

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

YEALINK (USA) NETWORK
TECHNOLOGY CO., LTD., AND
YEALINK NETWORK TECHNOLOGY
CO., LTD.,

Petitioners,

VS.

BARCO N.V.,

Patent Owner.

Case No.
IPR2025-00491

DEPOSITION OF KEVIN C. ALMEROTH, PH.D.
Santa Barbara, California
Friday, February 27, 2026

Stenographically Reported by:
JUSTYNE N. JOHNSON
RPR, CSR. No. 14301

Job No. 619778

Pages 1-44

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3 The Deposition of KEVIN C. ALMEROOTH, PH.D., was taken
4 on behalf of Patent Owner, at 633 East Cabrillo Boulevard,
5 Santa Barbara, California, beginning at 9:59 a.m., Pacific
6 time, on February 27, 2026, before JUSTYNE JOHNSON, RPR,
7 Certified Shorthand Reporter No. 14301.

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WITNESS

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EXHIBITS

(None)

INFORMATION TO BE SUPPLIED

(None)

WITNESS INSTRUCTED NOT TO ANSWER

(None)

TRANSCRIPT REQUESTED TO BE MARKED

(None)

1 Santa Barbara, California

2 February 27, 2026 | 9:59 a.m.

3

4 THE STENOGRAPHER: Good morning. We are going on
5 the record at 9:59 a.m., on Friday, February 27, 2026, in
6 the matter of Yealink (USA) Network Technology Co., Ltd.,
7 et al., v. Barco N.V., Case Number IPR2025-00491. Today's
8 deposition is taking place at 633 East Cabrillo Boulevard,
9 Santa Barbara, California.

10 My name is Justyne Johnson. I am a California
11 certified shorthand reporter representing the firm Planet
12 Depos, and my certification number is 14301. The deponent
13 is Kevin C. Almeroth, Ph.D.

14 Counsel, can you please introduce yourselves.

15 MR. HALVERSON: Erik Halverson from K&L Gates on
16 behalf of Patent Owner Barco.

17 MR. GREENLEAF: Kevin Greenleaf defending
18 Dr. Almeroth for Petitioner from the Dentons firm.

19 THE STENOGRAPHER: Dr. Almeroth, can you raise
20 your right hand, please?

21

22 KEVIN C. ALMEROTH, PH.D.,
23 having first been sworn by the Certified Shorthand
24 Reporter, was examined and testified as follows:

25 THE WITNESS: Yes, ma'am, I do.

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EXAMINATION

BY MR. HALVERSON:

Q Good morning, Dr. Almeroth.

A Good morning.

Q We are here today in an IPR proceeding regarding
a patent number 10,684,972; is that correct?

A Yes.

Q Is it all right if I refer to that as the '972
patent today?

A Yes.

Q And I understand you have a paper copy of your
declaration in front of you, your second declaration in
this proceeding, Exhibit 1035; is that right?

A Yes.

Q You also have electronic versions of some or all
of the exhibits in this proceeding?

A It should be all of the exhibits. It should be
complete.

Q If at any point in time, there is a document that
you don't have access to that you would like access to, I
probably have it in my box of fun, so just ask.

A Okay.

Q But feel free to use either the paper copy, or
copies, or the electronic copies to answer any questions
that we may be talking through today. Is that all right?

1 A Yes.

2 Q We've gone through this song and dance a number
3 of times. No changes in ground rules. Do you have any
4 questions about anything that is going to happen today?

5 A I do not.

6 Q My only repeat caveat is if you need a break and
7 there is a question pending, I ask that you answer that
8 question before we go on break. Is that fair?

9 A Yes.

10 Q Any reason why you can't give truthful and
11 accurate testimony today?

12 A No reason.

13 Q All right. Let's dive in.

14 I want to ask you a few questions about
15 Exhibit 1006, the Dinka reference.

16 A Okay.

17 Q Would you like a paper copy?

18 A Yes, please.

19 MR. HALVERSON: And, Mr. Greenleaf, do you want a
20 paper copy?

21 MR. GREENLEAF: No, thank you.

22 BY MR. HALVERSON:

23 Q Do you recognize what you've been handed,
24 Dr. Almeroth?

25 A I do.

1 Q What is it?

2 A It's '498 patent. I think we call it Dinka,
3 Exhibit 1006 to this IPR.

4 Q And you've reviewed Dinka as part of your
5 preparation for today?

6 A I have.

7 Q And have you reviewed it prior to your
8 involvement in this proceeding? Sorry. Scratch that.
9 Let me ask a slightly better question.

10 Have you reviewed Dinka prior to your involvement
11 in the dispute between Barco and Yealink?

12 A Not that I recall, sitting here right now.

13 Q And so in your declaration, Exhibit 1035, you
14 have a sentence in paragraph 6 that says, "The concerns
15 Dinka raises about personal computers" -- then it goes on
16 in the later -- or in that same paragraph to effectively
17 say, "our motivations to improve a user's experience on a
18 PC."

19 Do you see that?

20 A I see that.

21 Q So what part of Dinka are you relying on for
22 these concerns with personal computers?

23 A I'm not really relying on Dinka. As it relates
24 to concerns about user computers or personal computers,
25 I'm more recognizing that it is something that it says and

1 the patent owner has attempted to use as a basis to
2 suggest that there is a teaching away. But the portion
3 that I am responding to, beyond generally referencing the
4 patent owner response, is what shows up in column 2 in
5 about the first half -- paragraph 6 specifically mentions
6 lines 4 through 12.

7 Q So if we go to Dinka and we look at line 4,
8 begins "This has."

9 Do you see that?

10 A I see that.

11 Q So that complete sentence says, "This"
12 disadvantage -- sorry. Let me start over. "This has the
13 disadvantage that the user must be sufficiently
14 technically competent to download, install, and operate
15 the packet-based communication client software on their
16 personal computer, which provides a barrier to the take
17 up."

18 Did I read that correctly?

19 A Yes.

20 Q And it's your opinion in paragraph 6 that this
21 sentence suggests a motivation to improve user experiences
22 on PCs; right?

23 A Or provide alternatives and not as a direction --
24 directive to abandon PC-based systems entirely.

25 Q What do you mean by "provide alternatives"?

1 A So the idea here or what it refers to is when it
2 talks specifically about a plurality of computer terminals
3 and recognizing the convergence in computing capabilities
4 between televisions and the personal computers and the
5 overlap between the platforms. The idea is that as that
6 convergence takes place, then similar functionality can be
7 provided on both a PC as well as other alternatives, like
8 TVs, which were becoming increasingly sophisticated as it
9 relates to computer-based processing.

10 Q So is Dinka blurring the lines between TVs and
11 PCs?

12 A I don't know that I would characterize it that
13 way. That's probably true at some level. But I think
14 it's recognizing given that the line is already being
15 blurred, something that would have been understood to a
16 person of skill in the art, it recognizes the ability to
17 take advantage of the functionality of a TV as one of the
18 particular types of devices on which content can be shared
19 and web-based communication and group meetings can be
20 performed.

21 Q And so how would a person of ordinary skill in
22 the art have understood that line to already be being
23 blurred?

24 A Your question -- I'm not sure I understand your
25 question. It seems to presuppose an assumption that the

1 teaching of the blurring comes from that particular line.
2 I think that the line being blurred is something that a
3 person of skill in the art would have been aware of in
4 this time frame. I've written papers on it.

5 And so this, I think, supports the idea that
6 there is functionality that can be implemented on a
7 variety of types of devices. And in part 1 of the types
8 of the devices that the functionality described in Dinka
9 can be performed on would be, among other things, a TV.

10 Q There's a couple of other sentences in that
11 portion of column 2 there that also describe certain
12 facets of PC use. Would you agree that those subsequent
13 sentences -- for example, the one starting on pay --
14 excuse me, line 8, the one starting at line 12, and,
15 really, through the rest of -- down through where the
16 summary portion of this column begins are all similar to
17 the, quote, "concerns Dinka raises about personal
18 computers" that you've identified in your declaration at
19 paragraph 6, even though they're not cited there?

20 A So I think your question used the
21 characterization of "similar." It's a bit vague. I point
22 out that a couple of things that, I think, are consistent
23 across those sentences. First, one of the things that was
24 in the sentence that you read into the record starts with
25 the pronoun "this." And we didn't really talk about the

1 sentence before that that identified what the basis for
2 the "this" was. And it's basically the packet-based
3 communications are most commonly accessed using a personal
4 computer.

5 So it's really on that particular piece that the
6 "this" refers to. In that sentence, in the one you read
7 into the record and then the rest of these sentences,
8 pretty much every sentence includes words like "most
9 commonly accessed," "use may be limited because of."

10 And so those are the kinds of words that suggest
11 that this isn't a close-ended kind of disclosure but
12 rather that there could be scenarios where certain kinds
13 of users may be more comfortable with certain kinds of
14 devices, but that is not to the exclusion of the use of
15 computer terminals or someone who has a basic level of
16 sophistication in terms of being able to install software
17 on a PC, which is a pretty low bar.

18 But, overall, I do think that the sentences in
19 this section demonstrate that the idea of expanding the
20 scope of types of devices that could be used for the kinds
21 of functions described within Dinka can be expanded to
22 include things like television sets but are certainly not
23 limited to television sets.

24 Q So in that answer, you had said -- the very
25 beginning of it, when you were describing the second

1 sentence or the antecedent of what the instance of what
2 the "this" pronoun was, you had said it was basically the
3 packet-based communications are most commonly accessed
4 using a personal computer.

5 Do you remember that?

6 A I do.

7 Q How do personal computers -- sorry. Scratch
8 that.

9 How did personal computers access packet-based
10 communications in 2015?

11 A There are variety of ways in which that would
12 have been established. It also depends on where their
13 location is in the form factor of those kinds of devices.
14 Generally, it would be wired or wireless. And then within
15 each of those subdivision, there are branches of known
16 techniques for both wired and wireless, and known
17 techniques for being able to access, say, an
18 Ethernet-based protocol for wired.

19 In wireless, it could be any of the 802
20 standards. It could be cellular standards. And then
21 based on those underlying technologies, building more
22 network and transport layer communication to support
23 packet-based communication.

24 There's also protocols like Bluetooth, USB that
25 provide packet-based communication as well.

1 Q How does Dinka describe it happening?

2 A My recollection of Dinka is -- let me pull up
3 Dinka. And I thought it described a number of different
4 protocols. Let's see. 1006. And I thought this was
5 addressed in the declaration.

6 It might be for the other combination.

7 Q I think it's... and figure 3A and 3B may be
8 starting points, but...

9 A I'll see.

10 Q By all means, look at the rest of the records.

11 A So just picking 3A -- and it talks about a WiFi
12 transceiver 302, one of the places that's discussed.
13 Column 7. But it's described more generally -- it
14 describes a network interface in the form of a first
15 short-range RF transceiver, and then it says, "such as a
16 WiFi transceiver."

17 So WiFi, as an example, it's lowercase. So it's
18 going to be more generic. But that would include things
19 like 802.11, it could be Bluetooth. It could also be USB.
20 So I think it describes WiFi as an example but then
21 basically anything that can use a radio frequency
22 transceiver.

23 Q And it's lowercase in the text of the
24 specification where you were reading in column 7, but it's
25 uppercase in the figures; right?

1 A Figures, plural. Let's see.

2 On 3A and 3B, it's capitalized, and I think those
3 are described in Dinka as embodiments both in column 7
4 about where I was reading. And then even capitalizing
5 WiFi doesn't necessarily limit it to a particular
6 standard.

7 Q So that could be, for example, indicative of the
8 use of Bluetooth?

9 A Well, the idea that it says that you can use a
10 form of a first short-ranged RF transceiver, that would
11 certainly include something like Bluetooth.

12 Q And in Dinka, is that short-form transceiver
13 incorporated into the device itself?

14 A In figure 3A, at least in that embodiment, it's
15 included within the box 103, which is described as a
16 television set. I believe it said somewhere in Dinka that
17 that could be external... or not.

18 So I don't think there's a teaching in Dinka that
19 says that it's limited to being internal or not.

20 Q Well, so 3A -- sorry. 3B also shows it internal;
21 right?

22 A Well, there's also a distinction between 3A and
23 3B being characterized as schematics and being within the
24 block that's identified as 102. But a schematic is not
25 necessarily indicative of anything other than just a

1 functional representation.

2 Q And are there any dis... hold on.

3 So in 3B, the same short form -- sorry. In 3B,
4 the short-form transceiver is incorporated into the device
5 depicted in figure 3B; right?

6 A Now, I don't think that's right, especially when
7 you use the word "incorporated" into, I think, as figure
8 3B would show. And now we're talking about transceiver
9 302.

10 Q I think we switched from 102 to 103. The big box
11 is different.

12 A Right. I thought the number cha- -- it's still
13 302.

14 Right. I understand what you're saying. So
15 "incorporated into" I think is a stretch in terms of
16 misinterpreting Dinka as describing even in the embodiment
17 that it would be limited to being within the device
18 itself. As I said, it's both an embodiment. It's a
19 schematic diagram.

20 The figure shows what it shows. Box 302 is
21 within box 102, but that shouldn't be understood to mean
22 that it was limited to having that WiFi transceiver. Only
23 always internal to 102.

24 Q So you interpret figure 3B as teaching both the
25 WiFi transceiver 302 within PC 102 and external to PC 102?

1 A I don't think I'm relying on figure 3A and 3B
2 alone to suggest that the transceiver could be internal or
3 external. I don't think that the patent -- or sorry, that
4 Dinka says, one way or another, based on 3A and 3B alone
5 that it's limited to being internal. And so a person of
6 skill in the art would understand, based on the totality
7 of the reference, that there's a variety of ways in which
8 you could implement a short-range receiver or transceiver.
9 And so I think the examples of 3A and 3B would not limit
10 the person of skill in the art's understanding of the
11 teachings or disclosures of Dinka.

12 Q So I think we may be talking past our -- each
13 other. I don't know that I've ever asked whether or not
14 it limits the teachings of Dinka. I'm wondering how or if
15 you have an opinion about how a person of ordinary skill
16 in the art would understand Dinka's figure 3A and 3B?

17 A The challenge there is if you're limiting the
18 discussion to just 3A and 3B, then I think the best you
19 can take away from those in isolation is they show what
20 they show. When you layer on the understanding of a
21 person of skill in the art about how schematic diagrams
22 can be implemented or where components could appear, it
23 does become a question of is there anything in Dinka that
24 would limit the scope of where the WiFi transceiver would
25 exist or the short-term RF transceiver could exist,

1 whether it be internal or external.

2 And so I think Dinka does not describe in 3A or
3 3B the detail as to whether or not there's a limitation.
4 And so I think that they support the idea of using a WiFi
5 transceiver, according to what would have existed at the
6 time, and there were both internal and external WiFi
7 transceivers available in the market at the time.

8 Q And is there any disclosure in Dinka that would
9 suggest to a person of ordinary skill in the art to have a
10 WiFi transceiver not integrated within a PC?

11 A Let's see.

12 Column 9, about line 19. "However, in
13 alternative embodiments, the network's interface 302 may
14 comprise other options such as a wired modem or a port to
15 an external wired modem."

16 And so the idea of additional examples and
17 additional embodiments where it could be wired or
18 wireless, it could be internal or external, it
19 demonstrates that figure 3A and 3B should not be
20 interpreted as limitations of the invention or teachings
21 of Dinka but more descriptive of functionality in a
22 schematic.

23 Q So those two -- or that sentence you just read
24 from Dinka described two wired options; is that right?

25 A It's -- as additional alternatives, they are --

1 it does used wired.

2 Q Does it give any wireless additional options in
3 that sentence?

4 A In that sentence, no. It's ju- -- well, it says
5 "wired." It talks about alternate of embodiments. It
6 says it can comprise other options, and then it lists two
7 others.

8 As I testified to earlier, there were a variety
9 of options in the wireless space that were both internal
10 and external as well. And so I think based on that
11 teaching in the "such as," I would not interpret that to
12 be limited to internal wireless or external wired. Again,
13 I'm reading this through the lens of a person of skill in
14 the art in what the schematics disclose and what the
15 teachings are about the flexibility of how the schematic
16 could be implemented or what components could be used.

17 Q And so other than that sentence that you read
18 from column 9 about the wired modem or the ports to an
19 external wired modem, are there any other disclosures in
20 Dinka that would suggest to a person of ordinary skill in
21 the art to have a WiFi transceiver not integrated within a
22 PC?

23 A Well, the other one that comes to mind is
24 typically the -- the teachings at the end of -- before the
25 claims. In this case, it's about column 15. Other

1 variations of the present invention may be apparent to a
2 person skilled in the art, given the disclosure given
3 herein. The scope of the present invention is not limited
4 by the described embodiments but only by the appendant
5 claims.

6 I think the other thing that I recall is that I
7 was relying on Beel for having what was essentially an
8 external peripheral device as required by the claims of
9 the '972. I think the line of questioning would suggest
10 that there's -- and answers would suggest there's also
11 support in Dinka. But there might also be other portions
12 of Dinka.

13 I'd have to see what patent owner and
14 Dr. Brogioli as to why it's necessary for Dinka to also
15 disclose that aspect of the claims. There might be
16 additional support I would find, given some time to look
17 through Dinka.

18 Q And that sentence that you just read from Dinka
19 in column 15 says that "the disclosure is limited by the
20 appendant claims"; right?

21 A The disclosure as to what the invention is, not
22 limited as to what the teachings of the specification
23 would be in the understanding a person of skill in the art
24 would have.

25 Q Did you have a personal computer in 2015?

1 A Yes.

2 Q Do you remember what kind?

3 A Not specifically. I'd -- some point, I did IBM
4 Thinkpads. That was going to be before 2015. I did a
5 line of Sony Vaios for a while. That is probably also
6 prior to 2015. By this time, it was probably some sort of
7 Dell.

8 Q Did those IBM Thinkpads have integrated WiFi
9 transceivers?

10 A I don't believe the ones that I used did.

11 Q Did the Sony...

12 THE STENOGRAPHER: Vaio.

13 MR. HALVERSON: Are you sure?

14 THE STENOGRAPHER: Yes.

15 THE WITNESS: Yes.

16 BY MR. HALVERSON:

17 Q All right.

18 Did the Sony Vaios have integrated WiFi
19 transceivers?

20 A I would have to check. My recollection is that
21 they were fairly limited in what internal components they
22 had. But they had an attached brick, I think, by USB
23 where you could connect various devices. I would think by
24 this time, there were certainly integrated WiFis in Sony
25 lines of personal computers.

1 I think they also had external WiFi cards,
2 depending on whether or not they had PC, MCIA slots, as an
3 example. The old Orinoco 802.11 cards is one example.
4 Somewhere in that time frame there were both internal and
5 external WiFi components, chip sets, devices, dongles.

6 Q '972 patent talks about a peripheral in its
7 claims. Does that ring a bell?

8 A Yes.

9 Q Does Dinka disclose a peripheral in the same
10 sense that that term is used in the '972 patent?

11 A I don't recall offering the opinion in the
12 declaration that I relied on Dinka for that. Let me pull
13 it up just to confirm.

14 Q I don't think you did. I think you used Beel for
15 that element. But I just wanted to --

16 A Yeah. So...

17 Q Do you want to see the original one?

18 A I've got it up.

19 Q All right.

20 A That is my -- sort of the standard caveat. If I
21 misremembered some disclosure as it related to Beel there,
22 I would defer to what the declaration says. As to whether
23 or not I believe Dinka also discloses the same kind of
24 peripheral...

25 Since I didn't offer that opinion originally,

1 give me a second to think about the answer.

2 Looking at the requirements of Claim 1, for
3 example, it's certainly possible that Dinka would teach a
4 peripheral device of the type required by the claim. I
5 don't see any particular reasons why it wouldn't.

6 But I'd have to give some thought as to whether
7 or not, on its own, it would identify all of the
8 requirements. It certainly, easily discloses many, if not
9 most or all the requirements.

10 Q Which elements of Dinka were you thinking of when
11 you said, "it's certainly possible that Dinka would teach
12 a peripheral device of a type required by the claim"?

13 A Within Dinka -- let's see.

14 Oops.

15 Let's see.

16 Well, there's a couple of different ways of
17 thinking about how Dinka can be applied against the
18 claims. There's also instances, say, around column 8
19 where there are video signals for output to the television
20 screen, and they can be received from an A/V input from an
21 external source, such as a DVD player or game console.
22 That's about column 18 at about lines 52. And so there's
23 a television application.

24 And so there appear to be aspects of Dinka where
25 there are additional input and output devices that can be

1 connected to a TV. In an instance where you have a
2 computer terminal -- and that would be connected to a
3 television -- then the mechanism by which that computer
4 would be connected to one or more of these kind of devices
5 would start to meet at least some of the requirements of a
6 peripheral device.

7 Again, this kind of gets into a ground or a
8 combination that wasn't something that I relied on. But
9 it's possible with some additional analysis that there are
10 ways in which additional disclosures in Dinka could be
11 used to meet more of the limitations than what I relied on
12 my declarations.

13 Q So in the example you just gave where you have a
14 computer terminal connected to a television and a
15 mechanism by which the term -- the computer would be
16 connected to one or more of these kinds of devices, which
17 element were you thinking of when you said "it's possible
18 that Dinka teaches the type of peripheral that's in the
19 claims of the 972"?

20 A It would be the mechanism by which some of those
21 functional devices, like audio/video input devices. And
22 there's an A/V input 306, and it includes external sources
23 and would also include external syncs. In particular
24 combinations there, that might include some of the
25 requirements of what a peripheral device was, again,

1 subject to the caveats that I described in my previous
2 answer.

3 Q What about the A/V input suggests that to you?

4 A I'm not sure what you mean by the "that."

5 Q Nah, it's okay.

6 Do you have Beel in front of you?

7 A Electronically I do.

8 Q Would you like a paper copy?

9 A Yes, please.

10 MR. HALVERSON: Mr. Greenleaf?

11 MR. GREENLEAF: No, thank you.

12 (Stenographer clarification.)

13 BY MR. HALVERSON:

14 Q Have you ever intentionally designed a system to
15 include unnecessary hops in communication?

16 A It depends on how you define "unnecessary."

17 Q More than the minimum needed.

18 A The question is still incomplete with respect to
19 "needed." Needed for what?

20 Q To complete the communication path.

21 A Yes, I have.

22 Q Why?

23 A So there's a lot of reasons. One is that you can
24 use things like proxies or you can go to databases that
25 are not part of the primary server. You can use

1 intermediate waypoints.

2 There's something called loose-source routing
3 that's been around in IP since the beginning that you can
4 identify intermediate points through which to stop. The
5 idea of not going in the shortest path possible or the
6 least number of hops has a pretty long history both in
7 computer science and outside of. Drive from point A to
8 point B, you don't always go in the most direct path.

9 In a computer science sense, there may be a
10 firewall that you get redirected through. There might be
11 capabilities of devices that aren't present and so would
12 require going through certain kinds of devices. And in
13 that context, I certainly designed systems where I haven't
14 taken the shortest path or least number of hops to get
15 to -- or to fulfill the goal of communication.

16 Q Does the adding those additional hops add
17 complexity?

18 A Not necessarily.

19 Q Can it be used -- sorry.

20 A It depends on what kinds of complexity you would
21 include. There are examples of systems where those hops
22 or those components already exist. And it's designed at
23 least for reasons of modularity that if you want to
24 implement certain functions, then you have to go through
25 certain components or devices.

1 Yet for basic communication, you could skip those
2 hops. You don't really increase complexity of -- those
3 hops are already there. In fact, you would provide the
4 needed functionality in order to go through those
5 particular hops.

6 There's also the question as to depending on what
7 you mean by "complexity." Sometimes more complexity is
8 warranted if it is necessary to perform certain functions
9 and to support the goals or the functionality of the
10 system. So complexity independently, on its own, is not
11 necessarily a bad thing.

12 Q What did you mean in that answer when you said
13 "necessary to perform certain functions"?

14 A So I can think of an example of where, say, going
15 through a dongle that had WiFi capabilities in it, as
16 opposed to going to a PC directly, doesn't mean you're
17 going through additional hops and doesn't increase the
18 complexity because there's functionality of the dongle
19 that would need to be performed that wouldn't necessarily
20 be performed if you skipped over the dongle.

21 In some case, it has to go with how setup and
22 device discovery happens, what the functionality of the
23 dongle is (indiscernible) the system, et cetera. All of
24 those things need to be considered.

25 Q Are you familiar with Van De Laar's WiFi direct

1 pre-association process?

2 A Yes.

3 Q Can you describe it for me?

4 A Oof. All right. That will take a minute.

5 Q Do you want Van De Laar or is it easier on the
6 computer?

7 A You can give me Van De Laar. I think this will
8 probably go back also to discussions in the original
9 declaration. I don't need that. I've got an electronic
10 version of it.

11 MR. HALVERSON: Mr. Greenleaf?

12 MR. GREENLEAF: No, thank you.

13 THE WITNESS: Could you repeat the question?

14 BY MR. HALVERSON:

15 Q The most recent was, "Can you describe it for
16 me?" The one before that was, "Are you familiar with Van
17 De Laar's WiFi direct pre-association process?"

18 A Looking through Van De Laar, it looks like
19 paragraph 134 is one of the examples the signal can be of
20 a form of, and it talks about WiFi direct pre-association.
21 I think that's the only part where Van De Laar talks about
22 pre-association. If I'm missing something, you'd have to
23 show me.

24 Q I don't know that it comes up anywhere else in
25 Van De Laar.

1 A Okay.

2 Q Which is why I'm wondering if you could describe
3 it for me.

4 A Let's see. So...

5 Let me check my original declaration to see if
6 there's something...

7 Q Do you want the hard copy?

8 A No. I have a soft copy. I was just going to
9 search. I mean, there's surrounding context about what
10 Van De Laar says. There's a whole series of embodiments.
11 So paragraph 129, "In another embodiment, the WDH or the
12 primary dockee may send a signal to trigger docking or
13 undocking of secondary devices, after which, upon
14 receiving the signal, the dockee initiates one or more
15 actions to dock to the WDH."

16 Then there's a list of what the actions could
17 include. And then it says that the signal -- essentially
18 the signal of the actions could take one of a variety of
19 different forms. And it looks like 134, 135, 136, 137,
20 138 were all the different options. One of them was WiFi
21 direct pre-association.

22 Q And so is that a signal that is sent
23 post-installation, for lack of a better word, meaning
24 it's -- the system is out, set up, and is being used, or
25 is it a signal that is sent during manufacture based on

1 the context of 129 that you just read?

2 A In terms of when that signal could be sent, I
3 don't think your two options in your question cover the
4 full range. I don't think it's during manufacture. But
5 it would be in the instance of where you're performing
6 device discovery in the context of being able to associate
7 with the WDH. And it says, "The WDH or the primary dockee
8 may send a signal to trigger docking or undocking of
9 secondary dockees.

10 And so that provides some temporal context. And
11 so it's -- the temporal context is related to when that
12 signal would be sent. So it's sent to either trigger
13 docking or undocking of secondary dockees. So that can
14 happen basically at any point.

15 Q What is the WDH?

16 A I always forget what the acronym is. It's back
17 on the -- wireless docking host or wireless docking
18 station. Paragraph 6.

19 Q Are you familiar with the concept of
20 "interoperability"?

21 A I am.

22 Q What is interoperability?

23 A So interoperability essentially means that you
24 can have a device, a component, a computer, and it can
25 operate with other devices in one sense full stop; and

1 another sense that whatever the task is, whether it be
2 communication, exchange of data, a physical interface can
3 be achieved across a range of different kinds of devices.
4 In some cases, it involves support for multiple different
5 standards. In other cases, it includes support for a
6 standard that itself is designed to provide
7 interoperability during different devices.

8 The word "inter," i-n-t-e-r, as the prefix is
9 going to be between some sort of device or component or
10 logic or hardware or software. And then "operability"
11 means you can operate between those different things.

12 Q Are the Yealink devices interoperable with the
13 Barco devices?

14 A There's a switch in context.

15 I don't think that they are, but I don't recall
16 enough to say with certainty, one way or another. And
17 also from the perspective of interoperability at what
18 level of functionality, I don't know that they're
19 interoperable at most levels of functionality, but they
20 may be able to communicate with each other at some level.
21 I just don't remember the details.

22 Q Not part of the analysis you've done for this
23 proceeding?

24 A Not specifically as it relates to Yealink and
25 Barco that I recall. I don't recall that being a factor

1 affecting any of the opinions in my declaration, nor would
2 that have an impact.

3 Q Back to that WDH of...

4 A Van De Laar.

5 Q Van De Laar. Thank you.

6 I don't know that you do. My understanding is
7 you do not. But do you have an opinion about how the
8 peripheral device transmitter is paired to the WDH in the
9 combination that you are using for your challenge?

10 So we're talking about all those messages in Van
11 De Laar about different ways to do that.

12 A I don't think it's specifically addressed in
13 Exhibit 1035. That's the second declaration. It's
14 referenced generally in some of the sections about
15 interoperability and convergence. In terms of the
16 original declaration, there are discussions of the two
17 parts of what would be required. That's really the
18 discovery and setup protocol.

19 And then the underlying protocol to support the
20 communication, that's generally described in Van De Laar
21 around where you were asking about earlier. So you were
22 asking sort of about 134 and pre-association. And I had
23 worked backwards to 129 and even 128. Those identify the
24 mechanisms that are used as examples for how both the
25 discovery happens and then what the specific signals would

1 be.

2 Q And in either of your declaration, do you offer
3 an opinion about how that pairing process would work in
4 the combination that you apply to the claims of the '972
5 patent?

6 A Depending on the specificity of how, the second
7 declaration -- and then it says what it says. It talks
8 about interoperability, the field of audio, video
9 technology, wireless A/V systems. They were rapidly
10 evolving. Those were the same kinds of things that
11 generally refer to the use of things like UPNP, Universal
12 Plug and Play, DLNA, the Digital Living Network Alliance.

13 And I think there's a plug and play service as
14 part of WiFi direct. There's XMPP mentioned in
15 Van De Laar. Let me see if back in Exhibit 1002 any of
16 those particular portions are mentioned.

17 Paragraph 214 is -- cites to paragraph 128 that
18 mentions DLNA and those kind of service discovery
19 mechanisms specifically. That's 128. So that's one
20 place. Sorry.

21 Paragraph 214 of Exhibit 1002 mentions
22 paragraph 128 from Van De Laar as Exhibit 1007. That
23 identifies the specific discovery protocol around the
24 paragraphs that you are asking about in Van De Laar 128 to
25 about 138, and it goes on from there to talk about sort of

1 the various ways in which different protocols could
2 achieve the kind of discovery and association I think you
3 were asking about in your question.

4 And I can keep looking through the opening
5 declaration to see where else it's also mentioned.

6 Q And so other than the opinions in 214 of
7 Exhibit 1002, are there additional places where you offer
8 opinions about how that pairing process would work in the
9 combination that you apply to the claims of the '972
10 patent?

11 A I'll give it a shot to see if I can answer your
12 question. You're essentially asking me to go through the
13 declaration and identify other portions that, I think, are
14 responsive to your characterization. It's going to be
15 tough to do 'cause it's almost an analysis of paragraph by
16 paragraph and section by section which portions of the
17 opening declaration would be responsive to that particular
18 question.

19 You know, I can tell you the methodology. I'm
20 going to go through and look for paragraphs from
21 Van De Laar within the range that I've identified, whether
22 they're called out specifically or part of a range that's
23 identified. There's the description of the references,
24 which are fairly short. There might be some discussion
25 within that section.

1 And then when you get into the element-by-element
2 basis as it describes what's in Van De Laar, some of those
3 paragraphs might also be cited as well. But, generally, I
4 think I do reference at least some of the specific
5 paragraphs that identify the protocols, the signals, and
6 the mechanics of how the association works in Van De Laar.

7 Q I certainly agree that you cite the paragraphs
8 that we were talking about in Van De Laar. But what I'm
9 trying to figure out is whether or not you have or are
10 offering an opinion about how that pairing process works
11 in the combination that you've applied to the claims, not
12 whether or not you cite those specific paragraphs
13 somewhere in your declaration.

14 A Oh. Not sure I understand the two options of
15 your -- that they're mutually exclusive or properly are
16 the alternatives that characterize the opinion.

17 I think, ultimately, what that combination is --
18 when you have Kaplan and Van De Laar is essentially the
19 components of Kaplan and then extended so that the
20 receiver takes on some of the functionality of the WDH.
21 And then Van De Laar's peripheral devices map to the claim
22 element of the functional devices. And so the mechanics
23 of how they would communicate through the WDH are where
24 I've relied on Van De Laar as examples about how that
25 specific association would take place.

1 It's also my recollection that the claim language
2 doesn't -- in the '972 patent doesn't require some sort of
3 specific description or requirements around what the
4 association would be. And so that's why I haven't
5 provided more detail or discussion as to the specific
6 steps of what that association would be. To the extent
7 it's relevant, I certainly can go through some of those
8 paragraphs and describe some of the different ways in Van
9 De Laar that are disclosed.

10 Q Do you have --

11 MR. GREENLEAF: We've been going for a little
12 over an hour. I'm okay to keep going, but I just want
13 to...

14 MR. HALVERSON: Would you like a break?

15 THE WITNESS: I'm okay for...

16 MR. HALVERSON: Would you like a break?

17 THE STENOGRAPHER: I'm okay for a little bit.

18 MR. HALVERSON: All right. If you change your
19 mind, let me know.

20 BY MR. HALVERSON:

21 Q Do you have an opinion, Dr. Almeroth, about
22 whether or not Kaplan requires a one-to-one ratio of
23 receivers to transmitters? And that's Kaplan
24 (indicating).

25 A So "requires" is an interesting word choice in

1 your question.

2 Q Thank you.

3 A I don't believe there's anything in Kaplan that
4 requires or limits there to be a one-to-one relationship
5 between receivers and transmitters. Transmitter 120
6 receive 110.

7 Q I think we got into this a little bit in the
8 prior depositions, but do you offer any opinion in either
9 of your declarations about the Crestron product?

10 A I don't believe so. I think the only time it's
11 come up has been in the context of secondary
12 considerations. And there aren't, in my opinion,
13 secondary considerations that apply here.

14 Q And so is it fair to say that the entirety of
15 your analysis of those secondary considerations in this
16 proceeding is confined to paragraph 30 of your
17 supplemental declaration?

18 A As long as it's understood that I've considered
19 secondary considerations. Obviously, this isn't the first
20 interaction the between the parties. It's not the first
21 IPR. It's not the first litigation.

22 I considered all of that information, and I'm not
23 aware of any evidence of secondary considerations that
24 would under -- overcome the strong motivation to combine
25 between the references that I've identified.

1 Q And -- yeah. That's fine.

2 Do you still have Kaplan?

3 A I do.

4 Q Do all embodiments of Kaplan require the use of a
5 transmitter such as 120 on the face of Kaplan?

6 A My first reaction is I don't recall offering an
7 opinion like that. Whether it does or doesn't, meaning
8 whether all embodiments require a transmitter or not, is
9 not a question that would impact my analysis.

10 There are at least embodiments with a transmitter
11 in it. In terms of the reference itself, I don't think
12 I've identified an embodiment that doesn't require a
13 transmitter. And so, ultimately, I'd have to go back and
14 see whether or not there was, and I'd have to see what
15 Dr. Brogioli said, if somehow there was an embodiment that
16 didn't require a transmitter that would be relevant to his
17 analysis.

18 Q Does Kaplan describe any post-manufacturing
19 pairing of transmitters and receivers?

20 A I thought it did.

21 Q Can you let me know where?

22 A Sure.

23 Q Thanks.

24 A Okay. I think I have an answer. Can you repeat
25 the question just so I have it in mind?

1 Q Does Kaplan describe any post-manufacturing
2 pairing of transmitters and receivers?

3 A Okay.

4 Q And if you could let me know where you're
5 looking, that would be great.

6 A Sure. So, again, I don't think I identified
7 specific paragraphs in either of the declarations. So
8 there might be additional paragraphs beyond what I can
9 point to you as some examples. But starting in about
10 paragraph 31, it talks about the communication channel
11 between the transmitter 120 and 110. And that's provided
12 in accordance with commercially available wireless
13 communication standards.

14 All of that requires association and
15 configuration and pairing and device discovery and things
16 like beacons and requests for association and responses as
17 part of the 802.11 standard. If you continue to read on
18 from there, it talks about in some embodiments and various
19 embodiments where there are different devices available to
20 connect to both in terms of 110 and 120 for the
21 communication channel. There's also discussions of the
22 remote control 130.

23 Paragraph 135 talks about one solution to do
24 preparing of the remote control and the receiver. But in
25 instances where you have different available components,

1 there needs to be a process by which the right receiver
2 and the right transmitter both associate with the right
3 network to build the communication channel and then to do
4 an association with each other in order to exchange the
5 kinds of communications that are identified; primarily
6 audio and video in the downstream direction but also
7 things like handshaking and then potential input from
8 devices in the upstream direction.

9 And, I mean, I think some of these paragraphs
10 like 36, then, talk about configuration to operate and
11 pass through mode. You know, that would be something that
12 would have to be negotiated or configured and the
13 different devices informed of that as the mode of
14 operation. That would happen through kind of this pairing
15 process.

16 And, again, I haven't had a chance to read
17 through every paragraph here. There's lots and lots of
18 paragraphs. But those are some of the examples that come
19 to mind.

20 Q Do you have an opinion about whether commercially
21 available wireless communications and the walled-garden
22 approach are mutually exclusive?

23 A I would not think they would be.

24 Q Do you still have the '972 patent in front of
25 you?

1 A I do.

2 Q You agree that Independent Claim 1 requires a
3 base unit?

4 A It does require a base unit.

5 Q Do you agree that Independent Claim 9 requires a
6 base unit?

7 A It does require a base unit.

8 Q And do you also agree that all of the independent
9 claims require a communication through peripheral devices?

10 A So the claims talk about receiving data into
11 providing data out of peripheral devices. So the
12 different claims use slightly different language in that
13 respect. Whether I would summarize that as requiring
14 through the peripheral device, you might be able to make
15 that characterization. But I think if you're sticking
16 specifically to the language of the claims, it really is
17 receiving data into the peripheral device, providing data
18 out of the peripheral device.

19 Q And that's data of a functional device; is that
20 right?

21 A That gets into an interesting question about what
22 the source of that data could be. I think, for example,
23 Claim 1 says that it's a data source or a data sync. I
24 think there are two interpretations of Claim 1 for whether
25 or not that's data that originated on a functional device.

1 I think -- either interpretation, I think I've covered
2 both in the declaration.

3 Q What is a functional device?

4 A Paragraph 72, Exhibit 1002, '972 patent
5 explicitly defines a functional device as, quote, "a
6 second peripheral device connected in some way to a base
7 unit." And in the declaration, there's a bunch of
8 examples of what functional devices are. Whether it's
9 cameras, microphones, TVs.

10 MR. HALVERSON: Let's take five minutes. Let me
11 run through my notes --

12 THE WITNESS: Okay.

13 MR. HALVERSON: -- please.

14 THE STENOGRAPHER: Off the record at 11:27 a.m.
15 (Off the record.)

16 THE STENOGRAPHER: Back on the record at
17 11:42 a.m.

18 MR. HALVERSON: I have nothing else. Thank you.

19 MR. GREENLEAF: No questions.

20 THE STENOGRAPHER: Off the record at 11:42 a.m.
21 (Time noted 11:42 a.m.)

22

23

24 ---o0o---

25

1 I, JUSTYNE N. JOHNSON, Certified Reporter and Notary
2 Public within and for the State of California do hereby
3 certify:
4

5 That KEVIN C. ALMEROOTH, PH.D., the witness whose
6 deposition is hereinbefore set forth, was duly sworn by me
7 before the commencement of such deposition and that such
8 deposition was taken before me and is a true record of the
9 testimony given by such witness.

10 I further certify that the deposition of KEVIN C.
11 ALMEROOTH, PH.D., occurred at the Hilton Santa Barbara
12 Beachfront Resort, located at 633 East Cabrillo Boulevard,
13 Santa Barbara, California 93103, on Friday,
14 February 27, 2026, commencing at 9:59 a.m. to 11:42 a.m.

15 I further certify that I am not related to any of the
16 parties to this action by blood or marriage, I am not
17 employed to any of the parties to this action, and that I
18 am in no way interested, financially or otherwise, in the
19 outcome of this matter.
20

21 IN WITNESS WHEREOF, I have hereunto set my hand this
22 27th day of February, 2026.

23 My commission expires: October 31, 2026
24

25 *Justyne Johnson*

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