addressed only those claims in the Patent Owner surreply, originally there were only two arguments that were being raised by the -- originally only two arguments that were being raised by Patent Owner in response to the Kates grounds, the first one was based on the multi sensor package limitation. In this combination, as we see on slide 37, the multi sensor package limitation is being addressed by paragraph 48 of Ahmed, which I discussed previously. And then on slide 39, with the other argument that was being addressed was Patent Owner's construction of with to exclude within, as shown on slide 39. Similarly, Kates discloses that the system includes multiple different zones, and so if you were to have to have a zone -- or if the system has to exclude the second automation component, Kates includes the teaching that the central system, which the petition points to as the second automation component, is outside of the zones and therefore would be outside of those smaller building automation systems.

One brief note to clarify what I said earlier, Your Honor, I apologize. Going back to the McFarland grounds and your question about Stoner, I should clarify that our position is that you would apply the teachings of a remote controller from Stoner to the teachings in McFarland

of a controller, as opposed to doing a replacement of the two.

JUDGE PESLAK: I know, I understand that, but you weren't -- you're not doing anything different with McFarland for anything other than that second automation component, then. It's still, whatever the controller is, if it's remote or not, it's still going to be communicating with the sensor in the same way in your combination. Just from a practical point of view, you know.

MR. RICHARDS: Yeah, I just wanted to make sure I understand you, because I think the answer to your question is yes, Your Honor, I just want to make sure that it's clear that when we're saying yes to that what we're also saying is that as part of the applying of those teachings it would be applying those teachings of how you would track those sensed temperature readings as disclosed within Stoner here.

JUDGE PESLAK: Got it, got it, that's fine.

MR. RICHARDS: I think with that, we'll reserve the rest of our time for rebuttal.

JUDGE PESLAK: Okay, so you used 38 minutes, you'll have 22 minutes left for rebuttal. Patent Owner, how long do you want to reserve for surrebuttal?

MR. LINDER: 10 minutes, please.

JUDGE PESLAK: 10 minutes? Okay, you have 50 minutes, you can begin when ready.

MR. LINDER: Thank you Your Honors, and may it please the Board, again Seth Linder for Patent Owner. I wanted to actually start with the multi sensor package limitation that counsel for Petitioner discussed in some detail. So as the Board has seen in the file history, the applicant

particularly distinguished prior art based on that limitation, that a collection of sensors is not disclosure of a package, or a multi sensor package. And so this is actually an important distinction here, and I was listening carefully to what Petitioner said, and in one instance they said a single box of these components in the McFarland reference are put together, and that single box is enough to meet this limitation. So what they're referring to there is the box that's in the figure of the McFarland reference, so it's just the patent drawing that puts a box around those components. Patent Owner doesn't think that Petitioner has met its burden to show that there is a package, a multi sensor package, just because a drawing has a box around an item called a sensor.

So if we look at the petition, can we pull up the petition, pages 18 to 19?

VTC OPERATOR: This is Charlie from the VTC, sorry for interrupting. If you are sharing content, can you please disconnect and reconnect the cable to the device, so that we can see it on the -- as well? So the computer who is sharing. I apologize for -- that worked, thank you very much.

JUDGE PESLAK: Unfortunately, we can't see it on the screen, either. Ah, there you go.

MR. LINDER: It's pages 18 to 19. So at the bottom of page 18 is where Petitioner presents its evidence as to why there is a multi-sensor package in McFarland, and if you go onto the next page, top of page 19, this is of petition, it says that it's thus disclosing multi sensor package, and Petitioner cites to paragraph 43 in McFarland and then again back to the file history, which was Exhibit 1003. And so, we don't need to go there right

now. So if we look at what Dr. Neikirk said, which is Exhibit 1002, and paragraph 73 -- so in 73, Dr. Neikirk says, and it's kind of in the middle of the page there, in contrast to this prior art, McFarland expressly teaches that its sensor is a combination sensor, meaning that McFarland's sensor teaches a package in which individual sensors are combined, and create a multi sensor package. So if we look at paragraph 43 of McFarland, which is Exhibit 1027.

So in paragraph 43 it describes that sensor 209, that's the one that has the box drawn around the figure. That sensor 209 may include a device or a collection of devices, okay? So it's straight out saying that sensor 209 is not necessarily one device, it can be a collection of devices, and later it talks about how you can have various different sensors or combinations thereof. So it's clear from this description that a person skilled in the art would understand that when you're talking about a device, it's one of these sensors, when you're talking about a combination of devices that are included within what this patent application calls sensor 209, that that would be the multiple devices. So that disclosure alone simply is disclosing this collection or combination of devices, and what we don't see here is that there's any evidence that there's actually a package, that these are packaged together. The only evidence that they're in a box is that the drawing puts a line around the figure, which isn't evidence of how -- that it would be understood that they were packaged.

JUDGE PESLAK: So you're really referring to sort of a mechanical packaging, as opposed to -- I mean if there were, just as an example, if there was one circuit board that had four sensors on it, are you saying that would or -- would that be a package or not?

MR. LINDER: Yeah I don't think we've taken a position in the papers as to exactly where the limit would be as to what a package is, but my point here is, Petitioner has the burden to show that there is a package and simply pointing to this collection of sensors saying well, the figure had a box around it, that's not enough, that doesn't show that there was a package.

JUDGE McNAMARA: This is Judge McNamara. Let me make sure I really understand this, because I'm looking at column six of the patent, and I see a discussion about the automation component includes a sensor package 220, that communication with subcomponents, and then the sensor package, subcomponents 202, 204, 210, and then the sensor package 220 may be configured to sense or detect a variety of variables such as temperature, humidity, carbon dioxide, carbon monoxide, volatile organic compounds, et cetera. You are not saying that there is one device, one physical device that does all that, you are saying that there is a package that could have in it devices that do all of this, is that correct?

MR. LINDER: That is correct.

JUDGE McNAMARA: An individual device that does humidity, an individual device that does temperature, an individual device that does carbon monoxide, but they're all in one package, is that what you're saying?

MR. LINDER: Yeah, I don't think there's a description in the specification of the 282 patent that would describe sort of some miracle sensor that can --

JUDGE McNAMARA: That's what I'm getting at, you're not limiting your claim to some miracle sensor that no one has ever seen.

MR. LINDER: Right, we're not taking that position, we're just saying that there is a difference between just this collection of devices, even

if you put, you know, put these things in the room together or put them really close to each other, there's a difference between that and a package, and Petitioner has got the burden to show that the sensors in the art are actually in a package. And I'm -- what I've talked to you so far today, that McFarland disclosure really doesn't have that, it describes separate devices, the only evidence of them being together is that the figure shows a box around them, and that's not enough.

JUDGE McNAMARA: So to understand the scope of the claim, then, by package though, you do mean a physical package, you don't mean some sort of metaphysical, there's a package kind of together? You mean a physical package, right?

MR. LINDER: I think that's how it would be interpreted by a person of skill in the art, yes, Your Honor.

JUDGE McNAMARA: Okay, thank you so much.

MR. LINDER: Okay, so I'd like to then turn to --

JUDGE PESLAK: Did your expert address that in his declaration, what a person of ordinary skill in the art would understand the package to mean?

MR. LINDER: So the expert did explain for the McFarland reference, this is Exhibit 2008, paragraph 39, that this collection that they've pointed to in McFarland would not be packaged.

JUDGE PESLAK: But does he give -- I'm asking does he give an interpretation of how; does he state what a person of ordinary skill in the art would understand the term package to mean?

MR. LINDER: I don't believe he does, Your Honor.

JUDGE PESLAK: Okay, thank you.

MR. LINDER: So I'd like to now turn to the Ahmed-629 reference. I will be just referring to it as Ahmed today, and in the petition at page 69, we can see that Petitioner's contention here is again that -- the third line down is that Ahmed discloses a MEMS sensor sweep that is a collection of MEMS sensors. So again, we've got this sort of same wording here that, what is discussed in the file history that a collection of sensors is not enough. Now Ahmed goes further, and Petitioner does include this, that they described that Ahmed would have these sensors on a -- the wording is on a single substrate. And what Petitioner said during their presentation just now was that this is a single silicone, that was the wording that they used. That's not evidence that's in the record right now, that a substrate would mean a single silicone, and in fact, the only time that comes up was in Dr. Neikirk's initial declaration in paragraph 199, but in that instance he is simply saying that a single piece of silicone is an example of one place where you could have a single substrate.

If you look through Dr. Neikirk's declaration, you'll see that there isn't any disclosure of him saying a person of skill in the art would understand that a single substrate is a package, and that devices that are on one substrate are in one package. There's simply nothing from him on that. The McFarland reference and the Ahmed reference, they never use the term package, and so although Patent Owner acknowledges that the references don't have to disclose every term verbatim of what the claims do, in this instance what's important is that the file history did make a distinction that you can't just have a collection of sensors, and throughout the petition they've referred to a sensor module, that's not the same as a package. And so we don't believe that Petitioner has met their burden on showing that, that

that limitation is met.

JUDGE McNAMARA: Is there somewhere in the specification that describes this package, says what it is?

MR. LINDER: Your Honor, I think you pointed to one of the descriptions that I think is helpful in understanding it, and there isn't an extremely clear, express definition of okay, here's what a package is, and here's what it isn't, but what we do know is that we can distinguish a package of sensors from various other components. So for example, in column six, the paragraph beginning around line 22, we can see that we have a sensor package and then we have subcomponents, and those subcomponents could include memory, a processor, various other, what we would sort of call discrete components. And so if you kind of look at it in that broader context you can see that a package sort of exists as, I'll call it a peer of these other discrete components, and so I think that's probably as close as we get when we look at how the patent describes what a package is.

JUDGE McNAMARA: Okay, so, and again, here's where I'm having a real problem. You said for example a package is not a module, and I hesitate to bring this up, but you know where I'm going, right? I mean, you know, a module is a nonce word, a package is a nonce word, I have no idea what its structure is. And so since I have no idea what the structure is, how do I give it any kind of meaning at all? You know, we're not going to address the questions to whether or not it's a definite, that's another whole separate issue that fortunately you do not have to answer here today, but what I'm getting at is, is you now have created for us an issue that I'm not sure by saying it's not a module, that doesn't -- sensor between a module and a package, I can't make that distinction based on what I see in the

specification. So now I'm really confused.

MR. LINDER: Your Honor, thank you for that question, I think that when you look at the spec and when you look at the file history, I think the most helpful thing in addition to what I pointed to in column six, and there's a few other examples of this in the patent, but also when we look at the file history we can see that there's this as clear as day distinction and argument made by the Patent Owner which was successful, that this collection is something -- a collection of sensors is not a package, and that was persuasive to the Examiner at that time. So I know we don't necessarily have a clear boundary here as to what's a package or not, but we know that it's more than just a collection, which I think is what the prior art discloses, and the other thing I would point out is just that Petitioner has the burden to show that this limitation is met, and I think that the disclosure's been pointed to, the expert testimony, it's really far from getting there.

JUDGE McNAMARA: Okay, like I said, the issue is we have this amorphous thing we're calling a package but we don't really have a description of what that structure is and you don't really limit it to something other than, it's not just a collection of sensors.

MR. LINDER: I think that's fair, Your Honor.

JUDGE McNAMARA: Okay, so that's a negative limitation, so that makes it even more confusing. You're telling me what it's not.

MR. LINDER: Well, yeah, I guess I'm excluding this class that was excluded clearly in the file history.

JUDGE McNAMARA: Okay, I know I've sort of put you in kind of a tough spot, so, anyway, but I just want you to understand where, you know, where someone else coming from looking at this is having difficulty

with the reasoning. Anyway.

JUDGE PESLAK: Just so the record's clear, when you're referring to the file history, you're referring to the Applicant's response to an office action dated December 22nd, 2011? And that's Exhibit 1003, it starts at page 101?

MR. LINDER: That's right.

JUDGE PESLAK: Okay, and that's what you're relying on?

MR. LINDER: Yes.

JUDGE PESLAK: Okay.

MR. LINDER: Okay, I'd like to turn now to slide eight of Patent Owner's demonstratives. And so now we have talked about the disclosure in Ahmed which said there was a single substrate, and what Petitioner has done is say well, if the collection or combination of sensors in McFarland is not enough, we look to the Ahmed-629 reference, and that discloses something better, something closer to the package. And their proposal, the best I can understand it, is that a person of skill would use the Ahmed package of MEMS sensors -- sorry, would use the disclosure in Ahmed about the MEMS sensors being combined on one substrate and say well, I can use that and now we have the full claim limitation met, because there's the multi sensor package.

Now, the problem with this, as Petitioner pointed out in its response at page 40 and again in its surreply at page 17 is that the Ahmed sensor modules, which is what Ahmed refers to them, they're only configured to sense one condition, and in fact it says that in paragraph 47 of Ahmed that module 28 -- there's two modules in Ahmed, there's 28 and 30 that are described. Module 28 is a configured as a temperature sensor only,

and that other signals would be ignored. So if we were to implement, as Petitioner suggests, the teachings of Ahmed, apply that to the McFarland reference, what we would then have is whatever Ahmed's collection of sensors is, even if that is a package, we would then have this device that doesn't function as the claims recite, which is that it has to detect a plurality of variables and generate sensor data for each detected variable.

JUDGE PESLAK: It just has to be configured to detect the plurality of variables; it doesn't have to detect each one in operation.

MR. LINDER: And the way that Ahmed describes its collection of sensors is that it is configured to detect only one. So you're right, Your Honor, it only has to be configured that way, and in Ahmed it is configured a different way, it's only configured to detect one, and that goes for the temperature sensor, module 28, which is in paragraph 47 and 56 of Ahmed, and then again for the other module, which is a flow sensing module 30, Ahmed is clear there that in paragraph 57 that that module is configured only for one variable as well. So if one were to implement what Ahmed discloses into McFarland, even if it does disclose a package, there isn't a module or a package that is configured as the claims recite to detect a plurality of variables. The Ahmed sensors are specifically configured to detect one variable.

And the final point that I'd like to make, if we could look at Petitioner's demonstratives at slide 30, can you pull that up? So I think Your Honors asked a question of Petitioners at the beginning of their presentation as to their contention as to what is the building automation system, and they clarified the position that they took in the petition which is that the building automation system is essentially the entirety of what we see

here in Figure 1, that's the building automation. They made the choice in the petition to identify this as the disclosure that they're relying on, and what they've done here as the Board can see is that they are now drawing a different box around what they are now contending is the building automation system. So if -- I'm sure the Board can appreciate that, that Petitioner's obligation is to identify with particularity in the petition what they're saying satisfies a limitation. Here they're expressly excluding a part of what they previously included.

The drawing that's on the left figure, this is slide 30 of Petitioner's demonstratives, which shows some annotations that they described as Patent Owner's position. This is not a figure -- these annotations don't appear in any of Patent Owner's papers, Petitioner has created this to try to illustrate its point, but as Patent Owner pointed out in its surreply, the identification that these additional components in pink shown in this slide, would be second automation components is not correct. When Petitioner made the point, it was not that these particular ones that are part of the system would be second automation components, it's that you could have second automation components that are the same type of devices as these. And if you look at the portion of the specification where --

JUDGE PESLAK: I'm a little confused right now, what you're saying, and sort of what this claim says, but, so you're saying that the controllers 108 are not part of the building automation system? Or are you saying controllers 108 is not what Petitioner identified as the second automation component?

MR. LINDER: In the petition, Petitioner identified all of what's in the McFarland Figure 1, under element number is 100, they said everything

there is part of the building automation system, and then they separately said that the second automation component is the controller 108 c, e, and d. So this figure that I'm showing here on their slide 30 in the demonstrative is showing now a different theory that the building automation system could include only the items in the brown box. It's a smaller box now, and it would exclude the items in the pink box, those would still be the second automation component, but they would now be outside of the system, because they had just drawn a different box around it.

JUDGE PESLAK: So what conclusion are you asking us to draw from this?

MR. LINDER: I guess I had two points to make here, the first one is that I don't think that Petitioner's theory that they've put up on the slides here is consistent with what they've presented in the petition. The second point that I want to make here is that Petitioner is mischaracterizing Patent Owner's point about the second automation component. Petitioner says that Patent Owner identified these particular elements in Figure 1 as the second automation component, but that's not what Patent Owner did. And if Your Honors look at the portions of the specification that Patent Owner cited, it was in columns three -- toward the bottom of column three, sorry I don't have the lines cited in front of me, but it was the bottom of column three and the top of column four of the 282 Patent. And those describe these various components, and so Patent Owner referred to these as, these are the type of components that could be external to the building automation system. Petitioner went and found that oh, the figure actually has components that are the similar type of components in terms of how they communicate.

And so Patent Owner wasn't pointing to these particular

components, it was pointing to this class of component, and I think like I said the specification citations make that clear, that we never said element 120 for example, in Figure 1 is part of the second automation component. So if Petitioner is saying that our attack on their building automation system as including the second automation component falls apart because we did the same thing, that's simply not correct, Patent Owner didn't make that point that they're saying we made with these figures.

JUDGE McNAMARA: Counsel, this is Judge McNamara again, I'd like to return to just one point, because I remember you were talking about paragraph 47 of Ahmed, and I think your point was that the sensors that they have are all individual, they're not -- you know, this brings me back to that package issue. But look at paragraph 48, because from what you said at 47, I said well I'm going to go look at it, and then I looked at 48, and 48 says, for example a MEMS module that includes both temperature and humidity sensing functions is commercially available, from Hydrometrics of Alpine, California. Why is that not a package, a multi sensor package?

MR. LINDER: So you're asking about the disclosure in Ahmed about a commercial embodiment?

JUDGE McNAMARA: Yes.

MR. LINDER: Okay. So I think if we look at what Petitioner's contention is here, is that Ahmed is disclosing this collection of sensors and that's what you would use with McFarland. As to the other references that you describe, what Petitioner says is that -- yeah, what Petitioner says as to those other references in that additional disclosure is that those would show a motivation to combine Ahmed with McFarland. What's lacking there is a

statement by Petitioner that when a petitioner reads Ahmed it would understand that what Ahmed meant was you're going to use one of these other commercial embodiments and that that is what gets applied. So I think the problem here is really a lack of a coherent theory by Petitioner as to how it's going to combine the references, because it simply, it combines McFarland with Ahmed, but then it sort of tries to borrow these disclosures from separate exhibits that weren't a part of Ahmed and hasn't adequately presented a theory that those disclosures are adequate here.

JUDGE McNAMARA: Well I'm sorry, I'm reading directly from Ahmed, I mean I'm reading paragraph 48 of Ahmed, which refers to this Hydrometrics device, the offer that does temperature and humidity sensing functions. And so I'm just trying to figure out why that is not a multi sensor package, or do you agree that it is a multi-sensor package?

MR. LINDER: What I would say, so as to that particular hydrometrics device, Your Honor, there's no evidence in the record as to how that device operates, if it is a device with multiple packages on it or how it works, we just don't know. All we know is what Ahmed says about how the device actually works, and in Ahmed all we see is there are, you know, these devices that are on the same substrate. So I think my point is here that hydrometrics doesn't mean anything to me, doesn't mean anything to the Board, doesn't mean anything in this case, because we have no evidence as to how that works. There isn't an expert that said well, I know what that hydrometrics device is, and it's one package. We just don't know.

JUDGE McNAMARA: Okay, but they talk about it in that particular paragraph, they talk about it being on a single substrate and everything, there's more disclosure in there than there is in your patent. So I

have a better sense about a multi sensor package from Ahmed than I do from the patent and you're asking me to construe in some narrow way that I just can't quite wrap my head around.

MR. LINDER: Yeah, I agree with Your Honor's statement that what Ahmed describes gives us more detail than what the 282 Patent gives for a package. However, you said that it tells us more about what a package is than the 282 does, but Ahmed doesn't use the term package, it just tells you more about how its device is structured, so you have to sort of then apply your understanding of package to say whether that's it or not.

JUDGE McNAMARA: That goes back to that question of a module package, and that's why --

MR. LINDER: And my point is, look, Petitioner had the burden to do this, right? And so why don't we see from Petitioner's expert a statement that here's how a person of skill would understand the word package in the 282, and here's how these references meet that term. I searched for it and I didn't find that, so that's the point I have to make is they had a burden here and they didn't meet it. it could've been something where the experts went back and forth, their expert just didn't come out and do it, so that's a failure for them to meet their burden.

JUDGE McNAMARA: Okay, thanks so much, I appreciate it. I understand where you are.

JUDGE SILVERMAN: Hi, this is Judge Silverman, can you hear me? I'm on the screen.

MR. LINDOR: I can hear you, Your Honor.

JUDGE SILVERMAN: Just to sort of pick up on where Judge McNamara was and also return to your comments about paragraph 57 of

Ahmed. In that paragraph it talks about the sensor module, you said it's around the first line of paragraph 57, it's configured offered as a low sensor, but then the paragraph goes on to say a sensor module, the sensor module includes, paragraph 57, the sensor suite 54. And the sensor suite is discussed a bit more earlier in the ground -- including paragraph 48 that Judge McNamara was referring to, the MEMS sensor suite 42 includes at least one MEMS sensor, and then further on, middle of that paragraph 48, in one embodiment the sensor suite 42 is a collection of MEMS sensors incorporated onto a single substrate. So I just wanted to throw that into the mix, and so you've got a module, a substrate, and we'll add a suite to that as well, and maybe we're getting closer to apackage, I'm not sure.

MR. LINDER: So Your Honor, what I'll point out there, you're right that there is a module and that within that module Ahmed describes there being this sensor suite. Petitioner's contention as I understand it is not that the module would be the package, would meet the package limitation itself, it's focusing in on that sensor suite, I think it was -- I'm remembering 42, so I don't have the citation right in front of me, I think it was element was 42, the sensor suite. So that's what Petitioner is identifying, and as I said, the point I made earlier is that if you look at how that is configured, we see that each of these modules, which each one has this sensor suite in it, each of these modules is configured to ignore all but one of the measurement, basically one of the sensors. So like I said, that wouldn't satisfy the claim if you implemented it, configured it to the system as Ahmed says it would be configured.

JUDGE SILVERMAN: I'm not sure that Ahmed said -- all but one, but that might be cited. 52 says that the sensor suite can be

implemented as a number of sensor devices, for example.

MR. LINDER: Your Honor, that's correct, that Ahmed says you could have a number of devices, and I think our view on that is that when you're talking about now having a number of devices you are, you know, it shows again that these are separate, they're not all in one package, but if you look at -- sorry, give me a moment, let me just find the citation quickly here. So I believe it was paragraph 47 of Ahmed where it describes the configuring it as a temperature sensor for module 28, and then ignoring the other signals, paragraph 47.

JUDGE SILVERMAN: Right, in that instance. I don't think that it's necessarily you've got to swoop out a flexion of sensors in your suite of sensors, one, it never works. I don't mean to belabor it, I just wanted to --

MR. LINDER: Okay, thank you, Your Honor. Unless there are other questions, I don't have any other comments today.

JUDGE PESLAK: Okay, there are 11 minutes left and we'll take 10 minutes, so you have 21 minutes for surrebuttal. Petitioner, you have 21 minutes for rebuttal, you can start when you're ready.

MR. RICHARDS: Thank you, Your Honor, and Judge Peslak, just to start by rebuttal that Your Honor asked some questions about elements 1d and 1e, and where our expert had spoken previously about how the memory is used in order to control the transceiver. Two paragraphs in particular that I want to point Your Honor to from the Exhibit 1002, which is the expert declaration, versus paragraph 83 which states in the second half of the paragraph, the memory also communicates with the processor and stores program such as program 234 shown in Figure 2 that are executed by the processor to perform functions such as processing data and directing the

storage and retrieval of data, referring to those types of sensor data.

The second paragraph I wanted to point to that makes that a little more concrete, Your Honor, is paragraph 86. Paragraph 86 which continues on to page 63 of Exhibit 1002 states, starting about halfway down the page, McFarland teaches that the controller executes control processes that are specific to the sensor being used for control. It then goes on to talk about the control processes used with the temperature data is used by the controller to control the system and issue instructions, including request instructions to obtain an event reported by the sensor related to temperature data, citing to McFarland paragraphs 39 and 40, if the control system switches to using, for example, the humidity data, then the first control process may be stored and unused while a second humidity based control operation is used, including request operations to provide events relating to humidity data. What this tell us is the different control operations and the way that the different sensors are used to communicate with the transceiver and to use to control the system are based on control instructions that are stored in memory and used to interact with the processor, depending on the way that the device is using at a given time.

JUDGE PESLAK: Well I think my question was, what you're relying on for limitation 1e was a report instruction from the controller. It seems like what you were just speaking of was sensor data, and it's still not clear how the report instruction meets the particular limitation, which is, and I'll read it again, wherein the computer readable instructions are programmed to receive sensor control information related to sensor data and control, and the petition relies on McFarland's report instruction, which is just a wakeup call for the sensor. And I don't think those paragraphs

actually explain how McFarland handles the reportinstruction, unless I'm missing something.

MR. RICHARDS: I think what it's saying there with the wakeup part is, the things I was just pointing to are also being discussed for elements 1d and 1e and what it's saying is the wakeup or something that comes in through the transceiver says hey, there is something that is incoming, the processor has the instructions that are stored in memory, and the programs including the disclosures that are just referenced in the Dr. Neikirk reference, too, and explains that those instructions that are used by the processor to handle whatever is incoming, received and understand those instructions is all implemented by the processor itself.

JUDGE PESLAK: Okay, you can go on with your rebuttal.

MR. RICHARDS: With respect to the points that were raised by the Patent Owner in their portion of the argument, at the outset I want to note that the new arguments that are presented during their argument relating to the physical structuring and packaging of the device is different from what was raised in the Patent Owner response that didn't require this additional level of detail, and so to the extent those are not part of what was in the Patent Owner's response, of course those arguments are waived.

But setting that aside, as Judge McNamara was pointing out, the level of detail and disclosure that is in the prior art is in fact higher than what is in the specification of the 282 Patent itself. And in fact, a good place to start with understanding what we can understand the 282 Patent to require is, as was suggested, the prosecution history itself. And a good place to start with that is on slide 25 of the Petitioner's demonstratives. Slide 25 of Petitioner's demonstratives quote from the response during prosecution the

Patent Owner stated that it was relying upon. And you can see here that Patent Owner was distinguishing the Petite reference, arguing Petite discloses utilizing one or more individual sensors 310, nowhere in Petite is it disclosed or suggested that a group of individual sensors 310 could be combined to create a multi sensor package. If you look at the Petite reference you'll see that the point that is being made there is that Petite has a bunch of individual sensors on individual transceivers, and there's no teaching in Petite of combining those into a single device.

I think it's important to note the phrasing here in the file history from the Patent Owner to argue over Petite. They said, could be combined to create a multi sensor package. The reason I think that's notable is that's exactly what McFarland teaches, too. If you look at paragraph 43, as quoted here it says, in an example, the sensor is configured as combinations thereof. Exactly what it is that the Patent Owner said was not, or I should say at that point the Applicant said, was not found in the Petite reference during prosecution. So while it's not clear what exactly would be required in order for something to be a package or not according to the Patent Owner in the way that it presented its argument, the way that it was characterized during prosecution is squarely on all fours with what is described within McFarland itself.

The last piece of this I'll note is that the Patent Owner tries to characterize Petitioner's argument is limited to only this idea of a collection. Again, if we look at slide 21, the quote from paragraph 43, Patent Owner isn't addressing this combinations thereof language that was noted about halfway down the paragraph that I talked about previously, and with respect to the MEMS sensors, no explanation there of why it is that that would be

sufficient beyond the discussion of Ahmed, which is where I will go next.

With respect to Ahmed, a couple of things. First, Patent Owner complains that the explanation of single substrate or single silicone is something that was not actually addressed by Petitioner's expert ever. Well that's just not true. We can look at the Petitioner's expert's declaration, paragraph 199, and this is on page 180, or I should say PDF page 184 of Exhibit 1002, where in paragraph 199 Dr. Neikirk states, a single substrate device describes a single device fabricated on a foundation substrate material to create an electrical device. A common example of such a device is a computer chip that is fabricated on a silicone substrate. A device such as Ahmed-629's sensor suite incorporated into a single substrate is thus a single integrated device.

In Patent Owner's presentation, it briefly sounded like it was making an argument relating to the motivation to combine with respect to Ahmed to the extent it makes any argument like that, those arguments were not presented in the Patent Owner response and thus were waived. The remainder of their argument with respect to Ahmed had to do with the configuration and whether Ahmed describes configuring only single device. As Your Honors' questions really reflected, I don't think that the disclosures within Ahmed are limited to any implementation in which you have this package using only a single sensor, and to the contrary, Ahmed has additional disclosures cited by the Petitioner that indicate otherwise. If we go to slide 28, we have examples of this.

First, in paragraph 52 there's explicit disclosure of setting up the configuring these sensors within a sensor suite, by using configuration information related to the type of sensor or sensors being used within a suite,

plural. Paragraph 54 says that the configuration information may define which of multiple possible sensor combinations is to be provided by the sensor module 28. Again, combinations of more than one. And then lastly is that Ahmed actually provides two different examples of MEMS modules that are sensor suites that provide multiple different sensors for different purposes, one of which is it characterizes a protection sensor module, another one that characterizes a security sensor module suite. First one, it says for the protection sensor suite it says it includes the fire sensor, a smoke sensor, a chemical sensor, and a biological sensor, and quoting that from Ahmed paragraphs 74, which you can see on slide 28, and then in paragraph 75, Ahmed goes on to describe the security sensor suite, and said that suite may include a biometric sensor, a complementary middle offset semiconductor CMOS camera, a smart card sensor, and a smart tagging/tracking sensor. So you have these individual modules with multiple sensors operating at once.

Finally, Patent Owner touches on slide 30 from Petitioner's presentation and argues that the mapping that was presented in Petitioner's reply is new. At the outset I'll note that the Federal Circuit has stated in the Axonics v. Medtronic case, the citation being 75, at 41374 at 1380 that presenting new arguments that were not in the petition is new if the argument is a legitimate reply to evidence introduced by the Patent Owner. A good example of this is the novel claim construction that was presented by Patent Owner here trying to confine the building automation system to exclude certain types of components. The overall theory that is presented by Petitioner here, aside from slightly different box drawing on what is and is not the building automation system is the same, the only reply is okay, what

they're saying is you have to draw the box slightly differently. Our reply is, you take these same teachings, you just draw the box slightly differently and disclose it as the same system anyway.

Now, in addition to that, Patent Owner tries to say that they were trying to limit their identification of these field panel displays in limited function modules to only those that are described in columns three to four, but Your Honors will note if you look at those two columns, that there's no specification support there for how those devices are being used as required by the claims in those two columns. And if we actually look at what the Patent Owner said in its Patent Owner response, it was not confining it to only those two, those disclosures there. The footnote in the Patent Owner response, which is quoted on slide 12 of Petitioner's demonstrative states, the second automation component in claim seven could be a field panel or a reduced function device, RFD, implemented as a wireless room temperature sensor, and then cites to that stuff. The only places where you actually have a disclosure of what those two devices are or how they would ever be implemented is as shown in, for example, Figure 1, which as Mr. Davis explained before, is shown as part of the actual system itself. Unless there are further questions, I think we'll cede the rest of our time to -- unless there are further questions.

JUDGE McNAMARA: Actually I just have one more question, and this goes to this question of the second automation component in limitation 1e. How is that second automation component distinguished from your initial component that we're talking about in the preamble? One of the things I've had some difficulty with this, is it seems somewhat circular. You know, the preamble is drawn to an automation component, and now we're

going to talk about a second automation component, so does every automation component have to communicate with a second automation component to be an automation component? It's a bit confusing, and then, and so I'm trying to get a sense as to what your view on that is.

MR. RICHARDS: Yeah, interestingly, the claims in general I agree are a little bit interestingly worded, and you know, actually, we can use, I'll just put up the claim language from claim seven which I think I have here on slide three, just to make it a little bit easier, and the second automation component is recited there in claim element 7e. And really what I think we're talking about here is that you have two different automation components, they might be slightly differently structured, but one of them is the automation component that is the focus of the claim, and one of the requirements is that the focal point of that first automation component is that it must satisfy each of the other claim elements that is recited in the claim. There is also a second automation component, but there's no recitation that the second automation component is subject to all of the limitations of the first automation component. So as long as it is an additional component in the system that meets the requirements that are recited with respect to the second automation component, that's all that's required by the claim.

JUDGE McNAMARA: So could it be a sensor?

MR. RICHARDS: If the sensor were capable of satisfying what is required by the claim elements here, then perhaps.

JUDGE McNAMARA: Okay. All right, thanks, I appreciate that.

JUDGE PESLAK: Judge Silverman, do you have any questions? Okay Petitioner, thank you. Patent Owner, I think you have 20 minutes. You can start when you're ready.

MR. LINDER: I won't use all 20 of these minutes. So I'd like to just talk quickly about the portion of the file history shown in Petitioner's demonstrative exhibit, slide 25 for the 282 file history. So it sounds like Petitioner's contention here is that when Patent Owner said nowhere in Petite is it disclosed or suggested that a group of individual sensors 310 could be combined to create a multi sensor package, that that forever limits the scope of the term package to individual sensors being combined. And if you combine individual sensors, that means it's a package, and I think that's just a totally incorrect reading of this, saying that the art doesn't show that you could combine them into a package, means not just that they could be combined, but that they could be combined into a package. So package still certainly has some meaning in this context.

If we had a claim for, you know, method claim of painting the Mona Lisa, and you had a disclosure of someone with different cans of paint sitting around the room, you say well, this doesn't disclose a combination of paint into the Mona Lisa, it doesn't mean that any combination of paint makes the Mona Lisa, just like not any combination of individual sensors makes it a multi sensor package.

The other point I'll make, just in response to Petitioner's comments about the statements from Dr. Neikirk, they pointed to paragraph 199 and this is precisely what I meant earlier when I said I was looking at Dr. Neikirk's declaration to see if there was actually evidence that any of these disclosures in the prior art would be understood as a package, and you won't find that here. And Petitioner read into the record the description that says a single substrate device described a single device fabricated on a foundation substrate material to create an electrical device. A common

example of such device is a computer chip fabricated on a silicone substrate. And then it says thus -- I'm paraphrasing, but on that single substrate is a single integrated device.

So the first thing I'll say about this is again, we don't see here the -- either expert saying here's how you would understand a package and this is it, he simply says if you have a substrate, you create an electrical device. Well, an electrical device isn't necessarily a package. And then it says a common example is a computer chip fabricated on a silicone substrate. Okay, well we're talking about a MEMS device or a collection of MEMS devices, and I don't see any connection there between a computer chip and a collection of MEMS devices, there's no argument or evidence that what Ahmed disclosed would be a computer chip, so that's not really relevant here. And then it says it would be, you know, Ahmed's sensor suite would be a single integrated device. Again, a single integrated device doesn't go as far as to say that's a package. So that's what I was referring to that Dr. Neikirk really didn't take that step of saying here's how you'd understand package and here's why the art discloses it, and nothing in this paragraph 199 illustrates that either. That was all I had, unless there's any other questions.

JUDGE PESLAK: Judge McNamara, any other questions?

JUDGE MCNAMARA: No, not from me.

JUDGE PESLAK: Judge Silverman? Okay, so that concludes the hearing for IPR 2024-00624. We'll take a break for 10 minutes? Okay, so we'll take a break for 10 minutes, we'll come back at 2:55 and pick up with IPR 2024-626.

(Whereupon, the above-entitled matter went off the record at

2:43 p.m.)

JUDGE PESLAK: Be seated, please. Okay. So we'll pick up now with IPR 2023-00626.

Petitioner, again, you're up first. How much time do you wish to reserve for rebuttal?

MR. RICHARDS: We'll reserve half of the rebuttal --

JUDGE PESLAK: Excuse me?

MR. RICHARDS: We'll reserve half of the time for rebuttal.

JUDGE PESLAK: 30 minutes?

MR. RICHARDS: Yes, please.

JUDGE PESLAK: Okay, so you have 30 minutes, and you can begin when you're ready.

PETITIONER'S OPENING ARGUMENT

MR. RICHARDS: Good afternoon, Your Honors, and may it please the Board, Daniel Richards on behalf of Petitioner Copeland Comfort Control, with my colleague Jim Davis as well. I'll be addressing the claim construction issues, and Mr. Davis will address the disclosure issues corresponding to those. I'll start on slide 5 of Petitioner's demonstratives, which sets out the remaining issues that are disputed here.

There are two different claim construction issues, both coming from element (1.e), which are transmission interval, and then the term wherein transmission is suspended in response to detecting a change in the sensed condition within the predetermined range. And with respect to each of those claim construction issues, there is also a dispute with respect to the disclosures underlying those.

Focusing in on claim construction, at the outset, I want to note that from Petitioner's perspective, there's no need to address the claim construction issues here. While it's not entirely clear at times to Petitioner what the line is that Patent Owner is proposing should be imposed upon the claims based on their constructions, under whatever those interpretations are, whatever way you interpret the Patent Owner response and their surreply, the prior art identified in the petition discloses each of those terms. We don't think that it is necessary to meet the -- to reach those terms.

Again, on slide 8, as Your Honors are certainly aware, the Federal Circuit in the Nidec v. Zhongshan case stated we need only construe terms that are in controversy and only to the extent necessary to resolve the controversy.

So we don't believe -- the Petitioner doesn't believe that there's any need to resolve these claim construction issues to resolve the controversy. We don't believe claim construction is necessary here.

Setting that aside, however, we do have disagreements with the way that the Patent Owner has presented their claim constructions here. I'll start with the transmission interval one.

Starting on slide 9, transmission interval, the Patent Owner has proposed the claim construction for the space of time between successive transmission periods.

Petitioner has a couple of different concerns with this construction, the first of which comes from the actual phrasing of the construction itself: The space of time between successive transmission periods. If you look at Figure 4 at the bottom of slide 9, we've annotated this with a double-headed red arrow between the two rectangles 436, that shows the space of time

between two successive transmission periods, the transmission periods being blue rectangles.

That red double-headed arrow goes from the right side of the first transmission period to the left side of the second transmission period. That's not what the specification says is a transmission interval. And to the contrary, you can see the annotation that appears in the '887 patent itself identifies the transmission interval as going from the right side of the transmission period 436, the first one, to the right side of the second blue rectangle 436. Since the double-headed black arrow is different from the double-headed red arrow, the way that Patent Owner's proposed construction is written seems incorrect.

The second issue that Petitioner has with the Patent Owner's claim construction as written has to do with where do you identify the starts and the ends of this. And again, focusing in on Figure 4 at the bottom of slide 9 of Petitioner's demonstratives, I think the easiest way to describe this is looking at the blue rectangles, which identify transmission periods. And then you'll notice that on the top right corner of some of those blue rectangles, there's a black dot. The specification states that each of those black dots indicates a period in which there was an actual transmission.

The question that is not clear for Petitioners about what is meant by Patent Owner's construction is whether they intended for a transmission interval to go from rectangle to rectangle, so from period to period, or whether they intended for the transmission interval to go from dot to dot or transmission to transmission.

The difference you can see here is manifested in the fourth through sixth blue rectangles, the fourth one being the blue rectangle that is right

above the word time. If the transmission interval is defined by rectangles, then the transmission interval would go from that fourth rectangle to the fifth rectangle as a time interval, whereas if it's defined by the actual transmissions itself, it would go from the fourth to the sixth.

The specification itself seems to be reasonably clear that what was intended was for the transmission interval to go from blue rectangle to blue rectangle. So you have within each transmission interval, a transmission period, and there's a separate question of whether there's an actual transmission during that period.

Taking a step back, whichever way this is interpreted, it doesn't ultimately matter with respect to the prior art again because under either of these interpretations, as Mr. Davis will explain further in a little bit, this term is met.

JUDGE PESLAK: So your -- Petitioner is saying that the blue rectangle without a dot, there was no transmission?

MR. RICHARDS: Yes, Your Honor, the specification states that.

JUDGE PESLAK: Okay.

MR. RICHARDS: There's a third issue I will note with respect to the transmission interval term that was raised by Patent Owner. This appears on slide 10. This is where Patent Owner tries to say Petitioner is conflating the transmission and polling intervals, which Petitioner is not doing. Though a simple point that Petitioner is making is that there's nothing -- there's no negative limitation in the '887 patent that excludes a situation in which you have same length or synchronized transmission and polling intervals.

In fact, to the contrary, that's something that is explicitly contemplated in the '887 patent, as you can see quoted here from column 14, lines 14 to 20, where it states that the controller 508 may also synchronize polling periods and/or transmission periods. There's nothing in specification that would support a negative limitation where you would exclude embodiments in which the transmission and polling periods are of the same length or are otherwise synchronized.

The next claim construction issue is the wherein transmission is suspended issue. Really, looking at Patent Owner's proposed construction, the issue as it was originally presented seems to be whether or not we need to construe the word suspended itself. And looking at patterns playing construction, really, the phrase is suspended is all that they're really construing, and they're changing the phrase is suspended to, that would otherwise occur is stopped, and that's it. Everything else that is in their specific -- their construction really comes from the claim language itself.

Taking a step back from that, the plain reading of Patent Owner's construction doesn't seem to raise an issue for Petitioners. The reason why Petitioner was concerned with Patent Owner's construction is this first bullet point here, which is in Patent Owner's response. It characterizes construction as requiring that simply forbearing from transmission when the sensed data is not out of a predetermined range is not enough to meet this term. It's not clear to Petitioner what the basis for that argument was unless you're talking about a mischaracterization of the prior art disclosures themselves.

It's Petitioner's position that forbearing from transmission really is not transmitting or doing something that would otherwise occur. And so, it

seems like that forbearing is a form of suspension under the plain meaning of that term. As a result, as noted in the last bullet on slide 11, Petitioners agree that suspend requires that the transmission of the most recent reading of the indicator that would otherwise occur as stopped but disagrees to the extent Patent Owner is making some further argument regarding forbearance.

JUDGE PESLAK: So you -- Petitioner is agreeing with that construction?

MR. RICHARDS: If Patent Owner's argument is simply, as I was discussing a second ago, about by suspending meaning that you are not performing a transmission that would otherwise occur, that seems to be consistent with the plain meaning of the term. However, it's not clear to Petitioner whether Patent Owner is trying to read something more into their interpretation beyond that.

JUDGE PESLAK: But doesn't that construction render that clause superfluous?

When you read the two wherein clauses back-to-back, the first one is, transceivers configured to transmit in response to detecting a change in the sensed condition outside a predetermined range. And then the second wherein clause, it's the transmission is suspended in response to detecting a change in the sensed condition within the predetermined range.

But the two clauses seem to be saying the same thing as to when you would transmit. And so you don't -- the transmission would not otherwise occur under the first wherein clause.

MR. RICHARDS: I see the point Your Honor is making. I think, as Petitioners maintain, I think with that, the plain meaning is sufficient to

resolve this. But with respect to the concern you're raising, I think all the claim is really saying there is if A, do this; if B, do that. And in this case, the situation is really that it's either you transmit or don't transmit. And it's just saying, here's the conditions under which you would transmit, and here's where you don't.

And I think that's the way that this has been briefed by the parties. It seems like that's really the focal point of where the dispute is, is that type of suspension. But if there's something more that is rendered problematic about Patent Owner's construction, that's more reason to defer to the plain meaning.

JUDGE PESLAK: Well, I mean, it's one thing to say plain meaning, but neither party -- I mean, understanding Kates, they don't transmit because the thing is powered up, right? Unless it's the reading is anomalous.

So column 11 of the challenged patent here, gives an example where a transceiver may transmit information only during a transmission period in which a current difference exceeds the difference limit. And then it doesn't say suspend, it says may not transmit during intervals in which the current difference D1 does not exceed the difference limit.

So one way to look at the specification is that it's making a distinction between suspend and not suspending a transmission that would otherwise occur and just not transmitting if it doesn't exceed --

MR. RICHARDS: Yeah -- sorry.

JUDGE PESLAK: -- doesn't exceed the difference. And that sounds more like the forbearance. And it sounds more like what Kates is doing. Kates describes it as not transmitting unless it exceeds some limit.

And this is a description here in the spec of not transmitting. It does not call it suspending.

MR. RICHARDS: So I think I understand where you're going with this, Your Honor. And I think two responses to that, one of which is the way that the claim is drafted, it's really focusing on two different options.

So you have transmitted in one situation, not transmitted in the other. The reason why those two are not superfluous is because it is then -- because it includes those two separate clauses explaining the result of what happens in any given situation. You could imagine that maybe there would be an instruction to transmit something else in certain circumstances.

I'll let Mr. Davis speak to the specifics of Kates's disclosures and why those stand in contrast to what is being described here. But I think at its bottom, really all that is required here, when you say that it is suspended, is that normally you would transmit or there's typical transmission. And then you would, if -- you suspend it when there is the condition that is recited in the claim that actually takes place. There is the separate question that is also addressed in the clause of what happens when that condition is met. And that's the reason why you have those two separate clauses.

JUDGE PESLAK: Okay. I understand your position.

MR. RICHARDS: Unless Your Honors have any questions about the claim construction issues, I'll let my colleague Mr. Davis speak to the actual disclosures of the prior art itself.

MR. DAVIS: And Your Honor, sticking with the question that you just asked about suspend, there's another passage that I'll point to the Board to. This is at column 3, lines 36 to 37. It says similarly, a

transmission of information may be suspended for periods of a transmission interval for which no change in the indicator has been identified.

So going back to the claim language that Your Honor had pointed to in Claim 1, the two wherein clauses, the first wherein clause is addressing a situation where the change is outside that predetermined range, but it doesn't speak to what happens when it's inside the predetermined range. That's what the second wherein clause is speaking to is when it's inside that predetermined range, then it's suspended. And that's consistent with column 3, lines 36 to 37 or 38. And that actually mirrors the disclosure that we have in Kates here.

So, taking a step back, this is on slide 13. Kates's Figure 2 has the three elements of the sensor unit, as shown in the middle of the slide there -- the sensor, controller, and transceiver -- that correspond to the elements that are recited in the challenged claims here.

The controller, in particular, controls, through a process called periodic monitoring, when information is transmitted. And that's shown in Figure 7 there, on the right. There's a looping mechanism. After the device is powered up, initialized at step 701 and 702 in Figure 7, there's a certain sleep period that's set with the timer, and then it wakes up, it takes sensor readings, and then based off of those sensor readings, either it transmits or it doesn't transmit, and then it loops back and does the same thing all over again, forming an interval, a transmission interval that goes from when the transmit report step occurs all the way back to when it occurs again.

That step itself, though, the specification separately describes. This is column 13, lines 8 to 23, that we've shown on the left-hand side of the slide here. That sensor unit generally conserves power by not

transmitting data that falls within a normal range. So when the data falls within a normal range, it doesn't transmit. When it does, it does transmit. Thus, it suspends any transmission of the detected data from step 706 whenever it's falling within the normal range.

I will say, as a general note, we had included the Kates 505 grounds as a backup to the Kates 711 grounds. There is no challenge to the priority date here to the 711 grounds are perfectly viable on that front, but the 505 grounds also serve as a sufficient alternative backup.

Going to that particular limitation of a transmission interval, this is on slide 14. As I mentioned before, that interval, as we've highlighted in Figure 7, will loop each time back to that step 707, and each time that shows there's a transmission interval transmitting when the data that's detected is anomalous or abnormal, as Kates discloses, not transmitting or suspending transmission of that detected data when there is -- when the data falls within the normal range.

JUDGE PESLAK: So, in the petition at page 31, it seems to say that the transmission interval is report block 707. But now, is Petitioner's position changed to say this whole loop is the transmission interval?

MR. DAVIS: Your Honor, I don't think we were saying it was limited to report block 707. That whole interval is what is disclosed there on Figure 7. And I think that's further described on pages 32 to 33. And we do also include Figure 7 itself in the subsequent discussion, again, within that element. But there can be no dispute that what's disclosed there by Kates is an interval where the transmit report loops back each time in the same way that is disclosed in the '887 patent.

JUDGE PESLAK: I guess I'm asking where in the petition, you said that whole loop was a transmission interval.

MR. DAVIS: So it starts off page 32. For example, Kates 711 also discloses during each period of periodic monitoring. So the periodic monitoring is that entire looping function. Figure 7 is about periodic monitoring. And so, during each period, so it's looping back each time. That's when this transmission interval is occurring. So that's at the very beginning of our discussion of element (1.e).

And then it describes -- it goes on to describe the sensor unit takes a sensor reading and then enters a report block for reporting the sensor reading. So again, each time it loops through there for its periodic monitoring, that is what would meet that requirement of a transmission interval.

JUDGE PESLAK: This is sort of a little bit frustrating when you come in with a Figure that's not what's in the petition. Okay? And I look at Figure 7 on page 34 of the petition, which you annotated and said with a red block in 707. But I don't see transmission interval. I'm having trouble finding where you say -- I mean, it's one thing to quote the reference, but I'm having trouble where your -- that's your argument here that transmission interval is that whole loop.

MR. DAVIS: Your Honor, I do think it's at the beginning of that description there. You're correct. The annotation to Figure 7 on page 34 of the petition just puts a red block over the transmit report. But we are quite clear that this is during each period of periodic monitoring. And so, that is what loops throughout Figure 7. We have illustrated it, I think, more clearly, or we've added this illustration here to help illustrate that. But I think the

argument has stayed the same throughout that it is that period, and you have multiple periods for the periodic monitoring. That's what is --

JUDGE PESLAK: So what's the polling interval then?

MR. DAVIS: The polling interval goes from step 706 right before, that's where the sensor readings are taken. And then again, through each period, it will loop back around and perform another sensor reading. Just to illustrate that with -- this is on slide 15, the polling interval begins and ends at 706, whereas the transmission interval begins and ends at 707. Both of those are their own separate, distinct intervals, just in the same way that you have for the '887 patent.

JUDGE PESLAK: But they look like the same interval to me.

MR. DAVIS: But, well, the intervals, of course, can be synchronized, Your Honor, and that's --

JUDGE PESLAK: Well, I understand that, but I don't see any of this in the petition. That's sort of my problem. It's a little frustrating. I understand what you're saying now.

MR. DAVIS: Your Honor, the illustrations, I think, would have been also helpful I agree with you, but the argument is there in words, particularly on page 32 of the petition. And then the -- one second, Your Honor.

I think that periodic process is described for both those things for polling, taking the sensor readings, and transmitting the -- so the polling interval is the taking of the sensor readings, and the transmission interval is whenever there's that transmit report step for each period, as we've said, of the periodic monitoring.

JUDGE McNAMARA: Counsel, I guess I'm looking at the bottom of page 31 of the petition. I think that's what I'm looking at. And there you do refer to Kates discloses the transceivers configured to transmit a most recent reading of the indicator stored in the memory, and then you say, and sent to the monitoring computer during a period of a transmission interval. And then you say, for example, during a report block 707 of the periodic monitoring in response to detecting a change.

So there's a lot of things that are said there that make it hard for us to kind of figure out what you're referring to as the transmission interval and some other things. Do you address these at all in the reply, you know, in the Petitioner reply that would shed any further light on that for us?

MR. DAVIS: Your Honor, I think this was discussed extensively in the reply as well. This is -- for example, at pages 8 through 12, we're discussing this issue of transmission intervals, and there's extensive discussion of that as the parties are going back and forth over this.

One example of that -- this is at the top of page 11 of the reply -- because this report block 707 occurs at each interval of periodic reporting -- again, that periodic monitoring that was referenced on page 32 of the petition -- Kates 711 and Kates 705, therefore, each disclose a period of time during -- including the report block, i.e. transmission period, that repeats in each interval -- (1.e) transmission interval of periodic reporting. That has been and continues to be Petitioner's position concerning how this limitation is met.

JUDGE McNAMARA: Okay.

MR. DAVIS: Unless there's any further questions on that, I'll turn to the other issue in dispute, Your Honor. This was the transmission is

suspended, and I think I alluded to some of this already, but the Kates disclosures, particularly as we have here on slide 17, really mirror what's going on in the '887 patent itself.

Kates discloses that, as I mentioned before -- this is column 13, lines 8 to 23 -- the sensor unit 102 generally conserves power by not transmitting data that falls within a normal range. It has already sensed the data in step 706. It is now forbearing, suspending, however you want to describe it, from sending that transmission data, but if the data -- it goes on, if the data is outside the threshold -- and it provides an example parenthetical of a bunch of different ways to set the threshold -- then the data is deemed to be anomalous and is transmitted to base unit 112, suspending if it's within that range, not suspending and actually transmitting if it's outside that range and is anomalous.

The '887, column 3, lines, 32 to 37, similarly, as we've shown here on the right hand of the slide, states if the information -- the information may be communicated in response to a comparison that identifies a change in the sensed conditions, such as a change outside the band limit or a reading of the indicator beyond a limit, again, an anomalous reading that was detected, or suspend. A transmission of information may be suspended for periods of the transmission interval for which no change in the indicator has been identified. The two mirroring each other and regardless of however the term is construed, would show that the limitation is met.

Patent Owner, in their surreply, comes up with a bunch of different ways of describing suspend, be it -- we've quoted it here from page 15 of their surreply; this is on slide 18 -- cause to stop for a period, interrupt, halt

of process temporarily, all of which would be satisfied or are satisfied by Kates's disclosures there, which again, mirror what's in the '887.

Unless there's any further questions on that, I'll -- we'll reserve the remaining time for rebuttal.

JUDGE McNAMARA: I did want to point out, I took a look at the bottom of page 11 of your reply, and you do, there, refer to transmission intervals that begin at 707, and polling intervals that begin at 706. So you did actually state that. I just wanted to make it clear. It's contingent upon if the Petitioner -- or I'm sorry -- if the Patent Owner contends polling and transmission periods must be separate. But you did at least address those. I just wanted to make sure I remembered that.

MR. DAVIS: Thank you, Your Honor. Appreciate that.

Anything further?

JUDGE PESLAK: Judge Silverman, do you have any questions?

(No audible response.)

JUDGE PESLAK: Okay. Thank you. You'll have 31 minutes for rebuttal.

Patent Owner, how much time you like to reserve for rebuttal?

MR. LINDER: 15 minutes, please.

JUDGE PESLAK: Okay. Begin when ready.

PATENT OWNER'S OPENING ARGUMENT

MR. LINDER: Thank you, Your Honors. May it please the Board, again, Seth Linder for Patent Owner, Ollnova Technologies, Limited.

So I wanted to start by just taking -- kind of backing up a little bit, take kind of a 30,000-foot view of the claims.

Bob, can you bring it up the Claim 1 of the '887 patent? It's 1001.

So I promise I'll go into more detail. I'm just going to start really broad here, but Claim 1, we see that we have an automation device, and we see that there's four components. There's a transceiver, a sensor, a controller, and a memory.

So I'll paraphrase a bit, but we have a -- the sensor which senses a condition and then generates an indicator of that condition. So if it's a temperature sensor, it's going to sense temperature. And when it says indicator, that's just the value that it came back with. And then we have controller. And what the controller does is it reads the indicator from the sensor and then that gets stored in the memory. Okay. And then we have a transceiver. And what the transceiver is doing is just communicating and -- you know, both receiving and transmitting over the wireless network.

JUDGE McNAMARA: Counsel, let me make sure I understand this, though, about the controller because the controller doesn't just read. It has to poll first, right? It says a controller configured to poll the sensor and at a -- at a polling interval and read the indicator. So it's not just receiving any old stuff. It's polling and reading. Is that right?

MR. LINDER: Yes, you're exactly correct, Your Honor.

JUDGE McNAMARA: Okay.

MR. LINDER: Like I said, I was paraphrasing a little bit. Reading is a -- there's an active step there, right? So it's polling and thereby reading --

(Simultaneous speaking.)

JUDGE McNAMARA: So it says, oh, what's the temperature? Temperature is, you know, really hot out there right now.

MR. LINDER: Okay. So the controller, as I mentioned, is configured to poll the sensor and read the indicator during a current period of the polling interval.

And I'll just note for the Board that in the specification, the specification sometimes says a polling interval, and the claims say a period -- sorry. I was trying to clarify, and I messed it up.

(Laughter.)

MR. LINDER: The specification uses the phrase polling period, and the claims use the phrase period of a polling interval. Today, I'm probably going to say polling period because it's easier to say. I'm not trying to distinguish between the two. So period of a polling interval and polling period, those are the same as far as what I'm going to talk through today.

And the same thing goes for transmission period, which is discussed throughout the spec, and period of a transmission interval. I'll probably use transmission period again, but I don't mean to distinguish it from what's in the claim.

JUDGE McNAMARA: So again, when I read that, it's going to read the indicator during the current period of the polling interval. So it's not reading the indicator from a previous period. It's reading it from the current period if that's --

MR. LINDER: That's correct. And we're going to talk in a moment because you're getting kind of into the sort of the whole idea of how this thing is configured. We're going to talk about that in a little bit more detail in just a second.

JUDGE McNAMARA: Okay.

MR. LINDER: So can you go to slide 8? So I'm looking at slide 8 of Patent Owner's demonstratives. And in slide 8, this is what's showing. We can actually see here the polling interval. And I think Petitioner's description of this, I think, was mostly accurate. I just want to make sure that the Board is clear, because I think the language here, when you hear period, and there is some sense of things being periodic, it can be a little bit confusing. But I want to make it clear as to what's happening here.

So we can see, in Figure 3 of the '887 patent, we can see that it represents polling periods as these gray bars. In Petitioner's slides, they had them colored in blue, which might have been helpful here, but they're the same bars. They're these gray bars. Each of those little slices is a polling period. The horizontal axis here is a time axis. So you can think of each of those slices as just a small portion of time. The spec describes those as being, you know, it could be a few milliseconds of time, or it could be a few minutes of time within a larger interval. So the period is just that slice.

And so, when we look at the length of an interval, in this one here, it's a little bit hard to see, but the black arrows that say polling interval, the double-headed arrows point to polling interval. So that's showing one that goes from the, what would be kind of the beginning of one of the gray bars and extending to the beginning of the next gray bar. So that amount of time measured as to where the periods sit, that's the polling interval. And we can also see in the same Figure 3 that there's black dots in each of these intervals. And it looks like, from this figure, it's somewhere in the center of the interval.

So we're not arguing that its precise position within that interval matters. And I think the specification would support having the moment of

polling to occur at the beginning or the middle or the end of that interval. There's a slice of time, and then there's a precise moment where the polling actually happens.

Okay. Can you go to slide 7, please? Okay. So, having looked at polling intervals, I'm going to turn now to transmission intervals, and we'll see it's a fairly similar concept. So this is in the limitation of the Claim 1 that recites the transceiver and how it's configured.

So, on slide 7, in the top part of Figure 4 of the '887 patent, we can see that transmission periods are also represented by gray bars that are showing these little slices of time along the time axis. And as Claim 1 recites, the transceiver is configured to transmit a reading during a period of a transmission interval.

So, like polling periods, these transmission periods repeat, and the distance between successive transmission periods can vary. It's not totally evident here. If you look at this, this figure actually does show them having slightly different distances between. If you look at the gap between first and second, second and third, and then the gap between third and fourth, you can see it's shorter. And the spec describes that, that that interval can vary because that would mean that the polling periods can get moved closer together or further apart.

And then we also see the black dot on several of these gray bars. And that, again, just like polling period, that would be the moment of transmission.

And then another important concept here is that not every one of the gray bars has a black dot. And you can see in the bottom graph in Figure 4, that actually shows -- instead of having a black dot, it's actually just

showing a vertical arrow representing a transmission at that moment. So we can see that for the first four transmission periods, there is a transmission that happened, and for the fifth transmission period, there is no transmission.

But importantly, we are -- as this illustrates here, there is a transmission period, even if there's no transmission. The figure here doesn't just omit the fifth gray transmission period. It's still there, and that's an important part of how the system is configured.

So if we look at this in a broader context, you may wonder, well, why would you ever care if there's a transmission period but there was no transmission? Like, what's the point of that? And so, what the specification describes is that this is not just a system envisioned where you have a single sensor and then a controller that's just talking to one sensor. Because if that were the case, then transmit whenever you want, and I'll be ready for you. Right. It's envisioning a system in which there could be multiple separate sensors and that each of them would have a period where it's going to be transmitting.

And in order to conserve power, in order to avoid overlap, the way that this invention works is that it sort of allocates these slices to say, okay, this particular sensor is going to get this period where it's going to be potentially transmitting so that you could conceivably coordinate, so that the other sensors in the whole system wouldn't be trying to talk at the same time where you'd have maybe collisions or interference or that kind of thing.

So that's why there's this kind of concept of, okay, let's first set up these periods, both for polling -- because, again, polling, there's going to be some transmissions happening, and for transmission -- sorry. I said polling, there's going to be transmissions happening. What I meant was that in

polling, there's going to be a communication that happens between the sensor and the controller. For transmission, it's now going off the device. So there's that communication that's happening as well.

Okay, can you go to slide 5? So the depiction that we just talked about in Figure 4 also aligns with how the claim is structured. And for claim -- I've showed a portion of Claim 1 here for the transceiver.

So, first, we noticed that this configuration of the transceiver really kind of has two parts to it. The first part is this concept of there being a period of a transmission interval. And as Figure 4 illustrates it, this was, again the slice of time, the transmission period, the slice of time that's set aside for potential transmissions. You don't have to have one, but you have this slice that's set aside for that. And we can see, as we looked at Figure 4, that these slices of time don't need to be evenly spaced. They don't need to align with when polling happens.

And indeed, you can space the transmission periods apart. As we mentioned in the surreply at 14, you can space them apart such that you have multiple transmission -- sorry -- you have multiple polling intervals within one transmission interval. So you could have poll, poll, poll before you have your first opportunity to transmit. That's part of the flexibility of the system. So we've got this --

JUDGE McNAMARA: Quick question. Poll, poll, poll before you have your first opportunity to transmit. Is it because I have no reason to transmit, I'm not outside that predetermined range, or I do three polls before I even consider transmitting?

MR. LINDER: Right. It's the second, Your Honor.

JUDGE McNAMARA: Okay. All right.

MR. LINDER: It's not based on the value. It's just based on that the system is configured. And this is -- again, the polling interval is described as how the controller is configured. And now the transmission interval relates to how the transceiver is configured.

JUDGE McNAMARA: Okay.

MR. LINDER: And so, these things operate with their own configuration. The controller has a polling interval. The transceiver has a transmission interval.

JUDGE McNAMARA: Okay, thank you.

MR. LINDER: Okay. So, now, the second part of this configuration we get into -- okay, when does transmission actually happen? We know we have these slots reserved. When does transmission actually happen? And we see here that based on the reading of the indicator that the transceiver can either transmit a reading or it can suspend transmission during this transmission interval or, sorry, during this transmission period. And again, that's the time slice concept we showed in Figure 4.

JUDGE McNAMARA: So by suspend, does that mean it just doesn't transmit at all, or it starts to transmit and stops?

MR. LINDER: Yeah. So what the, I think the best way to understand this is that -- and this was dealt with, actually in the district court litigation. The court went through this in detail. But the best way to think about this is that you have a transmission period regardless of -- and within that period, you're going to make a decision as to are we going to transmit or not. So the period exists, right? And so, you enter that period, and then this decision gets made.

So, when the spec talks about suspending a transmission during a transmission period, it's saying that you have entered the period and then transmission would stop, even though there could be indicators of the -- that would say the transmission would normally happen. And we've cited this in our briefing where the specification says that -- it was column 11, lines -- it's that 8 -- around line 8. So it says, similarly, that processor 214 may control transceiver to suspend transmission of information, notwithstanding a flag being set identifying a transmission may be pending.

So that's an indication that -- and it doesn't go into detail as, okay, you've executed these number of steps and then you stop those steps. But it does indicate that there's a flag that's pending that would normally say we're going to transmit. And this says that that can be suspended, okay?

It also says that it can transmit in response to a number of successive transmission periods in which information was not transmitted. So in that description, that goes to sort of a different basis for determining when transmission should occur, right? Where it would be, not just, okay, are we outside the range? Yes, it's an abnormal measurement. We need to transmit. It's too hot in here, right? It could also be this concept of, well, we haven't transmitted in a while, so we're going to just because we've now passed these transmission periods without doing so.

And again, it's measured here on the concept of how many periods have been skipped or essentially how many periods have we been quiet, right? So this all goes into this concept that there is a transmission period, and that's a separate sort of idea from the are we going to send something or not, okay?

JUDGE PESLAK: But how about column 3 that was cited by your friend here that says information will be communicated in response to a comparison that identifies a change in the sensed condition, such as a change outside of band limit? Similarly, a transmission of information may be suspended for periods of a transmission interval for which no change in the indicator has been identified.

I mean, that's different than, you know, you said we're going to poll five times, and we're not going to -- we're not going to transmit until the fifth one, even if it's outside the range. And this seems to be -- it's not outside the range, so they're speaking -- you know, the patent specifically says transmission of the information may be suspended.

MR. LINDER: Your Honor, I'm not quite sure I'm understanding your question. Are you referring to the idea that there could be a transmission decision at the end of -- like not skipping polling periods, but that at the end of a particular -- for each polling period, this describes that you could make that decision? Is that what you're asking about?

JUDGE PESLAK: Well, what I'm really saying is, I mean, there's several different examples of suspension in the patent. One is a flag is set, but there's a control signal that will suspend the transmission despite the flood. But this provision anyway sounds like there's not going to be a transmission for those periods of transmission because there's no change in the indicator. But it's not saying may not transmit. It's saying the transmission is suspended.

MR. LINDER: I see. So your question is that now does this somehow expand the scope of what it means to suspend to a situation in which you've simply not transmitted during that interval?

JUDGE PESLAK: Yes.

MR. LINDER: Okay. So, yeah, in response to that, what I would say is that the reason that this could be an instance of suspending, right, we can't -- it says that that's suspended. That's an example of one, right? So how do we rectify that with the idea that suspending means something more than just not doing it, right? And that's the plain meaning of suspend. You're stopping something. It's not just you didn't do it at all, but you're stopping something that was in some sense in progress or going to happen.

So, here, the idea is, again, that suspending -- it says here it may be suspended four periods of a transmission interval. Right. So it means you're in a period of a transmission interval, and you have, you know, in response to this particular reading, in this case, it says that there's not a change. So it's comparing one reading to another, right? This isn't actually -- the way the claims are written, they're talking about being out of a particular range. This is actually a slightly different configuration here where you're responding not to, are we out of range, but is the delta between the last one and this one different?

JUDGE McNAMARA: And that's not the subject matter of Claim 1, right?

MR. LINDER: It's not.

JUDGE McNAMARA: Okay.

MR. LINDER: Right.

JUDGE McNAMARA: So, the subject matter of Claim 1 is if the parameter, whatever it is I'm measuring, is now outside of a predetermined range, right?

MR. LINDER: Right. It says it's

(Simultaneous speaking.)

JUDGE McNAMARA: I'm sorry, my apologies. Go ahead.

MR. LINDER: Yeah, I was just going to read the language here. It's just saying that it transmits a most recent reading of the indicator stored in the memory during a period of a transmission interval in response to detecting a change in the sensed condition, outside a predetermined range.

So let me -- sorry. I do want to -- I want to make sure I'm not artificially limiting the scope of the claim.

JUDGE McNAMARA: I agree.

MR. LINDER: Yeah. It says here that there's a change outside of a predetermined range. I think, and again, I'm not here to try to say the full scope of what the claim could ever encompass, because I don't think this is necessarily relevant to the prior part that was raised, but just reading it here, detecting a change in the sensed condition outside of a predetermined range, I can see how that would be let's compare this one to the previous one; how much did we move? Not is it above 100 degrees in here, but did we move more than five degrees since the last --

JUDGE McNAMARA: Absolutely. So let's take a very simple air conditioning system, okay? Every air conditioning system has built into it some kind of hysteresis which says that, you know, I get to a temperature, and I'm not going to turn the air conditioner on when it gets 0.1 degree more, 0.2 degree more. I'm going to wait till it gets a half or a degree, and it might even be several. So I'm going to wait for it to get a certain range.

So, when the temperature gets beyond that range, or when it's within that range, I'm going to suspend. I'm not going to transmit a signal telling me to turn the air conditioner on, but when it gets outside that

predetermined range, then I'm going to say turn the air conditioner on and bring it down to a correct temperature. And then I'm going to send another signal when it gets down, and when it gets below that range, I'm going to say stop. And that's what this claim is about, is it not?

MR. LINDER: Yeah, I think that would fit in with how it's described here. I don't know that that that's the only thing it could encompass, but --

JUDGE McNAMARA: No. I've tried a very simple system, not with a lot of sensors or anything else, just one sensor. That's all you need. And I could poll that. I could poll that sensor 100 times, and it doesn't change. So the polling and the transceiver times are different. And so, you're right. I mean, there is a description of another thing that says, well, I could also say I'm going to -- just so the system knows I'm awake, I'm going to send a signal every now and again, just so it knows because the temperature hasn't changed much in the room. So I can do that too, but that's not what this claim is about.

This claim is just about getting outside that predetermined range. And then I'm either going to -- once it's outside that predetermined range, I'm going to send a transmission signal. When it's inside, I'm going to suspend or go -- when it goes as -- I can do it either way. But that's what this is about, is that right?

MR. LINDER: That's correct. And that's a good way to kind of think of the decision process that the claim is describing, right? What you said was -- sounded correct to me.

JUDGE McNAMARA: Okay.

MR. LINDER: The decision process, however, is -- we have to keep in mind these are all about how the transceiver is configured. So the decision of am I going to transmit or not is something that happens for sure, but that's a separate concept from the idea of there being a transmission period just like there is for --

(Simultaneous speaking.)

JUDGE McNAMARA: Yeah. I mean, time marches on. There's a period there, and there's a period. Are you either going to do something, or I'm not going to do something? So the period just keeps going, so time just -- but time marches on. So I -- in some periods, I do things. In other periods, I don't.

MR. LINDER: Right.

JUDGE McNAMARA: Okay.

MR. LINDER: Okay. So I want to turn now to Petitioner's arguments as to the transmission interval term. And as I'll get to in a moment, I think there's some inconsistencies between what Petitioner said in the -- in the petition and what they've said in the -- sort of clarified in the reply and even in the slides that were presented today. But I'll talk first about just sort of the positions the Petitioner takes as to the claim construction.

So can we go to claim -- sorry -- of their presentation of claim -- sorry -- slide 9? So we're pulling up Patent Owner's demonstrative exhibits -- sorry -- Petitioner's demonstratives at slide 9.

So I just want to clarify this, because Petitioner made this point, that Patent Owner has proposed a construction that doesn't match with what the specification shows, and that's just incorrect. They've kind of made an

interpretation. They've drawn an arrow that doesn't match the arrow that's shown. And Patent Owner's point, just for perfect clarity, was never that we're trying to squeeze an interval in between periods and exclude the periods when we have claims that are describing a period of a transmission interval.

So, as this shows here, this shows an interval that actually goes from the end of one period and then includes the next period and ends at the end of that. So it's an end-to-end. And then there's a portion of the specification that describes an interval that is a beginning-to-beginning interval, right? And so, and I don't think in the art here, it makes any difference as to whether it's a beginning to beginning, end to end. Maybe even middle to middle would work.

But I just wanted to clarify for the Board that the description -- Patent Owner's proposed construction as the time between would not be that red arrow. We're not trying to take that position and make -- you know, run with it.

The other thing I'll just note for the record is that the portion that Petitioner cited here, column 9, line 27 through 30 of the '887 patent, that's actually a discussion of the polling interval. So that one actually didn't relate to the transmission interval. But again, that actually doesn't make a big difference here, because, again, we're not -- I think both parties would agree that the interval starts at some point, either the beginning or the end, and it ends at a corresponding point for the next period. The point would be that matters here is that the interval is defined by the spacing of the periods.

And I think Petitioner said that they also weren't sure whether we're saying you would -- if you have a period with no transmission, like the

fifth one shown here, are we now saying the interval goes to the next one, and we're not taking that position? I think the spec is clear on that. I think both sides actually would agree that each interval -- the interval would be defined by these -- by these periods, regardless of whether there's a transmission or not.

JUDGE PESLAK: So the interval has to include at least one transmission period, even if there's not a transmission?

MR. LINDER: Right. In fact, the interval is defined by, you know, how far apart these periods are. So if you have periods that are further apart, that would be a longer interval.

Okay. Can we go to Petitioners slide 15? I'd like to now address Petitioner's contention that the -- one more, Bob.

Okay. I'd like to now address Petitioner's contention that the intervals -- the transmission interval and the polling interval can be the same, and they've said it here. It's their second bullet point on slide 15. It says Kates 711 discloses synchronized transmission and polling intervals, consistent with an embodiment in the '887 patent.

So, and they've, elsewhere in their in their papers, said that these could be the same interval. And I think -- yeah. The word they used today, they said it could be the same length or synchronized. Maybe those are supposed to be synonyms, I'm not sure. But here's where we get to the sort of the problem, right? They're -- in their petition, as the Board noted, they are talking about the interval, just saying that it is periodic polling. And they kind of pointed to this whole thing. And you said, well, you have a period in there. Seemed like they were trying to say maybe it was the transmit report,

at least if you read kind of the wording of their -- if you read the wording of their petition.

But if they're now saying here, which they have it on this slide, it says that they're synchronized, right? And they said that means that they're the same. They occur at the same time. Okay. Well, you have this loop in Kates, right? And so, initially, they just said, look, we've got this loop, and it repeats. So there you go. You've got a polling interval. You've got a transmission interval, right? Kind of pointing to the same thing. And here they're saying, again, these are synchronized. Right?

But if we look at what we just talked about, which is, how do we define where does an interval start, right? And what they've said today, and also what's shown here, is that a transmission interval starts at the beginning of the transmit report block. So right before you're about to do that block, that's where you start your interval. And they show it here. You can see the red line. Pardon me. I don't know if you all can see me if I do that, but the red line starts right after that transmit report block, right? So that's where it starts, and then it comes back around, and that's where it ends.

Now, the polling interval that they've drawn here would start before the take sensor readings block 706. This is Figure 7 of Kates 711, just for the record. So what they're showing in their drawing is intervals that are offset from one another. What they said in their petition was, and what they repeat here, is that they're synchronized, right? Meaning that they're happening at the same time, that they're the same interval.

So I don't know how Petitioner can kind of reconcile that. It seems to me that they're kind of taking two different positions. And it could be that they're saying, well, we've tried to construe the terms in a certain way where

they had to take a new position, but our construction is not anything new, right? It's not like we said this strange construction that would exclude something that was already in Kates, right?

We've taken a construction position that, now that we've kind of clarified, we're not talking about the red arrow they show that only is squeezed between periods, that it includes one. Petitioner, it sounds like they agree. And I think they said today that's the correct construction. So if that's the construction, then Kates does not disclose synchronized transmission and polling intervals, if what those mean are what's shown in the figure here, right? They're just not synchronized, okay?

JUDGE PESLAK: Is synchronized part of the claim? or were --

MR. LINDER: Synchronized is not part of the claim. And I think the -- if Your Honors are wondering, well, why is this such a big deal? I think it's because Petitioner recognizes that what happens in Kates is that there's really just one repetition that's happening. It's a polling, then transmit. Polling, then transmit.

Whereas in the patent, the '887 patent, there are these two sort of separate cycles that are happening. You have a polling cycle that has its polling period and polling interval, and you have a transmission cycle which has a transmission interval and a transmission period. Kates doesn't have that. And so they would like to say, well, these can just be the same. These can just be the same interval, and therefore, we meet the claims that way.

They point to a portion of the specification. Can you pull up slide 10, Petitioner's slide 10? Okay. So, even though I think the whole concept that these intervals in Kates are synchronized, it just doesn't fit with how they've even agreed to kind of the claims should be construed. Even what

they pointed to here, to say that a transmission interval and a polling interval can be synchronized, is incorrect. And we pointed this out in the papers.

So they're quoting here a portion of the '887 patent, lines -- sorry -- column 14, lines 14 through 20, which says that the controller 508 may also synchronize the timing of the polling period 336 and/or transmission periods 436.

Okay. So I want to just first look at that grammatically, okay? If we took that sentence, it says you can synchronize polling periods and/or transmission periods. That means you can synchronize one of them, you can synchronize the other one, or you can synchronize both. That's what the and/or means, right?

If you put an or in that sentence, it means you're synchronizing one or the other. If you put an and in, it means you're synchronizing each of them, right? So how does that sentence make any sense if synchronizing means you're synchronizing one to the other, if you're synchronizing polling to transmission? It doesn't make sense because then how could you synchronize one and not the other? Right? And when we read the next sentence, that's when --

JUDGE PESLAK: So how do you synchronize polling periods to each other or transmission periods to each other?

MR. LINDER: You don't, Your Honor. The next sentence explains it. So what it says here is that the controller can communicate synchronization or timing information to the device. And then it says, by communicating synchronization or timing information, the device and the controller will have synchronized intervals, okay? This controller is not the

controller within the claimed device. There is a controller in the device. We're talking about now the sort of master controller.

So all this is saying is that you can have a transmission period. So the master controller tells the device, saying, I want to synchronize with you transmission periods so that the external device is now synchronized with the sensor device, the claimed one. Right? That's why -- that's what it's saying here. And that, when you look at it that way, you can see, oh, that makes sense that polling periods and transmission periods are synchronized not to each other. This says they're being synchronized to something else, okay? So grammatically, that's what makes sense.

And the following sentence, like I said, it's clear that it's saying it's synchronizing it. It's the device and the controller. These are the things that are synchronized within the device. Within the device, you have transmission interval and polling interval. And so those are the things that are externally synchronized.

If we also look at the claims, the claims recite a controller, right? So there's this step. There's a process here. You have a polling, taking a reading. Then you have storing into memory, and I'm just paraphrasing the words here. And after that, you have this step of transmitting a reading that was in the memory, okay?

So polling has to happen before transmitting because the claim says that you do one, you write to memory, then you do the next one. So this idea that you would somehow completely overlap these things, which is kind of what Petitioner says, right? That there are -- these are just synchronized. They're the same. We don't have to identify two different

intervals, right? That doesn't make sense. The spec never said you would do it that way.

And the claims themselves, they couldn't even be met if you did it that way, because you have to have this sequence in order to make it work, right? You have to poll first, then you store, and then you transmit what you stored -- potentially transmit what you stored.

So, and again, in -- Patent Owner's expert at -- that's exhibit 2006. We don't need it now, Bob. But at 2006, paragraph 36, he went into detail as to why this type of synchronization between the claimed device and the main kind of controller, why that is important. It avoids channel access problems. He said that it reduces unnecessary use of potentially busy wireless channels. So that's the synchronization that matters here when you consider the broader context.

All right. And then Petitioner also says, as to the construction, that Patent Owner is seeking a negative limitation. And then you can't do that unless you have expressed disclaimer or independent lexicography, and that's just not the case here. Our point is that the patent claims define these two separate entities, right? A transmission interval/transmission period, polling interval/polling period, and that those would be understood as different because they're different terms and they're used differently, right?

You configure a controller based on a polling interval. You configure a different component, a transceiver, based on the transmission interval. So you would understand those terms as being different because they do different things. That's not a negative limitation.

Okay. So let me turn now to Petitioner's analysis of Kates. We've talked about it a little bit already. I don't think there's a disagreement about

how Kates actually functions, right? So let's look at slide 10 of our presentation, Patent Owner's demonstratives, slide 10. We can see in Figure 7 of Kates that there's an important difference.

So, in Kates, you have, basically, the cycle would be sleep, poll, transmit, and there's some other things that aren't really relevant, listening for instructions, and then you repeat, sleep, poll, transmit, sleep, poll, transmit.

And so, the only thing that kind of -- if we looked at -- okay. Well, we talked about the spacing of these periods changing, right? The only thing that's controlling that here, there's only one, right? There's just a sleep period, and the spacing of everything depends on that period. There's not a separate period for determining how far transmissions could happen apart from each other.

So, if we look at what Petitioner says about how Kates satisfies the claims, we see that for the controller, which has the polling period of the polling -- sorry -- period of the polling interval limitation, they say sensor readings are taken once per period of the periodic monitoring, right? And then for the transmission interval, which is now part of the transceiver limitation, they say -- again, they point to the report block 707 of the periodic monitoring, right?

And so, as the Board already mentioned earlier, it sounds like they're just pointing to this whole thing as like the interval is there. It seems like now they're trying to say, well, it's -- yeah, the whole thing is there, and we take a different portion of it -- or we start at a different point, so we have these two intervals.

But as I just mentioned the -- in Kates, what they've defined as the polling and transmission intervals, they are not synchronized. They've pointed to different periods of time. They have an overlap, but they're not synchronized.

So now they've sort of presented, instead of talking about the whole thing as an interval, which the petition did, in their reply, they're now saying, well, we can look at these different intervals. Now they're kind of staggered, right? One starts at the beginning of polling. One starts at the beginning of the transmission block.

JUDGE McNAMARA: Counsel, does that really matter? I mean, you were describing Kates as sleep, poll, transmit, sleep, poll, transmit, right? So it polls. And when it gets to transmit, are there periods of time -- the conditions where in the sleep, poll, transmit, it won't transmit; Kates doesn't transmit because there's no -- nothing anomalous to transmit?

MR. LINDER: Yeah. So there's a decision point, and it's not really reflected in Figure 7 of Kates.

JUDGE McNAMARA: Right.

MR. LINDER: But there's a decision that happens, right? Where Kates says -- and essentially, the way that Kates describes it is we're going to poll at this particular time, right? After the sleep, we're going to wake up. We're going to poll, okay? And then we're going to look at the reading and decide if we need a transmit or not.

JUDGE McNAMARA: So how is that different from Claim 1?

MR. LINDER: Yeah. So the difference is -- and this is important because Your Honors were asking about the sort of the second wherein clause of Claim 1, which -- and you said, well, if Claim 1, if the first part of

it sort of -- once we get to halfway through the transceiver limitation and we said, okay, we're going to poll at a -- during a polling period. We're going to then transmit if we're out of range. And then we're going to, if we're in range, suspend during the polling -- during the transmission -- or during the period of a transmission interval.

So the -- so, if you already said when you're going to transmit, right, what does this last part mean? Okay. Because if we give Petitioner sort of -- if I said, okay, I will say they've got a polling -- let's say they've got a polling period. I'm not conceding it now, but if I did, and say they got a polling period in Kates, and then they've got this transmission that happens, and it only happens if you're out of range, right? What has that done? That has gotten you from the beginning of Claim 1 up until that last wherein clause, right? Because that's all Kates has. It says if we're out of range, we transmit, right?

Now it doesn't say that -- it doesn't have the last part where you have a suspension of a transmission. So what does it mean to have a suspension here? Right. How is that different than just, well, we said to do it, and then, if we're out of range -- so doesn't that mean naturally that we're not going to do it if we're inside the range?

JUDGE McNAMARA: Well, that was the question I asked you at the beginning, though. I said, are there times in a sleep, poll, transmit when Kates is in that transmit and Kates does not transmit? And you said, yes, there are.

MR. LINDER: Well, hang on.

JUDGE McNAMARA: So that's what I'm trying to find, how that then distinguishes from Claim 1. But whether you call it a polling interval

or a transmission interval, you know, Claim 1 effectively does the same thing. It polls. It may sleep, but it polls, and then it either transmits or doesn't during some transmission interval. You just described Kates as sleep, poll, transmit, and in some cases, it doesn't transmit. So it seems like it would mean exactly -- do exactly what Claim 1 does.

MR. LINDER: Yeah, that's a great question, Your Honor, and I think I want to just clarify --

JUDGE McNAMARA: I thought it was, too.

(Laughter.)

MR. LINDER: I want to clarify one thing for the record because I think you said that you asked me if it enters this transmission period and then doesn't transmit and that I had said yes to that. I don't think that that was quite the wording. I just need to be precise here.

JUDGE McNAMARA: I apologize if it wasn't, but that's kind of where I'm going.

MR. LINDER: Yeah. And so, this is important because if we look at the output of the device, right? If we're just standing here and we're saying, okay, what happened? Okay, okay, I see a polling happened, and then we see a transmission happened. And that's in Kates, right? And then we see another time, okay, polling happened. Transmission didn't happen. Right. And we look at Claim 1, and we look at a device that's configured just like Claim 1. We could end up with the same outcome. We could. We could end up with polling, polling, then poll and transmit, right? That could happen. These devices could spit out the same thing.

The issue is this isn't a method claim, right? It's not that you've done this. This is an apparatus claim. And what the apparatus says is that

you are configured -- the transceiver is configured to transmit during this interval, and it's configured to suspend transmission -- during the period of the transmission interval, it suspends, and then it wouldn't send in response to the sensed condition being within range. Okay. So the idea here is that it's not just leaving it as did we do it or not. It's this concept that you have to have configured the transceiver with a transmission period, and that's where you make the decision.

Now, this isn't the problem with Kates, and I know that I've gone a little bit over. The problem with Kates is this -- can you go to the slide where they had the blue and red? I don't remember which one that was. Fifteen? Yes, this one. Okay.

So they said, what's the transmission period? Well, they said the transmission period is that transmit report block, okay? So the claim says that you're going to -- it says that the indicator stored in memory during the period of transmission interval is suspended in response to detecting a change in the sensed conditions, okay?

So if the transmit report block is what they're saying, that's the transmission interval. Well, if you don't have data that's in a range that means you're going to send something, you don't execute that block. It's just not there, right? That block isn't a reserved slice of time. And this is what we said in the papers, that that block is just a series of steps that gets executed. Okay? So --

JUDGE PESLAK: But wouldn't you meet -- wouldn't that meet the claim the second time through the loop, though? The first time through, right, you're outside the range, so you transmit a report. The second time

you come back through, you're in the range and you don't transmit the report, so isn't that suspending?

MR. LINDER: Well, you don't have a transmission period when you don't send it. There isn't a -- the transmission period they pointed to is that block. There is no transmission period. That's why these are sort of fundamentally different concepts, right, that Kates doesn't reserve a time for this to happen, for the transmission to happen. It simply after the sleep period, right, it simply polls, and then it just says, am I going to transmit or not? Right?

And if it doesn't transmit, you don't have a transmission period. And therefore, this whole concept of transmission interval can't work because transmission intervals are defined by the transmission periods.

(Simultaneous speaking.)

JUDGE SILVERMAN: You'll have that same -- sorry.

JUDGE McNAMARA: Go right ahead. My apologies.

JUDGE SILVERMAN: You'll have that same instance when you go through your decision loop except in one instance, you may be transmitting; in another instance, you may not be transmitting. I mean, it's just semantics as to whether you call that the transmission interval or the transmission -- it's not the right term. I'm not sure -- transmission whatever. It's just what you choose to call that zone of time after you poll and whether you transmit or not.

MR. LINDER: So there would be a point in the execution of this loop where Kates describes that you are making a decision. However, like I said, what Petitioner is pointing to as the period of time, or the transmission

period, is this block which doesn't exist. You don't enter that block if you are not going to transmit.

So their identified transmission period, or period of a transmission interval as the claim says, it's here when you're going to transmit, but it leaves out that last wherein clause because this block doesn't exist anymore when you're not going to transmit. You don't enter into it at all. And that's why --

JUDGE SILVERMAN: Where does it say that? I mean, it does not exist?

MR. LINDER: Well, the --

JUDGE SILVERMAN: I mean, it seems like it exists just that you made the decision not to transmit for that particular occasion because you don't have an anomalous piece of information to report.

MR. LINDER: So when I'm saying it doesn't exist, I mean that it's not -- it's not executed. It's just that the transmit report is just a sequence of steps.

JUDGE SILVERMAN: Exactly. The time is the time. It's just not -- this time it's not executed. So they execute or not during that time frame?

MR. LINDER: I think, Your Honor, the difference here is that these steps don't have with them a period of time that's associated with them. So, when you're configuring the transceiver, there's nothing -- you know, in the Kates transceiver, you wouldn't see that, okay, we've got this transmission period, this slice of time reserved for doing this, and then within there, we're going to make a decision. It's only -- all it has is one sleep period, and that's just what controls everything.

So again, it's like I said, the output of what happens here, it could match a conceivable device that meets the claims. However, these are not -- these are apparatus claims, so there has to be configured to transmit during this period. And there's nothing in Kates that would configure the transceiver to do that.

JUDGE SILVERMAN: Well, it seems like Kates wouldn't wake up only when you have something anomalous to report because the sequence is you sleep, then you take the -- wake up and you take the thing, then you're reading, then you have your reporting, except you might not report because you might not have the anomalous.

MR. LINDER: Right. So --

JUDGE SILVERMAN: I don't see where you're saying Kate's is missing some piece of process, some piece of the equipment that's required.

MR. LINDER: Your Honor, you're correct that Kates would wake up regardless of whether there's something to transmit or not, right? And it's just --

JUDGE SILVERMAN: And it would take a reading.

MR. LINDER: It would poll, right? So that would be the first sort of step if you agreed on everything else that's supposed to be there, right, that it does wake up, and it does poll, but it doesn't then have -- there's no notion in Kates of this separate reservation of time for making a transmission that exists regardless of whether you make it. In Kates, these steps that they pointed to only get executed if you're going to make it. So they've just shown that Kate's.

JUDGE SILVERMAN: So you make it. You make it, or you skip it if I'm understanding. I -- we just think -- kind of go over this. We kind of do understand.

MR. LINDER: Sure.

JUDGE McNAMARA: Maybe this will help. I mean, are you saying that Claim 1 is limited to some sort of synchronous-type system where you have a polling interval, and it's followed by a transmission interval, and you know, if nothing happens, you suspend during that interval, but the interval is still there, and Kates doesn't have that. Is that your theory at this point?

MR. LINDER: The interval -- the period exists regardless of whether you transmit or not. And that was the Figure 4 that I showed from the '887 patent shows that clearly, right? You have an interval, right? It's there, and you don't do anything during that interval. And if we looked at case, we would just see a blank space there, right? It's just skipped because you don't -- Kates is not set up to have this polling -- this cyclic polling event and then this separate cyclic transmission period event, right, where you have, you have this reservation of time to do that.

JUDGE McNAMARA: So you are effectively arguing that the Claim 1 is limited to a synchronous-type system, one follows the -- one period has to follow the other.

MR. LINDER: I don't think that the -- based on the claim, I don't think they can happen at the same instant because one has to -- transmission has to happen --

JUDGE McNAMARA: But they're synchronized by when you have -- you know, and that gets us back to the sleep, poll, transmit, sleep,

poll, transmit. And essentially, you're saying the same thing here. You've got this polling interval. Maybe you poll, maybe you poll, maybe you poll, and maybe you don't transmit until later. And then you transmit, or you don't transmit. You have an interval that you transmit. You don't transmit. And so, you're saying there's a predefined interval that doesn't necessarily exist in Kates, is that --

MR. LINDER: Right. The components, the separate components have to be configured, right? The controller has to be configured based on this polling period, within a polling interval, and the transceiver has to be configured based on a different quantity, right, which is the period of the transmission interval.

JUDGE McNAMARA: Okay.

MR. LINDER: And Kates doesn't do that. Kates has one, not the other.

JUDGE McNAMARA: Okay. I understand where you're coming from.

MR. LINDER: If there are any other questions, I'll reserve my remaining two minutes.

JUDGE PESLAK: Actually, I think it's 8 minutes. If you need a few more minutes, we're not going to -- so, Petitioner, I think you have 30 minutes for rebuttal.

PETITIONER'S REBUTTAL

MR. DAVIS: Yes, Your Honor, I don't imagine that we'll need that. I think, as the questions we're elucidating here, the language in Claim 1 matches up with what Kates discloses. Patent Owner's arguments generally

are about things that either are not claimed or attempts to rewrite the specification or attempts to rewrite the prior art.

Going back to this overview of the case grounds, I think the slide 13 captures all of the issues that we've been talking through. Judge McNamara, as you said, those steps in Figure 7 of sleep, poll, and transmit, are there, expressly disclosed.

That transmit step, though, that period of transmission, that is further described in column 13, lines 8 to 23, where it's saying, well, the controller is at that point evaluating the data that was just received in step 706, the prior step there, and determining whether the data is to be transmitted to the base unit 112. The sensor unit 102, generally conserves power by not transmitting data that falls within a normal range.

JUDGE McNAMARA: So, Counsel, how do you respond, though, to what I understand Patent Owner's argument to be that there is a -- I don't know if you'd say fixed, but there is a -- there is a predetermined transmission interval, and that, you know, Kates may be, you know, maybe using some finite amount of time to make that decision. But it isn't the transmission interval that's claimed.

MR. DAVIS: You mean period, Your Honor.

JUDGE McNAMARA: I'm sorry. Yeah, I'm sorry.

MR. DAVIS: Kates never says that step 707 doesn't take place. That step, that period that takes place then to make that determination as to whether or not to transmit, that satisfies the claim limitation. There's no requirement as to how long that period needs to be, whether it needs to be a fixed amount of time or anything else. But there is that determination that has to be made and is expressly disclosed by Kates as being made every

single time. And that's what satisfies that transmission period requirement. It takes place right after you take the sensor readings, which would be the polling period.

JUDGE McNAMARA: Actually, that does bring me back, though, because you caught me on that language, but I'm reading it. It's the transceiver is configured to transmit during a period of a transmission interval. So there's an interval there, and it's going to transmit during a period of the transmission interval. So the transmission interval is real, and I'm just going to suspend transmission and not transmit during the period of the transmission interval. So that still brings -- I'm still not sure you've satisfied me on answering the question about transmission interval.

MR. DAVIS: So transmission interval is that entire process, whether it's beginning at the beginning -- and I'm on slide 9 here.

JUDGE McNAMARA: Sure.

MR. DAVIS: The beginning of the blue boxes or the end of the blue boxes, whatever it happens to be, right? It's that entire time, right? The period is one portion of that larger interval.

JUDGE McNAMARA: Right. But for Kates, where is the transmission interval?

MR. DAVIS: And that -- I don't know if this will work, but it's the entire period of the periodic monitoring, that entire loop we've illustrated here on slide --

JUDGE McNAMARA: From 707 back to 707?

MR. DAVIS: Exactly. Same concept. It's illustrating it here with a flowchart as opposed to a time graph. That's not a requirement to meet the claims. Exact same concept. The period is that step 707, and the interval is

how you go from one step 707 to a subsequent step 707, which I think the parties are all in agreement on, is what the interval would be, polling interval 706 looping back, so that's each period of the periodic monitoring. That's going back to the petition, as well as the reply, at pages 31 and 32 of the petition, page 11 of the reply. As we talked about earlier, we've expressly set out as our grounds here.

JUDGE McNAMARA: Okay, I get where you're coming from. Thanks.

JUDGE PESLAK: So you're -- but you're saying that even if there's no transmission at 707, the loop still goes and listens for instructions, regardless.

MR. DAVIS: Yes.

JUDGE PESLAK: And then if instructions are received, then it goes and performs an operation?

MR. DAVIS: And it will transmit, Your Honor, yes.

JUDGE PESLAK: And if no instructions are received, it's going to go back to sleep?

MR. DAVIS: Eventually. Yeah, it will do some other stuff and eventually get back to step 703, where it goes back to sleep.

JUDGE McNAMARA: But that is just a loop. It is not some predetermined time interval, right, which is the transmission interval that I think Claim 1 is trying to talk about.

MR. DAVIS: So the loop itself, all going through all the --

JUDGE McNAMARA: I mean, it takes a matter of time to go through the loop.

MR. DAVIS: Right. And the intervals can change over time. There's no requirement that they have to be the same. They're variable. That all satisfies the claims. There's no requirement, as I said before, on synchronization or anything else. It's just you have to go through these steps. There has to be an interval that takes place to get from one transmission period, step 707, to the subsequent one. That process of going from one to the other is the interval, just like as disclosed in Figure 4 of the '887.

JUDGE McNAMARA: Okay. Thanks.

MR. DAVIS: And not to belabor this too much more, but with respect to the suspension issue, this is on slide 17. Again, I think, as Your Honor's question has illustrated, it's the same concept that's disclosed in Kates, column 13, lines 23 -- lines 8 to 23, and '887, column 3, lines 32 to 37, as depicted here on slide 17.

If the data that was sensed, that data sensed during the polling period, step 706, falls within normal range, transmission is suspended. Otherwise, if it's anomalous, it's transmitted. Same concept in '887. If it's anomalous, it's outside of the range or band limit, it's transmitted. Otherwise, if there's no change, then it's suspended, it's not transmitted.

Unless there's any further questions or anything from Mr. Richards, we'll cede the remaining time, Your Honors.

JUDGE PESLAK: Okay, thank you, Counsel.

So, Patent Owner, I think you only had a couple minutes left. We'll give you five minutes for rebuttal.

PATENT OWNER'S SUR-REBUTTAL

MR. LINDER: So I think Your Honors --

JUDGE McNAMARA: Counsel, before you even begin, let me ask a question because it's burning in my brain. And so, let's go back to this sleep, poll, transmit, okay? The Petitioner just argued that sleep, poll, transmit, it's this loop, and it was the loop. It's the loop, and that's that. And so, from transmit to transmit, basically, is the transmission interval.

As I understand what you're saying, sleep, poll, transmit, when you get to transmit, there is an interval in that step transmit, and that that interval is some amount of time. And that it's an interval. And it has to be a real interval. Has to be -- the system has to be configured for that to be a real interval, as opposed to just sleep, poll, transmit, sleep, poll, transmit, and decide, transmit or not. That your -- my understanding is your view of this claim is that transmit interval is a period of time. Is that right?

MR. LINDER: So just to make sure I'm clear here because I think there's a question of -- the claims recite a period of a transmission interval.

JUDGE McNAMARA: Right.

MR. LINDER: Right. So the interval is the kind of big window, like the amount of time from one period to the next period. And the period is actually that thinner portion that -- and what was shown in Figure 4 shows it as a little slice of time. That's where you could transmit, where you're going to make your transmission decision, and you can transmit, or you can suspend.

JUDGE McNAMARA: But the interval is an interval, right? It's not -- it's sleep, poll, transmit. And there's an interval that you've configured the system for an interval as opposed to the amount of time it takes to do the whole loop.

MR. LINDER: Yeah. The way that the interval is understood, I mean, it's shown in the figures in the patent, right? The interval is like this space of time measured from a transmission period to the next one, right? So that --you have to have -- all of these concepts kind of build on each other, but the whole point of this -- I won't say the whole point, but lawyers say that too often.

(Laughter.)

MR. LINDER: The way that the system is set up and specifically configured is based on this concept that you do have this polling period and polling interval that's repeated, and you have this transmission period and transmission interval that repeats. And those things are -- one is used for the controller. One is used for the transceiver. They're just different. They're just different entities, I guess, if you will.

JUDGE McNAMARA: Right. But it's as a period of an interval. It's not just the interval it takes to run the loop. It's a period of the interval to transmit, the transmission interval.

MR. LINDER: That's right.

JUDGE McNAMARA: Okay. All right. Now you can go on.

MR. LINDER: Well, I think that gets me most of the way there on what I wanted to talk about. I think I just want to make sure Your Honors kind of understand how these two systems operate and how Kates functions and how that I think that is different than the claims. I think Your Honors do, that you know, if -- if the claims, when they say you're configuring it to transmit during this period of an interval, if that means something other than just we're going to transmit at some point in time, right, then what it means is that you do have to have this concept of configuring it so that you have

this reservation of a certain portion of the interval where you're going to transmit.

And that's just what Kates just doesn't do. The only thing it can control is how often -- how long you sleep. And the claims are talking about two different levels of control, and it's configured that way with those two.

And petition doesn't have -- the last thing I would point out is that it is clear to me now that what Petitioner said in the petition as to what the interval is and what they've now later said as to how the period and interval are defined, those have changed. And I think the Board should keep that in mind. You know, regardless of the merits of the arguments, their position has changed on that.

JUDGE PESLAK: Okay, let me ask you a question. Is it Patent Owner's position that if there is no transmission at block 707, that the loop stops and doesn't go to 708? Or do you agree with what Petitioner said, you go to 708 even if there's no transmission?

MR. LINDER: I don't -- I'm not taking the position that the loop stops. I think the loop is just a continuous -- it's a poll, decide, and then carry on.

JUDGE PESLAK: Okay. I understand.

MR. LINDER: Okay. Anything else?

JUDGE PESLAK: Any more questions, Judge Silverman, Judge McNamara?

JUDGE McNAMARA: Not need them.

JUDGE PESLAK: Okay.

MR. LINDER: Thank you.

JUDGE PESLAK: Thank you, gentlemen. The hearing is closed. We'll take the matter under advisement. Thank both sides for an informative presentation today. We asked a lot of questions, and it's always helpful. Why don't you stay in case the court reporter needs -- Court Reporter, do you need spellings or --

COURT REPORTER: No, I don't. They were all provided demonstratives

JUDGE PESLAK: Okay. So with that, again, thank you very much. Have a good evening.

(Whereupon, the above-entitled matter went off the record at 4:36 p.m.)

PETITIONER:

James Davis
Daniel Richards
Victor Cheung
ROPES & GRAY LLP
james.l.davis@ropesgray.com
daniel.richards@ropesgray.com
victor.cheung@ropesgray.com

PATENT OWNER:

Brett Cooper
BC Law Group, P.C
bcooper@bc-lawgroup.com

Robert Auchter
Auchter PLLC
robert@auchterlaw.com