

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HANSHOW AMERICA INC. and
HANSHOW TECHNOLOGY CO., LTD,
Petitioner,

v.

SES-IMAGOTAG GMBH,
Patent Owner

IPR2024-00189
Patent 10,674,340 B2

Record of Oral Hearing
Held: February 18, 2025

BEFORE: JAMES P. CALVE, BRIAN J. McNAMARA, and
TERRENCE W. McMILLIN, Administrative Patent Judges.

IPR2024-00189
Patent 10,674,340

APPEARANCES:

ON BEHALF OF THE PETITIONER:

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The above-entitled matter came on for hearing on
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teleconference.

P R O C E E D I N G S

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JUDGE MCNAMARA: This is going to be the hearing in IPR2024-00189, concerning U.S. Patent Number 10,674,340. Just a couple of quick things. At the beginning, if you run into any trouble, the important thing is that you represent your client well, and if you feel that you have anything that gets in the way, please interrupt us or contact the party that put you on to the call in the first place.

Just a reminder, when you're not speaking, mute yourself so that we can avoid echo and crosstalk. Identify yourself each time you speak so that we can get an accurate transcript, and refer to the demonstratives, and papers, and exhibits by name or number so that we can find them. We have the entire record before us if it's difficult for you to to present your screens. Okay. Let's begin with the Petitioner. Can you tell me who's going to be arguing today?

MR. TAN: My colleague, Mr. Fahy, will be arguing today, Your Honor.

JUDGE MCNAMARA: Okay, great. And for Patent Owner?

MS. KAISER: Good afternoon, Your Honor. This is Jessica Kaiser from Perkins Coie on behalf of Patent Owner. I will be presenting, along with LEAP Practitioner, Dr. Chris Moulder.

1 JUDGE MCNAMARA: Okay. All right. Is Chris
2 Moulder going to be arguing a particular issue or what?

3 MS. KAISER: He's going to be arguing on motivation to
4 combine to address the near-field communication or NFC
5 limitation.

6 JUDGE MCNAMARA: Okay, great. Thank you so
7 much. All right. I guess we are all ready to begin. We'll begin
8 with the Petitioner. You have -- I believe everybody has 45
9 minutes and there's an extra 15 minutes for the LEAP Practitioner.
10 The -- Petitioner, would you like to reserve some rebuttal time?

11 MR. FAHY: Christopher Fahy for Petitioner. Yes, I'd
12 like to reserve 20 minutes, please.

13 JUDGE MCNAMARA: Okay, 20 minutes. So we'll
14 start counting you down from 25 minutes. And hold on just a
15 second while I set my little timer. All right. You can begin when
16 ready.

17 MR. FAHY: Thank you, Your Honor, and good
18 afternoon, Your Honors. May it please the Board. I first would
19 like to start to make sure that everyone can hear me okay.

20 JUDGE MCNAMARA: We can hear you. I don't know
21 if you can get a little clearer, but yes, we can hear you.

22 MR. FAHY: Okay. I'll try to speak as loudly and clearly
23 as I can. I'm going to share --

24 JUDGE MCNAMARA: Thank you.

25 MR. FAHY: -- my presentation, which I know everyone

1 has in front of them anyway, but can you see the presentation?

2 JUDGE MCNAMARA: Yes, we can.

3 MR. FAHY: Great. So as you just introduced, we're
4 here to talk about U.S. Patent 10,674,340 or what -- as I'll discuss
5 today, the '340 patent. And starting out on Slide 4, the '340 patent
6 is directed to the display of information in a sales area and
7 communicating spatially localized information to a mobile
8 terminal. Now, the '340 patent is not the first patent to claim or
9 develop such a system. It's not the first patent to develop such a
10 system for mobile devices using electronic labels, planograms, as
11 we'll get into in a little bit. The prior art that was relied upon on
12 Petitioner's petition demonstrates why the '340 patent claims are
13 unpatentable.

14 Now, it's my experience, and even having listened in on
15 the prior proceeding, that the Board is quite familiar with the
16 claims, and the record, and the technology based on all the filings,
17 so I plan to jump ahead and skip through a lot of these slides fairly
18 quickly to try to concentrate on what we believe is evidence by the
19 reply and surreply at some of the open issues. And in that regard,
20 I'm going to start with the interpretation of claim terms planogram
21 and activate, so I'll move to Slide 10.

22 The claim construction of planogram. And I don't know
23 if Your Honors have any question about planogram. I wasn't
24 planning on spending a whole lot of time on it. I think the petition
25 briefing was pretty clear. It seemed to be well understood in the

1 institution decision. There is one point that I would make, if we
2 turn to Slides 13 to 15, is that Patent Owner's construction is -- still
3 remains unclear to us. As we show on Slides 13 to 15, even
4 through extensive questioning of Patent Owner's expert, could not
5 answer basic questions about what is actually required by Patent
6 Owner's definition of planogram. So we feel that that would raise
7 more issues than it would solve and that the Board's initial
8 interpretation should stand.

9 Turning to Slide --

10 JUDGE MCNAMARA: So Counsel --

11 MR. FAHY: Yes.

12 JUDGE MCNAMARA: -- let me interrupt just a second.

13 So your -- the Petitioner's position is that we should construe
14 planogram the way it was construed in the decision to institute; is
15 that right?

16 MR. FAHY: I'd say Petitioner's position is that it's the
17 plain and ordinary meaning, but to the extent it needs to be
18 construed, that plain and ordinary meaning would be as the Board
19 identified and construed it in the institution decision.

20 JUDGE MCNAMARA: All right, thank you.

21 MR. FAHY: Skipping ahead to Slide 17. The other term
22 at issue is the term activated. Now, this is a term that I do not
23 believe was addressed explicitly for claim construction purposes in
24 the petition or the institution decision. It was raised in Patent
25 Owner's response and then Petitioner replied in its reply, and we've

1 got the constructions on Slide 17 here. And the issue that we
2 believe this gets to is this is kind of the beginning of false premise
3 that Patent Owner asserts that we'll see it throughout their
4 positions.

5 And that false premises that the '340 patent is limited to
6 only certain types of tags, passive tags, and that later, that the art
7 asserted by Petitioner is somehow totally incompatible with that
8 technology. And specifically, we see that for the term activated
9 here on Slide 17 where the issue is whether activated should be
10 limited to being powered by the energy electromagnetic waves
11 from the mobile terminal, essentially limiting the claims to cover
12 only passive tags.

13 Now, turning to Slide 18, it's Petitioner's position that the
14 term should not be so limited, and axiomatic that it is improper to
15 read limitations from a preferred embodiment into the claims
16 absent a clear indication to do so, which isn't present here. In fact,
17 the opposite is true. When we look at the specification, it's clear --
18 and the rest of the intrinsic record -- it's clear that this is just one
19 possible embodiment, and that Patent Owner is trying to read that
20 improperly into the claims of the '340 patent.

21 On Slide 19, the prosecution history is further evidence
22 of this because the examiner cited a reference, Rasband, when
23 discussing the RF peripheral technology of the '340 patent, and the
24 citation in Rasband discloses active and passive, and other types of
25 tags. And the Patent Owner did not disagree. Certainly not in a

1 way -- I don't think they disagreed at all with that characterization,
2 and certainly not in the way of the type of clear and unmistakable
3 disclaimer and disavowal that would require in order to limit the
4 '340 patent to one embodiment.

5 Turning to Slide 20, the specification itself further
6 discloses the peripheral can be of the RFID type. Not just NFC.
7 And Patent Owner's own expert, as we show on Slide 20,
8 acknowledges that this can be active or passive. So in sum the
9 intrinsic evidence does not support a limited reading of the term
10 activated in Claim 1 proposed by Patent Owner.

11 And if we skip ahead to Slide 24, we're going to turn to
12 Grounds 1 and 2, and Slide 25 illustrates those grounds. Ground 1
13 being one reference of obviousness in Fujiwara, and Ground 2
14 being the combination of Fujiwara and Arntzen. Now, this is
15 another issue, as we show in Slide 27, where we show an excerpt
16 from the institution decision that the Board seems to understand.
17 We'd just like to point out on Slide 29 that Fujiwara does disclose
18 the horizontal position, and the Board seemed to understand that
19 and relied on it in part in the institution decision.

20 Patent Owner admits that a diagram can be a planogram
21 in its expert declaration, which is Exhibit 1032, I believe
22 paragraphs 5 to 8. Figure 4 of Fujiwara is a diagram of -- I think
23 Patent Owner argues that, well, it's a real-life storage shelf, but
24 we're not aware of any exemption to that being a disclosure of a
25 horizontal position, whether it's a real life storage shelf or not.

1 You know, again, Fujiwara is a one reference
2 obviousness combination. It's not anticipation. We're not trying to
3 find explicit disclosures of every element as arranged in the claim.
4 We're looking at it from the perspective of one of skill in the art
5 and what the teachings of Fujiwara as a whole would teach one of
6 skill in the art. And Figure 4 is a fairly straightforward depiction
7 of a planogram that shows vertical and horizontal positions.

8 Now, there's an alternate theory that was provided in the
9 petition that we show on Slide 30 that one of skill in the art would
10 understand that shelves as disclosed in Fujiwara could be put
11 together side-by-side, which again, disclosed the horizontal
12 position, and we've quoted in number 2 on Slide 30 in the middle
13 right side of the page the institution decision in that regard.

14 Turning to Slide 31, this is the associated one-to-one
15 element and we're showing here that Fujiwara shelf label location
16 information is more than just the shelf number, as Patent Owner
17 argues. And you can see on the bottom right-hand of the page
18 where we're citing Fujiwara at paragraph 13, and we have a box in
19 red that the shelf label location information includes the shelf label
20 ID, the shelf number -- not just the shelf number -- but and the
21 like. And in the petition on page 21 in the related cited declaration
22 of Dr. Tentzeris that shows that one of skill in the art would
23 understand that this is associated one-to-one with the shelf label
24 ID.

25 JUDGE MCNAMARA: Counsel, just a quick question.

1 When we're referring to the location, the shelf label information
2 includes shelf label ID, shelf number, and the like, we're talking
3 about location. There's an underlying assumption there that we
4 know what the layout is; is that correct?

5 MR. FAHY: That that comes from --

6 JUDGE MCNAMARA: That we know where the shelf
7 is.

8 MR. FAHY: Yeah, that comes from Figure 4 in part.

9 JUDGE MCNAMARA: Okay.

10 MR. FAHY: Turning to Slide 32, Fujiwara and Arntzen,
11 which together is Ground 2, disclose the activated limitation.
12 Now, even Patent Owner's expert agreed that Fujiwara's kind of
13 sequence establishes a communication channel between the reader
14 and the label. We argue in the petition that Fujiwara's sequence
15 then activates the label for communication.

16 And then Arntzen further discloses, and we show this in
17 the middle bottom of Slide 32, that NFC technology is -- or that
18 Arntzen discloses standard compliance NFC technology. So this
19 isn't a situation where a new, you know, we're arguing that a new
20 tag or reader or technology is to be designed, or we're pulling it out
21 of some obscure reference. Both parties rely on a number of ISO
22 standards, which show that this technology was, at the time of the
23 invention, standardized, and that one of skill in the art would come
24 to the table with that knowledge.

25 So regardless of the interpretation of activated, certainly

1 Arntzen discloses it under either interpretation, under Petitioner's
2 interpretation, Fujiwara discloses it, and under either interpretation
3 because Fujiwara is a one reference obviousness, argument, the
4 fact that POSITA comes to the table with knowledge of this
5 standard technology, NFC technology through the ISO standards,
6 it would be an obvious -- or Arntzen or Fujiwara alone has an
7 obvious reference, or Fujiwara and Arntzen would disclose the
8 activated limitation.

9 And in fact, we see the references in Arntzen in the
10 middle callout on Slide 32 on the right side to the universally
11 implemented standards for NFC technology. So it's not only
12 within the knowledge of one of skill in the art, but it's explicit in
13 Arntzen.

14 And moving to Slide 33. In Petitioner's petition, on page
15 19, we specifically cited -- stated that NFC tech conformant with
16 ISO 14443, which is -- if you look at the opposition paper at page
17 25, it seems to be agreed to by Patent Owner that this standard is
18 passive NFC. And then there's the additional limitation of the
19 communication range being within 20 centimeters.

20 We explain in the petition at page 19, and 54 to 56, why
21 Fujiwara would be modified to use NFC. The same ISO standard,
22 again, corroborates what a POSITA would've understood, and the
23 literal disclosure here on Slide 33 in Fujiwara and Arntzen of short
24 range. So Fujiwara discloses communication distance of several to
25 several tens of centimeters, and Arntzen discloses a very short

1 range within a range radius of four centimeters.

2 Moving to Slide 35 and the element here, an antenna and
3 an electronic chip configured for near-field configuration, relates
4 to Claims 1 and 5. And on Slide 35, the issue here is essentially,
5 an extension of the false premise I mentioned earlier that the '340
6 patent is somehow limited to passive NFC tags, and thus here
7 would be limited to a particular antenna type for near-field
8 communication. And they're insisting, essentially, on one possible
9 antenna configuration from Figure 3 of the '340 patent, but like I
10 discussed earlier with the claim terms, there's no language of
11 manifest disclaimer whatsoever that NFC antennas are limited to
12 only one structure in '340 patent.

13 And regardless, as we point out on the upper left side of
14 Slide 35, we show a coil shaped antenna chip, and we'll see Patent
15 Owner makes a big deal about coil shaped antennas later in
16 Fujiwara. And then one of skill in the art would find it obvious to
17 implement Fujiwara's IC tags with NFC tags, which were the
18 standard conformant parts to standards, such as the one I just
19 referenced, ISO 14443.

20 On Slide 36, Patent Owner's expert even admits such a
21 substitution could be made by POSITA at his deposition, and that's
22 in the middle right in the red box, Exhibit 1012 at 125, lines 4 to 9.
23 And turning to Grounds 3 and 4, which are Bandy, Fowler, and
24 Arntzen on our roadmap on Slide 40 -- or 39 -- and then it's
25 showing them graphically on Slide 40. Ground 3 is Bandy and

1 Fowler, and Ground 4 is Bandy, Fowler, and Arntzen.

2 Showing the disputed limitations, again, for Claims 1 and
3 5, and then Claim 6 in Slide 41. We'll turn to the vertical and
4 horizontal positions on Slide 42. And again, I wasn't planning on
5 spending a lot of time on this today. I think as we show here from
6 the institution decision in Slide 42, the petition briefing was pretty
7 clear, and it seemed to be well understood in the institution
8 decision.

9 Turning to Slide 43 -- and really, Slides 43 to 47 -- this is
10 where, as I mentioned, Patent Owner spends a lot of time talking
11 about coil antennas, and we'll see that their argument morphed
12 over time, but it's this bigger false premise issue of the antennas in
13 the '340 patent somehow, even though there's no limiting language
14 in the patent itself being limited to a very specific configuration.
15 And then the references that we're looking at here in Slide 43, not
16 disclosing antennas in those very specific configurations. So this
17 is another issue, trying to limit a disclosure where there really is no
18 clear language limiting it in either the '340 patent or here, for
19 example, in Bandy.

20 So when we turn to Slide 44, Patent Owner is essentially
21 trying to limit the configuration of the disclosure of antennas in
22 Bandy to this single figure in Bandy-344, which was incorporated
23 by reference into Bandy, and that's Figure 9 on Slide 44. But
24 Bandy '344 never said antennas are limited to this specific
25 configuration shown in one figure. And then Patent Owner goes

1 on to say that basically because Bandy disclosed some protocols
2 that they say must be UHF, even though I don't recall UHF ever
3 really being mentioned in Bandy or Bandy '344, that Bandy is
4 somehow incompatible with NFC type antennas.

5 Sounds essentially like a teaching away argument to me,
6 but they never show anywhere in Bandy or Bandy '344 disparaging
7 NFC protocols or NFC type antennas, or other antennas besides
8 the one shown in Figure 9 on Slide 44 that would rise to the level
9 of teaching away. So at most, Bandy expressed a preference for
10 some protocols that may or may not be UHF, and that's just not
11 enough to limit the entire reference to what's shown in one figure.

12 And turning to Slides 48 and 49, motivation combined
13 Bandy with Fowler. Again, this was recognized in the institution
14 decision. We specifically -- Petitioner specifically discussed why
15 one of skill in the art would modify Bandy to use NFC in the
16 petition on pages 90 to 91. It seemed well understood by the
17 Board. So unless Your Honors have any questions for me right
18 now, I'll reserve my time for rebuttal.

19 JUDGE MCNAMARA: All right, Counsel. You have
20 five minutes left for rebuttal. Thank you. All right. We'll hear
21 from the Patent Owner. Is there a time you'd like me to alert you
22 to or some time to reserve for surrebuttal?

23 MS. KAISER: We'll reserve 10 minutes for surrebuttal,
24 Your Honor.

25 JUDGE MCNAMARA: All right. So I'll set you to 50

1 then, since you get that extra 15 minutes, assuming that we have a
2 significant discussion of the issues by the LEAP Practitioner.

3 Okay. All right. You can begin when you're ready.

4 MS. KAISER: So thank you, Your Honor. Again,
5 Jessica Kaiser on behalf of the Patent Owner. I'm going to talk
6 about -- really, I'm hoping to focus here on what the panel is most
7 interested in, but I'm planning to sort of talk about any issues other
8 than the motivation to combine Petitioner's references with NFC.
9 And that, my colleague, Dr. Moulder, will discuss.

10 There's a couple things that I wanted to emphasize at the
11 outset that I think are really important to remember here. The first
12 is that the details of the claims here really matter, and so you can't
13 just sort of hand wave over concepts without engaging with what
14 the details of the claims are.

15 The second thing is that the perspective of a person of
16 ordinary skill in the art here also really matters. And so you can't
17 hand wave over specific terms in the claims without engaging with
18 what -- how a person of ordinary skill in the art would've
19 understood those terms and how a person of ordinary skill in the
20 art would've understood the references that Petitioner relies on.

21 And then lastly, I would say that the burden of proof here
22 really matters. And as I know Your Honors are well acquainted
23 with, that's Petitioner's burden, and I heard a lot of things that Mr.
24 Fahy said in his opening argument that really pointed to things that
25 the Patent Owner did or didn't show, and as Your Honors know,

1 that is not our burden. It is Petitioner's burden. And so just sort of
2 saying, we didn't disprove the motivations to combine isn't
3 sufficient, and by making those arguments, really here, Petitioner
4 is inviting this panel to commit error.

5 So with that, I -- and because Mr. Fahy didn't really get
6 into the details of the claims, I wanted to start there because that's
7 really what matters. So I would like to go to the slide first that has
8 the language of Claim 1 on it. I believe that's Patent Owner's Slide
9 7. And we may be having trouble sharing, but I know that you all
10 have access to our slides. And I wanted to just set the stage, give
11 you a brief overview of Claim 1. Claim 5, which is the other
12 independent claim, is also similar.

13 But Claim 1 is directed to a method that's performed by a
14 central server, and that central server ultimately is communicating
15 spatially localized information to a mobile terminal. And if we
16 look at the preamble, I think there was some question initially
17 whether Petitioner was agreeing that the preamble was limiting. I
18 think there's now no dispute that the preamble itself is limiting, but
19 here, you have, essentially, the set up for what the central server is
20 doing in the method steps. And the central server is configured to
21 access a planogram.

22 So again, a planogram is, in the context of Claim 1, is not
23 just some sort of disembodied diagram, but it's something that's
24 actually being accessed in the context of this method that's
25 performed by a server. And that planogram associates unique IDs

1 of radio peripheral devices with locations. And again, Claim 1 is
2 very specific about what those locations are and they have to have
3 both, a horizontal and a vertical position.

4 So and then lastly in the preamble, that association has to
5 has a one-to-one correspondence. So in other words, each unique
6 ID has a unique one-to-one correspondence with a vertical and
7 horizontal position. That information is what's in the planogram
8 that the central server accesses. And then the claim goes on to tell
9 you the method steps of what the central server is doing and so for
10 example, in Claim 1A, the central server has received from the
11 mobile terminal a unique ID that the mobile terminal got from the
12 radio frequency peripheral. The central server then uses that
13 unique ID to find the location of the mobile terminal in its
14 planogram. And that, again, has to include both, the vertical and
15 horizontal position.

16 And then lastly, the central server transmits to the mobile
17 terminal spatially localized information associated with the
18 location of the mobile terminal. And again, the location of the
19 mobile terminal, as set out in the claim, has a vertical and a
20 horizontal position. So everything in this claim is directed towards
21 the fact that both the central server's planogram has to specify a
22 vertical and horizontal position so that it can determine where the
23 mobile terminal is, its vertical and horizontal position, and it can
24 send the correct spatially localized information.

25 If we go to Slide -- I'm going to skip ahead to Slide 15.

1 And so I'm going to start with what I really just emphasized, which
2 is the vertical and horizontal positions. And it's important to note
3 that this is an issue that touches on all of the references and all of
4 Petitioner's combinations for all grounds. And so in our view, this
5 one issue is dispositive of Petitioner's entire case.

6 And so just to set the stage on the grounds, Petitioner
7 relies only on Fujiwara for these limitations in Grounds 1 and 2,
8 and then Petitioner relies on the Bandy-Fowler combination for
9 these limitations in Grounds 3 and 4. If we go to Slide 17, I want
10 to focus on the petition and what Petitioner argued in the petition
11 about both, the planogram and the vertical and horizontal
12 positions. And so you can see here, this is at petition page 20, and
13 the petition was very clear -- again, this is as to Fujiwara -- that the
14 electronic shelf labeled database in Fujiwara is what teaches the
15 recited planogram. And then again, petitioner was very clear that
16 the shelf label ID 311 is what it was relying on to teach the
17 plurality of unique identifiers.

18 And then if we go to Slide 18, again, this is petition page
19 21. Petitioner was clear that the vertical position, it was mapping
20 to the shelf number 313, and Patent Owner doesn't take issue with
21 that. We agree that the shelf number does teach a vertical position,
22 at least in the context of the patent at issue in the 189 IPR.

23 The horizontal position, however, petition -- what
24 Petitioner relies on for the horizontal position, is only Figure 4,
25 which is shown here, which is essentially just a -- a picture of what

1 a shelf would look like. And the gap that exists here, just to cut
2 right to the chase, the gap that exists here is that there is no
3 disclosure in Fujiwara of a horizontal position, such as that which
4 is shown in Figure 4, being in what Petitioner maps as the
5 planogram. And that's what Claim 1 requires.

6 In addition, there is nothing in the petition that is an
7 obviousness theory. So we heard Mr. Fahy talk about this is an
8 obviousness ground, not an anticipation ground, and that's true.
9 But it is still Petitioner's burden to explain why it would be
10 obvious to modify Fujiwara's planogram to include a horizontal
11 position. And Petitioner made --

12 JUDGE MCNAMARA: Counsel, this is Judge
13 McNamara. Let me interrupt you for just a second because I just
14 want to be sure based on your arguments today. There's a lot of
15 briefing that goes back and forth about what a planogram is and
16 the outer limits of a planogram, and we don't need to know the
17 outer limits of a planogram; it's limiting but we don't have to really
18 construe it, everyone knows what a planogram is. Let me -- is it
19 your position -- is it Patent Owner's position that the planogram --
20 to the extent that the planogram is -- has X or horizontal and
21 vertical positions, that the definition of the limitation or the -- what
22 the planogram is, is defined in the preamble of the claim?

23 MS. KAISER: So Your Honor, I don't think I would go
24 so far as to say that what the planogram is, is defined in the
25 preamble of the claim, but at least tells you what some of the

1 things it has to have are. And so the some of the things would
2 include the vertical and horizontal positions, and we think here,
3 that's sufficient for the Board to find that Petitioner hasn't made its
4 case without getting into how a person of ordinary skill in the art
5 would've understood just the term planogram. Because sort of
6 regardless of whether planograms always have to have horizontal
7 and vertical positions in them, Claims 1 and 5, the two
8 independent claims here, specify that they do for purposes of this
9 patent. And we don't think that the panel needs to go any further
10 on the definition of a planogram here.

11 JUDGE MCNAMARA: Okay, great. Thank you very
12 much. I appreciate it.

13 MS. KAISER: And so if we go to Slide 19 --

14 JUDGE MCNAMARA: Had to clarify. Again, Judge
15 McNamara. I had to clarify. And the Patent Owner's position is
16 that the references don't disclose alone -- or Fujiwara, at least --
17 does not disclose the horizontal position, right?

18 MS. KAISER: That's correct. The -- our position -- and
19 there's no evidence to the contrary -- is that Fujiwara's planogram
20 does not include a horizontal position and that Fowler's planogram,
21 when we get to Grounds 3 and 4, doesn't have a vertical position.
22 And so for either set of combinations, Petitioner just hasn't met
23 their burden to either show that these references teach those
24 limitations or to explain why it would've been obvious. Not just
25 could somebody have included this additional data in the

1 planograms, but why it would've been obvious to modify those
2 planograms in light of the reference of other teachings. It's just not
3 there in Petitioner's showing.

4 JUDGE MCNAMARA: Okay, so let's go to that issue of
5 obviousness for just a second. So Fujiwara, you would agree then,
6 does disclose vertical positions, right? That they're at least shelves
7 with vertical positions, right?

8 MS. KAISER: It does -- I think it's undisputed, and you
9 can see here on Slide 19 that it includes the shelf number and at
10 least --

11 JUDGE MCNAMARA: Okay.

12 MS. KAISER: -- in the context of this patent, you know,
13 we're not disputing that that would be a vertical position.

14 JUDGE MCNAMARA: Okay. So I'm in my nightmare
15 scenario. I'm in the Home Depot looking for a screw and I'm --
16 and trust me, my wife has explained to me that this is the
17 nightmare scenario.

18 MS. KAISER: Sure.

19 JUDGE MCNAMARA: And so I'm in there looking for
20 a screw and I know that it's, you know, it's in a particular -- I'm
21 told that it's in a particular aisle, and it's on shelf number -- some
22 shelf number. But the shelf is like half a block long, and so from
23 an obviousness perspective, don't, you know, wouldn't someone --
24 wouldn't a planogram have to -- wouldn't it be obvious that any
25 kind of arrangement would have to give you the horizontal

1 position, as well? I mean, I know it's somewhere up there, but
2 then I have to walk a whole block or half a block to try and find
3 out where it is. And so I'm looking at a reference like Fujiwara
4 and it's, well, why is it obvious if I need the horizontal position, as
5 well?

6 MS. KAISER: So the reason why it's not obvious to
7 modify Fujiwara in this way, is it already solves this problem. So
8 when you look at Fujiwara, its method already solves this problem
9 by having shelf labels that have LED lights on them. And so it just
10 uses those lights as a way to give you that horizontal position. So
11 that's what I would say practically is there's no motivation to
12 combine Fujiwara -- or to modify Fujiwara, because it already
13 discloses a solution to this problem. But more than that, I mean,
14 that is -- that would just be our supposition here today talking to
15 each other. And if you look at the petition, there's just simply no
16 argument to that effect. So it goes back to the burden, Your
17 Honor, and what Petitioner needed to show.

18 JUDGE MCNAMARA: Okay. I'm not so sure I'm on
19 board with the lights, because the LEDs because you can't tell
20 which LED to go on if you don't have the horizontal position of
21 where that LED is. So I'm not so sure I'm on board with the lights,
22 but I guess you're saying that the burden of proof is on them and
23 they just haven't met it.

24 MS. KAISER: Well, and let me say it a different way,
25 Your Honor. In the Fujiwara database, it can turn on the light

1 without knowing the horizontal position because it knows the
2 unique identifier. That's the shelf label ID 311, so all the server
3 has to do is communicate --

4 JUDGE MCNAMARA: But isn't that the point? Go
5 ahead. Finish. I'll get back to that. Go ahead.

6 MS. KAISER: So it communicates the light for the shelf
7 label ID, but it doesn't look up and know -- and it doesn't look up
8 where horizontally that particular shelf label ID is.

9 JUDGE MCNAMARA: See, and that's what I'm getting
10 at. Doesn't the location number or doesn't the shelf ID -- doesn't
11 the ID number tell you, not just vertically where it is, but, you
12 know, where it is horizontally? I mean, that's embedded into the
13 shelf -- into the location number, whatever you call it.

14 MS. KAISER: It isn't, Your Honor, because what
15 Fujiwara is concerned about is the product, so it's concerned about
16 where is that product, not where is the product's location. In
17 addition, I would say the one-to-one correspondence is also a
18 problem here for Petitioner and for the kind of circumstance that
19 you're talking about because the -- in Claim 1, it requires a one-to-
20 one correspondence with the unique ID and the vertical and
21 horizontal position. And that's in the claim, and if you only have
22 the ID and the shelf number in a system like Fujiwara that depicts
23 and is clearly designed to have multiple labels on the same shelf,
24 then that destroys the one-to-one correspondence.

25 JUDGE MCNAMARA: Okay.

1 MS. KAISER: So if we go back just briefly to Slide 18, I
2 would note, as I've said, Petitioner really seems to hand wave over
3 the horizontal position and by saying that a planogram can be a
4 diagram and that a diagram can have a horizontal position like in
5 Figure 4, that that's enough, it just isn't because it doesn't engage
6 with what the details of Claims 1 and 5 are, where it has to actually
7 be data in what Petitioner mapped as the planogram, which is
8 Fujiwara's electronic shelf database.

9 And so in the absence of an actual teaching in Fujiwara
10 of the horizontal position, Petitioner needed to provide reasoning,
11 as I've said, to modify Fujiwara's database to include the horizontal
12 position. And if you look at petition, pages 19 to 22, which is
13 where this limitation is addressed, there's no such reasoning there.
14 And in fact, even in the reply, this is at reply page 11, Petitioner
15 blatantly tried to make an obviousness argument. They just say a
16 POSITA would find it obvious that information from Fujiwara's
17 Figure 4 diagram representing the layout of an actual shelf is part
18 of planogram information represented in Fujiwara's database. But
19 underscoring that this was not something in the position, there's
20 nothing cited in the reply as support for that. It's purely attorney
21 argument.

22 In the institution decision, and Mr. Fahy relied a lot on
23 the Board's preliminary findings in the institution, the Board did
24 state that a person of ordinary -- or an ordinarily skilled artisan
25 would've understood that listing the horizontal and vertical

1 positions of each tag in the database would define the position of
2 the tag as claimed. And respectfully, I think that preliminary
3 finding assumed that Fujiwara's database included this
4 information, but if you look at the teachings of Fujiwara itself, as
5 cited by the petition, it just doesn't support that.

6 On Slide 22, we talked briefly about the new reply theory
7 that the shelf label itself could supply the horizontal information.
8 First of all, this isn't in the petition at all, and in the reply,
9 Petitioner, again, cites nothing to support it, so it's just bald
10 attorney argument. But I would also note that if we go to Slide 23,
11 the idea itself doesn't necessarily tell the central server the
12 horizontal position because it doesn't even give a relative
13 positioning. So for example, you've got a shelf label ID 103-1,
14 103-2. As far as the central server is concerned, those are just
15 disembodied numbers and it doesn't tell you which one is to the
16 left or right of the other, et cetera.

17 I also had pointed out in response to your question, Judge
18 McNamara, that Fujiwara clearly contemplates multiple tags on
19 the same shelf. And so as you can see here in the right-hand table,
20 you just don't have that one-to-one correspondence that's required
21 by Claims 1 and 5 if all you have in the database -- and this is all
22 that Fujiwara discloses -- is the shelf label ID and the shelf
23 number.

24 And then lastly, I just want to address the alternative
25 theory that is in the petition, and this was sort of the idea that you

1 take two shelves and put them side by side. And could then that
2 shelf number be a horizontal position. And respectfully, I think
3 the answer is no, because again, Fujiwara is designed to have
4 multiple labels on each shelf, and so you -- even if you took -- sort
5 of assumed that you have this configuration or you've got one shelf
6 next to another shelf, you're still not going to have the one-to-one
7 correspondence that's specifically recited in the claim.

8 So really, the problem here is a failure of reasoning, a
9 failure of proof, a failure of supporting expert declaration that's
10 anything other than conclusory. And so it's our position that this
11 issue is dispositive as to both Grounds 1 and 2. If we go to Slide
12 24, so I'm going to touch on the same claim limitations, but for
13 Grounds 3 and 4 for the locations. And in the petition, you can see
14 here, Petitioner acknowledges that Bandy itself does not teach
15 vertical and horizontal petitions, and so it relies on Fowler for that
16 limitation.

17 And again, the question isn't whether there are tags at
18 different levels in Fowler. The question isn't whether in the real
19 world, the tags have themselves horizontal and vertical
20 dimensions. The question is whether Fowler stores that in what
21 Petitioner maps as Fowler's planogram. And it's -- there's no
22 question that Fowler doesn't teach that.

23 And so if we go to Slide 25, I want to also note that
24 Claims 1 and 5 are specific about what plane we are looking at the
25 horizontal and vertical positions for. And you can see here, that's

1 identified in green. So we're looking at the plane that is
2 perpendicular to the floor. And when Fowler talks about
3 horizontal -- or talks about X, Y coordinates, it's talking about a
4 top down view. So it's talking about coordinates that are parallel
5 to the floor, and so that's important because Fowler doesn't care
6 about vertical positions.

7 If we go to Slide 26, Fowler is concerned with this top
8 down mapping, because Fowler is a system that is on a shopping
9 cart. And so it's identifying where it is in this overhead map. It
10 doesn't concern itself with where up and down the mobile devices,
11 because the mobile terminal is fixed in Fowler to a shopping cart.

12 If we go to Slide 27. So in the reply here, Petitioner said,
13 the issue isn't whether Fowler needs a vertical position. It's
14 whether a POSITA would've been motivated to modify Bandy
15 based on Fowler's disclosures that products and tags can be located
16 on different shelves, counters, and heights. And we don't disagree
17 that that is the issue, but what we -- our position is that -- simply
18 that Petitioner hasn't shown that. So again, the -- unremarkably,
19 Fowler talks about that you may have things at different heights in
20 a store. I think we can all, sort of as laypeople, understand that.
21 But that simple real-life fact doesn't provide any motivation to
22 change what data is stored in Bandy's planogram.

23 JUDGE MCNAMARA: Counsel, again, Judge
24 McNamara. But it -- I guess I read the argument a little differently
25 as to say, well look, you know, Fowler really is talking -- whether

1 it's a top -- you're looking top down at the floor or what, you're still
2 looking at how to locate a point in a two-dimensional plane. So I,
3 you know, whether that plane is parallel to the floor or
4 perpendicular to the floor, the principle is the same. And so I
5 guess that's kind of my question here. Why wouldn't you employ
6 the same technique, you know, to locate something in two
7 dimensions on a plane that happens to be vertical or horizontal, as
8 opposed to two different positions on a horizontal plane?

9 MS. KAISER: Thank you, Your Honor, and I think this
10 is something that my colleague, Mr. Moulder, will speak to,
11 because this is where you get into the difference between in
12 Fowler, just sort of having different things dispersed and kind of
13 taking all of the information in to figure out where you are
14 vertically in the store, versus this very specific requirement of the
15 communication range in NFC, meaning that you are close to a
16 particular tag, a particular product, that has both a horizontal and a
17 vertical dimension.

18 So it is a particular point in space and it's not just that,
19 you know, mapping where you are more broadly in this top down
20 map, but it is very particular to, I am at this point in space, so that
21 the central server can send me the right localized information for
22 that point in space, up, down, along the aisle.

23 JUDGE MCNAMARA: Okay, thank you. I'll wait to
24 hear more from -- about that from Dr. Moulder.

25 MS. KAISER: So I think with that, I just want to

1 touch -- I want to make sure I give Dr. Moulder plenty of time,
2 especially for your questions. I just want to touch really briefly on
3 the activate issue -- hopefully briefly. And if we go to Slide -- this
4 is an issue that is dispositive only for Grounds 1 and 2, which are
5 the Fujiwara based grounds, but this is important because
6 Fujiwara -- those grounds are the only ones that challenge all of
7 the challenged claims. Grounds 3 and 4 are only a subset of the
8 claims.

9 And if we go to Slide 29, you can see here, the issue is
10 that Claims 1 and 5 require that the radio frequency peripheral is
11 configured to be activated by the mobile terminal. And as Mr.
12 Fahy pointed out, if we go to Slide 30, what this essentially boils
13 down to, even though the parties give their proposed constructions,
14 is whether the intrinsic evidence supports, and the viewpoint of a
15 person of ordinary skill in the art, supports that activate in this
16 particular context can encompass active tags. That is tags that
17 have their own internal power supply.

18 So just -- this is something I learned in the context of this
19 case, but regardless of RFID, NFC, et cetera, there are different
20 types of tags, active tags, which have their own battery, their own
21 power supply, or passive tags, which are essentially powered by
22 the electromagnetic fields that are emitted by whatever device is
23 interrogating them.

24 And if we go to Slide 31, I just want to briefly note that
25 the -- it's not just a preferred embodiment, as Mr. Fahy suggested,

1 but it's really the totality of the intrinsic evidence that supports that
2 activated here, as understood by a POSITA, would -- a POSITA
3 would understand that to be passive tags, and so Slide 31 includes
4 information from the specification. Slide 32 includes information
5 from ISOs that are referenced in this specification.

6 And then Slide 33 includes the figure from the '340
7 patent that is really of the components of the '340 patent's
8 electronic label. And it's notable that even though the specification
9 talks about that electronic label having, for example, memory and
10 electronic chip, an antenna, it never mentions that electronic label
11 having any kind of power source or battery.

12 I also want to point out on Slide 37 that Hanshow's -- that
13 is Petitioner's German-related entity -- made arguments in a
14 European proceeding for -- it's obviously not the same patent, but
15 it's a patent with substantially the same specification, and their
16 Hanshow's German-related entity argued that the spec provided
17 only written description support for passive tags.

18 So the point herein, and I know in the reply, Petitioner
19 talks about there isn't estoppel. The point isn't estoppel. The point
20 is just that Patent Owner's understanding here, based on essentially
21 the same intrinsic evidence, is consistent with the position that
22 Petitioner's German entity took in European opposition
23 proceedings and it seems to take a different position here, merely
24 because it's referenced that it shows, in this case, only discloses
25 active tags that have their own power supply.

1 I think at this point, just in the interest of time, I'm going
2 to turn things over to Dr. Moulder to talk about the modifications
3 for NFC.

4 DR. MOULDER: Can you hear me?

5 JUDGE MCNAMARA: Yeah. I could hear you now. I
6 think perhaps at the beginning we might not have been able to hear
7 you. Go ahead.

8 DR. MOULDER: Okay, thank you. Good afternoon,
9 Your Honors. Let's turn to Slide 42. Chris Moulder for Patent
10 Owner. So Petitioners have not shown that a person of skill
11 would've modified the tags of either Fujiwara or Bandy to use
12 near-field communication. Now, again, this is an issue that
13 touches all challenged claims for all grounds, and so it's dispositive
14 in this proceeding.

15 If we could, turn to Slide 43. So as we discussed, all the
16 independent claims in '340 patent expressly require NFC, and
17 specifically, it's important that they recite a radiofrequency
18 peripheral that must have an antenna and chip that's configured for
19 NFC communication. And as we've been talking about, Fujiwara
20 is the primary reference for Grounds 1 and 2, where Bandy is the
21 primary reference for Grounds 3 and 4. But it's undisputed that
22 neither of these references actually teaches NFC.

23 And if we go to Slide 44. Now, turning to Fujiwara, its
24 tags indisputably use microwave communication and not NFC.
25 And so in this case, as we show at the bottom, Fujiwara's reader

1 uses an antenna connected to what's called a microwave
2 transmitting and receiving unit to communicate with the IC tags
3 that are incorporated into each of its labels.

4 And if we turn to Slide 45, it's also undisputed that
5 Bandy's tags don't include NFC. And rather, as Patent Owner's
6 expert, Dr. Surati explained, Bandy teaches to use RFID and more
7 specifically, a specific type of RFID, which is ultra-high
8 frequency.

9 If we turn to Slide 46. Now, as Dr. Surati explained and
10 was supported by the objective evidence in the record, NFC is a
11 different communication technology from microwave
12 communication, and NFC is likewise a different communication
13 technology from ultra-high frequency communication. And
14 Petitioners had the burden to show that a person of skill would've
15 modified Fujiwara or Bandy to use NFC, despite of these
16 differences, but Petitioners have not met this burden.

17 Turn to Slide 48. Now, turning back to Fujiwara, using
18 Grounds 1 and 2, Fujiwara's intended purpose includes a capability
19 to read more than one shelf label and tag at a time, and this is
20 shown in the two embodiments here of -- in Figure 4 and Figure 11
21 that Petitioners rely on. So changing Fujiwara's microwave
22 communication to NFC would've undermined its purpose and
23 changed its principle of operation. So specifically, it would not
24 have been able to read the tags on the shelf all at one time.

25 Turning back to Slide 46. So it's undisputed that NFC

1 requires an antenna that is a coil to allow for magnetic coupling. I
2 know that Petitioner --

3 JUDGE MCNAMARA: Counsel, this is Judge
4 McNamara. Can I interrupt you for just a second?

5 DR. MOULDER: Sure.

6 JUDGE MCNAMARA: You were talking about the
7 multiple -- the ability to read multiple tags at the same time. Are
8 all those tags the same? In other words, do they have different
9 horizontal locations or what? That was one of the interesting
10 things about Fujiwara, right? It can read multiple tags at the same
11 time, but they wouldn't all be the same tag, right?

12 DR. MOULDER: Correct. So, yeah. Turning back to
13 Slide 48, in the Figure 4 embodiment, the tags and the labels -- the
14 two different labels -- while they are the same tags, they have
15 different identification numbers, so they have different ID.

16 JUDGE MCNAMARA: And so don't those different
17 identification numbers define different horizontal positions?

18 DR. MOULDER: Well, they define -- they're specific to
19 the different tags that are in the labels, and they correspond -- if we
20 can go back to find the figure. If we go back to Slide 19. Those
21 IDs are -- correspond to some information. So they're not
22 necessarily -- they don't correspond to any horizontal information.
23 They're just corresponding to the product that it's associated with.

24 JUDGE MCNAMARA: But they don't put multiple
25 products in the same place, right? So I mean, if they're next to

1 each other, they've got individual locations.

2 DR. MOULDER: Yeah. If we turn to Slide, I think, 21,
3 so using ID and knowing the product, Fujiwara explains that they
4 can light up the LED showing where the product is. It doesn't
5 need to have the horizontal information of any label because it
6 knows the product.

7 MS. KAISER: And Your Honor, this is Jessica Kaiser.
8 Maybe if I can just add to that. And I hope you can hear me. I
9 don't want to cause echoing.

10 JUDGE MCNAMARA: I can hear you.

11 MS. KAISER: You know, consistent with what Dr.
12 Moulder is saying, Fujiwara in its planogram, as I discussed, are
13 agnostic to the horizontal position. So it may be that they -- as I
14 said, they have a horizontal position in the real world, but there's
15 no need in Fujiwara for, you know, to have the horizontal position
16 in the planogram, because number one, they're associated with --
17 the IDs are associated with (INDISCERNIBLE - TECHNICAL
18 DIFFICULTIES) information and also, because they have this
19 LED light, which allows the user to find that label from the light.
20 So the central server doesn't need to find the horizontal position in
21 Fujiwara.

22 JUDGE MCNAMARA: Okay, thanks. Dr. Moulder, I'll
23 let you continue. I just wanted to try and get consistency between
24 the two arguments. Thank you.

25 DR. MOULDER: Yep, no problem. So again, going

1 back to Slide 46. So NFC -- it's undisputed that NFC requires a
2 coil antenna. And I know that Petitioners, in their presentation,
3 said that that's merely one embodiment, but if we turn to Slide 50,
4 even Petitioner's expert emphatically agreed that a coil antenna is a
5 fundamental element of an NFC communication system. And if
6 we turn back to Slide 49, as my colleague, Ms. Kaiser, explained,
7 the '340 patent acknowledges this by disclosing that the antenna
8 and the tag is a coil. That's what is shown here in Figure 3.

9 Turning to Slide 51. Now, Patent Owner's expert, Dr.
10 Surati, explained that Bandy's antennas are not coils and both
11 parties, as we said, agreed that that's required for NFC. But he
12 also explained that the antennas in Bandy are used for a different
13 type of coupling, which is radiative coupling, and would not be
14 effective to receive magnetic energy, which is how NFC operates.
15 And Bandy's use of antennas that are incompatible with NFC
16 creates additional technical barriers for Petitioner's proposed
17 modification.

18 Let me turn to Slide 52. Now, Petitioners have not
19 explained sufficiently how or why a person of skill would have
20 modified Bandy to use coils, and this is -- their explanation is on
21 Petitioner's slide -- or petition at page 71 and 90 to 91. Instead,
22 Petitioner's rely on their expert's changing position on whether
23 coils require NFC and whether Bandy's antennas could support
24 NFC.

25 So in sum, Petitioners haven't met their burden to show a

1 person of skill would've modified either system to use NFC at the
2 relevant time. So if there are any questions? I'll turn it, if there are
3 no questions --

4 JUDGE MCNAMARA: I don't see any questions from
5 the panel. Ms. Kaiser, do you have anything else that you want to
6 add or --

7 DR. MOULDER: Yes, I'll turn it back over to her for
8 claims -- dependent Claims 6 and 7.

9 MS. KAISER: Just want to make sure you can hear me
10 again.

11 JUDGE MCNAMARA: Yes, we can hear you now.

12 MS. KAISER: Great. I think I have about six or seven
13 minutes left before I eat into my rebuttal time. Hopefully, I won't
14 need that. I want to touch really briefly on Claims 6 and 7, if we
15 go to Slide 54. So Claims 6 and 7 are the -- are dependent claims
16 that, again, are only challenged in Grounds 1 and 2. So only the
17 Fujiwara based grounds.

18 These grounds -- or these claims specify that the
19 communication between the radio frequency peripheral -- or yes,
20 between the radio frequency peripheral and the central server's
21 radio frequency communication. And the reason why this matters
22 is it's undisputed that in Fujiwara, if we go to Slide 55, that this
23 happens in Fujiwara using infrared. That's the only kind of
24 communication protocol that's disclosed in Fujiwara for the
25 communication between the shelf label and its central server.

1 And if we go to Slide 56, the Petitioner in the petition
2 gave a very specific rationale for modifying Fujiwara so that its
3 wireless transmitting and receiving unit 603 would use the same
4 communication method as its tag. And so as we've already
5 discussed, Petitioner argues that it would've been obvious to use
6 NFC for its tag, and so using the same communication method for
7 the wireless transmitting and receiving unit, would've been NFC.
8 And Petitioner was very specific about this because they said that
9 this would harmonize the internal design of two different
10 components.

11 In the Patent Owner response at page 54, we explain that
12 this motivation makes no technical sense, and we supported that
13 with testimony from our expert. And then in the reply -- so this is
14 at Slide 56 -- in the reply, the Petitioner essentially abandons its
15 motivation to combine all together and says, it doesn't have to be
16 the same communication method, as long as it's radiofrequency
17 communication.

18 But the problem with that is once Petitioner abandoned
19 its motivation to combine rationale, that it didn't have any
20 motivation for the modification at all. And so Petitioners failed to
21 show by a preponderance of the evidence that Claim 6 is
22 unpatentable, either based on Fujiwara or the Fujiwara-Arntzen
23 combination, and because Claim 7 depends from Claim 6,
24 Petitioners failed to meet its burden on Claim 7 for the same
25 reason.

1 There are two other issues that we have slides about.
2 One is the motivation to combine just generally Bandy and Fowler,
3 and the other relates to the motion to exclude. I think for these, we
4 can stand on our papers. The only thing that I would say on the
5 motion to exclude is that the Petitioner just frankly hasn't followed
6 the rules, didn't ask for Board authorization for a number of things
7 that it filed, and that's why we filed the motion to exclude. We
8 think that the Board's rules are meant to be considered and
9 followed, and so we'd ask for the Board's consideration of that
10 motion.

11 JUDGE MCNAMARA: All right. Is there anything else
12 from the panel or any other questions? Okay. You've got about
13 two minutes left in this argument and 10 minutes of rebuttal time,
14 so you'll have 12 minutes left. Okay. So for Mr. Fahy, I think I
15 may have been unclear before. You had five minutes left of your
16 original time and you had reserved 20, so you have 25 minutes
17 available for rebuttal. Any time you're ready.

18 MR. FAHY: Thank you, Your Honor. Christopher Fahy
19 for Petitioner. There was, I think, too many blanket statements of
20 there being nothing in the petition for me to keep up with all of
21 them, but I want to address them in general and give a couple of
22 examples because that's just plainly not true.

23 I know Patent Owner's Slide 18 made that comment that
24 there was nothing cited in support. And in any instance where
25 there was not a specific citation in the reply and Patent Owner

1 takes issue with it as attorney argument, that's because we were
2 pointing out why their argument in the Patent Owner response was
3 incorrect. But for each one of those issues, there is the citations
4 and evidence from the petition that stand, and that's why there was
5 no additional citations.

6 But specifically, as to Patent Owner's Slide 18, you
7 know, the title that says, combine that database, is really a
8 misstatement of Petitioner's petition. And if you look at, again,
9 cited evidence in the petition, page 21, Exhibit 1009, paragraph 75,
10 our argument is that Petitioners are combining the shelf label
11 location information disclosure with the disclosures in Figure 4 of
12 horizontal and vertical positioning. And it's argued in the petition.
13 I think the Board even relied on that in the decision to institute,
14 and there's expert support, as well.

15 Similarly -- and I'll share my screen to put up Petitioner's
16 Slide 48 -- there was -- I believe there was an accusation by
17 Counsel -- no disclosure whatsoever or why to combine Fowler
18 and Bandy. And here on Slide 48 of Petitioner's slides, we have all
19 the citations for that disclosure and that argument. I'm going to
20 stop sharing just to concentrate on Slide 48, just to be confusing of
21 Patent Owner slides, which states that Fujiwara's reader must read
22 more than one shelf label.

23 And here, you can see -- if you just read the actual quotes
24 that Patent Owner has later on in that slide, Fujiwara does not state
25 that its reader must read more than one shelf label. It specifically

1 talks about one or more shelf labels. So it can read multiple shelf
2 labels, as Your Honors questions got to, but it doesn't -- it isn't
3 limit it to reading multiple labels.

4 JUDGE MCNAMARA: Counsel, this is Judge
5 McNamara. That brings me back, though, to this issue of, I guess,
6 their -- the motivation to combine and the NFC technology, that
7 sort of thing.

8 MR. FAHY: Mm-hmm.

9 JUDGE MCNAMARA: You know, I can, you know, I
10 guess you can sort of see where you would say, well, it doesn't
11 really matter what communication technology you use, but if you
12 are concerned about -- if the disclosure is about reading more than
13 one label at a time -- now, it does use -- like you said, it's one or
14 more. But if you're talking about really the capability of reading
15 more than one label at a time, would the NFC technology wouldn't
16 accommodate that, right? Is that correct?

17 MR. FAHY: I wouldn't say that because the NFC
18 technology is still -- you're still in a short range situation. So we,
19 Petitioner, originally showed --

20 JUDGE MCNAMARA: Mm-hmm.

21 MR. FAHY: -- that Fujiwara disclosed -- Fujiwara, even
22 itself, explicitly disclosed short range, several centimeters to
23 several tens of centimeters. In Arntzen, which discloses
24 specifically -- the NFC technology discloses four centimeters in
25 that range. And we just haven't, first of all, heard any convincing

1 argument why that would not render a 20-centimeter element in
2 the claim obvious. So -- but that is the reason, I believe, that
3 Patent Owner argues why Fujiwara has to require -- read more
4 than one label, to the part of your question, right?

5 JUDGE MCNAMARA: Mm-hmm.

6 MR. FAHY: Like they need that to be true to even make
7 the argument, and that's not really what we argued. Petitioner, you
8 know, and again, their own slide says, can be read in one or more,
9 so that's just a mischaracterization of a disclosure of Fujiwara. So
10 it's a world we just don't live in, but I would still say there's
11 advantages to the near-field communication, which the short range
12 is.

13 JUDGE MCNAMARA: Okay, thank you.

14 MR. FAHY: I actually think their surreply explicitly
15 stated the opposite of what they have in their Patent Owner's Slide
16 48. I think their surreply is acknowledged on page 18 where they
17 state that Fujiwara may, in some circumstances, read only one
18 label at a time.

19 JUDGE MCNAMARA: But this does bring us back, I
20 guess, to the question -- and I would imagine you're going to get to
21 it. So if you're going to get to it at some other point, you don't
22 have to answer right this second, but this does get to this whole
23 issue of the horizontal position in Fujiwara, and the data, and, you
24 know, whether the data is there or not there, based on the location
25 of the information of the label. And so that's something that I

1 would encourage you to say some more about.

2 MR. FAHY: Yeah, absolutely. The notion of the light,
3 is that right? In the horizontal --

4 JUDGE MCNAMARA: Yeah, there's a light, whatever.
5 But you know, when I look at Fujiwara and I even look at Figure
6 4, and I look at your petition and the discussion of it, I think it
7 says, well, there's the -- there's the vertical position, and then from
8 Figure 4, you can sort of figure out that there's a horizontal
9 position. It's shown, but I believe Counsel for Patent Owner made
10 an argument that there's no data. There's, you know, the computer
11 doesn't have any data to send or to use, so -- as to the horizontal
12 position. Maybe that was something you could address.

13 MR. FAHY: Sure. I mean, we argue one of skill in the
14 art would find it obvious to use it, regardless of -- I mean, it's
15 admitted that horizontal position is disclosed, right? And then the
16 argument in part would be that one of skill in the art would find it
17 obvious to include that data, to the extent it's not there. Now, a lot
18 of this from the argument that I heard is hypothesizing on kind of
19 the light of Fujiwara and whether the, you know, you wouldn't
20 need the horizontal data. And say, number one, you could say if a
21 data is there in the light, that that discloses a horizontal position.
22 You could also say that that's a different embodiment and it does
23 not solve the problem of providing better localized information to
24 the mobile terminal, which was our reason for combining or reason
25 for modifying, if you're talking about Fujiwara by itself.

1 JUDGE MCNAMARA: So --

2 MR. FAHY: So -- go ahead.

3 JUDGE MCNAMARA: So Counsel, what I'm looking at
4 your petition, and I think this is page 33 in your petition. I think
5 you say a person of ordinary skill would understand the product
6 display shelf 20, and this is where -- I guess we're talking about
7 Figure 4 here, right -- is a horizontal position within the plane of
8 perpendicular to the floor, and by extracting the shelf number and
9 the shelf tag label, it's necessarily -- the points are necessarily
10 determined. I guess that -- by that, it could mean that the
11 horizontal and vertical positions are necessarily determined by the
12 shelf number and the tag label; is that right?

13 MR. FAHY: Correct.

14 JUDGE MCNAMARA: Okay.

15 MR. FAHY: I do want to touch on the dependent claims,
16 and I'll share my screen then because I know Counsel brought up
17 Claims 6 and 7. So I'll be turning to Slides 37 and 38 of the
18 Petitioner's demonstratives. These are the limitations. Slide 37 is
19 the limitation for dependent Claim 6 and Slide 38 for dependent
20 Claim 7. Again, here I think there was a bit of a
21 mischaracterization of the petition that we show in the, you know,
22 our argument in the Patent Owner and Petitioner boxes on the left
23 of Slide 37, which is what Petitioner is proposing is to replace
24 Fujiwara's infrared communications with NFC for Ground 1, and
25 with Zigbee in Ground 2. So we're not proposing the modification

1 to replace infrared with our communication in both grounds.

2 And then regarding Claim 7, on Slide 38, this is the
3 element related to dependent Claim 7. Here, we're arguing then
4 that POSITA would further modify the infrared communication
5 part to use radiofrequency, and we don't abandon, as Patent Owner
6 said, our motivation. That would achieve that same harmonization
7 of using RF communication. So I just wanted to clarify those
8 points, as well.

9 And then finally, Your Honor, as to the motion to
10 exclude, it's clearly -- this is a decision within the Board's
11 discretion, from a lot of case law that I saw, and some, we
12 certainly cited examples in our opposition to the motion to
13 exclude. There's no prejudice here. The -- we did acknowledge
14 our mistake and try to correct it. We didn't file the certain
15 referenced exhibits that were referenced in the petition, but they
16 were referenced, they were acknowledged by Patent Owner in the
17 response. We filed them. They are out, you know, on file now in
18 the reply.

19 Patent Owner had a surreply, so there's no prejudice.
20 Patent Owner was aware of them. We are aware of the rules and
21 we take responsibility. Certainly, I take personal responsibility for
22 not adhering to them. It won't happen again, but we'd ask that in
23 this particular situation where there's no prejudice because Patent
24 Owner had an opportunity to respond to them, and to allow the
25 Board -- notably, these are not -- they're not primary or secondary

1 references. It's more parts of the grounds.

2 The testimony of the expert, Dr. Tentzeris, would stand
3 on its own even without them, but what they do provide is a full
4 record for the Board to consider in corroborating what one of skill
5 in the art would've known of the background of the art, and the
6 technology at the time of the invention. So we request that the
7 Board allow the exhibits as filed. So unless there are any other
8 questions, that's all I have.

9 JUDGE MCNAMARA: It doesn't look like there are any
10 questions from the panel, so we will move on to the surreply.
11 Petitioner has 12 minutes.

12 MS. KAISER: Thank you, Your Honor. There's a
13 number of points that I want to address. Mr. Fahy pointed to
14 Patent Owner's Slide 18 and pointed out that the petition cited Dr.
15 Tentzeris' declaration -- I believe Exhibit 1009, paragraph 75. I
16 invite the panel to look at that paragraph and when you do, you'll
17 see that there's really no explanation in that paragraph other than
18 what's already in the petition. And so just citing to an expert's
19 conclusory statement, as the Board has found in its -- or its
20 presidential bite-mark decision. It doesn't add additional weight if
21 the expert doesn't provide technical reasoning or analysis, and here
22 the Petitioner's expert does not.

23 Mr. Fahy then pointed to Petitioner's Slide 48 to talk
24 about the motivation to combine Bandy and Fowler. As the Board
25 may remember, I talked about the motivation to combine Bandy

1 and Fowler in the context of Claim 6 and 7. We do also have
2 argument in our briefing about the motivation to combine
3 generally. As I said, I'll stand on that, but as to 6 and 7, it's -- or
4 I'm sorry, Fujiwara's 6 and 7 -- my apologies. Let me take a step
5 back.

6 So I don't think I talked in my opening argument about
7 the motivation to combine Bandy and Fowler, and again, I would
8 just stand on my papers as to that, but since I'm on Claim 6 and 7,
9 Mr. Fahy talked about the motivation -- or the modification really
10 just being to modify to use RF, but by making the modification
11 generic, as I said, that is effectively abandoning the motivation to
12 combine that was in the petition for Claims 6 and 7, because the
13 motivation was to use the same technology to harmonize the same
14 communications technology. And if you just say, well, this one
15 has NFC and this one has any kind of RF, you're not harmonizing
16 anything. You're going to have different components, you're going
17 to have different circuitry, all of that.

18 And so by genericizing that modification in the reply,
19 Petitioner did move away from the technical problems of what
20 they had said were the modifications in the petition, but what then
21 they are left with is without the motivation that they argued in the
22 petition. So you kind of can't have it both ways.

23 On our Slide 48, there was the question about Fujiwara's
24 reader being allowed to -- or being capable of reading one or more
25 electronic shelf labels. And the point here is that it's specifically

1 designed -- Fujiwara is specifically designed to be able to read
2 more than one, and it's important to note, for example, that in
3 Figure 4, the reader is fixed. It's part of the shelf, and so it needs
4 to have a longer range, it needs to be able to read more than one
5 tag. But the '340 patent is about reading one and only one tag, and
6 the reason is so that it knows where the customer is.

7 That's the reason for the communication range, that's the
8 reason for NFC, that's the reason for getting the horizontal and
9 vertical location. And so the -- again, going to a -- modifying
10 Fujiwara so it can only read one tag would destroy its intended
11 purpose, including these sort of fixed readers that are shown in
12 Fujiwara's embodiment in Figure 4.

13 Now, the horizontal position in Fujiwara, there was an
14 argument that Mr. Fahy talked about, and I think, Judge
15 McNamara, you asked about, about the horizontal positions being
16 necessarily determined. Just as a general matter, necessarily
17 determined suggests to me an inherency argument, and certainly,
18 there's no inherency here. And when I asked Dr. Tentzeris about
19 inherency at his deposition, frankly, he didn't understand the
20 question. But I will say that Fujiwara works the same, no matter
21 whether label one is the left or right of label two on the shelf. And
22 so what that says to me is it's not necessarily determining a
23 horizontal position because Fujiwara doesn't need a horizontal
24 position. And then I guess I will --

25 JUDGE MCNAMARA: Counsel, this is Judge --

1 MS. KAISER: Yes.

2 JUDGE MCNAMARA: -- McNamara. Yeah, let me
3 explore that with you just a little bit. Inherency is a concept that
4 perhaps as intellectual property attorneys and judges, we may have
5 an understanding of that, that perhaps the technical expert doesn't.
6 So I'm not going to read too much into his not understanding of the
7 question. But I guess, though -- and this is the troublesome part.
8 When I was asking the question about, doesn't it necessarily give
9 both a vertical and horizontal -- does the location give both, the
10 vertical and horizontal information?

11 You know, I know -- I'm looking -- when I look at Figure
12 4, suppose I were to just find names to those tags. the tag on the --
13 on the top shelf on the left is Brian and the tag on the right is
14 Jessica. And so I know that the tag on the left that's got Brian on it
15 is, you know, in a particular location and, you know, on the shelf
16 and in a particular spot on the shelf. And the tag that says Jessica
17 has got a particular location. It's in a different horizontal position
18 on the same shelf. I mean, so it doesn't that information, the title
19 of the tag, define it's horizontal and vertical position.

20 MS. KAISER: So Your Honor, I would say no because
21 you have to remember, we're not talking about the person, the
22 customer in the store who's looking at the shelf and can see the
23 horizontal and vertical information. We're talking about a service
24 performing a method. And the only thing that the server has is it
25 has a shelf level ID and it has a unique shelf label ID, and it has a

1 shelf number. And what you're talking about would essentially
2 read the horizontal position out of the claim because by definition,
3 the claim already recites a unique ID, and it recites a vertical
4 position.

5 And so if that were sufficient, if that's what the claim
6 drafter intended, there would've been no reason to also specify a
7 horizontal position. But that's not what the claim drafter did. The
8 claim drafter identified the unique ID and the vertical position, and
9 the horizontal position. All of those have to have meaning. All of
10 those have to be part of the planogram. And it's just undisputed
11 that it's not in Fujiwara.

12 JUDGE MCNAMARA: Well, again, I look at that
13 drawing and I -- and, you know, I understand there's text that says
14 there's a unique ID, and let's give it a 1, 2, 3, 4, 5 and the other is 6,
15 7, 8, 9, 10. That's a unique ID.

16 MS. KAISER: Sure.

17 JUDGE MCNAMARA: And the unique ID has a, you
18 know, has a vertical location, but there has to be a horizontal
19 position, or otherwise, all of them on the shelf are the same.

20 MS. KAISER: Well, and in Fujiwara -- well, and let me
21 just say, like if we go back to the claim language -- can we pull
22 that up? Or maybe actually Fujiwara, the one with the table with
23 the unique IDs and the numbers, shelf numbers. So I think it's a
24 different question, Judge McNamara, about do these things have
25 horizontal positions in the real world, and they do. I mean, I don't

1 think we're disputing that Figure 4 shows different horizontal
2 positions in the real world.

3 And I suppose, as logical humans, you can come up with,
4 you know, different ways that you might intuit what that horizontal
5 position is. But that's not what Claim 1 requires. What Claim 1
6 requires is that you have three different pieces of information.
7 You have a unique ID, you have a vertical position, and you have a
8 horizontal position, and if you only needed a unique ID and a
9 vertical position, you could say, well then it could just intuit the
10 horizontal position, there would've been no reason for that to be
11 recited in the claim. But here it is recited in the claim and it's just
12 not in Fujiwara.

13 JUDGE MCNAMARA: But the question isn't whether
14 or not I'm intuiting that. The only -- the question is really whether
15 or not in Fujiwara, and given that diagram, that those -- that it
16 would be obvious for each of those individual tags to have a
17 vertical -- to be defined by their vertical -- by their vertical and
18 their horizontal position.

19 MS. KAISER: And there, I would just go back to the
20 burden of proof. Certainly, Petitioner could've explained that in
21 the petition and Petitioner chose not to. Petitioner just chose to
22 rely on the explicit teaching of Figure 4. We've shown where that
23 is in the petition. Their expert chose to rely on that same thing and
24 they didn't provide any explanation. So that -- our position would
25 be that Petitioner just has failed to meet the burden of proof on this

1 particular limitation.

2 JUDGE MCNAMARA: Hmm, okay. But that does
3 bring me back to that subject matter on page 33 of the petition
4 where they do sort of suggest it's obvious. All right. I'm going to
5 have to think about it. I just wanted to, you know, I wanted to
6 explore just a little bit more, so -- okay, I understand your position
7 though. Thank you very much.

8 MS. KAISER: Okay. Thank you, Your Honor.

9 JUDGE MCNAMARA: Anything else --

10 MS. KAISER: And one last thing -- I don't know if I'm
11 out of time or not -- but one last thing just to mention is that the
12 motion to exclude addresses not only the late filed exhibits, but
13 also inadequate translations. And I think Your Honor was very
14 clear in the institution decision about what was required for
15 translations and the fact that the Patent Owner still, in its later filed
16 translations, didn't adhere to that guidance, I think it's also grounds
17 for the motion to exclude those particular exhibits. And with that,
18 I would rest on the rest of the arguments in the papers.

19 JUDGE MCNAMARA: Okay, great. Is there anything
20 else from anybody on the panel, or from any of the Counsel?

21 MR. FAHY: No, Your Honor.

22 JUDGE MCNAMARA: All right. Well, then that will
23 conclude this hearing and we'll go off the record for a second.

24 (Whereupon, the above-entitled matter went off the
25 record at 2:08 p.m.)

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