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IPR2015-00810 Paper No. 43
IPR2015-00811 Paper No. 43
IPR2015-00812 Paper No. 42
July 6, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC.,

Petitioner,

V.

VIRNETX INC.,

Patent Owner.

Case IPR2015-00810 (Patent 8,868,705 B2)
Case IPR2015-00811 (Patent 8,868,705 B2)
Case IPR2015-00812 (Patent 8,850,009 B2)

Wednesday, June 8, 2016

Before HONORABLE KARL D. EASTHOM, HONORABLE JENNIFER S. BISK, and HONORABLE GREGG I. ANDERSON, Administrative Patent Judges.

Hearing in the above matter was held at the U.S. Patent & Trademark Office, Patent Trial and Appeal Board, Madison Building, 9th Floor, Hearing Room A, 600 Dulany Street, Alexandria, Virginia, at 1:30 p.m.

Reported by Elizabeth Mingione, RPR and Notary Public for the Commonwealth of Virginia.

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P R O C E E D I N G S

(1:30 p.m.)

JUDGE BISK: Please be seated. Judge Anderson, can you hear us?

JUDGE ANDERSON: I can. Thank you.

JUDGE BISK: Okay. Great. So this is a hearing for Apple, Inc. versus Virnetx, Inc. And it's three separate cases that we are hearing together, IPR2015-00810, 2015-00811 and 2015-00812.

As you can see, we have Judge Anderson joining us on video from Denver. Or where are you joining us from? Are you in California or Denver today?

JUDGE ANDERSON: I'm in California today.

JUDGE BISK: California. So please be aware of that and try to direct all of your speaking into the microphone. Otherwise, Judge Anderson can't hear you.

He also can't see the board. So if you are using your slides, be sure to tell us which slide number you are on. And with that, we have 40 minutes per side. And can the parties tell us who's here for each party.

MR. BORDER: Yes, Your Honor. Scott Border for Petitioner, Apple. And with me is Tom Broughan.

MR. ZEILBERGER: Your Honor, Daniel Zeilberger for patent owner; lead counsel, Joseph Palys; Naveen Modi, chief counsel.

JUDGE BISK: Okay. And, Petitioner, whenever you are ready. Did you want to save time for rebuttal?

MR. BORDER: Yes, Your Honor. I plan on saving about 15 minutes.

JUDGE BISK: Okay.

MR. BORDER: May I approach with demonstratives?

JUDGE BISK: Sure.

MR. ZEILBERGER: Your Honor, would you like us to provide you our demonstratives as well?

JUDGE BISK: Sure. Whenever you are ready.

PRESENTATION FOR PETITIONER

MR. BORDER: Good afternoon, Your Honors.

May it please the Board. We are here to discuss three proceedings involving two patents owned by Virnetx, the '705 and the '009 patents.

There are two primary prior art references we'll be discussing today, Exhibit 1007, a U.S. patent to Beser, and Exhibit 1009, which is an Aventail reference publication. We'll also be discussing RFC 2401, which is Exhibit 1008.

Can you change to slide 15, please.

Very quickly I want to go over Claim 1 of the '705 patent. The '705 describes a method of creating an encryptic communications channel between a client and target device, and comprises three steps.

The first step is intercepting from the client device a request to look up the IP address. The second step is determining whether that request corresponds to a device that accepts an encrypted channel connection. The final step is in response to that determination, providing certain provisioning information to initiate the creation of the encrypted communication channel.

The basic steps of Claim 1 of the '009 patent are similar, but they are from the point of view of a client device, rather than a server. There are some distinctions. I'll touch on those shortly.

On slide 3, I've created a brief road map of the issues we are going to discuss today with respect to the '810 and '812 proceedings. There are four primary issues I want to address.

But, first, before I get into these, I want to walk through the combination of Beser and RFC 2401, and then I'll focus on these issues of dispute. Slide 4, please.

This slide includes two figures from Beser and one excerpt from RFC 2401. At the top left is Figure 1 of

Beser. And it shows the basic architecture of the disclosed system.

Beser describes a method of creating a tunnel between two devices, two end devices over a public network. The tunnel permits those devices to communicate anonymously over a public network. The tunnel is created with the assistance of first-party network device 14, second-party network device 16, and trusted third-party device 30.

Now, to the right of the screen is Figure 6 in the Beser patent. And it describes the basic process the Beser method undergoes in order to establish this tunneling association. The originating device, that's 24, device 24, generates a request for a tunneling association to -- and that request includes a domain name of device 26. That request is received first at the first network device 14.

There, the first network device 14 evaluates the request and forwards it to the trusted third-party network device 30. In both circumstances, the request pertains to device 26, but is received at either device 14 or device 30. After --

JUDGE BISK: So which are you saying is intercepting it?

MR. BORDER: Well, Your Honor, what we are pointing to are two different interceptions in this -- in the Beser method. First, the device 14 intercepts the request, and then device 30 also intercepts the request.

JUDGE BISK: Okay.

MR. BORDER: After the trusted third-party device receives this request, it uses information in the request, including the domain name of terminating device 26, to look up the public IP address, the second network device, and the terminating device. This information is used to subsequently establish a tunnel.

Now, I've included an excerpt from RFC 2401. And this is at page 25 of RFC 2401. RFC 2401 describes the IP sect protocol. It describes a method of -- the protocol describes a method of automatically encrypting traffic sent over a public network.

In Case 3 of RFC 2401 shows a network configuration that we relied on in our petition that is very similar to the architecture of Beser. It describes two end devices, H1 and H2. And it describes an association with each one of those end devices, SG1 and SG2. And what RFC 2401 tells us is it describes a way to create an end-to-end encryption between H1 and H2, the two end devices.

And what we explained in our petition is that a person of ordinary skill would look at this figure and would recognize the parallel network structure between Case Number 3 and RFC 2401 and the Beser architecture.

And that's in our petition at page 28. And Dr. Tamassia also discussed this in his declaration, Exhibit 1005, at 396 to 397.

Let's first talk about whether combining Beser and RFC 2401 would have been obvious to one of ordinary skill in the art. As we explained in our petitions, the answer is yes. Slide 6 please.

Beser, at column 1, lines 54 through 58, tells us that ordinarily a sender can encrypt information inside an IP packet using this IP sect protocol. But Beser also notes that doing that does not hide the identities of the communicating parties.

And in the bottom passage, which is at column 2, lines 1 through 5, Beser goes on to note that this lack of anonymity creates a security problem even when encryption is used to encrypt that information. Slide 7, please.

So Beser, what Beser discloses is a method -- is that this tunneling method that helps to solve this problem.

JUDGE EASTHOM: So, Counsel, say if Beser does hide the addresses using this anonymity tunnel technique, are you saying that a hacker could not then determine what those private addresses are if they were given enough information in terms of whether or not if it's encrypted?

MR. BORDER: Well, what I think Beser is telling us is because it does use private IP addresses, those are not relevant. Those are not IP addresses that a -- for example, an outside hacker could use to find out what those devices are. Those are IP addresses that are assigned by the first and second network devices in Beser. So they themselves mean nothing to an outside hacker.

And because they are able to use these private IP address -- excuse me -- because they are able to use these private IP addresses, they are able to complement encryption by providing this anonymity that encryption itself won't provide. And Dr. Tamassia said the same thing. And this is in Exhibit 1005 at paragraph 398 to 400.

Now, Patent Owner contends that Beser actually teaches away from using encryption, but we don't agree. As we saw earlier, Beser teaches that it is a complement to encryption, not a replacement for it. Go to slide 11.

JUDGE BISK: I have a question. Is there any difference between the arguments on this particular issue in this case than there were in the --

JUDGE EASTHOM: 237?

JUDGE BISK: -- 237 case?

MR. BORDER: Well, Your Honor, I was just about to address that.

JUDGE BISK: Okay. MR. BORDER: In the IPR2014-237 --

JUDGE BISK: What slide is this?

MR. BORDER: Your Honor, excuse me. This is slide 11.

JUDGE BISK: Thank you.

MR. BORDER: In the IPR you just referred to, which is 2014-00237 at 41, the Board considered this exact same issue. And Patent Owner has offered no new evidence or no new arguments in these proceedings such that there is no reason for the panel to depart from that previous determination.

JUDGE BISK: Can I ask kind of some technical questions about the similarities here. So the patent at issue in 237, is the specification for that patent exactly the same as the two patents in this case?

MR. BORDER: It's not exactly the same, but it is virtually the same. The patent that we are dealing

with here, I believe, is a child of the patent, but -- and the relevant disclosure that we are sort of analyzing is virtually identical.

JUDGE BISK: Okay.

JUDGE EASTHOM: What about the determining step? I mean, given that you are combining 2401 with Beser to reach encryption, how does the Beser system determine that these end devices are available for the encrypted part of the Claim 1? It says -- hold on one second -- determining whether the request to look up the IP address corresponds to a device that accepts an encrypted channel connection with the client device.

So I guess I'm wondering -- I can see how Beser might determine what we found in the 237 case that these things are for secure communication because they have a private IP address, if they are listed. That's kind of what we read, I think, in the 237 case.

But how do you go to the next step and say, okay, they also show that this secure device is encrypted, if you are using Beser with 2401 to sort of get the encryption part of it?

MR. BORDER: So, just to be clear, Your Honor, are you asking the determination step in Beser, how does it determine whether or not one of these end

devices is one that accepts an encrypted channel connection?

JUDGE EASTHOM: Correct.

MR. BORDER: Well, Your Honor, what Beser tell us is that the third-party trusted network device is a modified DNS server. And it contains a database. And this database includes the IP addresses. For example, the second network device and devices that correspond --

JUDGE EASTHOM: I understand that. It looks up a private address and figures out whether this thing can be connected in a secure method. And using this anonymity technique, but how does that get you to the encryption part of that?

MR. BORDER: Well, the encryption part is supplied by RFC 2401.

JUDGE EASTHOM: So how does Beser know that this device is ready for encryption, Beser's system? Are you combining the two somehow? I'm trying to figure out how you are reaching that step and where you address that.

MR. BORDER: Well, Your Honor, I believe what we explained in our petition, and this is -- what we explained in our petition are that the end devices are -- the devices that are included in this database, the database discussed at column 11, lines 20 through 58, and this is a

petition at 33; these are devices that support the encryption.

And by virtue of being in this directory service, this database, that is a determination that it is available for the secure communication service.

JUDGE EASTHOM: So what you are saying then is that all the secure devices that are listed there that are able to provide anonymity, those all are -- those all have encryption in your combination. Is that --

MR. BORDER: That's correct, Your Honor. They all support end-to-end -- in the combination, these are devices that support an end-to-end encryption.

JUDGE EASTHOM: Okay.

MR. BORDER: Let's go back to slide 14, please. You have to focus on the second step for a second. This is whether Beser and RFC 2401 show a request to look up an IP address.

If we can quickly go to slide 4, please. And the request we are talking about here is the request from the originating device 24 that includes the domain name of device 26. This is request 112. Please go to slide 15.

The first step is intercepting from the client device a request to look up an IP address corresponding to a domain name associated with the target device. Let's go to slide 17.

We showed in the petition that Beser explains that two IP addresses are actually looked up in response to this request, the public IP address for the second network device, and the private IP address for the terminating device.

We also showed in our '812 proceeding that this satisfies the '009 patent as well, which uses a similar phrase, DNS request to look up the network address. That's based on the agreement between the parties that the construction of a DNS request is a request for resource corresponding to a domain name.

In response, Patent Owner argues that Beser does not look up an IP addresses, but that's not true. Let's go to slide 21 please. This is the slide that we looked at before.

And, again, it explains to us that what the third-party network device does is it consults a database as a typical domain name server would do, and associates the IP address of the second network device with the unique identifier, the domain name it receives in the request.

So apart -- so in fact the third-party network device does perform a look up. Dr. Tamassia agreed, if you can go to slide 22, this is at column -- Exhibit 1005, paragraph 310. He agreed that this disclosure in Beser

supports our evidence that Beser, in fact, does disclose a look-up. And, in any event, the claims do not specify that a look-up is performed, nor discuss the mechanics of how it is performed.

Let's very quickly go to slide 24. Now, Patent Owner makes --

JUDGE BISK: I kind of -- I think I understood their argument a little differently, which is not that nobody doesn't DNS request, just that it's not the originating -- the originating requestor, or they are initiating a tunnel, not requesting a DNS.

MR. BORDER: Well, Your Honor, the construction in the '812 proceeding, the agreed construction agreed to by both parties was simply a request for a resource corresponding to a domain name.

JUDGE BISK: Right. But I think their argument is that it's the wrong entity doing the looking up, if I'm not mistaken.

MR. BORDER: I understand your question, Your Honor. That's incorrect. If we can go to slide -- and let me show you how or why. Let's go to 25, please, slide 25.

It's actually not true. It's actually the preferred embodiment of Beser that explains that the negotiation that takes place is performed by the third

party, the trusted third-party network device. And this is in Beser at column 9, lines 29 through 30.

And what the trusted third-party network device says is not only does it look up the IP address of the second network device, it also through this negotiation method between the first and second network devices also determines the private IP address of the terminating device 28. So it actually looks up two.

JUDGE BISK: Can we look at one of the claims for a minute, maybe Claim 1 of the '009 patent is what I have right in front of me.

MR. BORDER: Of the '009 patent?

JUDGE BISK: Yeah, if you have it handy. So I'm trying to figure out from this claim language what is it that sends the DNS request?

MR. BORDER: What is it in Beser, Your Honor?

JUDGE BISK: Or what is it in the claim, first, and then what is it in Beser?

MR. BORDER: Well, Your Honor, this is -- in this claim it's simply a network device that would ascend this domain name service request. And so in Beser what we've pointed to was the originating device 26. If you can go to slide 24, please.

JUDGE BISK: Right. And so if the network device is the originating device, then you seem to kind of change in the middle of there and say now it's actually the third-party trusted device that actually sends the DNS request, right?

MR. BORDER: Oh, I'm sorry. Maybe I misspoke. The device 24 is the device that generates the request to look up an IP address. It is intercepted by device 14 and device 30. The look-up is performed by device 30.

JUDGE BISK: Okay. And so tell me again how the originating device 14, is it? I am sorry, 24.

MR. BORDER: 24, Your Honor.

JUDGE BISK: How is it requesting a DNS look-up?

MR. BORDER: Well, again, the agreed construction of a DNS look-up -- do you have the Patent Owner response at 3?

MR. BROUGHAN: Let me get that.

MR. BORDER: The requested look-up -- this is Patent Owner's response in the '812 proceeding. The DNS request was agreed to be simply a request for a resource corresponding to a domain name. So as you can see from the agreed constructions, there is no requirement

that they follow any sort of protocol, any DNS protocol, for example.

Your Honor, does that address your question?

JUDGE BISK: So by initiating a tunnel, you say initiating a tunnel qualifies?

MR. BORDER: Yes. Yes, Your Honor. This is very broad language. It's simply a request for a resource. The resource that is returned is an IP address. And there is no dispute that that is a resource in the claims.

Let's go to slide 27, please. Actually, let's go slide 26. Just to conclude on that issue, this similar issue came up in IPR2014-00237. There the Board also found that the request in Beser was a request to look up an IP address.

This was in the final written decision at page 24. And again the Patent Owner has offered no reason for the Board to depart from that previous, incorrect determination.

Slide 27, please. Next, let's talk about whether the request in Beser is intercepted. Slide 4, please. Again we are -- JUDGE BISK: Can I ask a question?

MR. BORDER: Yes, Your Honor.

JUDGE BISK: I'm sorry. There's a lot of discussion on claim construction in the brief that seems like in the end didn't really apply to these cases. But one thing that nobody actually touched on is the word "intercepting." But that seems to be actually at issue here is the construction of the term "intercepting."

MR. BORDER: Yes, Your Honor. And I notice in the Institution Decision, the Board did not believe that construction was necessary. However, in that previous decision, the Board did arrive at a construction. If you can go to slide --

JUDGE BISK: That's the 237?

MR. BORDER: This is the 237 case, Your Honor. And in that proceeding what the Board determined was that receiving an interception meant receiving a request pertaining to a first entity at another entity. And so if you can go to slide 4.

JUDGE BISK: And what does "pertaining to" mean?

MR. BORDER: Well --

JUDGE BISK: I think in this case that's where the argument is. It's a little deeper.

MR. BORDER: Well, I think we agree with I think some of the basic tenets of this construction. I think

Patent Owner also includes this concept of performing an additional step after that interception.

JUDGE BISK: Right.

MR. BORDER: But I note -- let's go to slide 33. And this is the only example in the patent that discusses this concept of intercepting a request. And there's two things to take away from this passage. And it's, first, all requests from the client are sent to one device, DNS proxy 2610.

And, second, there is no indication that this interception has any special meaning. So in the disclosed embodiment, a single -- the request pertains to, for example, the destination, the terminating device in Beser. However, it is received or intercepted, in the language of the claims, by another device.

And that is the concept that I believe the Board was trying to capture with that construction. And I should note -- if you can go to slide 34, at his deposition I asked Patent Owner's expert what his understanding of the term "intercepting" was. And he explained to us that he had no opinion of what the term requires.

So we agree with the Board's previous construction, receiving a request pertaining to a first entity and another entity. And applies -- and as applied to Beser, if we can go to slide 35, again the Patent Owner

has given the Board no reason to depart from this previous determination where it found an interception both at device 14 and device 30.

JUDGE EASTHOM: Did the Patent Owner challenge that claim construction in their brief in the Federal Circuit for the 237 case, do you know, or --

MR. BORDER: Your Honor, I think you've -- I think you have asked me a question that I just don't have at my command right now.

JUDGE EASTHOM: That's all right. I'm just curious.

MR. BORDER: I apologize, Your Honor. I don't believe this was at issue in the Federal Circuit, but I don't --

JUDGE EASTHOM: Well, whatever.

MR. BORDER: Okay. I believe they have challenged it to the extent that it requires some additional evaluation steps.

JUDGE EASTHOM: Okay.

MR. BORDER: But I honestly don't have that fresh, Your Honor.

JUDGE EASTHOM: That's okay.

MR. BORDER: Sorry.

JUDGE ANDERSON: So I want to ask you about encryption. Beser doesn't really teach encryption; isn't that right?

MR. BORDER: Your Honor, what it explains is that encryption alone is not a satisfactory way to secure a communication. So it teaches a complementary method for hiding the ends of those -- that encrypted channel so that hackers, for example, cannot find out who's doing the communication.

JUDGE ANDERSON: So it doesn't teach encryption?

MR. BORDER: It doesn't teach -- well, it does say that encryption is typically used. It does recognize that there are some certain circumstances, such as high media, high bandwidth media applications where encryption might not be used, but it does state that typically encryption is used in communicating packets in its system.

And that description is -- if you can go to slide 6. And here it's discussing some of the benefits of encryption and some of the drawbacks. It says the sender may encrypt the information inside its IP packets before transmission with this IP sect protocol. That's the RFC 2401 we've been discussing.

What Beser states is that it's simply a complement, an additional element of security that can be added to what is otherwise an encrypted communication.

Why don't we go to slide 36. The final issue of contention relates to the '009 patent only. Let's go to slide 37. The claim specifies receiving certain information, including an indication that the second network device is available for the secure communications service and the requested network address of the second network device.

Now if we can go to slide 38, please. Patent Owner asserts that Petitioner is essentially double-counting, because we are pointing at the private IP address of the terminating end device to satisfy both claim elements. That's not true.

If we can go to the next slide, please, slide 39. In the petition at page 41, what we explained was the indication is met by the receipt of both the private IP address of the originating device and the receipt of the private IP address of the terminating device. It is the receipt of both of these private IP addresses that serves as the indication of the claims.

Let's go to slide 40. I have used --

JUDGE BISK: You are about at 25 minutes just now.

MR. BORDER: Thank you, Your Honor. I'm going to fast forward through the next steps. I'm going the shift gears to the '811 proceeding, which deals with Aventail. I'm going to focus on one issue. And then I'm going to get to my conclusion.

Let's go to slide 41. Quick overview of the architecture of Aventail. This is at Aventail, page 72. It describes a way of establishing a BPN between mobile users and private users on a network, together with an Aventail client, which is called Aventail Connect. It's software running on mobile users, and the Aventail BPN server, which is also called the Aventail Extranet Server.

And what Aventail 10 explains to us is that at a high level, what happens is that Aventail Connect, the software on the mobile user, receives a connection request, and then it determines whether or not it needs to be redirected and encrypted.

Let's go to slide 45. Now I have highlighted here both the first and second step of Claim 1 of the '705 patent. I've highlighted it because the request that is discussed in Claim 1, or the first element of Claim 1, is relevant to the request that the determination is made on in the second step of the claim.

We explain in our petition that Aventail Connect, the Aventail Connect client -- let's go to slide 42, please.

We explain in our petition that when a user issues a connection request in a web browser, for example, that matches a secure destination on the private network, the application does a DNS look-up to convert the host name to an IP address.

Aventail Connect will intercept that, evaluate it against a redirection rule, and then return this false DNS entry called the HOSTENT. These are the first -- this is the first step of Aventail. It's the step that we relied on to show that Aventail satisfies the first and second steps of Claim 1 in the '705.

If you go to slide 43, Patent Owner's response is a red-herring. They point you to what happens after Aventail Connect has intercepted the request and after it has made the determination. They are pointing to these sequence of steps in Aventail that are not relevant, and a sequence of steps that Petitioner did not argue satisfies the determination step.

Really quickly, let's --

JUDGE EASTHOM: So, in other words, you are saying if it matches a redirect rule, or it has a HOSTENT, if it's not passed through Aventail Connect, in

other words, in a normal fashion, then that is a determination that it's for a secure -- it's a look-up, and it's also a determination?

MR. BORDER: Yes, Your Honor. If you can go to slide 66. If it does intercept the request, Your Honor, and determines that it matches a redirection rule, in the configuration we discussed in the patent, that is a determination that encryption is required.

JUDGE EASTHOM: There was two things in there, right? There was a redirection rule and also this proxy enable thing. Are those -- can you briefly explain? It seems like there's two or three things going on, and I wasn't --

MR. BORDER: There is, Your Honor. Let's go to slide 42. It's just a different way of arriving at the same result, Your Honor.

What the second step here is you can create essentially a table of redirection rules. And if a domain name matches one of those rules, it knows that it needs to be proxied.

And the DNS proxy option doesn't need a table. Everything gets proxied. But the results are the same. A fake HOSTENT is delivered to the application. And then all the steps after that are largely the same.

JUDGE EASTHOM: So you are saying when it goes to the proxy, whether it's through the redirect or not, it's determining that it's for a secure connection?

MR. BORDER: Well, what we are arguing is that when it -- the second step, when it does match a redirection rule, that is also a determination that it requires encryption. And that's --

JUDGE EASTHOM: But it might not have to do a redirection rule, right? It could just be the proxy is on -- I thought was one of the options in Aventail.

MR. BORDER: That is an option, Your Honor.

But the option that we pointed to was this match of the redirection rule in Aventail.

JUDGE EASTHOM: So you are saying even if it does two of those things, as long as it does one of them every now and then, then that satisfies the claim?

MR. BORDER: Well, that's right, Your Honor. I mean, there are multiple configurations described in Aventail. And certainly every single configuration does not need to cover the claims in order to find these claims are obvious in view of Aventail and RFC 2401.

And the configuration that we discuss and we rely on we believe shows that these first and second steps,

the interception, the determining steps are met by this first step of Aventail.

Really quick, let me sit down with this. Briefly, the Patent Owner challenges whether the Aventail reference and the RFC references that we relied on were publicly available. We provided, in the form of evidence, three sworn declarations from witnesses with personal knowledge of Aventail's availability.

With those declarations, we provided documentary evidence, including newspaper articles and magazine articles that corroborates that this Aventail reference was publicly available well before February 2000, the effective date of the '705 and '009 patent.

We also provided, with respect to the RFC documents, a declaration from an IETF corporate representative who swore about the practices of the IETF in making RFC documents available. We also have unrebutted testimony of Dr. Tamassia who testified about the RFC documents and the process that makes those documents available.

We think the evidence confirms that both the RFC documents and the Aventail references were publicly available well before the February 2000 date of the patents.

And unless there are any questions, I would like to reserve the remainder of my time for rebuttal.

JUDGE BISK: Okay. Thank you.

MR. BORDER: Thank you, Your Honor.

JUDGE EASTHOM: I have one quick question.

You know, in the Aventail system it seems that the encryption socket is a separate device that can be chosen. How does that relate to the determining step if every single device can be encrypted whether or not it's through the secured proxy or not?

MR. BORDER: Well, it certainly is an option. And the configuration we showed, which was -- it's in Aventail at page 73. It describes in one configuration any user that requests a resource on a private network, every user has to get authenticated. And every user has to encrypt their sessions with SSL. This is Aventail page 73, this bottom configuration. So in that event --

JUDGE EASTHOM: That's slide 73?

MR. BORDER: I'm sorry, Your Honor. This is slide 66. But in the Aventail reference, it's on page 73. And this is the configuration where any request for a connection to an internal private network requires both authentication and encryption of all users and all sessions. Thank you, Your Honor.

PRESENTATION OF PATENT OWNER

MR. ZEILBERGER: May it please the Board, my name is Daniel Zeilberger. I'm here today on behalf --

JUDGE BISK: I think you might need to speak closer to the microphone.

MR. ZEILBERGER: Sorry. May it please the Board, my name is Daniel Zeilberger. I'm here today on behalf of Patent Owner.

For purposes of today, I will be addressing issues relating to IPRs 2015-00810 and 00812. And my colleague, Mr. Bansal, will be addressing issues relating to the IPR2015-00811.

So turning to slide 2, we've just provided a brief overview of the instituted grounds that are pending in these proceedings. As Your Honors know, Beser is the primary reference at issue in the '810 and '812 matters. And Aventail is the primary reference at issue at in the '811 matter.

JUDGE EASTHOM: Can I ask you a question about the intercept step? It seems in your briefs you are urging a different construction. You are saying that it doesn't ordinarily go to the proxy. It ordinarily goes to -- you have some definition, I'm sorry, I'm probably -- maybe you can help me out.

JUDGE BISK: I think there's an intent, kind of.

MR. ZEILBERGER: Are you talking about the intercepting arguments on behalf of the Beser reference?

JUDGE EASTHOM: Yes. Yes.

MR. ZEILBERGER: Yes. So I was about to get there. And I can jump over there now.

JUDGE EASTHOM: You said the packets in Beser are all intended to go to the trusted third-party device. So that doesn't read on the intercepting, your intercepting construction. And my question is it seems like all of the packets in your proxy all are intended to go to that proxy as disclosed in your patents.

Let me just ask you a quick question. How do your requests get to the proxy? Do they have an address in the packets going to the proxy in your patents?

MR. ZEILBERGER: So I believe that's discussed in column 40 of the '705 patent.

JUDGE EASTHOM: Correct.

MR. ZEILBERGER: And what will happen in that portion of our specification is that the DNS proxy essentially intercepts all packets that are intended to go to --

JUDGE BISK: But how does it intercept?

JUDGE EASTHOM: Right. Thank you. How does it? Thank you. Yes.

JUDGE BISK: Does it just, surprise, jump out and get there? I mean, there's got to be programming somewhere.

MR. ZEILBERGER: Right. So the system would be configured such that the packets would be forced to travel through the DNS proxy.

JUDGE BISK: Right. Yeah.

JUDGE EASTHOM: So travel through the air, right, and then what happens? How does the DNS proxy intercept them?

If they are not addressed, I mean, it's almost a rhetorical question. The packets have to be addressed to the proxy, I guess is what I'm asking you to confirm or not.

MR. ZEILBERGER: If I may confer with my co-counsel?

JUDGE EASTHOM: Sure.

MR. ZEILBERGER: Thank you. Your Honor, I believe the patent doesn't specify how the interception occurs.

JUDGE EASTHOM: Okay.

MR. ZEILBERGER: But as to the arguments we raised for the intercepting feature, so if you go to slide

7, this is actually an excerpt from Apple's petition in the broadest reasonable interpretation that they argued for. And they argued that intercepting a request includes receiving a request pertaining to a first entity at another entity.

And that construction we thought sort of begs the question of what "pertaining to" means. So going to slide 8, we actually asked Apple's expert what he thought Apple's construction meant. And he explained that his understanding of the broadest reasonable interpretation of the intercepting feature covered two scenarios.

In one scenario, it would cover this intended for requirement where a request is intended for receipt at a destination other than the destination at which the request is intercepted. And, second, a request is ordinarily received by another entity and is instead received at the first entity.

JUDGE BISK: Maybe that can be said another way, in that the request is for a second network device, but it is received by something other than that second network device?

MR. ZEILBERGER: Your Honor, I think there would be some differences from what Dr. Tamassia said to what Your Honor just said, but they are similar.

JUDGE BISK: Okay.

MR. ZEILBERGER: Now, turning to slide 9, we've excerpted a portion of Apple's reply. And there's a few things that I want to cover here and address.

Number 1 is this first sentence that they provided where Petitioner says that Patent Owner asserts Dr. Tamassia, quote, clarified his construction of, quote, interception to mean, quote, receiving a request. And then "pertaining to" is crossed out. And then underlined is intended for or ordinarily received by, and it continues, a first entity at another entity.

And one thing I think the Board should just be clear on is while they are citing to the response in Dr. Tamassia's declaration, those quotes are actually not from either document. What they appear to be is a characterization of Patent Owner's response, but an inaccurate one at that, because we're not arguing as Petitioner seems to be suggesting in the second sentence that Dr. --

JUDGE BISK: That just brings up a question in my mind, which I had this entire time. I don't understand at all your proposed construction for "intercepting," because it doesn't seem to have anything -- you seem to read the word "intercepting" right out of there. And I don't see how your construction relates to the word intercepting at all.

MR. ZEILBERGER: Your Honor, I would respectfully disagree.

JUDGE BISK: Okay. Explain to me then where "intercepting" is in your claim construction, your proposed claim construction.

So in your view, either there's no construction, which clearly is a problem, because we are having a dispute over what "intercepting" and "pertaining to" means. So no construction doesn't really seem to be a good conclusion here.

So, alternatively, you have receiving a request to look up the IP address, and apart from resolving it into an address, performing an evaluation on it to establish an encrypted communication link.

What in the world does that have to do with intercepting it?

MR. ZEILBERGER: So we believe that's consistent with what happens in the specification when it discusses interception.

JUDGE BISK: Okay.

MR. ZEILBERGER: If you turn to column 40 of the specification, it talks about all these things that are in our construction. And I will also note that the arguments that we raised in our Patent Owner response, aside from the portion of --

JUDGE EASTHOM: In column 40 it talks about being able to determine whether there's an encryption?

MR. ZEILBERGER: Sorry. Did you say 40 or 48?

JUDGE EASTHOM: I'm sorry. Which column did you say?

MR. ZEILBERGER: I said four-zero.

JUDGE EASTHOM: I said four-zero also, 40. Where in column 40 does it say that it's determining whether there's encryption? I guess we are talking about which --

MR. ZEILBERGER: So I believe that the portion of our construction for intercepting refers to performing an evaluation on the request to establishing an encrypted communications channel.

JUDGE EASTHOM: Oh, okay. That's column 40, line --

JUDGE BISK: But that has nothing to do with the meaning of the word intercepting. So does intercepting have a different meaning in the art?

MR. ZEILBERGER: So our position is that in our patent, in the context of the specification, whenever interception occurs, this evaluation on the request will always happen.

JUDGE BISK: Okay. I can see that, but it seems to me that part of your claim construction is missing. Where -- what is the intercepting part of it?

MR. ZEILBERGER: Your Honor, I would submit that the entire phrase is the intercepting of the request.

JUDGE BISK: Okay.

MR. ZEILBERGER: I would also note, though, that the arguments in our Patent Owner response actually respond to Apple's construction, in their petition, that they --

JUDGE BISK: So let me ask a question. If we did go with your alternate proposed construction, wouldn't Beser -- Beser does that, right?

MR. ZEILBERGER: No, Your Honor. It does not perform the encryption element.

JUDGE BISK: Oh, the encryption. That's the RFC portion of it, right?

MR. ZEILBERGER: Well our argument, Your Honor, is that it would not have been obvious to combine Beser with the RFC document.

JUDGE BISK: Okay. Now do you have a different argument here than was in the 237 case or is it the same? Is there any differences between this case and that case?

MR. ZEILBERGER: Yes, Your Honor. There are.

JUDGE BISK: Okay. What are they?

MR. ZEILBERGER: For the intercepting limitation --

JUDGE BISK: No. What about -- I'm talking about for the combination of RFC 2401 and Beser.

MR. ZEILBERGER: Your Honor, I would submit that we respectfully disagree with the decision in the 237 matter. And it's currently up on appeal to the Federal Circuit.

JUDGE BISK: I understand that. Can you tell me what's going on with that case? It looks like there's a motion to stay something at the Federal Circuit. It looks like it's fully briefed and ready to argue but -- go ahead.

MR. MODI: I can address that, Your Honor.

JUDGE BISK: Talk to the microphone.

MR. MODI: Sure. So the case has been -- that particular appeal has been fully briefed, but as Your Honor knows, there are other appeals involving other patents that are currently being briefed. And the Federal Circuit --

JUDGE BISK: So you are trying to do them all together?

MR. MODI: Well, the Federal Circuit consolidated them for oral argument purposes. So once all the other briefs are fully briefed, all the other cases, then the cases will be set up for oral argument. And we expect that to happen sometime this fall.

JUDGE BISK: Okay. What are the other cases that are being briefed?

MR. MODI: So, Your Honor, the IPR numbers, off the top of my head, I'll try my best. It's 403, 404, 481, 482.

JUDGE BISK: Okay.

MR. MODI: And there's an inter partes re-examination that is --

JUDGE BISK: Yeah. I think I know that one.

MR. MODI: -- 95001,949. So I believe I got them all, but if I missed any, I'll pass a note.

JUDGE BISK: Thank you. So there might not be any differences, but so it's the same argument, but you would like a different outcome basically, in this case, for the combination argument.

MR. ZEILBERGER: For the argument relating to encryption. Yes, Your Honor.

JUDGE BISK: Okay.

JUDGE EASTHOM: I'm sorry. You gave me the cite, and I think I missed it, but you said in column 40

somewhere you talk about encrypting -- I'm on the '705 patent. You talk about determining -- you said the intercept step would determine whether something's encrypted. There's an encrypted channel, I thought you said.

I don't know if you were reading from this column or you were reading from your definition. I'm just looking for where that might be in column 40, or wherever it is. Doesn't have to be column 40.

JUDGE BISK: You are looking for the definition of intercepting?

JUDGE EASTHOM: Yes. About whether it's -- whether there is intercepting, and then determining if something is encrypted, I think is what --

JUDGE BISK: Okay.

JUDGE EASTHOM: -- you said is part of your definition.

MR. ZEILBERGER: Your Honors, I think I said part of our definition for the intercepting is an evaluation on the request related to establishing an encrypted communications channel.

JUDGE EASTHOM: Okay.

MR. ZEILBERGER: And I believe --

JUDGE EASTHOM: If one of your colleagues wants to do that later, that's fine. You can move on. I don't want to hold up.

MR. ZEILBERGER: Thank you. So turning to slide 10, we've excerpted another portion of Apple's petition. And this shows what Apple's mapping from Beser to the intercepting feature.

And they allege that even though the request contains a unique identifier associated with the terminating end device, their request is actually intercepted by each of the first network device and the trusted third-party network device because they each receive a request pertaining to a first entity at another entity.

And in our opinion, there's a few issues with this. For one, Apple's petition did not address the construction as their own expert understood it to Beser. And, further, Beser would not be consistent with the construction that Petitioners advocated for, as we can see in the next few slides.

So Apple essentially pointed to, as they said earlier, two alleged interceptions, and highlighted the first alleged interception where you have a tunneling request that's sent from the originating end device 24, to the first network device 14. But Apple does not even appear to

contend otherwise that this is not intended for and ordinarily received by the first network device 14.

So it cannot satisfy the construction --

JUDGE EASTHOM: But how does that differ from your disclosure? Aren't your packets sent to your proxy? They are intended for your proxy.

MR. ZEILBERGER: So, in Beser --

JUDGE EASTHOM: No, in your disclosure. In your disclosure. In your disclosure, your patents, all the packets are intended for the proxy. You said you didn't -- it didn't say whether or not that happened in column 40, but I don't see how they get there if they are not intended for it.

MR. ZEILBERGER: So in our patent, when requests are sent, they are received by the proxy. But the proxy will perform an evaluation on it.

JUDGE EASTHOM: But are you saying they are not intended for the proxy? Because that's what you are making your distinction on now.

MR. ZEILBERGER: So our construction does not have this intended for or ordinarily received by element. That's Petitioner's construction.

JUDGE EASTHOM: Okay. So if we agree with Petitioner, then you are not arguing that yours doesn't have that intended for it. You are saying your

proxy does do the same thing as Beser that's intended to receive these packets?

MR. ZEILBERGER: No, Your Honor. We are not saying that our patent does the same thing as Beser.

JUDGE EASTHOM: I didn't mean that, totally.

I am just saying your proxy has packets intended for it, just like Beser's device 14 and 30. So I don't think that would be a distinction if we go with Petitioner's intended-for language.

I'm trying to ask you if there is a distinction for you in your -- in other words, it seems like your proxy has these patents that are intended for them. Also, how do they get there?

MR. ZEILBERGER: So they are received by the proxy. But when -- so there's two scenarios that are covered, two possibilities that will happen. If the request is a nonsecured domain name, then the request would be essentially forwarded on to the DNS, and it would be resolved. When it's --

JUDGE EASTHOM: Goes through the proxy though, right?

MR. ZEILBERGER: Right.

JUDGE EASTHOM: Passes through. Okay.

MR. ZEILBERGER: That's correct, Your Honor.

JUDGE BISK: Can we move on to the next part because this is intended for -- or it's not on the same wavelength as you are on this one.

MR. ZEILBERGER: Sorry?

JUDGE BISK: Can we move on to the next part, the interception? The intended for is not -- I'm not with you on this one. I'm interested in the next -- the next part.

MR. ZEILBERGER: Slide 12?

JUDGE BISK: Yes.

MR. ZEILBERGER: Yes, Your Honor. So in slide 12 we've highlighted the informed message that gets sent from the first network device 14 to the trusted third-party network device 30. And this does appear to be a point of -- there appears to be a point of disagreement between Patent Owner and Petitioner about what's really going on here.

In Patent Owner's view, what's happening is that essentially a new message is being generated from the first network device 14, to the trusted third-party network device 30. And it's not the tunneling request that was sent by the end device that's forwarded on to the trusted

third-party network device. And we think that that view is supported by the next slide, slide 13, where it --

JUDGE BISK: So can I ask you, I guess I don't understand that argument very well. Are you saying that the problem is that the wrong entity is making the DNS request?

So it's not the originating 24 that's making the DNS request. It's 14 that's making the DNS request. And that's what's the problem, is the claim requires 14 -- 24 to make the DNS request?

MR. ZEILBERGER: So we've only analyzed the mapping that Petitioner has provided, which was they have looked at the end device as they have submitted earlier today, and they allege that the tunneling request sent by the end device is the DNS request.

JUDGE BISK: Okay. And you are saying that's not a DNS request, but then you are talking about this new informed message.

MR. ZEILBERGER: Right. So in Petitioner's view, that informed message is the tunneling request. And in our view, it's not. It's a new packet that's sent off from the first network device to the trusted third-party network device 30.

And if you look in slide 13, we think that supports that view. It's an excerpt from Beser.

JUDGE BISK: Why does that matter if it's a different message than that? Because it's being made from a different device? Why does this matter?

MR. ZEILBERGER: So Petitioner argued that the tunneling request is intended for first network device 14, but it's instead received by the trusted third-party network device 30.

JUDGE BISK: No. No. I thought they were saying that it's intended for the second network device, right? And it's --

MR. ZEILBERGER: No, Your Honor.

Judge EASTHOM: It's intended for the end device 26, they are trying to figure out.

JUDGE BISK: Yeah. And it's intercepted by both 14 and the third party.

MR. ZEILBERGER: Your Honor, so I believe Petitioner made a few arguments. One of the arguments they made, which would be inconsistent with the construction as explained by Dr. Tamassia was because the packet happens to contain the unique identifier of end device 26, it's intercepted by these devices, because under a broad view of what the words "pertaining to" mean, they would allege that that is an interception.

JUDGE BISK: Okay. Yeah. Next argument on that. Go on.

MR. ZEILBERGER: Your Honor, so then they also allege that under the intended for understanding of their construction, that each of the first network device 14 and the trusted third-party network device 30 perform an interception because with respect to device 30 -- sorry, only with respect to device 30.

And with respect to device 30, they allege that that's an interception because it's intended for a first network device 14, but it is somehow received by device 30.

JUDGE BISK: Okay. So this is like a separate -- a totally separate argument. So if I didn't agree with your first argument, doesn't matter if I agree with this one.

MR. ZEILBERGER: Your Honor, we would submit that it does matter, because this is -- Petitioner's construction requires this intended for or ordinarily received by requirement, because that's the construction that their own expert applied.

JUDGE BISK: Right. And I'm saying if I don't agree with this intended for, but maybe I'm moving into a different -- a different limitation than it's sending the DNS request is where I'm going. I think you had an argument that Beser never actually sends a DNS request?

MR. ZEILBERGER: Your Honors, I believe you may be referring to the '812 proceeding.

JUDGE BISK: Okay. Yes. The '009 patent.

MR. ZEILBERGER: Yes. If you go to slide 19, we've highlighted the DNS request that I believe you are referring to.

JUDGE BISK: Okay. Yeah.

MR. ZEILBERGER: And the issue here that we argued, if we turn to slide 20, we ask Dr. Tamassia, Apple's expert again, what the DNS request in his analysis meant. And he explained that in the '009 patent, about Claim 1 of the '009, the request in question is a request that follows the DNS protocol for such requests. That is my understanding of the meaning of the domain name service request.

And our argument is that Apple did not show that Beser teaches or requests that follows the DNS protocol, and it couldn't have because Beser doesn't.

And Apple's reply, turning to slide 21, they argued that a person of ordinary skill would have understood.

JUDGE BISK: So -- but that confuses me a little, I guess, because the domain -- DNS request you appear to agree with Petitioner's claim construction that didn't -- and it doesn't say anything about requiring DNS

protocol. Is that somehow inherent in there or how did this DNS protocol get in -- suddenly get in the claim?

MR. ZEILBERGER: Well, when we asked Apple's expert about the understanding, so we have someone that they are holding out to be an expert in the field, he explained that it does require this DNS protocol aspect.

JUDGE BISK: Okay. So are you saying that DNS requests, when we construe that, I mean, the claim doesn't say DNS protocol anywhere.

MR. ZEILBERGER: It does not explicitly refer to that.

JUDGE BISK: So somehow that has to get into the claim, you are saying. How does it get into the claim?

MR. ZEILBERGER: So our position is that to the extent we intend to rely on Dr. Tamassia's testimony, we believe you also need to rely on this testimony he's provided here showing that one of ordinary skill would have understood that when the claim refers to a DNS request, it's referring to a DNS protocol, or a request that satisfies the DNS protocol.

JUDGE BISK: And so DNS request, we need to construe it to include a DNS protocol? MR. ZEILBERGER: Sorry, Your Honor?

JUDGE BISK: We need to construe the term DNS request to include a DNS protocol. I'm just wondering how we get this into the claim.

MR. ZEILBERGER: Yes, Your Honor.

JUDGE BISK: Okay. So it's a little confusing to me because in your briefs, in the claim construction section, in DNS requests, I believe you have a whole section on that; and that's not in there. It says Patent Owner proposed construction, a request for a resource corresponding to a domain name.

And then in the analysis is when you bring in that it requires a DNS protocol.

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

JUDGE BISK: Okay.

MR. ZEILBERGER: One moment, Your Honor. Your Honor, turning to slide 21, Apple's position is that a person of ordinary skill in the art would have understood that when a request resulted domain name is sent to a DNS server, that request follows the DNS protocol.

And they cite to paragraph 306 of Dr. Tamassia's declaration, and to column 1, lines 50 to 53 of Beser. But starting with Beser first, that portion of Beser is actually just talking about general DNS functionality.

And it's not a portion of Beser that's referring to actually applying DNS, the DNS protocol to its system.

And then referring to paragraph 306 of Beser, similarly he's only referring to generalized discussion of DNS functionality and not any application of the DNS protocol to the Beser system.

JUDGE ANDERSON: So, is it your argument is that DNS protocol isn't shown in Beser; therefore, Beser doesn't show the element that we are talking about?

MR. ZEILBERGER: Yes, Your Honor.

JUDGE BISK: Okay.

MR. ZEILBERGER: If there are no questions, I'll turn it over to my colleague, Mr. Bansal, to discuss the '811 proceeding.

MR. BANSAL: Good afternoon, Your Honors.

May it please the Board, my name is Chetan Bansal. And I represent the Patent Owner in these proceedings.

As Mr. Zeilberger indicated, I'll be handling the '811 proceeding, which deals with Aventail. Your Honors, to the extent I do not address any arguments that may have been raised in the briefs or by Apple during this oral argument, I rest on the briefs. So I will address only a subset of the arguments.

If we can turn to slide 27. What we have done is we have highlighted the determining feature here. And on slide 28 is Apple's mapping from their petition as to how Aventail discloses the determining feature.

Your Honor, if you look at the first sentence which we have marked, Apple's position was there's a domain name in a connection request which is matched against a table of redirection rules.

And Apple's second position was that there is a determination in Aventail whether the remote host will accept an interpreted connection. And you can see right next to that phrase, Apple actually quotes the claim language, because that is their mapping as to how Aventail discloses the feature.

But if you go and take a look at the redirection rule table, which is on slide 31, there's absolutely nothing in there which tells you whether the remote host will accept an encrypted connection. All of the redirection route tells you is, hey, do you need a proxy in order to get to the destination.

And then Apple's first point, which was on slide 29 -- actually, this is our response on slide 29. There is no domain name in the connection request to begin with. The connection request only has an IP address.

And, in fact, Apple's own expert, Dr. Tamassia, concedes that.

JUDGE EASTHOM: But they were going on the first step where you enter the domain name, and then you either get a redirect or you get this HOSTENT business. And it's pretty clear that you enter a domain name. And then sometime later, yes, you get an IP address, right?

I mean, I don't understand what your argument is if later you get an IP address, so there wasn't ever a DNS look-up.

MR. BANSAL: Your Honor, our argument was not that there's not a DNS look-up. Our argument was Apple's mapping. Apple's mapping was that there's a domain name in the connection request. But even leaving that issue aside, what they focused on was the redirection rule table.

The redirection rule table -- and I'm going to show you Apple's mapping again. Right there --

JUDGE EASTHOM: What's the slide again? I'm sorry.

MR. BANSAL: Sorry. It's slide 28, Your Honors. In the yellow portion Apple says, "Inclusion of the remote host in the redirection rule table therefore

enables the Aventail Connect client to determine if the remote host will accept an encrypted connection."

JUDGE EASTHOM: Okay. So that's a good question now. I think Apple's, I mean, position was earlier that we are going to turn on in this one configuration, everybody's going to get encryption. Okay.

And then if I list this thing in this redirect rule or whatever this table is, and that shows me that this thing is ready for secure, then I have the two components. I've just told you that this thing is ready for secure. It's ready for encryption.

And, by the way, I think in your other case, and I was going to ask you about this before, but I didn't think you really needed encryption to go end-to-end when you went -- when you were in the Federal Circuit arguing the Cisco case. There was no end-to-end encryption on the private part of the network.

MR. BANSAL: Your Honor, respectfully, this is like a different claim language. So maybe I should go back to the claim. And the claim says determining whether the request to look up the IP address intercepted in Step 1 corresponds to a device that accepts an encrypted channel connection with the client device.

This is a different claim and different claim language from what was in the Cisco case.

But to answer something else that Your Honor asked was even if all communications were going to be encrypted, which is one configuration that Apple identified, you still have to focus on the redirection rule table. What does that redirection rule table on slide 31 tell you?

It does not tell you anything whether the remote host, which is the device which is behind the proxy server, does that remote host accept an encrypted connection. No.

JUDGE EASTHOM: But do you accept that it does tell you that it's ready for secure connection?

MR. BANSAL: All of the remote --

JUDGE EASTHOM: Aside from encryption. Aside from encryption.

MR. BANSAL: Your Honors, all of the redirection rule table tells you is whether you need a proxy or not.

JUDGE EASTHOM: Well, if you need a proxy, doesn't that mean you are going to the secure network behind the proxies?

MR. BANSAL: Your Honor, actually the claim language, again I want to focus on the claim language because I think I know where you are coming

from, and this is a different case. This is different claim language. The claim says --

JUDGE EASTHOM: This is the '705 patent, right? MR. BANSAL: Yes. The '705 patent.

JUDGE EASTHOM: Okay. I'm sorry. I'm with you.

MR. BANSAL: So, again, Your Honor, like the real focus here is Apple's own mapping. Apple's mapping is there is a determination whether the remote host end up -- sorry, Your Honors. I am on slide 28.

Apple's mapping is there is a determination whether the remote host will accept an encrypted connection. And right at the -- you know, at the beginning of the --

JUDGE EASTHOM: Can I ask you a question?

MR. BANSAL: Yes. Absolutely, Your Honor.

JUDGE EASTHOM: Your device says "corresponds to a device." It doesn't necessarily read back to the target device. So that's a more general -- you're arguing that the claim requires that you show that there's encryption -- that the target device is available for encryption.

That might be in Claim 2, but in Claim 1 you have a more generic. It says whether a device. It doesn't refer back to the target device.

MR. BANSAL: Your Honor, as I've actually put up on slide 28, that is Apple's own mapping. Yes, claim --

JUDGE EASTHOM: Let's set aside Apple's mapping. What's your contention is a device -- is that supposed to be a target device?

MR. BANSAL: No, Your Honor. Claim 2 says a target device. But again, as I said, Apple's mapping is this. And also there is no domain name in the connection request as contended by Apple.

With that, I would like to move on to the second feature that we have argued in our brief, which is the provision information feature. If I can go to slide 37.

Just the claim language from slide 36 tells you that for any information to meet the definition or, you know, or to meet the provisioning information, two things have to be true.

The provisioning information has to be required to initiate the creation of the encrypted communications channel. And, second, the encrypted -- sorry, the provisioning information has to be provided in response to the determining feature.

On slide 38, Apple, you know, so this is our response. But what we are saying here is in its petition, Apple pointed to four things in Aventail that could

potentially be provisioning information. And in our papers, we have highlighted exactly why each of those four things cannot be provisioning information.

For instance, on slide 39, we showed you that HOSTENT, which is something that Apple alleges is provisioning information, is not required to create or initiate the creation of the encrypted communications channel, because you can have an encrypted communications channel even without HOSTENT.

Now I would like to quickly move to Claim 2, because this is something you -- the Board brought up. Here on slide 43, there's a clear determination that the target device is a device with which an encrypted communications channel can be established.

JUDGE EASTHOM: Can you show me where that claim is in the spec so that we can help interpret what that means? Oh, that's the same claim question I asked you I think before with respect to claim 40 -- column 40.

Where do you determine that the device has to have encrypted communication?

MR. BANSAL: Your Honor, if I can turn to column 40, lines 1 through 6 of the '705 patent specification. Right there in those column, or in that portion, the patent says that you determine whether your

DNS request is -- you know, corresponds to a secure website.

And a secure website in the context of the '705 patent is a website that communicates via an encrypted channel.

JUDGE EASTHOM: That's directly opposite to the holding in Cisco.

MR. BANSAL: Sorry, Your Honor?

JUDGE EASTHOM: Cisco, the Federal Circuit case, said that security was not the same thing as encryption.

MR. BANSAL: Your Honor, I would have -- I don't recall right as of this moment.

JUDGE EASTHOM: Well, I can read it. I have it in front of me. Well, I don't want to slow you down, but I've read it a couple times. Go ahead. I don't want to -- it says one part they put as data security is usually tackled using some form of data encryption.

There's some quote in there that says it was clear that the two were different. But, anyway, it has to do with the encryption being on the insecure part of the internet, and then behind the firewall things are secure without encryption. That was what I thought the thrust of Cisco was.

MR. BANSAL: Your Honor, again, I apologize. I don't remember.

JUDGE EASTHOM: Here, I'll read it. It's on page 1323, 767 F.3d 1323, "but the patent consistently differentiates between security and encryption. Both the claims and the specification of the '151 patent make clear that encryption is a narrower, more specific requirement for the security, for example, the specification states that encryption is just one possible way to address security," so on.

In fact, I think -- well, I won't belabor the issue. But I'm trying to figure out, you know, how we squared all this --

JUDGE BISK: I have a question. Is there a difference between the specification of the patent that was at issue in Cisco and the specification in the two patents here?

MR. BANSAL: If I just may have a moment to confer.

JUDGE BISK: Sure.

MR. BANSAL: I just want a moment to confer.

I know the answer, but I want to confer.

JUDGE BISK: Okay.

MR. BANSAL: Your Honor, so to answer the question, and this was the answer I knew, but I just wanted to confirm, yes, it's the same specification.

JUDGE BISK: Okay. So we are getting to the end of your time. And I had a couple quick questions about your motion to exclude. I don't know who you want to answer them.

MR. BANSAL: I'll be happy to answer them, Your Honor, to the extent I can.

JUDGE BISK: Okay. So there's a motion to exclude. I believe it's Exhibit 1060. And I can't -- Ganoza, Sandy Ganoza declaration. And I believe that the only reason you have for excluding is inadmissible hearsay; is that correct? I think there were several objections, but the only language in that motion to exclude was the hearsay objection.

MR. BANSAL: I think, Your Honor, the primary objection is hearsay.

JUDGE BISK: Okay. So can you explain to me how her declaration is hearsay?

MR. BANSAL: Sure, Your Honor. So it's clearly an out-of-court statement.

JUDGE BISK: That's the part that I'm not getting. Why is it out of court?

MR. BANSAL: Oh, because it is not for this proceeding.

JUDGE BISK: But it's a sworn testimony. So why does it matter if it was for this proceeding or not?

MR. BANSAL: Your Honor, it doesn't matter. It's still an out-of-court statement because it was not submitted, signed for purposes of this proceeding. In fact, there are several Board cases on this issue.

JUDGE BISK: So does that mean that if -- that we need a separate signed declaration for each of these three proceedings? And because there are so many patents, that we have to have this poor declarant signing hundreds of these declarations? Or is it just because it was the ITC and not the Patent Office? Is that what you are saying?

MR. BANSAL: No. I think, Your Honor, it would not matter whether it's the ITC or the Patent Office. It would be an out-of-court statement if it is not submitted for purposes of this proceeding.

JUDGE BISK: And we have cases, Board cases that say that?

MR. BANSAL: Well, we have Board cases where we have I guess declarations that were outside. And, you know, they were hearsay. But, Your Honor, at

least as far as I know, that's a classic definition of hearsay.

JUDGE BISK: Right. But a classic definition of hearsay is for courts where they hear live evidence, right? Live testimony. And here we don't -- almost never hear live testimony, so everything is out of court.

MR. BANSAL: I think, Your Honor, your declarations which are submitted for purposes of a certain proceeding are not considered out-of-court statements. Just because you don't have oral testimony, those declarations, so, for instance, Dr. Mandrose's declaration, Dr. Tamassia's declaration, those are in court. That's in-court testimony.

JUDGE BISK: So what's the difference in reliability here between the one that was created for the ITC and one that was created for a PTO proceeding?

MR. BANSAL: Your Honor, more so other than reliability, I think the issue is, one, it is hearsay. And, as you know, the Federal Rules of Evidence apply to these.

JUDGE BISK: So the whole point of hearsay, though, is to make sure that the evidence is reliable before it gets to a jury. And here, to me, big point of hearsay is that you don't get an opportunity to cross-examine an

out-of-court statement. But in this case you did get an opportunity to cross-examine the witness, did you not?

MR. BANSAL: Your Honor, we do not get an opportunity to cross-examine Miss Ganoza, for instance.

JUDGE BISK: Why not?

MR. BANSAL: Well, because it would be outside of routine discovery.

JUDGE BISK: Why?

MR. BANSAL: Because she has not submitted a declaration for purposes of this proceeding. In fact, Your Honor, I just want to note something. Apple does not dispute that those declarations are hearsay.

JUDGE BISK: Okay. So did you ask, though, to depose her in this proceeding? Make any request to Apple to depose Miss Ganoza?

MR. BANSAL: Your Honor, her deposition would be outside of routine discovery. And to me it seems like the burden has been shifted to Patent Owner, when the burden is really Apple's to show that RFCs or Aventail constitute --

JUDGE BISK: So what do we gain, what in the grand scheme of things are we gaining by making Miss Ganoza sign a new declaration for every single one of these proceedings?

MR. BANSAL: I think you are asking like a policy-based question, Your Honor.

JUDGE BISK: I am. I am, because this is a big issue for these. I mean we have many, many, many of those cases with the same piece of prior art. And, in fact, some have gone on to final decision with this piece of prior art.

MR. BANSAL: Your Honor, I'm certainly not aware, you know, I mean, other than like the, you know, other Virnetx v. Apple cases or the Apple v. Virnetx cases. Yes.

JUDGE BISK: Right. I'm thinking of the inter partes re-exam, and the 237 case, both had this -- had 2401.

MR. BANSAL: Your Honor, in inter partes re-exams, you do not get a deposition. But you do get a deposition in these proceedings, assuming the declarations were submitted as part of this proceeding. And, again, I'm not sure if I can really argue on a policy perspective, but what I can say is that the Federal Rules of Evidence apply to this proceeding. And if this is not hearsay, I am not sure what is.

JUDGE BISK: And what do you say about the residual exception? Why is it not an exception?

MR. BANSAL: Your Honor, as we have briefed in our papers, I think sufficiently, why the residual exception to hearsay should not apply here. That is a truly narrow exception that is reserved for exceptional cases. This is not one of those exceptional cases, as we have explained in our papers.

JUDGE BISK: Okay.

JUDGE EASTHOM: Can I just ask you, Judge Bisk asked you what the substantive difference was between -- let's say they are both hearsay by definition, a declaration here and a declaration in the ITC. They are the exact same declaration. Why is one substantively different?

You are just saying that it's just a rule, so we have to follow the rule? Or is there some substantive reason why we should treat those differently?

MR. BANSAL: So the way I would answer this question, Your Honor, if there was a declaration that was submitted in this proceeding, and then somebody tried to use that in ITC proceeding, I think the same objection would be made here, why could you not put this declaration and present this witness in this proceeding.

JUDGE EASTHOM: Okay.

MR. BANSAL: And again, as I said, I don't have a great policy argument for Your Honor except that the Federal Rules of Evidence apply, and this is hearsay.

JUDGE EASTHOM: What were your hearsay objections on the two magazine articles? I saw you said hearsay, but I wasn't sure what the specific objection was. Was that written in your objections? And maybe I just should have read those, but you objected to the two magazine articles that said these RFC documents, I think --

JUDGE BISK: I think those are the 1064.

MR. BANSAL: 465. Yes. So, Your Honor, again, there are certain statements in those exhibits that Apple relied on for their truth to establish or, like, kind of evidence which goes to show that the RFC is published before a certain date.

Again, these are out-of-court statements which are being relied as if they were true. And that's the reason they constitute hearsay.

JUDGE EASTHOM: What about if they're used as circumstantial evidence to show that skilled artisans, i.e., the author and other people aware that these documents existed? Would that be hearsay still?

MR. BANSAL: Your Honor, absolutely. They would still be hearsay.

JUDGE EASTHOM: They say -- I think one of the statements said RFC can be obtained on this certain website. What if we don't use it for where it was obtained. It's just RFC -- there is a document called RFC that this author knew about. He knew about this document. Therefore, it must be somewhere in existence.

MR. BANSAL: So, Your Honor, if you look at it in that sense, and you are saying, well, I'm not looking at it for its truth, but just as some evidence, then that evidence is irrelevant. The only reason that evidence or those statements in those articles become relevant is if you assume or you are trying to show that they are true.

JUDGE EASTHOM: But if someone knew about them, are you saying that we can't even use the fact that someone wrote RFC 2401, we shouldn't be able to say that they -- we can't infer that they knew about this document's existence, RFC 2401, because it would circumstantially show that it's more likely than not that these things are out in the public domain, that this guy knows about it?

JUDGE BISK: I have one more question. I'm looking at the rules, and I don't see anything in routine discovery that says that you can only get cross-examination out of testimony that is created for this proceeding.

Is that in the practice guide or where are you getting that from? It just says cross-examination on the app, the day that testimony is authorized.

MR. BANSAL: Your Honor, if my co-counsel might address this.

JUDGE BISK: Sure.

MR. MODI: Your Honor, I don't have the case in front of me, but I believe there is cases by the Board which say --

JUDGE BISK: Are they just regular cases or do we have any precedential case law?

MR. MODI: I do not believe they are precedential, Your Honor, but there are cases that say that. And we are happy to find them, and we can inform the Board later, but that's --

JUDGE BISK: Thank you.

JUDGE EASTHOM: I think there was a motion in one of our cases too that was similar. We felt that it was a similar issue.

MR. MODI: I think we are going to have that issue in two weeks, Your Honor, before you. So I think Apple is on the other side of that issue, so we will probably be arguing this. So hopefully we'll be able to resolve this.

JUDGE EASTHOM: Okay.

JUDGE BISK: Okay. Thank you.

MR. BANSAL: Thank you, Your Honors, on this. Correction, Your Honor. If I said that Apple had four arguments about the determining step in the petition, I -- you know, there are two arguments. So I just want to make sure that I correct the record. Thank you.

JUDGE BISK: I think you have about ten minutes.

MR. BORDER: Okay. Your Honor, before we go into this, we are prepared to rest, unless you have any questions.

JUDGE BISK: I do have a question. Do you agree with the other side that the testimony of Miss Ganoza is hearsay?

MR. BORDER: Well, Your Honor, I suppose technically it is classic hearsay. But you bring up a great point about the efficiency of bringing Miss Ganoza in to be cross-examined in every single IPR proceeding in which an RFC document is at issue. And there's certain to be a lot, because RFCs are among the most authoritative prior art references in the internet arts, the computer arts.

There is an efficiency aspect to it. And I should note they did cross examine Miss Ganoza in the ITC. Patent Owner cross-examined her on that

declaration. And so the issue was resolved in the ITC, so what we have is --

JUDGE BISK: And that testimony was accepted in the ITC case?

MR. BORDER: It was accepted in the ITC case, and it's filed in this case as well, Your Honor.

JUDGE BISK: Right.

JUDGE EASTHOM: So they used the RFC 2401 document in the ITC as prior art?

MR. BORDER: Yes, Your Honor. And Miss Ganoza submitted a declaration both as to that RFC document and a number of other RFC documents, as a corporate representative, explaining the process that makes them publicly available. She was cross-examined.

So the issue as to whether or not that prior art was publicly available was resolved in that proceeding. And we think that's one of the perfect reasons why the residual exception applies.

JUDGE EASTHOM: Can you address counsel's argument about Claim 2 in the '705 patent, where he's contending that just merely listing this thing in one of these redirect tables doesn't tell you whether or not it's encrypted, because that doesn't have anything to do with the end-to-end encryption?

MR. BORDER: Right, Your Honor. I think that analysis -- can you pull up slide 62, please.

I think that argument ignores what the Board instituted on, which was RFC 2401 in combination Aventail. And in that scenario, that combination would show that the entire path from client computer to the remote network device was encrypted, an end-to-end encryption.

So in that circumstance, and if you can go to --

JUDGE EASTHOM: But this is only because you are contending that this is where everything that's listed has got to be encrypted?

MR. BORDER: Yes, Your Honor. And this is in Aventail, page 73.

JUDGE EASTHOM: Okay. I understand what you are arguing.

MR. BORDER: Okay. Thank you, Your Honor. Thank you. This is in slide 66. Are there any other questions, Your Honor?

JUDGE BISK: Judge Anderson? No? Okay. Thank you.

MR. BORDER: Thank you, Your Honor.

JUDGE BISK: Go ahead.

MR. PALYS: Not that we get a rebuttal, I just -- this is Joe Palys, lead counsel. I just want to make sure the record is clear with respect to that IT decision. That case settled. There was no decision, as far as I understand it. The court found what Your Honor has said. Okay. Thank you.

JUDGE EASTHOM: Thank you.

JUDGE BISK: Okay. We are adjourned. Thank you, everybody.

MR. BORDER: Thank you, Your Honor.

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(Whereupon, at 3:07 p.m., the hearing in the above-entitled matter concluded.)

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