

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

REOLINK INNOVATION INC.
and
SHENZHEN REOLINK TECHNOLOGY CO., LTD.,
Petitioner
v.
THROUGHTTEK CO., LTD.,
Patent Owner.

IPR2024-01193
Patent 10,602,448

Record of Oral Hearing
Held: November 3, 2025

Before MICHAEL J. STRAUSS, DAVID C. McKONE, and
SHEILA F. McSHANE, Administrative Patent Judges.

APPEARANCES:

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The above-entitled matter came on for hearing Monday, November 3, 2025, commencing at 9:00 a.m., at the U.S. Patent and Trademark Office, 300 River Place Drive, Detroit, Michigan.

P-R-O-C-E-E-D-I-N-G-S

9:23 a.m.

JUDGE MCKONE: Good morning, and welcome. We are here for a final hearing of the *Inter Partes* Review, IPR 2024-01193, captioned *Reolink v. Throughtek*. Let me introduce the panel. I am Judge McKone and with me on the screens are Judges Strauss and McShane.

Now, let me get the parties' appearances. Who do we have appearing on behalf of Petitioner?

MR. HAWKINS: Good morning, Your Honor. This is Michael Hawkins from Fish & Richardson, on behalf of Petitioner.

JUDGE MCKONE: And who do we have on behalf of Patent Owner?

MR. KING: Good morning, Your Honor. This is Justin King from WPAT.

JUDGE MCKONE: We set forth a procedure for today's hearing in our oral argument order. According to the order, each party will have 45 minutes of total time to present its arguments. Petitioner has the burden of proof and will go first. Patent Owner will then present opposition arguments. Then, to the extent Petitioner has reserved time, Petitioner will present arguments in rebuttal. Thereafter, to the extent Patent Owner has reserved surrebuttal time, Patent Owner may present a short surrebuttal.

As we noted in the hearing order, although we are all appearing from different locations, and it doesn't appear that there any members of the public in this room, members of the public could appear via the public line.

So I will ask Petitioner, can you confirm that you do not intend to present any confidential information?

MR. HAWKINS: I confirm that's true.

1 JUDGE MCKONE: And Patent Owner, can you confirm that you
2 don't intend to present any confidential information?

3 MR. KING: No, no information confidential. Thank you.

4 JUDGE MCKONE: Okay. For clarity of the transcript and since we
5 have judges that are appearing from remote locations, when you refer to an
6 exhibit on the screen, or when you're presenting arguments, please identify
7 the exhibit number and page number that you're referring to, and when you
8 refer to demonstrative slides, please identify the slide number.

9 At this time, Patent Owner, do you have any questions?

10 MR. KING: No, Your Honor.

11 JUDGE MCKONE: Petitioner, do you have any questions?

12 MR. HAWKINS: No, Your Honor.

13 JUDGE MCKONE: Petitioner, would you like to reserve any time for
14 rebuttal?

15 MR. HAWKINS: I'll reserve 10 minutes for rebuttal, please.

16 JUDGE MCKONE: Okay. And okay. Also, I'll have to give you a
17 note. Please advise Counsel to turn on your desk mics when you're speaking
18 from your desk. A little late for that now, but in the future, please do so.

19 Counsel, you can proceed whenever you are ready.

20 MR. HAWKINS: Good morning, Your Honors. May it please the
21 Board, I'd like to turn to Slide 2 of Petitioner's demonstratives. There, you'll
22 see two interesting parts of the '448 Patent on the face of the patent, and
23 although they don't seem related, they're quite related. The first in the top
24 right of Slide 2 is the list of references cited during examination. And well,
25 every one of those has an asterisk by it. In other words, the examiner cited
26 all of these references on his own. Patent Owner elected to never submit any
27 IDS at all.

1 On the left, or on the lower right side of Slide 2, you'll see a zoomed-
2 in version of the foreign priority data. So the Patent Owner filed an initial
3 foreign application first before going into the U.S. That foreign patent
4 turned into -- or foreign application turned into a foreign patent, and there
5 was examination. And if you look at what was cited in that foreign patent, it
6 is the same patent, the patent to Mr. Zhang, the Chinese counterpart of the
7 primary reference here in Gound 1. This comes to light when you look at
8 Slide 3.

9 On Slide 3, you'll notice at the very bottom, the Patent Owner, the first
10 time we raised the Zhang reference, the Zhang reference that Patent Owner
11 knew about prior to the issuance of the '448 patent but elected to never
12 submit an IDS, Patent Owner conceded Claim 19 is indeed anticipated by
13 Zhang.

14 Now, there are two other independent claims at issue here. There's
15 Claim 1 and Claim 11, and we have one common claim element highlighted
16 there that relates to the Zhang Ground 1. But there are also two other
17 grounds that are at issue where this claim element doesn't come into play at
18 all. I'll address those in turn. If you turn with me, please, to Slide 4, you
19 will see the list of grounds.

20 The first ground is Ground 1, which is anticipation by Zhang. Again,
21 the Chinese counterpart of Zhang was indeed cited to the Patent Owner in its
22 foreign priority application, and Patent Owner elected to never cite it to the
23 examiner here.

24 Then there is a 103 obviousness ground, which is Zhang in view of
25 Zill. That obviousness ground addresses the exact claim element that Patent
26 Owner alleges to be missing from Ground 1 in Zhang, so they are quite
27 related grounds.

1 And then, finally, there's a third ground: Liu, in view of Zhang. All
2 three of these grounds were supported by expert testimony of Mr. Kardashov
3 in a first declaration and then in a reply declaration. Throughout the entirety
4 of this proceeding, Patent Owner elected to never cross-examine him at all
5 and elected to never present its own testimony in any form.

6 The issues that are disputed are shown on Slide 5 of Petitioner's
7 demonstratives. There you'll see that Ground 1, it relates to that Claim
8 Element 1c: the connection server generating the apparatus wakeup packet.

9 Then, when you get to the obviousness grounds, Ground 2 and
10 Ground 3, there is no dispute that, in fact, those resulting combinations do
11 achieve all claim elements. The only elements relate to whether there's a
12 motivation to combine.

13 There is a fourth issue related to a dependent claim, where the Patent
14 Owner presented a narrow construction for the two-word phrase feature flag.

15 And then, finally, there's a fifth issue in a way, where the Patent
16 Owner's response raised some claim constructions but then never actually
17 raised any Patent Owner arguments or patentability arguments based upon
18 those. So we call those the non-dispositive claim constructions, which were
19 available for the rest here today if the questions arise.

20 I will go into Ground 1 first because it plays into Ground 2 quite well.

21 You'll see on Slide 7 of Petitioner's demonstratives the claim language
22 at issue. Element 1c requires the connection server generating an apparatus
23 wakeup packet. And we've highlighted two words there, because the Patent
24 Owner's response focuses on the word generating. But the Patent Owner's
25 response notably actually neglects the word packet; in fact, it changes the
26 word packet.

1 So, what does the Petition cite here? On Slide 7, I apologize for the
2 small text, but there is an image of Zhang's Figure 4, and there's some color
3 annotations that are in our Petition. And what is happening there is, on the
4 lower right side of Zhang's Figure 4, there is a requesting computer device,
5 and then it sends up to the server what we call an incoming wakeup
6 message. Zhang's server will then do something with that message, and it
7 will output an outgoing wakeup message to the sleeping computer that is on
8 the lower left side of Figure 4.

9 Now, what Zhang's server does, we provided two different reasons as
10 to why we know Zhang's server generates an apparatus wakeup packet. The
11 first relates to Paragraph 66 of Zhang; the second reason relates to Paragraph
12 78 through 82.

13 If you go to Slide 8, there you'll see what we've mentioned for
14 Paragraph 66. In particular, Paragraph 66 of Zhang says that the server may
15 modify the wakeup message before sending it to the first computer system.
16 In other words, it receives that incoming message, and it will then modify it,
17 and it will send an outgoing wakeup message to that sleeping device. That's
18 about as express as can be.

19 Mr. Kardashov provided expert testimony on this. We provide one
20 paragraph here, Paragraph 59 of Exhibit 1003, that's shown on Slide 8, but in
21 fact, there's multiple paragraphs of text here. And he explains exactly what
22 a person of skill in the art would understand from this teaching, quoting
23 Zhang and also saying that inevitably, that this results in the generation of a
24 new outgoing wakeup message, the claimed apparatus wakeup packet,
25 because the outgoing wakeup message includes information not present in
26 the incoming wakeup message.

1 Next is -- oh, I'm sorry. Oh, so next, if you -- this is the first reason.
2 This is Paragraph 66. In the Petition, we also said, by the way, there's a
3 second reason. Even if you don't apply this modifying option that Zhang
4 has, if Zhang just merely forwards it, or modifies it, in either case, on Slide
5 9, you'll see that Mr. Kardashov referred to Paragraphs 78 through 82, and
6 said even in that instance, whether it's forwarding or modifying, it's going to
7 take that message and it has to construct a new packet. And in fact, Zhang
8 even expressly says how and shows an image of why, basically, at a high
9 level. And at a minimum, that header needs to be adjusted or formed in a
10 new packet, so there's a new source and a new destination, new IP addresses.

11 JUDGE MCKONE: So, some of the dispute, the Petitioner says that
12 the addition of the header essentially results in this -- it's generating a new
13 packet, and the Patent Owner disputes that adding a header to this is
14 generating a new packet, then simply -- then argues it is simply forwarding
15 it. Is that the gist of the dispute?

16 MR. HAWKINS: Very close. They've argued; on the next slide,
17 Slide 10, they argue that it's not generating an apparatus wakeup message.
18 So the center of Slide 10 shows the Patent Owner's response.

19 This is Page 6 of the Patent Owner's Response. You could actually
20 look right below where we're quoting here on Page 6 of the Patent Owner's
21 Response, and you can actually see the bolded header. Zhang doesn't teach
22 the claimed apparatus wakeup message. And then on Page 7, same header:
23 Zhang doesn't teach the claimed apparatus wakeup message. They're
24 demanding that there must be an entirely novel message generated at the
25 server, not a packet, but the claim language requires a packet.

26 Our point is that in a modifying construct, it is indeed generating an
27 entire new -- or it's generating a new message. Whatever it was, it wasn't the

1 message that came in. And even if it's not modifying, if it's just merely
2 forwarding, it's still generating a packet, and that is what the claim language
3 requires.

4 And the Patent Owner's Response attempted -- look at the center of
5 Slide 10, this is a quote: the claimed, quote, apparatus wakeup message. I
6 encourage you to go find that three-word phrase in Claim 1 or Element 1c.
7 And so, that is where there is a problem here. The Patent Owner is
8 demanding a narrower view of apparatus wakeup packet without saying it
9 out loud, perhaps might be the better way to think about it.

10 And what's worse is we provided this testimony evidence from
11 Mr. Kardashov. I mean, the paragraph of text explaining Paragraph 66, and
12 then also, the other -- the second reason is Paragraph 78, 82 of Zhang. They
13 never cross-examined him. And if you look at their arguments in the Patent
14 Owner's Response, it just -- almost every sentence ends with a period and no
15 citation at all. It's just all attorney argument. And so, at the bottom of Slide
16 10, you'll see the case law on this, which goes to the weight of the evidence
17 here.

18 Now, there is something else that is worthy of noting. On Slide 11,
19 you'll see that Mr. Kardashov then read these arguments and noted several
20 flaws with this. Two of them, paragraphs 19 and 20 of this reply
21 declaration, are quoted here. There's actually multiple pages of testimony
22 here, but again, he's reiterating on the left side of Slide 11 that when you
23 modify, that you -- of course it's going to be a new message because it's
24 much more than merely forwarding it. If it was merely forwarding it, they
25 wouldn't even have the sentence in Paragraph 66 at all.

26 And then, in Paragraph 20, he actually points out the flaw in Patent
27 Owner's argument. It's the bottom right side of Slide 11, the highlighted

1 part, where he says, again, Claim Elements 1c and 11c merely describe that
2 the apparatus wakeup packet is generated, not an entirely new message.
3 This is his reply testimony. So they had another chance to cross-examine
4 him, and they elected not to.

5 So, unless there's any questions on this issue, I want to chime in on
6 Ground 2, which is somewhat related to the same claim element.

7 So I'm turning to Slide 13 of Petitioner's demonstratives. So, here,
8 this obviousness ground, the Petition says even if you think the primary
9 reference to Zhang doesn't disclose Element 1c, it doesn't -- that the server is
10 not generating the apparatus wakeup packet, Zill suggests, and in the
11 resulting combination of Zhang, in view of Zill, that Claim Element 1c
12 would be achieved. And that's what's shown in the upper right-hand side of
13 Slide 13 from our Petition. You would employ Zill's suggestion for
14 generating apparatus wakeup packets at the server to achieve known
15 benefits.

16 And then, on the lower left side of Slide 13, you'll see that Mr.
17 Kardashov presented four distinct reasons, different motivations to combine
18 to achieve this Zhang and Zill combination. Each -- any one of this four, by
19 the way, is sufficient to be a motivation to combine on its own for this
20 ground.

21 And the Patent Owner reads this testimony and decides to not cross-
22 examine him at all and decides to not present any of his own testimony at
23 all. Instead, if you turn with me to Slide 14, you will see that the Patent
24 Owner says that when you take Mr. Kardashov's testimony, and quote, when
25 subject to scrutiny, end quote, it's not compelling.

26 But again, we invited Mr. Kardashov's testimony to be subject to
27 scrutiny. We offered him for deposition, and they elected to not scrutinize

1 him. And so, I just believe that this sentence on Patent Owner's response on
2 Slide 14 is just not accurate to the proceeding that happened here.

3 I will also note that, again, this is pure, bald, attorney argument
4 against -- unsupported attorney argument is not evidence. It doesn't
5 compare. It doesn't have weight in this case. And Mr. Kardashov's
6 testimony was indeed reasonable, quoting and relying upon Zhang and Zill
7 and multiple witnesses, and explained why a person of skill in the art would
8 have, in fact, understood the situation in the combination.

9 Beyond the one-sided weight of the evidence here for the motivation
10 to combine, there's legal error. If you turn to Slide 15, we took several
11 snippets of the Patent Owner's response, but for the most part -- you can find
12 this throughout about five or ten pages of the Patent Owner's response -- the
13 Patent Owner is demanding usually one of three things. First, the Patent
14 Owner is demanding that the motivation to combine must be found within
15 the four corners of the prior art document itself.

16 The next thing that you'll see often is that if you are going to apply
17 Zill's suggestion for a feature, you must -- you must incorporate all of Zill's
18 teaching, and that's bodily incorporation. And then there's this kind of this
19 overly rigid test that Zill has to somehow -- the secondary reference has to
20 provide the solution or explain the problem. And this is just the exact type
21 of rigid test that was overturned in *KSR*.

22 And if you turn to Slide 16, we -- on the left side of Slide 16, this is us
23 block-quoting case law. We spent a meaningful part of our word limit
24 block-quoting the recent *Intel* decision here, that is shown on the left side of
25 Slide 16. And the reason we did that is because if you look at the sequence
26 of paragraphs explaining the law in *Intel*, you could almost go through one
27 paragraph at a time and say, and if you hold that up as a lens, looking at

1 Patent Owner's response, in almost every instance, Patent Owner's lack of
2 motivation to combine arguments are somehow running contrary to the *Intel*
3 precedent.

4 There is one other thing worth noting. On slide 16, on the right side,
5 Mr. Kardashov provided, I believe, 12 paragraphs of testimony in reply to
6 these legally erroneous motivation to combine arguments from Patent
7 Owner, explaining that, in fact, there are instances where they're saying,
8 well, you have to look; if it's not in Zill, then it's not there.

9 And Mr. Kardashov said, in fact, it is there; that's what I cited in my
10 original testimony. This is one example that's shown on the right side of
11 Slide 16, where he's quoting from Zill exactly, saying look at Zill's
12 Paragraph 0111; it's telling me that I know that I can facilitate these legacy
13 remote hosts. So that's -- that relates to the first motivation to combine in his
14 argument. Then, if you go on to subsequent paragraphs, you'll see the same
15 thing happening there.

16 So if there's no questions about Ground 2, I'd like to turn to Ground 3,
17 which is the Liu in view of Zhang grounds.

18 Great. So, turning to Slide 18, please, this Ground 3 is different from
19 Ground 2 because what's being modified in the prior reference is not the
20 same. There's no question that Liu does, in fact, as the primary reference,
21 disclose the server generating the apparatus wakeup packet. That's shown
22 on the lower left side of Slide 18, the highlighted part there, the client, which
23 is on the right side of this image, past the requested device, and it sends
24 what's called a wakeup instruction. And then, at the server, the server
25 generates and sends the wakeup packet to the IP camera.

26 This is highly similar model to the preferred embodiment of the '448
27 Patent itself. The only thing that is -- that appears in Liu is that when Liu's

1 client device sends that apparatus wakeup instruction, the initial instruction,
2 Liu simply says that the user would type in the communication address and
3 port number.

4 And so, we're not modifying where packets are generated. We're not
5 modifying what's happening. We're simply saying, you know what? By
6 2016, it's not as convenient to type in an address and a port number, to
7 remember that, and it's not very secure to have those messages floating
8 around on a bunch of devices. Why not have a user-selected ID, with mics,
9 ID camera, home camera, right? And a user-selected password -- I type in a
10 password; that is a secure initial wakeup instruction that's communicated.
11 There's no part of my device on the requesting device, and there's no part of
12 the messages going up to the server that include the port number and
13 communication address, provides security, provides user convenience. That
14 is Ground 3, simply why not add an ID and password.

15 And Mr. Kardashov provided three different reasons -- this is shown
16 on Slide 19 -- where the first reason related to improved security, of course.
17 The second reason related, for example, to just improve the user
18 convenience, not having to remember your port number and communication
19 address for all your cameras.

20 And then, on Slide 20, you'll see something quite interesting. This is
21 the Patent Owner's response, and the Patent Owner actually concedes that
22 the motivation to combine is accurate. It is advantageous to incorporate
23 additional security measures. But what Patent Owner says is, if you are
24 going to take that suggestion from Zhang, which says at the initial request,
25 why not use an ID and a password, well, now you have to include all of
26 Zhang's teaching, too. You have to incorporate bodily the entirety of Zhang
27 or no, you can't have any of it.

1 Now, of course, of course that is a classic legal error, but what's
2 worse, if you look on Slide 20, all of Patent Owner's arguments are
3 supported by no evidence at all, not citing to Zhang, not citing to Liu, not
4 citing to any testimony, not citing to any cross-examination of
5 Mr. Kardashov, nothing. It's just unsworn attorney argument, which is not
6 evidence at all.

7 Slide 21 shows the same flaw. This relates to the second motivation
8 to combine, where we talked about the user convenience. And again, you
9 have the Patent Owner's response on Slide 21. Yeah, that will improve the
10 experience; while the use of a human-readable client ID may improve the
11 experience -- and then there's an argument that's based upon a legal error.
12 So there's not even necessarily a dispute here about is it a known benefit.
13 There's just simply a fight for do you bodily incorporate the secondary
14 reference, or is it the best-known solution versus a suitable known
15 improvement?

16 And so, that is the argument for Ground 3. It's perhaps the most
17 apparent legal error when you read through the POR, and it's perhaps the
18 most one-sided evidence when it comes to motivation to combine.

19 I will note that, again, on Slide 22, that there is additional testimony in
20 reply from Mr. Kardashov, where he addressed the specific arguments about,
21 oh, this is lacking from Zhang, where you have to have the entire bodily
22 incorporation, or that a person of skill in the art wouldn't know how to do
23 this. If I had a user -- if I had an ID and password as Zhang suggested, that
24 we have no idea how that would work in Liu, he says of course you do.
25 Zhang tells you that, you know, you get the password, and you authenticate
26 it at the server.

1 And that's exactly what -- he actually says I pointed this out in my
2 first declaration, and he essentially repeats it in his reply declaration. That's
3 the right side of Slide 22, Paragraph 49. That's really all paragraphs 46 to 52
4 of that reply declaration.

5 Again, this testimony was presented. We made him available for
6 cross-examination, and they said, no, thank you; we do not need to apply
7 any scrutiny to Mr. Kardashov here.

8 Unless there is any questions about Ground 3, I'd like to move on to
9 Ground 4, which is the narrow construction of feature flag.

10 Great. So, on Slide 24, you'll see the language of Claim 8. There's a
11 couple other dependent claims that also include this same language. But
12 what's happening here for this dependent claim is that there is a sleep login
13 packet that's going to the sleeping device, and it has a feature flag. And
14 that's going to tell the server that the sleeping device is in a sleep state. And
15 so, it's just that's it, a two-word phrase: feature flag.

16 On the lower part of Slide 24, you will see the preferred embodiment
17 of the '448 Patent, which is, it's a single bit; it's a one or a zero. It's in a
18 header that has several bytes in it, but that's it. Put a one or a zero in the
19 header, let me know, and send this; basically, when you're sleeping, send a
20 message every once in a while to the server and say, yep, still sleeping. That
21 is what's happening here.

22 Zhang teaches exactly this and, in fact, provides more data than the
23 single bit. And this is Slide 25. It's what's cited in the Petition. Here, at
24 Zhang's Paragraph 80, Zhang has something called a secure wake-over
25 internet header.

26 So the sleeping device, it teaches earlier; I believe it's Paragraphs 56
27 and 57. It says that when your device is sleeping, every minute or so, at

1 some predetermined time, we want you to send this secure wake-over
2 internet message, a registration message. And when the sleeping device
3 sends a registration message to the server, it keeps the connection alive, but
4 it also, whenever the server receives it, it says, oh, good, I know you're still
5 sleeping. It's a registration message that means you're still sleeping. Got it.

6 JUDGE MCKONE: Well, let me ask you about that. This here wake-
7 over internet header is described as in any of the packets that it distributed in
8 the chain, correct?

9 MR. HAWKINS: Yes. Yep, and then there is --

10 JUDGE MCKONE: Okay. And then, from the command indicators,
11 that will indicate whether it's a registration message, correct?

12 MR. HAWKINS: Yeah. There's -- it could be any of the seven
13 messages. When it's a registration message, then you know it's sleeping.

14 JUDGE MCKONE: Well, how do you know that it's sleeping when
15 it's a registration message?

16 MR. HAWKINS: Sure.

17 JUDGE MCKONE: Because I've looked, and I'm skeptical.

18 MR. HAWKINS: Sure.

19 JUDGE MCKONE: So help me overcome my skepticism. And this,
20 you're probably going to refer to Paragraphs 57 and 58.

21 MR. HAWKINS: Yes. There is -- and then also in the --

22 JUDGE MCKONE: Is it your theory that registration messages are
23 only sent during the sleep state?

24 MR. HAWKINS: That's how it knows it is sleeping, yes. That's --

25 JUDGE MCKONE: I guess my question is, you said specific. Are
26 you saying that registration messages in Zhang are only sent during the sleep
27 state?

1 MR. HAWKINS: I believe so. I'm going to check real quick. There
2 is -- we provide a testimony on this, too. And it was -- okay. So I'm looking
3 at the second declaration of Kardashov.

4 JUDGE MCKONE: Okay. Which exhibit is that?

5 MR. HAWKINS: It is Exhibit 1101.

6 JUDGE MCKONE: Okay.

7 MR. HAWKINS: And he, Mr. Kardashov, is summarizing his first
8 testimony.

9 JUDGE MCKONE: Where? Which paragraph?

10 MR. HAWKINS: I believe it's 26 or 27. I'm going to find that right
11 now. I think it's both paragraphs, actually. So the very bottom -- yeah, 26
12 into 27.

13 So there he says, for example, Zhang's CMD field indicates a type of
14 message, including when the type of message is a registration message. The
15 registration message indicates to the server that the sleep-enabled system,
16 quote, remains in a sleep state, end quote, and he's quoting Paragraphs 57 to
17 58, and his first declaration, Paragraphs 70 and 109. And then, he actually
18 goes on in 27 to go on to say, by the way, you know, it's actually an entire
19 byte of data, not a single bit, so it's providing more information for
20 embodiment. But in the instance when it's getting that message, it is
21 explained that it is in a sleep state.

22 JUDGE MCKONE: Sure. But the command field itself doesn't tell
23 you sleep versus awake, correct?

24 MR. HAWKINS: No. It had to be if the command field, if the data
25 within it is indicating this is the -- you know, the 10011 is -- that's signaling
26 I'm a registration message, and that --

1 JUDGE MCKONE: So the only way that you can prevail on this is if
2 a registration message is only sent during the sleep state, correct?

3 MR. HAWKINS: I don't believe that's necessarily true because even
4 it was the --

5 JUDGE MCKONE: Well, if the command -- if you send command
6 messages when the device is awake, then the fact that the command field
7 says, hey, I'm a registration message -- I'm sorry. Let me back up. If you
8 can send a registration message while the device is awake, then the
9 command field saying, hey, I'm a registration message, doesn't tell you that
10 the device is asleep or awake, correct?

11 MR. HAWKINS: Let me check on that one. I don't think that is -- I
12 think that's the purpose of when you register.

13 JUDGE MCKONE: But I found in paragraph 53 a statement that the
14 registration may be sent by the NIC while the first computer sits and is
15 sleeping. And that's the best I found, and that doesn't tell you that the
16 registration message is only sent while the NI -- only sent when the first
17 computer system is sleeping. If you have a statement that says the
18 registration message is only sent while the first computer system is sleeping,
19 that would be helpful.

20 MR. HAWKINS: So, well, two points. I believe that if it is sent
21 while it's sleeping, which is in the express disclosure, then it is, in fact,
22 achieving Claim 8. But I do believe that that is the purpose of the timeout
23 and the timer in Paragraph 57, right? It's indicating, when it's sleeping, it
24 needs to ping the server to maintain a connection even during a sleep state.
25 It's essentially a sleep heartbeat. And that's happened. That's what
26 Mr. Kardashov testified about in Paragraphs 109 -- paragraphs 70 and 109.

1 And to be quite honest, this line of argument was never actually raised
2 by the Patent Owner, necessarily. They raised the construct of only the
3 narrow construction. They never based this on the text of --

4 JUDGE MCKONE: I'm not sure that's true, but nevertheless, we have
5 to find by a preponderance of the evidence.

6 MR. HAWKINS: Yeah, so let me -- I think there might be something
7 else in Paragraph 58 if I can find it. Yeah, so if you look in Paragraph 57, I
8 guess that would be almost halfway down. There's a sentence that starts --
9 so, there, it's explaining it -- in Paragraph 53, it says, we send the registration
10 message; it may happen when you're asleep. And then it says, by the way,
11 you might have to just, at a pre-determined time, it'll send this registration
12 message, this sleeping heartbeat, right?

13 And it says if the connection does time out, the server may be unable
14 to send messages, such as a wakeup message. In other words, you're saying
15 these registration messages say I want to maintain a connection alive, but I
16 want to stay asleep; I want low power mode, okay? But you need to do that
17 in order so the wakeup message can arrive. And that's in -- that's what's
18 happening here. It's a classic heartbeat sleep. And so, saying that in your
19 header of the -- I don't want to focus too much on the word registration. It
20 could be sleep registration or sleep heartbeat.

21 JUDGE MCKONE: Well, we're in anticipation --

22 MR. HAWKINS: Right.

23 JUDGE MCKONE: -- reference here, so I'm trying to find the cited
24 disclosure.

25 MR. HAWKINS: Yeah. So, in that instance, it wouldn't be sending a
26 wakeup message if it was already awake. That's, you know, the -- so 53,
27 some of this happening. It may happen when it's asleep. And 58, they

1 should be sending this whole mess. And the reason you need to do these is
2 so that you can actually receive the wakeup message when the time comes.
3 And so, there is no -- there's no -- it's a very limited, logical conclusion as to
4 why you're sending these heartbeats.

5 And so, and I believe in Paragraph 30 -- 58, it says the same thing. In
6 order to mainly -- yeah, so the very first sentence of Paragraph 58, it may be
7 desirable for the first computer system -- that's the sleeping device -- to
8 periodically send a new registration message to the server in order to
9 maintain the active connection with the server and thereby maintain the
10 capability to receive a wakeup message. You would never receive a wakeup
11 message if you are already awake. And so, that's -- as long as the first
12 computer system remains in a sleep mode. That's what's happening. That's
13 why you're getting that heartbeat.

14 So I apologize. I'm not as articulate as Mr. Kardashov in explaining
15 that. Hopefully, the paragraphs that I cited in both the second declaration
16 and -- which is Paragraph 26 and 27, and in the first declaration, Paragraph
17 70.

18 Also, if you look above, Paragraph 70 relates to Claim 8. If you look
19 above for his analysis of Dependent Claim 7, it also ties into that quite a bit
20 more. So hopefully that answers your questions, but we believe that all
21 instances of the registration message are examples of when it's asleep, and
22 it's awaiting, await to receive a wakeup message at some point in time in the
23 future.

24 JUDGE MCKONE: Okay. So, all right. I think I know where to
25 look now.

26 MR. HAWKINS: Sure.

1 JUDGE MCKONE: Paragraphs 57 and 58 are the ones I should
2 concentrate on.

3 MR. HAWKINS: Sure. Yep. And I would turn then to
4 demonstrative slide. So, in 26, the issue at here in the Patent Owner's
5 response, faced with that analysis I just gave of Paragraphs 58, 57, what
6 Mr. Kardashov said, they didn't speak to that. They instead say, well, what
7 we need to do is to import a lot of words into this two-word phrase, and
8 that's at the top of Slide 26. They don't cite an exhibit or evidence or
9 testimony. Instead they refer to a website called Optimizely.com, as it
10 existed in 2025. We have no idea if that existed in 20 -- or 2016 or in our
11 timeframe here.

12 The point is, in reply, Mr. Kardashov noted that that two things on the
13 left side of 26, that what they're referring to, is, in all instances, talking about
14 an embodiment in the '448 Patent. It's not lexicography. It's not disclaimer.
15 It's not even, you know, really trying to -- not even trying to argue this in,
16 like, you know, the invention of the feature flag uses access, just
17 embodiments, like for example, an embodiment.

18 And on the right side, he notes also, like, it's not necessarily consistent
19 with the claim language. For example, there is a dependent Claim 23 which
20 matches Claim 8, but 23 has a dependent claim underneath it, 24, and it says,
21 oh, by the way, feature flag is just a bit in the header. And so, that doesn't
22 make sense in the context of their narrow construction because you can get
23 bit in a header and certainly not be this narrow feature flag idea.

24 And so, it's finally, Mr. Kardashov did present testimony that said
25 even if you adopted this narrow construction, he's not -- to the extent that
26 construction is going to cover their preferred embodiment of a single bit in a
27 header, surely Zhang teaching is going to do this. And so, that is what we

1 presented in reply. Again, they elected to never oppose him or cross-
2 examine him in any way.

3 So, with that being said, I'm going to reserve the rest of my time for
4 rebuttal, unless the Board has questions. The only remaining issue is what I
5 call the non-dispositive claim constructions. So I'm happy to address those,
6 or else I'll yield until my rebuttal is needed.

7 JUDGE MCKONE: I don't need to hear about those now. Unless
8 there are any other questions, we can -- thank you. You have about 15
9 minutes rebuttal time.

10 MR. HAWKINS: Great.

11 JUDGE MCKONE: Patent Owner, you can begin whenever you are
12 ready.

13 MR. KING: Yes, Your Honors. As did the preview shows most of
14 the --

15 JUDGE MCKONE: By the way, do you want to have any surrebuttal
16 time?

17 MR. KING: No.

18 MR. KING: I would like to turn your attention to the Petitioner's
19 demonstrative exhibit page 18. As earlier, the opposing Counsel been
20 arguing for the -- of inserted argument that generating the message or
21 creating the message. I think in the electronic world, messaged world, every
22 message is a series of the electric pulses. So, when we push over to the next
23 stop, arguably, we can always say it's generated. However, this is not what
24 we are claiming here. What we are claiming just is not merely generating,
25 but also we put additional information, particularly for our purpose, while
26 we generate the new message. And that's why we believe the second --

27 JUDGE MCKONE: I'll ask you first.

1 MR. KING: Yes.

2 JUDGE MCKONE: Your opposing Counsel talked about that your --
3 that you may be making a distinction between wakeup packet and wakeup
4 message. Are you using wakeup package and wakeup message differently?

5 MR. KING: No, no. In generic terms in the digital world, they're all
6 the same because they're all a series of electric pulses. The only thing
7 different between message and package is package is a subsegment of the
8 message.

9 JUDGE MCKONE: Well, package has a payload, which I guess
10 could be a message, and it has header information.

11 MR. KING: Yes. Yes, it --

12 JUDGE MCKONE: That's so to tell the packet where to go.

13 MR. KING: Yes. And the messages consist of many packets.

14 JUDGE MCKONE: So, a message is many packets?

15 MR. KING: Yes, because of the --

16 JUDGE MCKONE: Okay.

17 MR. KING: Yeah, it's just like any between any application. But
18 what we have here, but I don't want to leave it at the subject matter
19 department, but what I'm trying to say here is that when we look at the
20 generating and the creating of the forwarding, per se, what we really have --
21 we're focused on the claim issue here. We are not just merely doing
22 forwarding. We actually take the identification ID and instruct, retrieve
23 additional necessary information, put into the message, and forward out. In
24 particular, we forward to the device to be awake.

25 And when you look at the Zhang reference here, which is the '066
26 reference, cited reference, which is primary reference used for pretty much
27 every rejection here, I would like to send you simply to Paragraph 58 to 64.

1 What do we have here? What Zhang is doing here is first with on 58,
2 mention about a requests device saying the requesting device send a
3 registration message, which is what the examiner in the --

4 JUDGE MCKONE: I'm getting some feedback on the line. Whoever
5 is not muted, please mute.

6 Sorry. Keep going.

7 MR. KING: Back to 58 of the '066 reference, what we have here, and
8 we have first, we have the first -- we have the two -- right here, use the first
9 computer system is a little confusing because they use the first and second
10 differently in the opposite direction and stuff, but we in our claim. So I'm
11 going to name this first hump here as the computer to be awake.

12 So, on Paragraph 58, this computer will wake is sending the
13 registration message, which is what my opposing counsel is discussed or
14 was discussing with the Panel earlier, pretty much ingratiates itself with this,
15 the media server. Then, on the Paragraph 62, then with a wakeup message
16 may be received by server. The wakeup message might be generated and
17 sent to a separate computer.

18 Under 59, what we have here is the requesting the query request
19 received by the server, the query request may be sent by the second
20 computer, which is the requester, want to wake up the first computer that's
21 been registered with the server. And what we have here is, on 59 here, on
22 bottom of 59, this request may be come -- may include a host name, IP
23 address, and so on. So what we have here, we already had all the
24 information from requester to the server.

25 It continues. What the server does is that server will responds, send
26 only for me retrieve, and sending it back to requester, which is different
27 from -- which is different from our invention from '448 Patent, because

1 instead of sending back to requester, we've send it to the server through the
2 company by it to be awake.

3 JUDGE MCKONE: These are comprising claims, so even if there is
4 an extra step of sending something back to the requester, that wouldn't
5 necessarily take it outside of the claims, correct?

6 MR. KING: You're absolutely right, Your Honor. However, the only
7 step -- the '066 reference does not send anything to the device to awaken it.
8 The reason for that is what in our claim language. What we have here is,
9 when we construct those message, wakeup message information, which
10 including additional information that continue the server retrieve, then we
11 saying to -- and right here, we explicitly say that we send to that the device
12 should be awaken.

13 It doesn't -- what the cited reference '066 doing here, yes, they also
14 doing a waking step, but the other one did have one step more because they
15 want this information to be sent back to request a first. Then request was do
16 a second step. Then the intermediate server will send a packet. But at that
17 time, it sends message to the server to it about to be awakened.

18 But at this point in time, this message or this -- those packets sent by
19 the intermediate server to the device to be awakened is not in -- -- it's not
20 including the intermediate, so it does not include those information you
21 retrieved of -- and I take that back. Does the intermediate server does not
22 retrieve those information to construct that message to the sent to the device
23 to be awakened?

24 JUDGE MCKONE: So what you're arguing is that the server takes
25 the information from the first device, puts a new wrapper on it, and sends it
26 to the device to be woken up. The server takes the message from the device.
27 We'll call it -- how does it -- I think Zhang uses the second device is the

1 device that wants to wake up the first device, right? Just so I'm not talking
2 about the right devices.

3 MR. KING: Yeah. The prior art reference uses first, first embodies
4 as the one to be awake, and --

5 JUDGE MCKONE: Okay. So when a second -- or when the server
6 wants to wake up the first device, the server takes a message from the
7 second device, puts a new label around it, and forwards it to the first device,
8 right?

9 MR. KING: Well, that -- actually. No, in the '066, it actually kick
10 back. It kick back to the requesting device first.

11 JUDGE MCKONE: Okay. But then after the second device sends it
12 back to the server, the server then puts a new wrapper around it and put --
13 and then sends it to the first device, correct?

14 MR. KING: Your Honor, it depends on the division wrap-around.
15 (Simultaneous speaking.)

16 JUDGE MCKONE: Put header information on the information so the
17 packet knows where to go.

18 MR. KING: Yes. So those that wrapper around does not -- just not
19 read on what we have in their limitation here. What we have in the
20 limitation here is we put this incoming retrieve, which is particularly for the
21 device to be awakened. We pack those in together, not just header, not just
22 regular teach the IP protocol, but those important particularly, just for the
23 device to be awakened, then send over.

24 JUDGE MCKONE: Okay. It has to have a header on it, right?

25 MR. KING: Absolutely, yes.

26 JUDGE MCKONE: Does the information coming from the second
27 device have the header on it to make it a packet, or is it just a message?

1 MR. KING: You want to have a header on it, but Your Honor, I'm
2 not following you, your rationale, underneath the rationale, how this is going
3 to read out the underneath limitation here.

4 JUDGE MCKONE: Well, the way I'm reading it here is the server is
5 receiving information from the second device that is going to help wake up
6 first device.

7 MR. KING: Okay.

8 JUDGE MCKONE: And the server then puts a wrapper around it, a
9 header, and that is going to make that information a packet.

10 MR. KING: Okay.

11 JUDGE MCKONE: And then the server sends that packet to the first
12 device.

13 MR. KING: The first device, that's the --

14 JUDGE MCKONE: The device to be woken.

15 MR. KING: That's not --

16 JUDGE MCKONE: I know there's a second step in there, but at some
17 point, the server takes information for the second device, puts header
18 information on it, and sends it to the first device.

19 MR. KING: Okay. The first device is the device to be awakened,
20 right?

21 JUDGE MCKONE: Correct.

22 MR. KING: Okay. So in our invention, we receive communication
23 ID from the requesting device, requesting device, which is this ID represent
24 the device to be awakened. Then we pack it according to whatever
25 information we have on the server. Then we forward that to the device to be
26 awakened.

1 For the '066, there's one quickly issue of one quicker things here.
2 Beyond '066, when the requesting device send a packet over to the
3 intermediate server, and there's a reason why you need a server send those
4 information repackaged back to requesting device instead of each to device
5 to be awakened.

6 Let me bring you to you the attention of the -- on Paragraph 61. The
7 reason for that is the server was sent those encryption algorithm and
8 announced back to the requesting device. This is a said trusted app. Seemed
9 to be extra, but this extra step is for security measure. Therefore, this packet
10 is being sent -- that's why it doesn't skip over sending the generated package
11 to the device to be awakened, but rather it send back to a device, the initial
12 requesting device. So the initial requesting device will have to be able to use
13 the algorithm to decrypt it successfully in order to send the revised packet
14 and establish connection.

15 JUDGE MCKONE: Okay.

16 MR. KING: Yeah, so the -- because those extra step is quick for the
17 '066 refer patent because this is essential teaching for these patent -- for
18 these publications. I'd like also bring to the attention to the secondary
19 reference, which is the Zill, Z-I-L-L, reference.

20 The Zill reference primarily teach that the name or address translation,
21 and also relate to the similar protocol, right here for the Zill protocol. The
22 process is very similar to our patent here, our '448 Patent here. You only
23 have one way to -- just one, two hops. The requesting device send request to
24 the intermediate server. The intermediate server will send the request to the
25 device to be awakened. However, stop there; it didn't mention anything else.

26 So, right now, if we look at, if we try to combine Zill and the Zhang
27 '066 application, primarily, if we apply the first teaching, which is primarily

1 used in the name or address translator, this does not change the '066
2 protocol. It's all it does, it just change the header, make sure the destination
3 is correct. You still have that two-step authentication before you reach the
4 device to be awakened.

5 Alternatively, if we do adapt, try to adapt Zill's teaching, which is just
6 two hops going to the device to be awakened, the reading onto the '066
7 reference, they defeat a purpose that the two-step authentication of the Zill --
8 of the Zhang '066 reference.

9 JUDGE MCKONE: Have you moved onto the second ground now,
10 the combination of Zhang and Zill? Is that what you're discussing now?

11 MR. KING: Yes, yes. Therefore, the combination itself would have -
12 - would attribute numerous issues that mean this it would not render the
13 invention as claimed in the '448.

14 Your Honor, I don't have anything more. If you have any questions,
15 then I can --

16 JUDGE MCKONE: Did you need to discuss any of the other
17 grounds?

18 MR. KING: I do not.

19 JUDGE MCKONE: Okay. I have no further questions.

20 Petitioner, you have about 15 minutes. Start when you're ready.

21 MR. HAWKINS: Thank you, Your Honor. First, I'd like to just touch
22 upon your line of question about Dependent Claim 8. I apologize; I didn't
23 have all of the data in front of me at the time. It was Paragraph 69 of Exhibit
24 1003 where it first required about the steps in Dependent Claim 7, and then
25 you go to Paragraph 70 where he goes and admits it's on Dependent Claim 8.

26 And in Paragraph 69, that's where he's laying out the idea of the
27 purpose of Paragraph 53 and 58, and those, when counted together, you

1 know that the registration message, the reason it's being sent, is because if
2 you are in a sleep state, then you need to maintain a connection so you can
3 receive the wakeup message. So Paragraph 69 is where that was, not
4 Paragraph 71.

5 And also, I read to you the top of Paragraph 58. I actually think the
6 bottom of Paragraph 58 just is saying is perhaps even more persuasive. It
7 ends with -- it's talking about the reason for this timer. At one point, you're
8 asleep, then you need this, let's say every 60 seconds; there's a timer. You
9 need to send a new registration to the server while you're asleep.

10 And then it says, as a result of receiving each new registration
11 message, the server may extend the connection with the NIC for an
12 additional predetermined period of time or simply renew the timeout timer.
13 That's referred to in Paragraph 69 of Exhibit 1003. And it starts with the
14 connection between the NIC and the first computer system. A NIC and the
15 first computer system, and the server may remain continuously active as
16 long as the first computer system is in the sleep mode. In other words, that's
17 how you maintain it in the sleep mode that still have it prepared to receive
18 the wakeup message when you're ready. That's the purpose of the
19 registration message. That's the only instance of the registration message.
20 That's the only example of a registration message being received is in that
21 context.

22 Then I believe the only other thing that's mentioned is in reply to
23 Patent Owner's presentation here, I believe they heard it again, but I had a
24 slide on this one, the Ground 2, where the Patent Owner was basically
25 saying that Zhang has this, you know, this initial request and reply message
26 before the actual wakeup message is sent to the server, and that when you

1 combine it with Zill, you must keep maintaining this system -- or that
2 messaging.

3 Again, that's a bodily incorporation argument. I don't think it was
4 actually addressed. It has never been rebuttal to any instance of does the
5 *Intel* case law apply here, and you know, is it consistent with it.

6 And the other point is that, again, Mr. Kardashov addressed this in
7 reply declaration, saying that, of course, that's how it generates simply to
8 that message, and all you have to do at the request side is to put in the user
9 IDs and password.

10 So, with that being said, I don't believe there is anything further for
11 rebuttal, but I'm available to answer any of your questions.

12 JUDGE MCKONE: I have no further questions.

13 MR. HAWKINS: Thank you.

14 JUDGE STRAUSS: No questions.

15 JUDGE MCKONE: Patent Owner, do you need a short response to
16 what he just said, or you think you've been able to say what you need to say?

17 MR. KING: No, we don't have anything more.

18 JUDGE MCKONE: Okay. This hearing is concluded. We appreciate
19 both parties coming here to Detroit and helping us out, helping us
20 understand the subject matter. It's been helpful to us.

21 With that, the case is submitted, and this hearing is concluded and off
22 the record.

23 (Whereupon, the above-entitled matter went off the record at 10:16
24 a.m.)

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