

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

BROADPHONE LLC,
Patent Owner.

IPR2024-00153 (Patent 8,170,583 B2)
IPR2024-00154 (Patent 8,594,698 B2)
IPR2024-00155 (Patent 10,341,811 B2)

Record of Oral Hearing
Held: January 21, 2025

Before KARL D. EASTHOM, SCOTT A. DANIELS, and
LISA L. TSANG, *Administrative Patent Judges*.

IPR2024-00153 (Patent 8,170,583 B2)
IPR2024-00154 (Patent 8,594,698 B2)
IPR2024-00155 (Patent 10,341,811 B2)

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P R O C E E D I N G S

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(1:50 p.m.)

JUDGE DANIELS: Good afternoon, everyone. It's Tuesday, January 21st, 2025. And we have this afternoon the combined oral hearing arguments for IPR2024-00153, -00154, and -00155, Samsung Electronics, Ltd., et al., vs. Broadphone, LLC.

I'm Judge Daniels. Here with me today are Judge Tsang and Judge Easthom.

I just heard some feedback from someone's microphone, so must make sure -- it's best practice to leave them off unless you need to speak, just in case we get any feedback like that.

Before we get going, let's get the parties' appearances here. And if, Counsel, you could indicate who is going to be doing the presentations today for your side, that'd be great.

Petitioner, just let me know?

MR. MODI: Good afternoon, Your Honors. Naveen Modi on behalf of Petitioner, Samsung. With me I have my colleagues, Daniel Zeilberger and Jason Mikus. And Mr. Zeilberger will be presenting the substantive.

MR. TONG: On behalf of Patent Owner, this is Peter Tong from Russ August & Kabat. With me listening on the line is my colleague, Christian Conkle.

JUDGE DANIELS: Mr. Tong, are you doing the presentations for each case?

MR. TONG: Yes, I will be presenting in each of the cases.

1 JUDGE DANIELS: Great, thank you. Good afternoon, and welcome
2 again. So, I'll just set forth the procedure for today's hearing. We set it
3 forth in our trial order, but I just want to remind everyone how it'll work.

4 Each party has 60 minutes total time. You can allocate your time any
5 way you choose. When it's your turn, just please let me know how much
6 time you'd like to reserve for rebuttal.

7 Let me just check and make sure, Mr. Modi, I'm assuming that you
8 wanted, in your time, present your entire case-in-chief for all the cases
9 during your argument?

10 MR. MODI: That's correct, Your Honor.

11 JUDGE DANIELS: And, Mr. Tong, I know you submitted the
12 demonstratives separately. But again, I just wanted to make sure you were
13 planning on doing all the cases together at once?

14 MR. TONG: Correct, yes, Your Honor.

15 JUDGE DANIELS: All right, great. Just to remind you, there's no
16 speaking objections during your oral argument. But of course, you can rebut
17 anything that you'd like during your argument and rebuttal times.

18 I just want to bring up one aspect, I know there are some objections to
19 Patent Owner's demonstratives. I just want to remind you all that the
20 demonstratives are not evidence in our proceedings. So, we acknowledge
21 the objections, and for the time being, often because Patent Owner's counsel
22 may sometimes avoid the issue by not relying on the slides.

23 We're not going to do anything about the objections. And Petitioner,
24 you may use whatever time you want during argument and rebuttal to
25 address the matter.

1 You know, should Patent Owner refer to those slides and you object,
2 we'll take the objections under advisement and make a determination to the
3 slides at another time.

4 Just to remind you also that we follow along in the demonstratives.
5 We have them in front of us as well as the entire case. So, we're looking at
6 that.

7 If you wish to share your screen, you may. That can be helpful at
8 times. But please, just refer to the slide numbers to whatever slide you're
9 on. It's important for clarity in the transcripts.

10 So, Petitioner has the burden on the original claims and will go first.
11 And you can reserve some rebuttal time, like we said.

12 Patent Owner, you can then present your response and also let me
13 know what your rebuttal time as well.

14 So, Mr. Modi, you can begin when you're ready.

15 MR. MODI: I'm going to actually turn it over to Mr. Zeilberger,
16 Your Honor.

17 MR. DANIEL: Oh, okay.

18 MR. ZEILBERGER: Good afternoon, Your Honor, and for today
19 we'll reserve 20 minutes of our time for rebuttal, if that's okay.

20 JUDGE DANIELS: Of course.

21 MR. ZEILBERGER: And with your permission, I'll go ahead and
22 share our demonstratives so we can all be looking at the same thing, if that's
23 okay.

24 May it please the Board, the three patents at issue in today's hearing
25 all relate to location determination related features using signal strength

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1 measurements. And across all three patents, the same core combination of
2 Spain-1, Hunzinger, and Nanda is at issue.

3 Turning to Slide 5, Patent Owner has not presented substantive
4 arguments for most of the claims at issue. Slide 5 summarizes the issues that
5 Patent Owner does dispute. In particular, Patent Owner focuses its
6 arguments on Claims 3 and 5 of the '583 patent, Claims 4 and 6 of the '698
7 patent, and Claims 14 and 28 of the '811 patent.

8 I also note that the issues for the '583 and '698 patents are
9 substantively the same for purposes of today and I plan to address them
10 together.

11 Turning to Slide 9, I'll begin with the combination of Spain-1,
12 Hunzinger, and Nanda in the '153 and '154 proceedings where Patent
13 Owner has presented arguments directed to Claims 3 and 5 of the '583
14 patent and Claims 4 and 6 of the '698 patent.

15 Turning to Slide 10, Claim 3 depends on Claim 1, which is a method
16 in which measured signal strengths are compared to those associated with
17 the location to determine if a user is near that location.

18 Claim 3 requires that the signal strengths that are compared against,
19 which are the ones that are already associated with the location, to have been
20 measured by a second portable RF communication device.

21 And Claim 5, which depends on Claim 1 via Claim 4, requires that the
22 signal strengths that are compared against are stored in a remote database.

23 Turning to Slide 11, I'll just note that for the '698 Patent, Claims 4
24 and 6 are substantively the same.

25 Turning to Slide 12, as I mentioned before, Claim 1 of the '583 and
26 '698 Patents is not in dispute, but the teachings of Spain-1, Hunzinger, and

1 Nanda that we identified for Claim 1 are relevant in considering the
2 dependent claims that are in dispute.

3 And there's a lot of text here, but the key takeaway is that each of
4 these references describes determining a device's location by comparing
5 measured characteristics like signal strength, which is also referred to in the
6 art a location fingerprint, to a database of previously stored fingerprints.
7 And they also describe mobile device users selecting locations that should be
8 detected.

9 Turning to Slide 13, as I mentioned before, Claim 3 of the '583 Patent
10 and, similarly, Claim 4 of the '698 Patent provides that the signal strength
11 measurements that are being compared against to determine location were
12 measured by a second portable RF communication device.

13 So, in other words, where Claim 1 requires that the mobile device will
14 measure signal strengths, and then, compare against prior signal strength
15 measurements, here we are talking about those prior signal strength
16 measurements.

17 This limitation is explicitly taught in the prior art. For example, as the
18 petition explained, Spain-1 says that the fingerprint database can be remote
19 from the mobile device at column 6, lines 9 to 30 of Exhibit 1011.

20 And then, Nanda teaches that a remote database that can receive
21 fingerprints from multiple mobile devices. And we can see that if we turn to
22 the next slide, Slide 14. We have this key excerpt from Nanda, Exhibit
23 1006, Column 12, lines 14-31 where we can see how Nanda teaches how the
24 database could receive fingerprints from multiple mobile devices so that it is
25 a much larger database than would be found in a single mobile device.

26 JUDGE DANIELS: Mr. Zeilberger?

1 MR. ZEILBERGER: Yes, Your Honor.

2 JUDGE DANIELS: You may be getting to this, and that's fine next,
3 when, in this same vein where we're talking about a remote database, could
4 you just give us a little explanation, in particular, in Spain as it relates to
5 what the location server 30 as it's discussed in the spec?

6 And let me ask this question, I guess, is the location server 30 that's in
7 Spain, is that essentially where the database would be kept in that
8 disclosure?

9 MR. ZEILBERGER: I believe that's right, Your Honor. I don't
10 know that it matters for analysis because Nanda also teaches a remote
11 database and Nanda essentially teaches that it can be essentially remote from
12 the database. It doesn't necessarily need to be on the server, it can be on a
13 remote device that's accessible by the server.

14 I think the same is true for Spain, but it certainly could be. And I
15 believe Spain teaches this. I don't have the cite handy, but I believe Spain
16 does teach that it could be on that remote server.

17 JUDGE DANIELS: Okay, thanks.

18 Yes, I just couldn't quite get a handle in reading Spain as to what the
19 location server was doing. That's why I'm asking that question. So, we'll
20 revisit it if I can't figure it out.

21 MR. ZEILBERGER: And I will say that I think we rely on Spain
22 insomuch as it recognizes that you can perform this comparison remotely.
23 And I'll point out that the claim doesn't specifically say where the remote
24 comparison occurs. And this is really more for -- at issue for Claim 5 than
25 Claim 3.

1 But we have the additional teachings of Nanda and also the state of
2 the art like Damarla, which recognized various limitations on how you can
3 arrange where you're storing data and where you're processing data.

4 And in addition, we also have the testimony of Dr. Almeroth who
5 explained in his declaration how there'd be benefits to propagating the
6 database with fingerprints from multiple mobile devices. For example, at
7 paragraphs 188 and 189, he explained how this would lead to a more robust
8 database and allow for increased accuracy when performing these location
9 determinations.

10 JUDGE DANIELS: Mr. Zeilberger, was there -- I appreciate that Dr.
11 Almeroth said that. I was wondering if there were -- there were some other
12 prior art references that I didn't go through completely yet, and I was
13 wondering if he cited to any of those for support for his position that it
14 would be, you know, well known and easy to use a remote database or any
15 other evidence besides just sort of his say so?

16 MR. ZEILBERGER: Yes, Your Honor, he did. And the way he
17 structured his declaration -- so, Claim 3, it doesn't reference a remote
18 database. It's talking about having these prior signal strength measurements
19 being provided by a second device. It's not the device that's actually doing
20 the location determination.

21 But in his analysis of Claim 3, when he talks about a remote database,
22 remote databases, he references his later analysis for Claim 5. He says, you
23 would likely have these additional data stored on a remote database, for the
24 issues about remote databases, see my analysis for Claim 5.

1 And for Claim 5, and if you'll give me just a little bit of leeway to
2 give you some background for Claim 5, and I think I'll address precisely the
3 question you have in mind on the very next slide.

4 So, Claim 5, as I said, has a requirement that the database is stored
5 remotely. And here, we have, as I said before for Claim 3, we have Spain-1
6 saying that it can store data in a remote server, Nanda saying that you can
7 store the fingerprint database in a remote server and providing the reasons
8 why you would want to do it.

9 And turning to Slide 16, here we have some of the state of the art
10 evidence that Dr. Almeroth cited. And specifically, Exhibit 1028, it's the
11 Damarla reference that we'll talk about more in a little bit when talking
12 about Ground 2, but he also cited Damarla as state of the art evidence.

13 And Damarla teaches how you can have a device that performs the
14 comparison between fingerprints and that may or may not be the same
15 device that's storing the fingerprints remotely on a fingerprint database.

16 And Damarla even gives you the specific considerations that a person
17 of ordinary skill in the art would have been aware of. If we look at the last
18 sentence that's highlighted in this excerpt from column 16, lines 42-63, so I
19 think this would be around lines 57-63 of column 16 of Damarla, it
20 specifically says that considerations include -- and I should step back one
21 second -- the lead-in sentence of that is talking about where fingerprint
22 matching is going to occur. And it says how fingerprint matching could be
23 performed by the MU, which is the mobile unit, the mobile device, or the
24 infrastructure, which is referring to the remote server that could store the
25 fingerprints.

1 And in deciding whether to perform that comparison at the mobile
2 device or at the remote location, it says that considerations --

3 (Audio interference.)

4 JUDGE DANIELS: Did we just lose Mr. Zeilberger?

5 MR. MODI: This is Patent Owner. I lost his audio and his video for a
6 little bit.

7 JUDGE DANIELS: All right, let's just take a break for a minute and
8 see if we can get --

9 (Whereupon, the above-entitled matter went off the record at 1:15
10 p.m. and resumed at 1:18 p.m.)

11 JUDGE DANIELS: All right, everyone, we're back on the record. I
12 don't think we missed much of what you said, Mr. Zeilberger, but you were
13 talking about the last sentence, I think, in that paragraph that you have
14 highlighted on Slide 16.

15 MR. ZEILBERGER: That's right, Your Honor. And thank you, Your
16 Honor, apologies for that brief delay.

17 So, in that last sentence that's highlighted on Slide 16, Damarla
18 specifically recognizes the considerations that would be taken into account
19 in deciding whether to perform the comparison at the mobile device or the
20 server. And it provides things like processing power that's required for
21 fingerprint matching, how many units require fingerprint matching, and how
22 much data must be exchanged over the wireless environment. E.g., to
23 transmit the results of matching or portions of the database.

24 JUDGE DANIELS: Mr. Zeilberger, I think Patent Owner had, at
25 some point, pushed back on this Damarla reference. I cannot remember
26 what their argument was, but were you going to address that at some point?

1 MR. ZEILBERGER: So, Your Honor, the Patent Owner actually
2 never presented any arguments about Damarla. And that was one of the
3 points we made in our reply.

4 They have a sentence where they say the combination of Spain-1,
5 Hunzinger, and Nanda doesn't render Claim 5 obvious. They don't even
6 address Claim 3 or its allegation about Claim 3.

7 But they don't actually present in their papers any specific arguments
8 about Damarla. I understand they seem to intend to address it today. I'm
9 not sure what exactly they intend to say today about it. They have some
10 slides about Damarla. But in their Patent Owner's response, they don't have
11 a single citation to Damarla.

12 JUDGE DANIELS: Okay. Just to be clear, were those -- I didn't
13 mark them as such, but were those Damarla slides some of the ones you
14 objected to?

15 MR. ZEILBERGER: Yes, Your Honor, that's right.

16 JUDGE DANIELS: Okay, okay, I'm with you, thanks.

17 MR. ZEILBERGER: So, turning to Slide 17, in Patent Owner's
18 response, what it does do is focus on potential drawbacks of storing a
19 fingerprint database remotely and then, comparing fingerprints on the
20 mobile device. But even its expert conceded that there would be advantages
21 to such an arrangement. For example, he agreed that it would reduce
22 processing requirements and storage requirements of the mobile device.

23 And as Dr. Almeroth explained at paragraph 200 of his declaration,
24 doing this would conserve memory and processing resources on the mobile
25 device that would otherwise be used to build and maintain the fingerprint
26 database locally. And even if there were advantages and disadvantages to

1 making use of a remote database, that does not defeat obviousness, as the
2 Federal Circuit has explained, for example, in the Medichem and Winter
3 International royalty cases.

4 Turning to Slide 18, I'll now turn to Ground 2 in each of the '153 and
5 '154 proceedings which --

6 JUDGE TSANG: Mr. Zeilberger? If we could stay with Ground 1 for
7 just a little bit longer. I was hoping you could address the limitation in
8 Claim 1. Its limitation B, the first portable RF communication device
9 determining if a monitored location is within proximity of a location chosen
10 by a user as a result of those steps 1 and 2. Because I know Patent Owner
11 had some arguments, I believe the substance of their arguments was that it's
12 the RF device that has to perform that determining. Could you share
13 Petitioner's position?

14 MR. ZEILBERGER: Yes, Your Honor, and I have couple of
15 responses to that. One is that the argument is irrelevant. Our petition and
16 our expert both explained how it would be obvious to have that precise
17 arrangement where you store materials – the fingerprint database on a
18 remote device, but perform the comparison at the mobile device. That's a
19 mapping, if you will. That was precisely addressed in our petition. We have
20 it at Slide 16, I believe.

21 Here, at page 48 of our petition, the '153 proceeding where we said a
22 POSA would have likewise would have been motivated and found benefit in
23 allowing the mobile unit to perform the determination process while
24 engaged in use of a remote database.

1 And that's what Damarla also shows, where Damarla has that precise
2 configuration and shows that this is really just a question of where you're
3 going to store the data and where you're going to process the data.

4 And those various permutations of where you're going to store and
5 where you're going to process were known in the art. But even if you
6 wanted to address the issue of how to interpret the claim, it is Petitioner's
7 position that the overall determination has to be performed by the mobile
8 device and not necessarily the subcomponents.

9 The specification itself of -- these patents, the '583 and '698 patents
10 don't provide very many details of how you would perform this sort of
11 arrangement where you have remote storage of the fingerprint database.
12 And so, from our perspective, the claim should be interpreted broadly and
13 it's permissive of that scenario.

14 What the claim doesn't permit and how we understood Patent
15 Owner's argument is it does not permit of precluding in Claim 1 making use
16 of things like a remote database which would be in direct conflict of Claim
17 5.

18 JUDGE TSANG: So, I wanted to follow up on that, and this goes to
19 your position with respect to Claim 5. Would you agree that both Spain-1
20 and Nanda, when they have that remote database, the sort of comparison, the
21 determining is performed not at the MU but elsewhere?

22 MR. ZEILBERGER: Yes, I think that's right, Your Honor. And we
23 haven't alleged otherwise. In Spain-1 and Nanda, their express teachings
24 have scenarios where the comparison or the fingerprint data is stored at the
25 mobile device. And the comparison happens on the mobile device and

1 embodiments where fingerprint data is stored at the remote server or a
2 remote server and the comparison happens at the remote server.

3 And I should say the comparison of the fingerprint data. When we're
4 talking about, even in those situations and those embodiments where the
5 comparison of the fingerprint data happens at the remote server, the mobile
6 device would still be notified of that comparison and it would still know
7 because it has to react to it and perform operations in response to being at
8 the location or not being at the location.

9 So, there'd still the overarching determination about whether the
10 mobile device is at the location by the mobile device. There would not be --
11 the comparison, if we're looking at them individually when we're looking at
12 the references collectively in terms of what a POSA would understand, then
13 it goes back to what a POSA would understand about where things can be
14 stored and processed, and the reasonable inferences that a POSA would
15 make is the preferences of Damarla.

16 JUDGE TSANG: So, I just want to clarify your position for Claim 5.
17 The determining -- are you saying that the determining would still be
18 performed at the MU or it would have been obvious to modify Spain-1 to
19 have the determining be at the MU?

20 MR. ZEILBERGER: Our position, I think it's both, Your Honor. We
21 have the position in the first sentence that a POSA would have contemplated
22 using a remote server to perform determining processes as mentioned in
23 Spain.

24 However, POSA would also be motivated, and found benefit, in
25 allowing the mobile unit to perform determining processes while still storing
26 things on the remote database.

1 We don't dispute that Spain-1 doesn't have a specific embodiment
2 where that happens. It is a modification to Spain-1, but we think it will be
3 an obvious modification of Spain-1.

4 JUDGE TSANG: Okay. So then, the benefit is, in your position,
5 shown in that last sentence of Damarla. Okay, thank you.

6 JUDGE EASTHOM: Just a follow up, Mr. Zeilberger. The action
7 that the phone takes you were talking about, what is one of those actions? Is
8 that handing off to go to another antenna or what are some of the actions --

9 MR. ZEILBERGER: So --

10 JUDGE EASTHOM: -- of the phone? Go ahead, sorry.

11 MR. ZEILBERGER: So, no problem, Your Honor, and I didn't mean
12 to cut you off if you had more on that question.

13 JUDGE EASTHOM: No, that was my fault. I had a run-on question.

14 MR. ZEILBERGER: No problem, Your Honor. And I guess it
15 depends on whether you're asking about the individual references or the
16 combination that we presented. But when we're talking about the
17 combination as a whole, the determination really comes down to, for
18 example, Hunzinger, which we used to modify Spain-1, Hunzinger has a
19 situation where a user is defining a region that they want to receive alerts to.

20 And so, you're performing the combination these fingerprint
21 comparisons to determine whether the user is in that user defined region and
22 performing actions like providing alerts to the user in response to that
23 determination.

24 JUDGE EASTHOM: Okay, thank you.

25 JUDGE DANIELS: Mr. Zeilberger, I have a follow up question to
26 Judge Tsang's. It's sort of two parts. The first part is, if I'm -- am I

1 understanding your position correctly that we don't need to get to, because
2 of the combination and the prior art and Dr. Almeroth's testimony and
3 evidence, we don't need to get to the issue of a claim interpretation with
4 respect to that phrase as a result of?

5 MR. ZEILBERGER: That's exactly right, Your Honor.

6 JUDGE DANIELS: And the second part is, if we did have to
7 determine any sort of claim interpretation, your position is that, as a result of
8 is a broad term is a broad term and doesn't -- that term does not require, in
9 Claim 1, that all the functions of the determining have to be done at the MU?

10 MR. ZEILBERGER: That's correct, Your Honor. I think you
11 summarized our two positions accurately. That, one, we think this issue is
12 moot in view of what our petition actually argued, which is really addressing
13 precisely how the Patent Owner thinks the claim should be interpreted.

14 But even if you were to reject that argument of obviousness that we
15 present in our petition, we think the claim should be interpreted more
16 broadly than the Patent Owner is suggesting.

17 JUDGE DANIELS: Let me ask another question about that. Is there -
18 - it is not unreasonable to read this claim as Patent Owner is suggesting? I
19 don't know who's right or wrong about claim construction at this point, but I
20 have been thinking about it. Is there any place in the spec that helps your
21 position as to a breadth of the MU?

22 In other words, in the written description of the '583 Patent, does it
23 say that it could be broader? That it could be done elsewhere?

24 MR. ZEILBERGER: Yes, Your Honor. I think probably the best
25 support for our interpretation of the claim, and again, we don't think you
26 need to address this issue, would now be at column 12, lines 27-39 of the

1 '583 patent. And I think there's a similar citation for the '698 patent where
2 the '583 patent says that you could really perform each of the individual
3 substeps of the process at different components.

4 And I would also say that the lack of disclosure in the '583 patent
5 about an example where you are doing what Patent Owner says you have to
6 do, is also evidence that suggests you shouldn't read the claim restrictively
7 in the manner that Patent Owner suggests.

8 JUDGE DANIELS: Thank you.

9 MR. ZEILBERGER: So, if there are no further questions on that
10 issue, I'll turn to Slide 18 where we have this alternative Ground 2 in both
11 the '153 and '154 proceedings which involves Damarla directly as an
12 additional reference in the ground.

13 The petition relied on Damarla and its analysis to both Claims 3 and 5
14 of the '583 patent in Claims 4 and 6 of the '698 patent. And as I mentioned
15 earlier today, in its Patent Owner's response, it actually -- Patent Owner
16 doesn't address or dispute that this ground renders Claim 3 of the '583
17 patent in Claim 4 of the '698 patent obvious.

18 Turning to Slide 19, the petition explained how Damarla describes a
19 similar process to the other prior art references where a mobile device
20 records information such as signal strength measurements as fingerprints in
21 a database for future location determinations.

22 And Damarla also recognizes that there are justifications for repeating
23 signal strength measurements due to situations like changing RF
24 environments. That's at Exhibit 1028, column 5, line 63 to column 6, line 1.
25 And it's in this context that Damarla teaches ways in which signal strength

1 measurements captured by one mobile device can be shared with another
2 mobile device.

3 So, for example, turning to Slide 20, Damarla describes one scenario
4 looking at the left hand side where one mobile device may capture updated
5 signal strengths, share that with the server, which then may distribute the
6 updated information to various mobile devices.

7 And on the right hand side of this Slide 20, we have the other
8 paragraph that we looked at earlier in the context of Ground 1 where
9 Damarla more specifically recognizes that when fingerprints are stored
10 remotely on a server, there are really two options for fingerprint comparison,
11 perform the comparison at the server or portions of the database could be
12 transmitted to mobile devices to perform the comparison at the mobile
13 device.

14 And again, as I said before, I won't belabor the point, Damarla also
15 recognizes the reasons why you would perform it at one location or the other
16 location.

17 Turning to Slide 21, as I mentioned earlier today, Patent Owner
18 neglected to even address Damarla in its Patent Owner's response. And as
19 Your Honors know, Patent Owner didn't file any surreply in any of the
20 proceedings today. I understand Patent Owner intends to argue for the first
21 time today or, at least suggested to us that it intends to argue for the first
22 time today that Damarla has certain issues.

23 As I said before, I'm not sure exactly what Patent Owner intends to
24 argue, and we think any arguments would be improper. But in any event, we
25 do not think Patent Owner can get around the key disclosures of Damarla.

1 Turning to Slide 22, I'll now turn to the '155 proceeding where the
2 same Spain-1, Hunzinger, and Nanda combination is at issue for Claims 14
3 and 28 of the '811 patent.

4 So, the claims of the '811 patent, I'm on Slide 23 now, the claims are
5 similar to the claims we've been talking about for the '583 and '698 patents
6 and that they speak to a determination of a mobile device's location based on
7 a signal strength comparison. But Claim 1 here refers to a device specific
8 target location that and dependent Claim 14 requires the determination about
9 whether the device is within proximity of the device specific target location
10 to be performed at a location remote from the mobile device that is having
11 its location determined.

12 On Slide 24, we have Claim 28 which is really, again, substantively
13 the same at 2014 for purposes of this proceeding.

14 Turning to Slide 25, the dispute in the '155 proceeding centers around
15 the term device-specific target location. In its Patent Owner's response,
16 Patent Owner argued that the plain meaning requires a target location that is
17 specific to a particular device, not a location that is generally applicable to
18 numerous devices.

19 Broadphone's interpretation creates a vague and erroneous distinction
20 between a location that is specific to a particular device and one that is
21 general applicable to numerous devices.

22 Turning to Slide 24, the problems of Patent Owner's construction are
23 highlighted by Patent Owner's expert's inability to answer many basic
24 questions about the construction.

25 For example, according to its expert under Patent Owner's
26 construction, a user selected location may or may not be a device specific

1 target location, whether two devices share the same device specific target
2 location will depend on unknown factors, as he was unable to provide.

3 It's unclear what numerous devices means in Patent Owner's
4 construction, when you sufficiently have enough devices that it's numerous.
5 And in the context in which Patent Owner's created it, it's unclear how a
6 location can be specific to a particular device.

7 In addition, Patent Owner's expert couldn't provide a single example
8 of a target location that is specific to a particular device and not generally
9 applicable to numerous devices under his understanding of the term.

10 I asked him at pages 117 to 122 of the deposition transcript which is
11 Exhibit 1079. I asked every which way what a device-specific target
12 location means and if he could provide me a single example of one, and
13 either he refused or couldn't.

14 In addition, Patent Owner's own expert, applying their interpretation
15 of the term, said that the boundaries are not crisply defined.

16 Turning to Slide 27, and going through the actual intrinsic evidence,
17 in the specification, I'll note that the term device-specific target location is
18 not a term that the specification uses. But the specification does make clear
19 that locations that are detected can apply to more than one device.

20 We see that, for example, at column 7, lines 2-6 of the '811 patent,
21 where signal strength measurements can be transferred from one device to
22 another, at column 9, lines 7-14, where it says that a mobile device measures
23 and stores signal strengths and then, that mobile device or an equivalent unit
24 can use those signal strengths.

1 And at the passage I pointed to earlier at column 12, lines 53-58,
2 where the patent refers to various steps of the process happening at different
3 devices.

4 And turning to Slide 28 --

5 JUDGE TSANG: Mr. Zeilberger?

6 MR. ZEILBERGER: Yes, Your Honor.

7 JUDGE TSANG: So, from what I understand, Petitioner's position is
8 that device-specific target location is just a location specified by a user, is
9 that correct? Is that accurate?

10 MR. ZEILBERGER: Correct, Your Honor, it's a user-selected
11 location. And I think probably the best evidence of that, because the
12 specification is a little ambiguous because it doesn't actually use the term, is
13 the prosecution history where, in its appeal briefs during prosecution in the
14 file history in Exhibit 1004 at pages 128 and 136.

15 So, those appeal briefs require the appellant to say where there is
16 support for the claims. And in describing the claims and, specifically, the
17 limitation at issue here, Patent Owner specifically referred to disclosures that
18 were an original user selected location or a selected location with the
19 registering step. And the registering step is the step where the user is
20 picking the location.

21 JUDGE TSANG: So, when applying the art, Petitioner's position is
22 also that Spain-1 doesn't teach a user selected location, right? But it would
23 have been obvious, in view of Hunzinger and Nanda, to modify Spain-1, is
24 that correct?

25 MR. ZEILBERGER: I think that's accurate. We certainly didn't rely
26 on Spain in that way. We relied on the combination of Spain-1, Hunzinger,

1 and Nanda, and specifically, I think probably most so on Hunzinger and how
2 Hunzinger says how a user can define the regions and areas that it wants to
3 receive alerts to.

4 So, I think that's right, Your Honor.

5 JUDGE TSANG: Okay. And so, would you characterize Spain-1 as
6 teaching that it's not a user that selects the location, it's something else and
7 you're merely just, you know, modifying in the combination the results is
8 then that a user selects a target location?

9 MR. ZEILBERGER: Spain-1 provides really a description of the
10 overall process of determining a location of a user. It has disclosures about
11 the mobile device capturing signal strengths, storing those, and performing a
12 comparison later on to those stored signal strength measurements to see
13 where the user is.

14 I think Spain-1 doesn't get into really the details about -- of additional
15 features surrounding that like Hunzinger has, where Hunzinger says that you
16 could use this kind of system to set up alerts where the user will define the
17 region and then, will detect when you're within that region.

18 So, we certainly relied on Hunzinger and Nanda as well, as Your
19 Honor said, more so for specifically this user selection aspect of the claim.

20 JUDGE TSANG: Thank you.

21 MR. ZEILBERGER: And I'll also say that on that Slide 25, 29, it's
22 really undisputed with respect to Claim 1 that the prior art does teach
23 determining whether a device is at a user-selected location by comparing
24 location fingerprints. That aspect of the claim is address in Claim 1 and the
25 combination of Spain-1, Hunzinger, and Nanda.

26 And Patent Owner hasn't challenged that aspect of our analysis.

1 It's when we get into slide -- Claim 14, as we get into Slide 30 where
2 Patent Owner does have a disagreement with us, but where our petition
3 explains how first Spain-1 and Nanda both teach how fingerprints may be
4 stored and compared at a remote location.

5 And we can see at Slide 31 the excerpt from Spain-1, column 6, lines
6 9-30, where Spain-1 discloses that the fingerprint database can be stored at
7 the location server, have the generated fingerprint transmitted to the location
8 server, and then, the search for the closest fingerprint is performed at the
9 location server.

10 And going to Slide 32, this excerpt from column 12, line 14-31 of
11 Nanda, where Nanda discloses that a remote database acceptable by the
12 mobile switching center stores fingerprints that mobile devices and mobile
13 switching center performs the fingerprint comparison.

14 And the petition explained at pages 59-60 how, in view of these
15 teachings, it would have been obvious to make use of a remote database and
16 server for storage and for subsequent location determining analysis in this
17 combination of references.

18 And one thing I do want to just footnote, if you will, is that it can be a
19 little confusing when comparing this proceeding versus the other
20 proceedings where Patent Owner's made that argument in other proceeding
21 that the entire determination has to happen at the mobile device.

22 Here, I don't think there's any dispute that it's actually the remote
23 device that's performing the determination itself. And Claim 1 doesn't
24 require the mobile device to perform the determination. Here, Claim 5
25 actually affirmatively requires the determination to happen at the remote
26 location.

1 What Patent Owner does argue, turning to Slide 33, is that, quote, the
2 database of locations and fingerprints of the proposed combination would,
3 quote, be applicable to multiple devices which, according to Patent Owner,
4 directly undermines the petition's contention that the stored locations would
5 be device-specific.

6 There are, I think, two fundamental problems with Patent Owner's
7 argument here. First, I think it's important to note that the petition's analysis
8 and the claims, Claims 14 and 28, do not require multiple mobile devices to
9 store data in the remote database.

10 And the petition explained that page 59 that it'd be obvious to make
11 use of a remote database to store and process fingerprints in order to reduce
12 the processing and storage requirements of the mobile device.

13 So, that's a rationale that would apply whether or not you have
14 multiple mobile devices that are storing information, not the remote location.

15 And given that the claim permits a single mobile device to store data at the
16 remote database, Patent Owner's argument, the premise of its argument is
17 faulty.

18 But even setting that issue aside, if you were to interpret the claim as
19 requiring multiple mobile devices to store data at the remote location, that
20 does not mean that the determination would not be made about whether a
21 user is at a device specific target location, or in other words, a user selected
22 location.

23 The claims do not require a database of device specific locations. The
24 signal strengths themselves that are stored in the database do not have to be
25 device-specific.

1 What is device-specific is the analysis about whether the user is at a
2 particular user selected location. And we can see this in the claims which
3 require a determination as to whether a portable RF communications device
4 -- and I seem to have -- you probably lost me on video, but hopefully you
5 can still see me. Or hopefully, you can still hear me?

6 JUDGE DANIELS: We can hear and see you.

7 MR. ZEILBERGER: Okay. Yes, and I think I'm back as well on my
8 side.

9 We can see this in the claims which require a determination as to
10 whether a portable RF communications device is within proximity of a
11 device specific target location and doing so by comparing signal strength
12 measurements.

13 Finally, I'll conclude by turning to Slide 34 where we have the
14 testimony of Patent Owner's expert, where Patent Owner's expert agreed
15 that two devices may share the same device-specific target location which is
16 inconsistent with Patent Owner's apparent argument that a device-specific
17 target location is something that is exclusive to a single device like a
18 particular signal strength measurement.

19 If there are no further questions, Your Honors, I'll reserve the rest of
20 my time for rebuttal.

21 JUDGE DANIELS: All right, hearing no further questions, so I'll let
22 you go for a couple more minutes, Mr. Zeilberger, we -- I can add, because
23 of the drop off, I can add a couple minutes to your 20 minute time for
24 rebuttal, if necessary, but we'll just leave it at 20 minutes for now.

25 MR. ZEILBERGER: Thank you, Your Honor.

IPR2024-00153 (Patent 8,170,583 B2)
IPR2024-00154 (Patent 8,594,698 B2)
IPR2024-00155 (Patent 10,341,811 B2)

1 JUDGE DANIELS: Thanks. All right, Mr. Tong, when you're ready,
2 just let me know if you want to reserve some time for rebuttal.

3 MR. TONG: Yes, please. This is Peter Tong, I would like to reserve
4 10 minutes for rebuttal.

5 JUDGE DANIELS: Perfect. Start when you're ready.

6 MR. TONG: Thank you. I am sharing my slides. Is the Board able
7 to see the slides?

8 JUDGE DANIELS: We can.

9 MR. TONG: Okay. So, thank you very much. This is the Patent
10 Owner's arguments for IPR2024-00153 regarding the '583 patent.

11 So, I want to start off with just kind of a background of this patent,
12 talk about its invention, and its filing date. For the purposes of this
13 argument, the 2006 priority date is undisputed.

14 With that, I would like the Board to just think for a moment, where
15 were you in 2006 and what kind of phone did you have? Personally, I was
16 starting my freshman year of college and I had a flip phone. Back then, the
17 iPhone was not released, smartphones were not a thing. I personally did not
18 have GPS on my on my little flip phone, but this should provide some
19 context as to just how old this patent is and it should provide the appropriate
20 context for what was obvious versus the state of the art, brand new
21 technology at the time.

22 If you look at the abstract of the patent which is reproduced here on
23 Slide 4, the abstract and the cover figure show the system where it discloses
24 the use of signal fingerprints from RF towers, perhaps either cell towers or
25 maybe wireless internet connection points where a mobile device can create

1 a fingerprint by figuring out, okay, what are the IDs of these devices and
2 how strong are the signals?

3 For example, if you're at home and you always have signal from an
4 AT&T cell tower, and maybe your router or something, anytime you're at
5 the same place, you're going to get the same fingerprint.

6 What are the advantages of this? So, the advantage of this are you can
7 have a cheaper cell phone device that doesn't need GPS. And even if your
8 phone does have GPS, it doesn't necessarily need to perform the complex
9 processing of GPS signals. You could either use this in place of GPS, you
10 could use it as a backup in times where, for example, you're inside a building
11 and the sky is obscured and GPS signals are not accessible.

12 So, basically you create all these fingerprints of interesting locations
13 and you can use it to, you know, your device can use it to determine when
14 you've reached that place again.

15 This, however, is the broadest disclosure in the patent. The patent, as
16 I'll get into later, also has other various embodiments that are privacy
17 focused. That creates a whole different set of issues and concerns, and some
18 of those privacy-related embodiments are addressed in the dependent claims
19 that we will look at today.

20 So, turning to Slide 5, here are the claims at issue. I'm going to go
21 through these kind of quickly because we've already gone through them
22 once. In particular, for Claim 1, I want to focus on the element 1B, which is
23 the first portable RF communication device determining if a monitored
24 location is within a proximity of a location chosen by a user of the first
25 portable RF communications device as a result of directly – sorry, as a result

1 of electronically comparing the at least one ID and at least one figure based
2 on the signal strengths.

3 And I'm going to skip a little bit, but subset is determining if the
4 difference between the signal strengths measured at the moderate location
5 and the signal strength at the location chosen by the user is less than a
6 predetermined threshold.

7 JUDGE DANIELS: Mr. Tong, it is your position that this claim is
8 limited to this particular, let's just call this limitation B which has numerous
9 limitations in it, but limitation B would be all of these subparts, I and II
10 would be determined specifically by the MU or the portable RF
11 communication device?

12 MR. TONG: Yes, Your Honor, that is correct. That is our position.
13 Again, the specification has a lot of embodiments and we think this is
14 disclosed in various parts that talk about privacy. For example, if you turn
15 to column 12, this is the same column that Patent Owner cited, but this
16 provides different embodiments where the device can perform all the steps
17 or share some of them with the server, depending on the degree of privacy
18 that you intend to reach.

19 But looking at the plain language of this claim, we have these verbs
20 determining, as a result of, electronically comparing, and determining, that
21 just, you know, the plain and ordinary meaning of this is clear that these are
22 all steps being performed by the first portable RF communications device.

23 JUDGE DANIELS: But how are we supposed to differentiate that
24 this one embodiment from an embodiment in the '583 specification that talks
25 about some of the steps being performed apart from the MU or the
26 communication device?

1 I mean, just like I was talking with Mr. Zeilberger, I'm not sold either
2 way on what this claim -- what the plain reading of this claim is. It does not
3 seem to me that it says that the communications device itself will do all of
4 these steps. But you do want us to read it that way?

5 MR. TONG: That's correct, Your Honor. And I think the clearest
6 thing to look at is dependent Claim 5. This explicitly recites where the
7 database is stored remotely.

8 So, this is the type of language that indicates a different step
9 specifically like a remote server here storing the database.

10 JUDGE DANIELS: How do you have both?

11 JUDGE TSANG: So, the --

12 JUDGE DANIELS: Go ahead, Judge Tsang.

13 JUDGE TSANG: So, Mr. Tong, so, I know you and Petitioner both
14 point to column 12, I think it's lines 27-39. And I understand that that
15 paragraph has two embodiments.

16 So, if we're looking at the second embodiment in that paragraph, one
17 might even reach the case where registering is done on a first device,
18 monitoring is done on a second device, storing is done in an off site facility,
19 and determining is done in a different off site facility.

20 Which device is the RF communications device of Claim 1? If we're
21 looking at -- or I guess Claim 5, but referring back to the device in Claim 1,
22 which device is it in that sentence?

23 MR. TONG: Sure, Your Honor, let me address that in connection
24 with the sentence before that in the specification as well, which is on line 33.

25 That sentence says, when privacy is of concern, then all of the four steps
26 should be performed on a single mobile device.

1 So, in the context of Claim 1, all of these steps of comparing and
2 determining are performed on a single mobile device, as stated on line 32.

3 When we get to Claim 5, this opens up the possibility where the
4 database is stored remotely. So, that can be done on any other remote
5 device, whether that be a server, another device, a computer, it could be any
6 of these other options disclosed in the passage that you just read, whether
7 that's an off-site facility or another device.

8 If there are no more questions, I would like to continue to Slide 6.

9 JUDGE EASTHOM: One quick question. So, Claim 5, does that --
10 that doesn't really say where the determining step is performed, right?

11 MR. TONG: It's our position that that's stated in Claim 1B. Claim 5
12 does not further elaborate on where the determining step is performed.

13 JUDGE EASTHOM: Okay, okay, I'm with you. Thanks.

14 JUDGE TSANG: I do have a follow up question. If you could go
15 back to Slide 4, Mr. Tong?

16 MR. TONG: Yes.

17 JUDGE TSANG: So, I'm just trying to understand -- sorry, that's the
18 wrong slide. It's the slide with the claims.

19 MR. TONG: Slide 5.

20 JUDGE TSANG: Oh, okay, thank you. So, I wanted to go back to
21 that next sentence in column 12 again where it says the registering is on the
22 first device, monitoring second device, storing is done in an off site facility,
23 and then, determining is done in a different off site facility. Wouldn't Claim
24 5 be directed to that embodiment because the storage is in an off-site
25 facility? That seems to be the database stored remotely.

1 And so, if you're looking at that embodiment, it would appear that the
2 monitoring and the determining are done in -- done by different components.

3 Am I reading that incorrectly?

4 MR. TONG: Your Honor, it's our position that that embodiment does
5 not fall within the combination of Claims 1B with dependent Claim 5.

6 Claim 1B is intended to cover the disclosed embodiment where the
7 first portable RF communication device does all of these three steps. This
8 first determining the comparing and the second determining step.

9 And then, Claim 5 merely brings in one other external database that is
10 somewhere remote. It could be on another device, it could be at an off-site
11 facility. But that's the position that we're taking in terms of what is being
12 covered by the combination of Claims 1 and 5.

13 It's not necessarily the embodiment that is on lines 35-39. This is just
14 one patent in a continuation, this family of continuations. There are multiple
15 claims that cover the various combinations and permutations that are
16 disclosed throughout the specification.

17 So, again, this is just the combination of Claim 1 with dependent
18 Claim 5, it's focused on a very specific combination.

19 Any more questions before I move on?

20 All right, hearing none, I will proceed to Slide 6. So, the construction
21 that we've taken is, as I've just discussed, I think I can skip most of this. I
22 was going to go over the deposition testimony from Doctor Cooklev. He
23 provided straightforward answers. These can be found in Exhibit 1079 from
24 pages 39-40.

25 If the Board is interested, I can read through them but, he basically
26 explained his reasoning why he thought that the first portable RF

1 communication device is doing all of these steps. So, we do have expert
2 testimony.

3 With that, unless there any questions, I'm going to skip through to
4 Claim 9, or sorry, Slide 9. So, Slide 9 --

5 JUDGE DANIELS: So, Mr. Tong?

6 MR. TONG: Yes.

7 JUDGE DANIELS: Mr. Tong, just to be clear, I want to make sure
8 I'm understanding your previous argument. So, Claim 1 and Claim 5
9 together, it seems to me what you're arguing is that the determining steps are
10 done on the MU, the mobile unit, but the data itself may be retrieved from a
11 database. Am I on track?

12 MR. TONG: Yes, Your Honor, that is exactly our argument.

13 JUDGE DANIELS: Okay, thank you.

14 MR. TONG: So, moving to, again, Slide 9, I'm going to address
15 primarily Ground 1. I will get to Ground 2, but the arguments are just the
16 same.

17 So, turning to Slide 10, in Slides 10 and 11, these are examples from
18 the petition where the Petitioner has relied on one embodiment from Spain-1
19 to argue that the MU does everything. It both stores the data and the MU
20 does all of the determining steps.

21 Now, this is sufficient for Petitioner's argument for Claim 1, but it
22 contradicts what Claim 5 says. If we look at all of these admissions in the
23 petition, it argues that Spain-1 discloses a mobile unit that is operable to
24 perform location-based determining. The MU is doing the determining.

25 It says that, at the selected location, the MU collects information and
26 generates and stores fingerprints based on that information. Again, the MU

1 is doing both the collection and the storage. The petition says that the MU
2 captures information from signals, the MU does the comparison. This is all
3 throughout the petition's analysis of Claim 1 and the background and its
4 discussion of Spain-1.

5 Again, admission that Spain-1's MU determines whether it's currently
6 at a location or not. And the MU is the device that captures the
7 predetermined information and creates a fingerprint. These are the quotes
8 on Slide 11.

9 Turning to Claim 12, I want to address this other disclosure in Spain-
10 1. Spain-1 does have an alternative embodiment. This is not a modification
11 of the previous embodiment, this is a completely alternative embodiment
12 where it discloses that the location server both maintains the fingerprint
13 database and does the fingerprint matching.

14 It's clearly incompatible with what was previously disclosed, which
15 was that the MU or the phone maintain the database. You can only have one
16 or the other.

17 I want to be very clear, Spain-1 does not explicitly include any
18 disclosure where the database is maintained on the server, but the phone
19 does the processing and comparing. That's not in Spain-1.

20 Throughout the petition, throughout the Petitioner's slides, you've
21 heard the Petitioner talk about various embodiments, perhaps benefits.
22 Those benefits can only be attributed to one embodiment or the other. And
23 doing that complete embodiment as taught, Spain-1 does not have any
24 disclosure, teaching, or motivation related to the mixing of storing the
25 information in a database that is remote, but doing the comparison locally.

1 And as I'll get to later, there's actually no motivation, no benefit to
2 doing that except if you are concerned about privacy, which is not -- that's
3 just not taught at all in the prior art.

4 Moving to Slide 13 --

5 JUDGE DANIELS: Mr. Tong?

6 MR. TONG: Yes.

7 JUDGE DANIELS: What about Dr. Almeroth said that you would --
8 you could, by moving -- that it was known, I believe what he said in his
9 declaration is that it was known to move processing functions to a remote
10 server to save space.

11 That seems like a pretty good -- pretty good reason to me to at least
12 consider in Spain, looking at Spain, that a person of ordinary skill in the art
13 might transfer some of the functionality in order to save space on the device.

14 MR. TONG: Yes, Your Honor, and I will get to that in a little bit, but
15 the answer is that what is taught in Spain is you have -- what Spain envisions
16 is collecting this huge database of location fingerprints from various -- I'm
17 going to turn to Slide 22.

18 What Spain envisions is collecting this huge database of fingerprints
19 from different mobile devices. That way you can basically create a map.
20 And devices can ping this database with their fingerprints. And then the
21 server will -- it can determine, okay, which of these places are you at.

22 In that embodiment, if you go with this teaching, the server is doing
23 the determining, the server is doing the processing. And this embodiment no
24 longer complied with the requirement of Claim 1 that the mobile device do
25 the processing.

1 And in fact, it would not make sense to, in such an embodiment, send
2 this data back to the smartphone for processing, or you know, flip phone for
3 processing.

4 We see that Spain here, this is within what the petition has cited,
5 specifically around columns 10 and 11. There's this Table 1 that shows an
6 entry of 60,000 data entries of fingerprints.

7 Now, if you conservatively estimate that, you know, these are just
8 maybe 100 bytes long, all of a sudden you have a six-megabyte table of
9 fingerprints.

10 Back in 2006, you know, I was still on a plan where my megabytes
11 were tracked, and if you go over a certain amount, you know, you start
12 paying by the megabyte. But this just would not make sense in such a
13 scenario. Why would a smartphone, like why would you send this back to
14 the smartphone to have -- or flip phone to have a flip phone do the
15 processing?

16 The flip phone would have a -- you know, it's running on battery. It
17 has a small, weak processor because smartphones were not out then. Or
18 you can just keep all of this processing and the database on the server, as
19 taught in the second embodiment of Spain.

20 That makes much more sense. That is what a PHOSITA would have
21 done. The issue is just that it doesn't meet step 1b.

22 The fundamental problem with Petitioner's argument for the
23 dependent claim is that in Claim 1, they analyzed one embodiment where the
24 MU is doing everything.

25 In their argument for Claim 5, they've switched to this alternative
26 embodiment where the server is doing everything. The server is doing,

1 keeping the database, it's aggregating information from a bunch of MUs.

2 The server is doing the comparison and the processing.

3 We saw that earlier. Those are the two different embodiments. And
4 Petitioner has not explained, just very fundamentally, how the second
5 embodiment meets Claim 1. Sorry -- yeah.

6 Claim 5 depends on Claim 1. So if they wanted to switch
7 embodiments, they needed to say okay, even under this alternative
8 embodiment, Claim 1 is still met for all of these reasons.

9 That's not in the petition, they've just kind of assumed that they
10 could, you know, jump to a different embodiment and then start analyzing
11 Claim 5 without the analysis of how this alternative embodiment meets all of
12 the previous claim requirements.

13 Okay, so going back to where we left off, which was Slide 13, these
14 are the -- what we see at the top here, these are the citations to Spain in
15 Exhibit 1011. It goes through these figures, and I'm going to jump through
16 them pretty quickly. We'll go through each embodiment in Spain.

17 First they cite Figures 1-3. This does not teach the configuration.
18 None of these figures teach the configuration that is recited in Claims 1 and
19 5.

20 On Slide 15, we look at the Figures 9 and 10 that the Petitioner cited.
21 These also do not talk about the separation of work between the server and
22 the phone of MU.

23 If we go to Slide 16, here they cite column 5, line 61 through column
24 6, line 8. This talks about how in one embodiment the database is stored in
25 the mobile units. The generated fingerprint is compared with the
26 fingerprints in the database.

1 So this is all, everything is happening in the mobile unit itself. This is
2 one of those alternative embodiments. In this embodiment that we just
3 looked at, it does arguably meet what is recited in claim element 1b, but it
4 does meet what is recited in Claim 5.

5 Next we look at the column 6 that the petition cited. So this, again,
6 gets to that alternative embodiment where the database is stored at the
7 location server. The searching is then done at the location server.

8 Again, that makes sense when you are trying to aggregate 60,000
9 fingerprints from many, many devices. You want your powerful server to
10 do all that processing to free up, you know, all of that space on the phones.
11 Because you don't want to be sending six megabytes' worth of data every
12 single time for the phone to process every time the phone wants to check
13 where am I.

14 JUDGE DANIELS: Mr. Tong, is it your, going back to the question I
15 first asked Petitioner's counsel, are we talking about this location server in
16 Spain being the remote server, is that a fair?

17 MR. TONG: Yes. Yes, Your Honor. So the problem with switching
18 to this alternative embodiment is, and again, this is the heart of the issue, it
19 does not meet the requirement of Claim 1b, which requires that the portable
20 RF communication device do all of these determining and comparing steps.

21 And in fact, it's our position that none of Spain, Nanda, Hunzinger,
22 nor Damarla teach this technique, this separation of remotely storing your
23 database, but locally, on your phone, performing the determining step.

24 JUDGE EASTHOM: Mr. Tong, isn't it sort of not commensurate
25 with your scope of your claim, though, to argue that a mobile unit wouldn't
26 store 60,000 fingerprint locations? Because you don't have any requirement

1 for how much data you're storing there. And also the reference itself says
2 you don't need to compare it to all 60,000.

3 MR. TONG: Right, there is no specific requirement in the claims as
4 to how big the database must be. There certainly are processing techniques
5 disclosed in Spain for how you can maybe first filter this list of 60,000
6 entries down a little bit.

7 But, again, you know, that type of processing would be done on the
8 server. There is nothing in Spain or these other references that in any way
9 combine to give you the combination of store your database on the server,
10 do your processing on the phone.

11 JUDGE EASTHOM: Thank you.

12 MR. TONG: So we've already gone over Slide 22. For Slide 14, this
13 discloses storing the – this is just getting at the frequency of your snapshots
14 and the resolution of the database. It has nothing to do with the server-
15 phone configuration.

16 If we go to Slide 23 – sorry, 24. This is just a citation to a part of the
17 claims. It's silent about server storage. And these are all the parts of Spain
18 that Petitioner has cited in its analysis of Claim 5. Sorry, in its analysis of
19 Claim 1 and the database.

20 Going to Slide 25, we'll look at what the petition said about Claim 3.
21 Here, again, the petition cites these two parts from column 6 of Spain,
22 which is you have your two different embodiments. There's no teaching of
23 the separation of storing the database on the server, do the process locally.

24 If we look at the petition's analysis of Claim 5, which is here on Slide
25 26, again, when we looked at the citation of Spain, it is again these passages

1 from column 6 that we looked at earlier where it has the two different
2 embodiments.

3 Slide 27 has one of these, lines 9 to 14, saying that both the databases
4 stored on the server and the searching is done on the server.

5 Slide 28 continues from that. And again, it says that the location
6 server has a database which executes a search for the closest matching
7 fingerprint.

8 JUDGE DANIELS: Mr. Tong, I appreciate you pointing those out. I
9 think that's what I saw when I read Petitioner's brief as well. I looked at
10 those and came to a similar conclusion as you're arguing here.

11 My question then becomes, you know, with respect to Dr. Almeroth's
12 testimony, do you have contradictory testimony? Can you point us to some
13 contradictory testimony that says a person of ordinary skill in the art would
14 not have considered?

15 At this point, I know you've made a good argument about the time
16 and explained the sort of characteristics of the technology in 2006, but do
17 you have testimony from your expert that contradicts Dr. Almeroth?

18 MR. TONG: Yes, I would direct the board to paragraphs 36-38 of Dr.
19 Cooklev's declaration of an IPR 00153. So if the determination process is
20 performed by the MU as recited in Claim 1b, then the issue is that you
21 haven't offloaded any of the processing.

22 And frankly it just doesn't make sense to, if you want to store a bunch
23 of fingerprints remotely, like why not keep that local? If you're going to do
24 the processing locally on your phone, why not just keep the database local in
25 the first place?

1 Why send it off to a server, where you have to spend your megabytes
2 uploading it, and then you have to spend your megabytes downloading it
3 later? Why not just keep it local if you're just going to keep a small data set?

4 On the other hand, if you know, you're trying to keep a big data set
5 and aggregate a bunch of data, why not have the server do the processing of
6 60,000 entries?

7 There is no embodiment or use case that achieves any benefit, unless -
8 - and what I'll get to is what's disclosed in the patent, which is that you have
9 privacy concerns. This spills into the --

10 JUDGE TSANG: Mr. Tong, what about Intel v. Pact, which says that
11 there doesn't have to be an improvement in a categorical sense, it just has to
12 be a suitable option?

13 MR. TONG: Yeah, it's still unclear what use case this would be
14 suitable for or what benefit can be achieved when you're doing any type of
15 this combination. Unless your concern is privacy. And the only prior art,
16 the only teaching of that is in the challenged patent itself.

17 What we see in this and in the next patent that we'll get at is when we
18 talk about the device-specific target locations, what's kind of envisioned is
19 that yes, the device can store some of its information up at a server, but those
20 fingerprints are marked as specific to a particular device. They can't be
21 accessible by other devices.

22 That would allow, for example, me as a user to upload the fingerprint
23 of my home. And it won't be accessible to others. So people don't know,
24 others don't know where exactly I live by looking at signal fingerprints.

1 That is the only use case where, okay, yeah, I'll upload some of the
2 data, but it's going to be marked specific to me. But I want to keep it
3 private.

4 So in this case, well, we have uploading the data to a server, but
5 performing the determining locally. What that allows is I will be the only
6 one to know whether or not I have come back home.

7 I will be the only one to know whether or not I am at the fingerprint
8 that matches my work office. If you have this processing being performed
9 on the server, then anyone could possibly, at least theoretically, invade your
10 privacy by tracking where you are by looking at all of those determinations
11 that are happening on the server.

12 So that's the embodiment that's being covered, that's the concern
13 that's being addressed. The only teaching of a system to address that
14 concern is in the patent itself, and it is the narrow combination of Claims 1
15 and 5 that are at issue.

16 Hopefully that makes sense and that kind of gets at the benefit, the
17 real benefit. You don't get a benefit if, in terms of storage space, if you're
18 just going to create your own database of fingerprints and then you're going
19 to send it to a server.

20 But then when you want to do a comparison, you bring it back. Like
21 at the end of the day, you still have that database back on your phone. We
22 haven't saved any space, that doesn't make sense. But I think these
23 generally get at our arguments for all of Claim 1.

24 Nanda is very much like Spain, in that it teaches you can either have
25 the mobile device do everything or you can have the server do everything. I

1 won't belabor this point because it seems like the board has a good grasp of
2 it.

3 I'm going to move to Claim 30. I think the, you know, our argument
4 is that if you take these teachings of Nanda and Spain, both of them, if you
5 look at the teaching where it's that the server does everything and you
6 combine them, this is taught in both Spain and Nanda, all you get is a
7 teaching that the server does everything, including the comparison.

8 This does not meet Claim 1b. The Petitioner needed to first show that
9 this alternative embodiment, not analyzed fully in the analysis of Claim 1,
10 would have been met when proceeding to Claim 5, which depends from
11 Claim 1.

12 I'd like to briefly address Damarla. We do not have any new
13 arguments for Damarla. It is the exact same argument. It is that the
14 Petitioner did not do the proper analysis.

15 They've started with this alternative embodiment that was not shown
16 to meet Claim 1. It is conflicting. And it in fact teaches the PHOSITA to
17 not do what is in Claim 1b.

18 If you take those teachings from Spain and Nanda, you still get a
19 system where the server is doing the comparison. That is what is being
20 taught.

21 For the same reasons, there is no benefits to making any type of
22 modification being argued by the Petitioner. If we look at these cited
23 passages, Exhibit 1028, 16, or in column 5, we looked at some of these
24 earlier.

1 These talked about how you would perhaps consider either the storage
2 space or the processing power of – to determine which device is going to do
3 the storage or the processing.

4 Let's just think about that for a minute. This is exactly the
5 combination that the Petitioner is arguing. If we have a large database, who
6 do you want to do the processing? Are you going to have a battery-powered
7 flip phone with a tiny processor, or are you going to have a powerful server
8 if you have a larger database? Obviously, it would be on the server.

9 If you have a large database, do you want to store that on the tiny
10 phone, or again, in a big server? Answer: big server. Server's going to do
11 everything.

12 If you have a tiny database, perhaps it's just your own unique
13 locations. This is the other common use case. Maybe I want to track the
14 signals at my work, the grocery store, and my house, maybe two or three
15 friends' houses.

16 There's a tiny database. I have no need to send it to a server. You
17 know, my phone is more than powerful enough to compare five fingerprints.

18 There's no need to do it in the server at all. That's consistent with the
19 original teaching of Spain that was analyzed for Claim 1.

20 So, again, the arguments, I'm turning to Slide 34, but the resulting
21 combination is you get what's taught by Spain and Nanda at the end of the
22 day, unless you have privacy concerns that people are going to be snooping
23 on the server to see where you are.

24 So we've skipped over this. I want to give the board a citation for
25 privacy. The word "privacy" is scattered throughout these. But one
26 example that the board can look at is, for example, column 3, lines 7 to 21.

1 The privacy problem is what, you know, what gets to the specific
2 embodiment of Claim 5.

3 So with this, I would like to jump to the next IPR, which is --

4 JUDGE DANIELS: Mr. Tong, before you do that, let me just ask a
5 question. First of all, it sounds like what your position is mainly that, with
6 respect to privacy, is that that is the main reason for doing what these
7 challenged patents are claiming, right. That it's not any of the reasoning or
8 suggestions. Whether it's in Damarla or whether Dr. Almeroth, whatever
9 reasoning he gave, am I correct?

10 MR. TONG: Not only that, Your Honor, but it is the only reason that
11 a PHOSITA might have been motivated to do this. All the other
12 motivations, they came up with that in hindsight.

13 For, again, for example, saving storage space. If your phone is
14 collecting these fingerprints and it sends it to the server, if you want your
15 phone to do the comparison, at some point the server is going to have to
16 send those fingerprints back to you.

17 You're not saving any space because the same fingerprints come
18 back. You're not -- it doesn't work like that. If you want the server to do
19 the processing, you want the server to do all the storage, yeah, that makes
20 sense when you have a large database. It just doesn't meet Claim 1b.

21 JUDGE DANIELS: Got it, okay, thank you. Also let me just note, to
22 the extent we've talked about Damarla here, I will tell both parties that with
23 respect to any of the objected-to slides and discussions, we're only going to
24 consider what's mainly in the briefs.

25 MR. TONG: Thank you, Your Honor. I will also agree with the
26 Petitioner that IPR -154 regarding the '698 patent is essentially the same

IPR2024-00153 (Patent 8,170,583 B2)
IPR2024-00154 (Patent 8,594,698 B2)
IPR2024-00155 (Patent 10,341,811 B2)

1 arguments. These should fall or rise together. So I'm not going to
2 separately argue this, but basically the same arguments are being made in
3 both cases.

4 So with that, I will turn to IPR -153. And I'm going to start with the
5 demonstrative slides. This Patent 8,170,583. Again, the claims here are
6 also focused on privacy. Turning to Slide 3, I would again remind the board
7 that this has an early September 2006 priority date, which is not challenged.

8 Again, we're back in the pre-iPhone era. This is the flip phone era.
9 Most phones did not have GPSs. So, you know, the technology that we're
10 looking at is really the state-of-the-art technology. There's no evidence of
11 what was, you know, common or really obvious to do. What we're looking
12 at is the state-of-the-art technology as of 2006

13 Again, this patent, on Slide 4 we see the cover figure. It shows the
14 signal radiuses that can be used for fingerprints. We've already covered
15 this, so I won't spend a lot of time on it.

16 On Slide 5, we have the claims. So what is different about these
17 claims is that -- sorry, I think I have the wrong set of slides up. Give me a
18 second.

19 My apologies, I had switched the wrong slide deck. We are supposed
20 to be looking at the '811 patent. Again, all of this information is essentially
21 the same.

22 So, with this, I'm going to jump to Slide 6.

23 JUDGE EASTHOM: Counsel, can I just have a clarifying question
24 about the last set of slides, the -153 case?

25 MR. TONG: Yes, Your Honor.

1 JUDGE EASTHOM: You were arguing about Claim 1 a little bit. I
2 didn't think you argued Claim 1 in your brief. Is that correct?

3 MR. TONG: Claim 1 is argued only to the extent that it is referenced
4 in Claim 5. The Petitioner had switched from one embodiment that it was
5 analyzing in Claim 1 to a conflicting embodiment in its analysis of Claim 5.

6 JUDGE EASTHOM: Okay, so you're just starting Claim 5 then.

7 MR. TONG: That's right.

8 JUDGE EASTHOM: Okay, thank you.

9 MR. TONG: Okay, so back to the correct set of slides. This is not
10 the correct set of slides. This is on my end, I apologize. Okay, so back to
11 the '811 patent. We are looking at Claims 1 and 14.

12 What we see in Claim 1 is the use of this device-specific target
13 location that is throughout the claims. And again, we have this set-up where
14 the claim begins with the portable RF communications device automatically
15 doing these steps, A-C.

16 So these are steps done by the mobile unit or a cellphone, including
17 causing a determination of whether the portable RF communication device is
18 within the proximity of a device-specific target location.

19 And here we notice the use of causing a determination. Not
20 determining, but doing something that causes determination. This is the type
21 of language that naturally flows into Claim 14, which is that the
22 determination of whether the portable RF communication device, that is
23 performed at a remote location from the portable RF communications
24 device.

25 So this gets at a different combination of a privacy-respecting but
26 workload-splitting embodiment. In this case, your server, you're at a

1 remote location, is doing the determination of where you are. That server is
2 going to have the database of fingerprints or to compare against.

3 But the way we still respect privacy is that the device-specific target
4 locations that are being compared by the server, they are marked as specific
5 to your device. These target locations are specific to your device. And
6 we'll get to that in a little bit.

7 In terms of the proposed grounds, as shown here on Slide 7, we're
8 really just looking at Ground 1, Claim 14. And 28 --

9 JUDGE EASTHOM: Just a quick question about Spain-1 and
10 Hunzinger. I was under the impression they were not restricted to teachings
11 about someone's home, but they were more public spaces.

12 Do you still have the privacy concern if that's true?

13 MR. TONG: Yes, the privacy concern would still apply because I, for
14 example, may not want people to know when I'm going to a public part or
15 when I'm going grocery shopping or when I'm going to go pick my kids up
16 from school. Even at those public places, Your Honor.

17 JUDGE EASTHOM: I see. Well, how do they -- I missed some.
18 Could you explain a little more how they would know where you were?

19 MR. TONG: Yes, Your Honor. So, if everything is being handled by
20 the server, all the fingerprints are stored on the server, all the comparisons
21 are being done on the server, it's theoretically possible that someone could
22 look at the processing going on in the server to figure out where I am and
23 track me.

24 JUDGE EASTHOM: Okay. Thank you.

25 MR. TONG: So again, we're just looking at Claims 14 and 28, which
26 14 is representative of in Ground 1.

1 Now, this falls arises with the claim construction of what device-
2 specific target location means, as shown here on Slide 8. The Petitioner
3 started with plain and ordinary meaning in their petition.

4 And we respectfully submit that a device-specific target location is
5 just a target location that is specific to a particular device, for example, a
6 particular cellphone.

7 The Patent Owner -- or, sorry, the Petitioner has attempted to change
8 this to refer to a user-selected location. In doing so, they've changed
9 several things.

10 First, they've changed "device" to "user." For example, I am a user.
11 If I log into my laptop, I'm still the same user. If I use my phone, I'm still
12 the same user. The Petitioner would have the Board interpret this claim to
13 somehow be personal to me as a user rather than to the device that is clearly
14 recited in the claim.

15 We respectfully submit that the plain and ordinary meaning of
16 "device" is not "user." And we would also submit that "specific" means
17 "specific to a device." It does not require a new, affirmative act of a
18 selection by a user.

19 Again, the way these databases are constructed is that a device has to
20 capture these fingerprints at some point. These fingerprints are, you know,
21 again, the nearby signals and possibly their IDs and strengths, of the wireless
22 infrastructure around you that you're matching against.

23 That's what's being stored in the server that you're comparing
24 against. It's not necessarily -- you know, not all of those are necessarily
25 selected if, for example, I wanted to just capture all of the signals between
26 my home and my work.

1 And finally, the Petitioner has read out the word “target.” That’s just
2 -- it’s gone. So the plain and ordinary meaning is a target location specific
3 to a particular device.

4 We argued this, as shown on Slide 9. We cited to the testimony of
5 Dr. Cooklev. And on page 10, we have his opinion from paragraph 34 of
6 his declaration. He says, “I saw no lexicography or disclaimer.” And
7 otherwise, he just gave it its plain and ordinary meaning, which is what we
8 argued.

9 Turning to Slide 11, here is an embodiment -- there are lots of
10 embodiments throughout the specification. The key with these is that, you
11 know, a lot of times they have a person who captures these fingerprints,
12 surrounding fingerprints, and later wants to know if they’re back at their
13 own, one of these fingerprints that they captured. It’s not just here, it’s
14 throughout the specification.

15 And again, there’s an overarching privacy concern where if you’re
16 going to store this on a database, you want to mark them as specific to your
17 device so that they can be accessed by you.

18 Turning to Slide 12, we look at the cited evidence from Spain and
19 Nanda. What is cited is this structure for tracking the fingerprints in Figure
20 9 of Spain. But in Slide 13, the Petitioner has never argued to modify this
21 by identifying which device this fingerprint is specific to.

22 Same thing with Nanda. As seen on Slide 14, the Petitioner cites to
23 this figure of Nanda. But the Petitioner never even argues, as shown on
24 Slide 15, to modify it to indicate that this is -- this location, this fingerprint is
25 specific to a particular ID.

1 In the Spain and Nanda bases, again, we saw earlier how Spain
2 actually taught the embodiment of trying to aggregate 60,000 different
3 fingerprints so that anybody could use them like a map or a repository.

4 You're not tracking which specific device can store it and is allowed
5 to access this. Those are all public.

6 JUDGE TSANG: Mr. Tong, I understand the point that you're trying
7 to make with the figures from Spain and Nanda.

8 But I'm having trouble wrapping my head around the idea that, you
9 know, even if you have a database that stores, you know, target locations for
10 many different devices, how is each, you know, entry in the database not a
11 location that's specific to a particular device?

12 MR. TONG: Yes, Your Honor. If we turn to Slide 14. This
13 particular entry, or if we turn to Slide 12, this particular entry, these are just
14 fingerprints in the database. They can be accessed by any device, especially,
15 you know, in this – in the embodiment disclosed by Spain, you've got
16 60,000 of these.

17 They've all been aggregated by different devices. You can send your
18 fingerprint and just ask the database, hey, which one am I closest to.

19 And you are comparing against a general list of fingerprints, none of
20 which are tagged as being specific to any original device or any private
21 device.

22 Now, these are accessible by anyone who wants to ping the database,
23 so you can use it like a map.

24 JUDGE TSANG: So your argument is that because any user can
25 access that specific location, it's no longer a device-specific target location.

1 MR. TONG: That's right, Your Honor. The device-specific
2 information is lost, it's not kept in the database. It was never stored there.

3 So if we compare that to Slide 13, this is the modification that should
4 have been proposed to be compliant with a device-specific identifier. It was
5 not proposed, it's not in the petition.

6 So the argument for Claim 14 rises and falls with the claim
7 construction of what is a device-specific target identifier. Does it have to be
8 specific to a device, or can it just be any fingerprint provided from any
9 device that can be accessed by any device?

10 Respectfully, there's no specificity, there's no relationship to any
11 particular device when you're just looking at this fingerprint in figure 9.

12 JUDGE DANIELS: But Mr. Tong, it would have originally been a
13 device-specific, it would have originally been device-specific because it was
14 captured by a device, right? It's just you're saying it loses it in the database?

15 MR. TONG: It did come from a specific device. That information is
16 never captured and stored into a database, Your Honor. And if we look at the
17 claim, you have to actually -- it's not that the data originated from a specific
18 device. When you get to this determination step, like these determination
19 steps in Claim 1b and 14, at the determination state you are using device-
20 specific target location information. So it has to be specific when you're
21 doing that determining step, not just that it was renewed from a device.

22 Thank you. So going now to Slide 16. So here we're looking at the
23 Petitioner, and we're looking at what they actually proposed.

24 They cited to -- this slide shows the petition's conclusion about Claim
25 14 and how to make a modification. It proposes aggregating the data as
26 taught by Spain to make a database with fingerprints from multiple mobile

1 devices. But this is very different from a privacy-focused approach, where it
2 says okay, yeah, put the data on the server, but keep it, you know, specific to
3 various target devices. Only those specific devices can access them.

4 So what Petitioner has proposed is, again, different from what's being
5 envisioned. These are complete opposite results. So whether or not the
6 petition succeeds, rises, or falls with claim construction.

7 For the last part of this, I want to rebut the arguments that Dr. Cooklev
8 could not provide a straightforward testimony. In deposition, he was asked
9 what is a device-specific target location. This starts on Slide 17.

10 He says it's a target location specific to a device. He was asked, "And
11 when you say that it is specific to a device, what do you mean?" Answer:
12 "I'm not sure how I can rephrase that. A target location specific to a
13 device."

14 Question: "Would you agree that a user-selected location is a device-
15 specific target location?"

16 Answer: "In paragraph 34 in my declaration I'm saying something
17 that's consistent with what I testified a moment ago, that the term 'device-
18 specific target location' has a plain, ordinary meaning. I think these words
19 are individually, the words of this claim are, or were at the time, clear to a
20 person of skill, and in combination they were clear."

21 This type of question and answering gets repeatedly asked. It's the
22 same question asked and answered multiple times later on in the deposition.

23 You saw that the Petitioner cited to pages 100 and onward. They
24 just, you know, waited a while and then kept asking the same question in
25 different ways. But the issue is that the Petitioner kept trying ask, okay, you

1 know, is this a user selected by a location? It can be. In some cases, yes. It
2 just -- it depends.

3 For example, if a user wants to create a fingerprint right here, at my
4 house, I want to make sure I have my house in this database, yeah, sure, the
5 user selected it. And in a particular embodiment that is respecting privacy.
6 It would be stored in the server marked as a target location specific to me.
7 But there could be examples where it's not. So it just depends on exactly
8 how it's being implemented.

9 A user location is not necessarily a device-specific location. An
10 example of that would be -- it is if I, as a user, I'm using a different device.
11 Or for example, you know, there's also this line of questioning where they
12 keep asking if a device-specific target location can be shared.

13 To be clear, like I could go to Starbucks, the local Starbucks, and
14 register the fingerprints, and that could be stored in a database as a device-
15 specific target location that is specific to my device. I, using my phone,
16 registered that Starbucks location. Now, my colleague could also go to that
17 same Starbucks, capture those same signals, and upload another entry for
18 that Starbucks location, another fingerprint. And that fingerprint would be
19 unique to, specific to his device.

20 So, there we have an example of where, you know, it's the same
21 location you've got, but the entries are specific to two different devices.
22 You've got two different entries.

23 JUDGE DANIELS: Mr. Tong, I just wanted to interrupt you for a
24 minute, apologies. I let you go a little bit long into your rebuttal. I want to
25 make sure you have a little bit of time left for your rebuttal. You're about
26 six or seven minutes into your rebuttal time.

1 As long as we're fair to both parties, I want to hear everything you
2 guys have to present to us today. But just wanted to let you know that
3 you're into it if you wanted to save some time for rebuttal.

4 MR. TONG: Thank you very much. I will briefly conclude, Your
5 Honor. Just in conclusion, there is no allegation or invalidity theory that
6 reads on the proper construction of Claims 14 and 28 using the proper
7 construction of device-specific target location.

8 The example of 60,000 entries being aggregated into a public
9 database, those are not device-specific fingerprints. And for those reasons,
10 Claims 14 and 28 are not invalid.

11 And I would like to reserve the rest of my time. Thank you.

12 JUDGE DANIELS: Great, thank you, Mr. Tong. All right, you're
13 about seven minutes in, so you have about three minutes for rebuttal. But
14 let's see how, you know, let's see how the rebuttal goes here and we can,
15 again, the panel wants to hear, as long we're fair to both parties, we want to
16 hear everything you have to say.

17 So let's do this. All right, Mr. Zeilberger, you're up for your rebuttal,
18 and you've got 20 minutes or so, a little extra maybe.

19 MR. ZEILBERGER: Thank you, Your Honor. Patent Owner's
20 arguments are inconsistent with the record and I'd like to walk through some
21 of that. And I'll start with the -153 and -154 proceedings. And I'll
22 specifically start with the claim construction issue relating to the
23 determining limitation.

24 As I talked about before, we think that issue is moot in view of how
25 we framed our petition. But I think it is an important issue to address. And
26 specifically, I'd like to share the exhibit. I'm sharing on the screen Exhibit

1 1001. It's the '583 patent. And it's the column that we spent some time,
2 both in my time and in the Patent Owner's time, talking about.

3 And Patent Owner said that the claims are really directed to the
4 beginning of this highlighted portion where it says that where privacy is of
5 concern, then all four steps would be performed by a single mobile device.

6 Well, that's not consistent with Claim 5, because Claim 5 requires the
7 storing at a minimum to be performed at a remote server. So it's not the
8 mobile device that's storing, it's the remote server that's storing.

9 And the next sentence doesn't help Patent Owner, because the next
10 sentence is talking about performing each of the steps, including the
11 determining, at a device that's different than the mobile device.

12 So there's simply no support for this argument that Patent Owner has
13 made, as if this portion of the specification provides support for their
14 construction.

15 In addition, I think even more critically, Patent Owner has argued that
16 the only reason that one would do what Patent Owner is saying is because of
17 this privacy concern notion that they say is essentially the crux of their
18 invention.

19 They say that, well, nobody would have thought to have the
20 arrangement that's in Claims 1 and 5 of the '583 patent because, according to
21 Patent Owner, at least according to Patent Owner today, it's this privacy idea
22 that the inventors came up with.

23 And that's directly inconsistent with what the inventor said in the
24 specification. In particular, if we looked at column 11, lines 62 onto column
25 12, line 1, it says, Storage may be on the device per se or transferred to a
26 remote storage facility.

1 Privacy for a cellular telephone user preferred that the data be stored
2 on the cellular telephone unit. However, for other types of device or where
3 privacy is not important, e.g., monitoring luggage or logistics of components
4 in a warehouse for police in the field or the likes, the data may be offloaded.

5 So Claim 5 is actually directly in this worldview. And we don't think
6 it's supported in the specification, the entire requirements of it, at least how
7 Patent Owner is interpreting it. But it's directly in the scenario where the
8 patent is saying that this is where we're not concerned about privacy, where
9 you're offloading to a database that's not where privacy is a concern. It's
10 only where the mobile device is literally doing everything.

11 And when I say everything, it's not everything in Claim 1.
12 Everything in the whole process from start to finish of storing, capturing,
13 comparing, all of that, it's only in that scenario where the patent is saying
14 that's where privacy is involved.

15 So this directly inconsistent with Patent Owner's argument that the
16 only reason you would do this is for privacy.

17 JUDGE DANIELS: So Mr. Zeilberger, what you're saying is it
18 makes sense that they might argue this for Claim 1, but not so much for
19 Claim 5.

20 MR. ZEILBERGER: Well, I would say, Your Honor, Claim 1 itself
21 doesn't limit where -- even if you accept Patent Owner's argument about the
22 determination step, Claim 1 doesn't speak to where the storage happens.
23 And so its breadth also covers this scenario, the scenario in Claim 5, where
24 storage happens elsewhere.

25 And so even for Claim 1, while privacy is one reason why you might
26 arrange -- why you might come up with an arrangement that meets Claim 1,

1 the specification is still saying that there are embodiments that would meet
2 Claim 1 where privacy is not a concern.

3 Now, in addition, in response to one of Your Honor's questions,
4 Patent Owner said that Dr. Cooklev in his declaration provided support for
5 the notion that a person of ordinary skill in the art would not want to store
6 information in a remote database but then perform the determination at the
7 mobile device.

8 And I think it's critical to actually look at what Dr. Cooklev did. And
9 I've pulled up Exhibit 2003 in the -153 proceeding. And Patent Owner
10 identified today paragraphs 36-38. And paragraphs 36, yeah, it starts by
11 identifying a couple of quotations from Spain and Nanda.

12 Then he says, he accuses Dr. Almeroth of providing no motivation for
13 having this arrangement where you store on the database and perform the
14 comparison of the mobile device. But he actually doesn't cite a single piece
15 of evidence.

16 It's their naked testimony that that's completely unsupported by
17 anything, just his say-so. He has another quote from Nanda, and then in
18 paragraph 37 onwards, all the way through paragraph 38, there's not a single
19 citation to a single thing he says.

20 He doesn't address Damarla's teachings, which have the state of the
21 art. He doesn't address anything. He doesn't have counter evidence.
22 There's nothing in those paragraphs. And then after paragraph 38, his
23 declaration concludes.

24 In addition, Patent Owner today said that, even taking Damarla's
25 teachings into account, you still get a system where the server is performing

1 the comparison. That again is directly inconsistent with what Damarla itself
2 teaches.

3 I've pulled out now Exhibit 1028, which is Damarla. In column 16,
4 starting at line 57, Damarla specifically says that in its embodiment where
5 fingerprints are being sent to the server, fingerprint matching could be
6 performed by the mobile device, the MU, the mobile unit, or the
7 infrastructure.

8 And as I talked about in my opening presentation, Damarla even gives
9 you the considerations that a person of ordinary skill in the art would have
10 had when deciding where to perform that determination.

11 And so even if you were to accept Patent Owner's idea, which we
12 think is flat wrong, that privacy is the reason why the inventors came up
13 with this idea, the claims don't say anything about privacy. And you can
14 have different motivations for arriving at a claimed invention, and that does
15 not mean that a claim is any less obvious.

16 Here, Damarla provides the motivations why you would want to
17 potentially perform the comparison at the mobile device, even where you
18 store the fingerprints at the remote server. And it provides reasons why you
19 have that remote server in the first place, as I talked about before, which are
20 the fact that you would want to receive fingerprints from other devices,
21 given the changing radio frequency environment that exists in the world.

22 Where today there might be no skyscraper in front of me, whereas a
23 month from now maybe a skyscraper will be erected and then there'll be a
24 different signal strength measurements that'll be detected.

25 And Damarla recognizes that that sort of scenario could happen. And
26 so you would want to receive fingerprints from different devices, have them

1 sent to the server, and then potentially send them back to the mobile devices
2 to perform the comparisons at the devices.

3 In addition, turning to the -155 proceeding, Patent Owner said that the
4 invention there is essentially, and I'm trying to record this as accurately as
5 possible, that it's covering a scenario where it is privacy-respecting but
6 workload-splitting.

7 Again, the specification says nothing of the sort. The analogous
8 portion of the one I read from earlier from the '583 patent specifically again
9 says that scenarios where you are performing and offloading storage
10 remotely are precisely the scenarios where you don't care about privacy.

11 It's scenarios where the user doesn't worry so much about privacy,
12 and so instead of doing everything at the device, you can offload it to a
13 server, which is directly consistent with Spain-1. And Nanda's teachings
14 said you can perform the fingerprint comparisons that they teach remotely as
15 well.

16 In addition, Patent Owner said during its time that if everything
17 happens at the server, then it's theoretically possible to track the server.
18 Excuse me, to track the user.

19 The specification says nothing about that, and the claims say nothing
20 about that. The claims don't say you have to develop some sort of system
21 where the user can't be tracked. That's not even close.

22 The claims just say that you performed the device-specific target
23 location determination at a remote location. That's all they say. They don't
24 say you have to somehow have firewalls or some sort of security to block
25 that information.

1 In addition, Patent Owner argued today that in the specification or in
2 the patent, you'll be marking entries in the database as specific to the mobile
3 device. The specification again doesn't say that at all. There's nothing the
4 specification about somehow marking entries into database as device-
5 specific.

6 The claims don't say that and the specification doesn't say that. It's a
7 hindsight argument that Patent Owner has come up with to justify their
8 claims, but it's simply not supported.

9 In addition, there was no response today from Patent Owner to our
10 argument in the petition that the claims cover scenarios where you don't
11 even have multiple mobile devices. The claims cover scenarios where
12 you're offloading for a single device.

13 And our expert provided testimony on the reasons why you'd still
14 want to offload to the server to save the mobile device from having to
15 expend resources to build the database. Patent Owner simply didn't have a
16 response to that.

17 In addition, there was no response today from Patent Owner in terms
18 of the meaning of device-specific target location on its prosecution history
19 statements, which we think are dispositive of the meaning of device-specific
20 target location.

21 I'll also note it seems that Patent Owner has foregone its argument
22 that there's a distinction. It's no longer arguing that a device-specific target
23 location somehow is not applicable to numerous devices.

24 I'm not exactly sure what they're giving up there, but I notice that
25 Patent Owner is no longer emphasizing that point.

1 And with that, Your Honors, unless you have any questions, I'll return
2 the rest of my time to the Board.

3 JUDGE DANIELS: Not hearing any questions, Mr. Zeilberger, let
4 me ask you one question. I want to -- that was a pretty good rebuttal. I
5 would like to make sure Mr. Tong has enough time to rebut as well. He ran
6 a little bit over because of my lack of attention to the timer. Would you
7 mind if we gave him an extra two or three minutes so that he has five
8 minutes to respond?

9 MR. ZEILBERGER: We have no objection to Patent Owner being
10 given some extra time to make a rebuttal.

11 JUDGE DANIELS: Okay, great, thank you.

12 Mr. Tong, I'll give you a full five minutes to respond in your rebuttal.

13 MR. TONG: Thank you, Your Honor. Am I coming through okay?

14 JUDGE DANIELS: We can hear you.

15 MR. TONG: Okay. I am showing the '583 patent here in column 24,
16 lines 3 through 10. The first issue that I would like to address is this notion
17 that the privacy disclosures are somehow conflicting from what the claims
18 teach. That's not the case.

19 Here in column 24, line 3, it begins, "While privacy-wise it is
20 preferable to measure signals, record them, and compare them, all
21 respectively on a portable device per se, there are many cultures that are less
22 concerned with personal privacy issues. In such circumstances, any or all of
23 the steps may be performed from the perspective of the service area antennas
24 coordinated by server communications there between."

1 So this is addressing and disclosing the fact that you can have any
2 combination of these steps being done by a server, depending on the degree
3 of privacy that you want.

4 The next issue that I would like to address is the argument about
5 Damarla and the, you know, this need to offload processing to the mobile
6 device.

7 That just sounds completely concocted in hindsight because if you
8 have a powerful server plugged into a wall, you're not going to want to
9 offload any processing that needs to be done into a small, tiny weak
10 processor on a mobile handheld device running off a battery. That's not
11 something -- that's not the way a POSITA would think unless they're acting
12 in hindsight and trying to read on the claims.

13 With that, I am happy to answer any questions the board has about the
14 rebuttal points that Petitioner raised.

15 JUDGE TSANG: I did have one question as it relates to the -155 IPR.
16 So Mr. Zeilberger just raised the point that in the spec of the '811 patent,
17 there's nothing about the remote database, you know, storing device
18 information along with the location info.

19 And so, you know, I'm wondering where the support for your
20 argument is that, you know, the remote databases of Spain-1 and Nanda
21 can't have a device-specific target location because you know, they don't
22 store that information. Can you direct me to anywhere in the '811 patent?

23 MR. TONG: There's no explicit passage of the '811 patent that is
24 crystal clear, but it is something that results from the repeated disclosures of,
25 for example, someone leaving their house and going back to their house,

1 wanting to know that they're at the own house, in combination with the
2 privacy concerns.

3 And all of that is, as part of this overall disclosure that they are the
4 ones who collected that fingerprint, they're the ones who sent it to the
5 server. So it is their specific location, and that's what's recited in the claims.

6 Unfortunately, there's not like one concise paragraph that I could point you
7 to, Your Honor.

8 Your Honor, I saw your mouth moving but I did not hear any audio.

9 JUDGE DANIELS: Yeah, I was just looking to see if my – just
10 looking to see if my colleagues had any more questions.

11 Does that conclude your presentation, Mr. Tong?

12 MR. TONG: That concludes my presentation, Your Honor, thank you
13 very much.

14 JUDGE DANIELS: All right, thank you. So, don't go anywhere, I
15 just want to give our court reporter, Ms. Munoz, a chance to ask you after
16 we submit these cases, to ask if there's any clarifications.

17 And let me just say that those were great presentations. I really
18 appreciate your time, I can see the effort that went into it, we can see the
19 effort that went into your briefing, focused and excellent arguments. We
20 have a lot of think about, very helpful.

21 And thank you to our great hearing staff who puts all this together so
22 that we can have such great hearings. Thank you all.

23 The cases are submitted.

24 (Whereupon, the above-entitled matter went off the record at 3:04
25 p.m.)

IPR2024-00153 (Patent 8,170,583 B2)
IPR2024-00154 (Patent 8,594,698 B2)
IPR2024-00155 (Patent 10,341,811 B2)

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