UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CASE IPR2021-00458/IPR2021-00465

NETNUT LTD.,

Petitioner,

v.

BRIGHT DATA LTD. (F/k/a Luminati Networks Ltd.),

Patent Owner.

Zoom Deposition of KEITH TERUYA

Thursday, October 28, 2021

12:05 p.m.

Reported by:

Cassandra E. Ellis, CSR-HI,

CCR-WA, RPR, CRR, REALTIME SYSTEMS

ADMINISTRATOR

Job No.: 3483

Zoom video Deposition of KEITH TERUYA, held pursuant to agreement before Cassandra E. Ellis, Certified Shorthand Reporter - Hawaii, Certified Shorthand Reporter - Virginia, Certified Court Reporter - Washington, Registered Professional Reporter, Certified Realtime Reporter, Realtime Systems Administrator, and Notary Public.

A P P E A R A N C E S

ON BEHALF OF PETITIONER:

RONALD ABRAMSON, ESQUIRE
LISTON ABRAMSON, LLP
The Chrysler Building
405 Lexington Avenue
46th Floor
New York, New York 10174
(212)257-1643
Ron.abramson@listonabramson.com

ON BEHALF OF PATENT OWNER:

TOM DUNHAM, ESQUIRE
ELIZABETH O'BRIEN, ESQUIRE
RUYAKCHERIAN LLP
1901 L Street, Northwest
Suite 700
Washington, D.C. 20036
(202)838-1567
Tomd@ruyakcherian.com

ALSO PRESENT: Joseph E. Ellis, CLVS

C O N T E N T S

E X H I B I T S

(Attached to the Transcript)

P R O C E E D I N G S

THE VIDEOGRAPHER: Good afternoon. This is the beginning of the deposition of Keith Teruya, taken in the matter of Netnut LTD, petitioner, versus Bright Data LTD, formerly known as Luminati Networks LTD, patent owner, held in the United States Patent and Trademark Office before the Patent Trial and Appeal Board. With Case Numbers IPR2021-00458, as well as Case Number IPR2021-00465.

Today's date is October 28th, 2021, and the time on the monitor is approximately 12:05 p.m. My name is Joseph Ellis, I am the certified legal videographer, the court reporter is Cassandra Ellis, and we are here representing Transperfect Legal Solutions.

Starting with the noticing attorney, please state your appearance, whom you represent, and agree on the record that there's no

objection to this deposition officer administering a binding oath to the witness via Zoom conference.

MR. DUNHAM: So this is Tom Dunham, for patent owner, Bright Data Limited, I'm with RuyakCherian LLP. With me today is Elizabeth O'Brien, also of RuyakCherian. And we have no objection to doing the oath in the manner you described.

MR. ABRAMSON: This is Ronald -- Ronald Abramson of the firm of Liston Abramson, LLP, representing the petitioner, Netnut Limited, and the witness, and may be joined from time to time by Michael Lewis, of my firm. And we have no objection to the matter of the administration of the oath.

THE VIDEOGRAPHER: Will the court reporter please swear the witness and then you may proceed.

(Witness sworn)

MR. ABRAMSON: So I take it we're -- as we agreed, we're going

to stop any recording of this video from this point forward.

MR. DUNHAM: Agreed. And from this point forward there will be audio recording only, no video recording.

MR. ABRAMSON: Very good.

THE VIDEOGRAPHER: Can I resume the audio recording?

MR. DUNHAM: Yes, please.

KEITH TERUYA

having been sworn, testified as follows:

EXAMINATION

BY MR. DUNHAM:

Q Okay. Mr. Teruya, good morning.

A Good morning.

Q I understand you wanted to make a very brief statement before we get started on the record, so please feel free to do so now.

A Yes, I wanted to state that I'm severely dyslexic, so I need additional time if you ask me to read something on screen or review a document or something

like that, please afford me that time to review things.

I -- you know, my reading is very slow, sometimes my process is slow, and I want to make sure that I provide appropriate context and accuracy. So please afford me the time if I ask for it.

Q Thank you.

Sir, have you ever been deposed before?

A Yes, I have.

Q How many times?

A Oh, I would say four or five times.

Q Can you tell me, generally, the nature of the different matters in which you have been deposed? And by that I mean were they district court cases, were they patent office proceedings, just very general.

A Some of them were civil cases, some of them were -- I imagine they were patent cases, in one particular I was deposed under Mr. Abramson for another

case.

Q Was that for an IPR proceeding or was that a district court proceeding?

THE WITNESS: I believe it was an IPR, wasn't it, Ron?

MR. ABRAMSON: Well --

MR. DUNHAM: You're not able to confer with counsel during the deposition.

THE WITNESS: Oh, okay. I'm sorry.

MR. ABRAMSON: I'm happy to supply the details, if you want. But I'm not going to do that unless Mr. Dunham asks me to.

MR. DUNHAM: No, I'd just like to get the witness's recollection.

BY MR. DUNHAM:

Q Well, sir, then let me just review for you the basics of the deposition, sounds like you've done this before, but I'll be asking you a series of questions.

From time to time Mr. Abramson may object. Unless he instructs you not

to answer please answer each of my questions.

The court reporter is taking down everything that any of us say today. So it is important that we try to only speak one person at a time. It makes a much cleaner record and keeps the court reporter much happier throughout the day if we only speak one at a time.

So I will do my best, when I ask you a question, to stop and wait for your response. And I would ask you to do the same for me, that when I'm asking a question if you'll wait until I'm finished before you start answering.

Do you agree with that process?

A Yes.

Q Thank you. We'll also be taking breaks from time to time. I try to take a break every hour. But if at any point in time you need a break, please ask me and we'll get you a break

as quickly as we can.

Also, we are all in very different time zones, so if there comes a point when you need to take a more extended break, for example, to eat or something like that, please just let me know and we'll work with you to accommodate this.

I want this to be as easy for you on your schedule as possible today. Understood?

A All right. Thank you.

Q Great. Also, this question is a little unusual, but I want to make sure that we have a clear record: Is there any reason today, such as medication or illness, that you are unable to give complete, truthful answers to my questions?

A No.

Q You understand that you are here today testifying as a technical expert; is that right?

A Yes.

Q Have you ever been qualified by

a district court to testify as a technical expert?

A Not that I'm aware of.

Q Okay. And how many times have you testified, to your knowledge, as a technical expert in any sort of proceeding?

A I would say two or three times.

Q Tell me what you can, that you recall, about the two or three times that you may have testified as a technical expert previously.

A I -- I was -- I was called upon to verify existence of prior art.

Q And what do you mean by: To verify existence of prior art?

A I was called upon, in a couple of cases, to verify that a product I created actually did what was being litigated in those cases.

Q Do you recall whether you were testifying as a technical expert about that product or as a fact witness explaining what the product was and/or how it worked?

A I don't know how to answer that question.

Q Okay. I want to get you familiar, briefly, with the AgileLaw system, just to the extent we need to use it today.

A Okay.

(Exhibit Nos. 2014-00458 and 2014-00465 were identified for the record.)

BY MR. DUNHAM:

Q What I want to do is reveal to you two documents that I have previously marked. And you should see, now, the ability to see two particular documents. And the first document is Exhibit 2014, and we've appended to that the IPR number, so dash 00458, and that is the deposition notice that we served on you for the IPR2021-00458, and the second document is -- we've premarked as Exhibit No. 2014-00465, which is our deposition notice for the IPR with the same number 2021-00465.

I would ask you just to take a

moment, sir, first, let me know, are you able to see those two documents?

A I see the icons in the left-hand menu. I have not opened them yet.

Q Will you please open both of them? I just want to confirm that the system is working and just get you familiar with how it works, give you an opportunity to flip through the pages of the documents?

A Okay. I was able to open them successfully and navigate through the pages.

Q Great. Thank you.

Now, it's my understanding that your counsel has already made available to you, and by agreement with us, you have the IPR petitions, the declarations and the cited references, and the institution decisions, that you have those available to you today already; correct?

A Yes.

Q Okay. So I will not be placing

those in the AgileLaw system. This will be for any supplemental materials that we use.

Are you using, today, electronic copies of the patent office materials that have been made available to you or do you have hard copies available to you at your -- at your position?

A I have both.

Q Okay.

A On some documents, not all documents.

Q Fair enough.

As we proceed, I may ask you if you're looking at a paper copy of something, but with respect to the hard copy documents that you have, have you made any notations or highlighting or Post-Its or anything of that nature of those documents?

A No, I have not.

Q Great. And with respect to the electronic copies of the documents that you have available to you today, have you

made any sort of electronic notations or highlighting in any of those documents?

A I have not.

Q Great. Now, you submitted a declaration in support of petitioner's IPR in the proceeding that's numbered IPR2021-00458; correct?

A I -- I don't refer them using those numbers, so I would have to check for you. But, you know, the answer is probably yes. I -- I have generally worked on these by the patent numbers.

Q Okay. So do you recall submitting a declaration in support of petitioner's IPR petition for the petition directed to patent number 9,241,044?

A Yes.

Q Can you just tell me, generally, the process by which you prepared that declaration?

A I reviewed the material, had discussions with Mr. Abram's staff, Abramson's staff, giving them the information, and they drafted a

declaration, and I went back and forth and reviewed it until it accurately represented what I conveyed to them as to what my opinion was.

Q Did you, yourself, search for prior art or was the prior art just reflected in the declaration associated with the '044 patent? Was that prior art provided to you by Mr. Abramson and/or some of his staff?

A I would say both.

Q Can you identify any of the specific prior art that you recall that you brought to the picture, yourself?

A I brought the Squid document to Mr. Abramson. You know, I -- I -- I can't specifically tell you, you know, accurately, unless I really kind of look through my notes or something what I may have brought, because we went through a number of things that made it in and things that didn't make it in.

Q I see. And did you keep notes throughout the process of preparing the declarations?

A Not as accurately as I should, you know, some, perhaps.

Q Do you still have those notes today?

A I don't have them with me today.

Q Do they still exist?

A I -- I think so. I'm not sure.

Q If you --

A This was, you know, over a year ago. I tend to clean house fairly regularly.

Q Was the process for preparing the declaration associated with patent number 9,742,866 much the same as the process that you described for your declaration in the '044 proceeding?

A Yes.

Q And with respect to the '866 patent, is there any specific prior art that you brought to the discussion that you can recall?

A No, because I think when we began, things were discussed more generally about the technology.

Q Can you tell me, generally, what you did to prepare for the deposition today?

A Do you mean today?

Q What you did in preparation to be deposed today?

A Oh, I -- I reviewed my -- my declarations and I, you know, briefly read through some of the information that I called out, wouldn't say I, you know, combed through it in minute detail, but I did review it, because, you know, it's been -- it's been almost a year that this declaration was prepared.

Q And how many hours, in total, have you spent in connection with these two IPR proceedings for the '044 and '866 patents?

A I would have to go back and review the time in our accounting system in order to give you an accurate answer.

Q And can you estimate for me how many hours you have billed to these particular matters?

A You know, I wouldn't want to

guess. I -- I -- I would want to go back and have our accounting people -- I don't -- I don't keep totals around, I'm not -- I don't do a lot of work on -- on a time basis, so that's not a standard process that I -- I employ every day.

I do for projects, but, you know, I can't remember, you know, times I spent a year ago. I -- I would have to look it up.

Q And you were paid on an hourly basis for the work you did in connection with these proceedings; correct?

A Yes.

Q And what was your hourly rate that you charged for the work you've done?

A $450 an hour.

Q What I'd like to do now is I'm going to ask -- I'd like to ask you a series of questions about the Shribman '733 published patent application, which is exhibit -- actually, I'm -- I don't have the exhibit number in front of me, I'll have to pull it up, but do you have

the Shribman '733 application available to you?

A I'm sure I do. I will try to find it, here. There are two copies.

(Exhibit No 1017 was identified for the record.)

BY MR. DUNHAM:

Q And that will be Exhibit 1017.

A Okay. For the '866 or the '044?

Q Well, I'm interested in discussing that particular piece of prior art. So I -- it doesn't matter to me which proceeding you pull it from, I'm just specifically interested in Exhibit 1017. It's in the '044, for example.

A Okay. The -- the difference between the two are I believe one is much shorter than the other. Oh, no, I stand corrected. They're both the same size.

All right.

Q Okay. Do you have the Exhibit 1017, the Shribman published patent application No. US 2011/0087733 available to you?

A I do.

Q You would agree that the focus of the Shribman application was on accelerating internet content retrieval; right?

MR. ABRAMSON: Object to the extent that's beyond the scope of this declaration.

BY MR. DUNHAM:

Q Sir, I need your answer to the question.

A From a context standpoint, which is important to me, I didn't do an evaluation of Shribman as an evaluation of the Shribman application, itself. My analysis was to look at Shribman as a source of appropriate application to evaluating the '044, the '866 patent.

Q Well, sir, in paragraph 52 of the declaration that you submitted in support of the IPR petition for the '044 patent, and you say, quote, the focus of Shribman was on accelerating internet content retrieval, close quote.

A Okay.

Q So is the statement that you made in your declaration a statement that you still stand behind today?

A I represented that position. I believe that that is the position of the abstract of that application.

Q Well, do you agree with the statement you included in your report that says, quote, the focus of Shribman --

A I do. I do.

Q Okay. Please allow me to finish my question, sir, just so I have a clear record, okay?

A Okay. I'm sorry.

Q Thank you. No problem.

Would you agree, then, that the focus of Shribman was on accelerating internet content retrieval?

A Yes.

Q I'd like you to turn to paragraph number 72 in the Shribman reference, and I'm really pointing you there mostly for context.

Please let me know when you're there.

A Paragraph 72?

Q Yes, sir.

A Okay.

Q When initializer 222 of the communication device 200 starts up, it first communicates with the acceleration server 162 to, quote, sign up with the acceleration server; right?

A Okay. Are you asking me if that's what's written there?

Q I'm asking if that's how you understand the disclosure of Shribman.

A The context of me answering that question should be related to what I represented in my declaration, that's how I evaluated each section of these documents as it pertained to the claims of the patent.

So what specific paragraph are you relating this to in my declaration?

Q Sir, you don't get to ask the questions. I'm sorry, the way this works is I ask the questions, and I'm just

asking you to answer them honestly, whether you know or don't know the answer, and that's how the day will go.

A Okay. Can you refer, for my reference, so I can accurately answer the question, where in my declaration are you relating this paragraph?

Q Sir, again, it doesn't work that way. You've advanced the Shribman reference as a reference in this case, and I'm entitled to test your understanding of the reference.

MR. ABRAMSON: I'm going to -- I'm going to object to the extent -- this -- this deposition is limited to the scope of Mr. Teruya's direct testimony, which has been contained in his declaration.

So I think that is a legitimate concern on his part, Mr. Dunham.

MR. DUNHAM: And again, I believe that this directly relates to his testimony of how Shribman allegedly invalidates the claims.

And so I'm just trying to ask him if he agrees that when initializer 222 of the communication device 200 starts up it first communicates with the acceleration server 162 to sign up with the acceleration server.

A In the paragraph here, of Shribman, in their example, they are indicating that this initializer 222 starts its first communication with the acceleration server, which they number 162, to sign up with that acceleration server, that's what it states.

Q Do you agree that's how Shribman operates?

A I did not evaluate Shribman's operational ability. I take -- I take their example as an indicator that that was what they were trying to -- to document in their -- their process.

Q Sir, would you agree that to obtain content from a web server 152 client 102 first registers with acceleration server 162 providing

acceleration server 162 the IP address of client 102?

A Can you repeat the question, please?

Q Certainly. Would you agree that to obtain content from a web server 152 client 102 first registers with acceleration server 162 providing acceleration server 162 the IP address of client 102?

A And are you asking me, can I infer that from paragraph 72?

Q I'm asking you if that's your understanding of Shribman.

A I -- I -- I'm missing some context, here. There is no reference in what you asked me to review here in paragraph 72 for the web server.

Q Okay. So if you turn to page 66 -- I'm sorry, paragraph 66 of your declaration, in support of the IPR of the '044 patent, please.

A Let me bring that up. Sorry, what paragraph did you say?

Q 66. Do you have paragraph 66

of your declaration for the '044 patent in front of you?

A Yes, I do.

Q You'll probably see that the question I asked you is verbatim of the first sentence of paragraph 66.

So my question to you now is, is it your testimony today that paragraph 72 of Shribman does not have any mention of a web server?

A I'm sorry, repeat the question.

Q Is it your testimony that paragraph 72 of Shribman does not in any way reference a web server?

A Yes, it does not reference any web server.

Q So in paragraph 66 of your report, when you made the statement: To obtain content from a web server 152 client 102 first registers with acceleration server 162 providing acceleration server 162 the IP address of client 102, then you cite paragraph 72 of Shribman.

Do you see that?

A Yes.

Q So is it your testimony that paragraph 72 of Shribman does not support the statement that you made in the first sentence of paragraph 66?

A Say that again, please.

Q Sure. Is it your testimony today that the paragraph of Shribman that you cited after the first sentence of paragraph 66 of your report does not fully support the first sentence that you got of paragraph 66 of your declaration?

A That is not -- that is not the appropriate context to my first answer to the question in which I previously asked you to reference my declaration so I could give you a more accurate answer.

When I gave you the response that, in paragraph 72, 152 is not mentioned, the web server 152 is not mentioned, that is what I provided to you as an answer.

Q Sir, when initializer 222 of the communication device 200 of Shribman starts up, and signs up with the

acceleration server, does the device provide the acceleration server with all IP addresses and MAC addresses of the interfaces on communication device 200?

A Let me review this a minute, please. Okay. Can you ask me the question again, please?

MR. DUNHAM: I'll ask the court reporter to read it back, please.

THE WITNESS: Okay.

(Question, "Sir, when initializer 222 of the communication device 200 of Shribman starts up, and signs up with the acceleration server, does the device provide the acceleration server with all IP addresses and MAC addresses of the interfaces on communication device 200," read back by the reporter.)

MR. ABRAMSON: Objection, lack of foundation.

BY MR. DUNHAM:

Q Mr. Teruya, unless your counsel instructs you not to answer, I would ask

you to answer, please.

A Okay.

MR. ABRAMSON: You can answer.

A I can. I'm going to answer the question, but please let me read through the material that I used as the source for this paragraph. I've asked you for more time. I need to read through it.

Q Certainly. I was unaware if you knew I was expecting an answer, that's all.

A Oh, no, no, I'm perfectly aware that you would like an answer.

I believe you asked "all" is in your question, the word "all"? And I -- I would not -- I don't know if it's all, but it will return a list of agents and include IP addresses as an object. It -- it, in likelihood, will include IP addresses.

Q In paragraph 72 of Shribman, that you cited in your declaration, do you agree with the third sentence, that states, quote: This is performed by providing the acceleration server 162

with the hostname, and all IP addresses and media access control, MAC, addresses of the interfaces on the communication device 200 having the initializer 222 thereon?

MR. ABRAMSON: Sorry, Mr. Dunham, where are you reading from? I don't see this.

MR. DUNHAM: Paragraph 72 of the Shribman reference, as cited in Mr. Teruya's declaration.

MR. ABRAMSON: Oh, going back to that? Okay.

THE WITNESS: Can you have the court reporter read back the original question, please?

MR. DUNHAM: Sir, I don't know what you mean by the original question. Do you mean --

MR. ABRAMSON: Well, the question she read back to me, which was the question you asked her to read back to me.

MR. DUNHAM: Well, sure, if the court reporter could please read

back that question that you just read back a moment ago.

(Question, "Sir, when initializer 222 of the communication device 200 of Shribman starts up, and signs up with the acceleration server, does the device provide the acceleration server with all IP addresses and MAC addresses of the interfaces on communication device 200," read back by the reporter.)

THE WITNESS: And your question, now, again, please?

BY MR. DUNHAM:

Q My question is: Do you agree with the last sentence of paragraph 72 of Shribman, which states, quote, this is performed by providing the acceleration server with the host name, and all IP addresses and media access control, MAC, addresses of the interfaces on the communication device 200 having the initializer 222 thereon?

A Conditionally.

Q Why do you --

A Yes.
Q So why --
A Conditionally, conditionally, because if it's not logged in it won't get the IP address.
Q If what's not logged in?
A If all the initializer devices, okay, that exist in the system do not send a first element in the system for the domain of the operation of the system, it could not know what all the IP addresses are.
Q Is it your understanding that the communication device 200 referenced in paragraph 72 of Shribman is referring to all devices in the domain?
A I don't know that from that sentence.
Q Again, if this helps you, with reference to paragraph 75 of the Shribman application, would you agree the next step disclosed in Shribman is that the initializer launches the client module of communication device 200?
A Are we still talking about the

prior IP addresses?

Q Sir, I'm asking you about your understanding of the operation of Shribman, which you've read, you've applied as a reference against the challenged claims.

A Yes. Would it -- can we resolve the first one about the "all"?

Q Sir, I've moved on to ask you another question.

A Okay.

Q My question is --

A I'm sorry, I'm sorry, I -- I need -- I need you to segment the switch in context, please.

Q Sir, I referenced you to paragraph 75 for your assistance, and I asked you, would you agree, the next step disclosed in Shribman is that the initializer launches the client module of communication device 200?

A Okay. I've reviewed that paragraph, what is your comment -- question again?

Q My question is: Would you

agree that the next step disclosed in Shribman is that the initializer launches the client module of communication device 200?

MR. ABRAMSON: Objection, lack of foundation.

A Are we talking about a sequential process, here, or are we -- with -- the example given here indicates that that is the process flow, are we logged in already?

Q Sir, I'm just asking you questions about your understanding of the disclosure of Shribman. In your declaration you extensively discuss different messages that flow to and from different devices.

And I'm just getting your understanding of how the Shribman disclosure operates as related to the various messaging flows. And I'm working through those questions with you.

So please just answer my questions as best you can, okay?

A Okay. From an operational

context, assuming the obviousness of a product that would have implemented this, that is correct.

Q Okay. And if it's helpful to you, sir, with respect to paragraph 76 of Shribman, will you agree that after launching the client module the initializer also launches the agent module and the peer module?

MR. ABRAMSON: Object to the extent that's beyond the scope of his declaration. You can answer.

A Given the example and the explanation, I -- I would -- I would assume that to be true in that context.

Q So would you agree, then, that in every embodiment in Shribman all three modules, client, agent, and peer are launched in each communication device that signs up?

A Without more analysis of the actual possible permutations and fallbacks that would be necessarily built into the architecture, I can't accurately answer that question by just looking at

three paragraphs.

Q Do you know from your study of the Shribman reference, as you discussed extensively in your declaration, whether in every embodiment in Shribman all three modules, client, agent, and peer, are launched in each communication device that signs up?

A I would like to review my declaration, because the approach that I utilized in analyzing Shribman, relative to the claim provided, did not go to every single permutation and condition that Shribman could possibly provide.

I -- I -- my analysis was based around the mechanics of what Shribman can provide relative to the claims of the '044 patent.

Q So did you then start with the claim -- just so I understand what you're explaining to me, sir, let me ask a better question.

So in the analysis that you performed, did you begin with the claim and then look to Shribman to see

if you could find within Shribman disclosure that corresponded to the elements of the claims?

A For the most part, yes.

Q Okay. That's helpful.

A I -- I -- I found things that -- I found examples that were analogous and evaluated their relevance.

Q Okay. And just to help me understand, then, the way you did that was you would start with a claim, read the elements of the claim, and then go back to look at Shribman to see if you could find either the exact disclosure or something you felt was analogous; is that fair?

A Yes.

Q Okay. Let me ask you about paragraph 78 of Shribman, and just for your context, you do cite this in a number of places in your declaration, including, for example, paragraph 69. Please let me know when you have paragraph 78 of Shribman available.

A Okay. I have 78 available.

Q So would you agree, to make a request for content an application running on the client first initiates a request for a resource on a network?

A Can you -- can you state that question again, please?

Q Absolutely.

Would you agree that to make a request for content an application running on the client first initiates a request for a resource on a network?

A I'm sorry, I need you to do that again.

Q Sure. Would you agree to make a request for content, an application running on the client first initiates a request for a resource on a network?

A Are you asking: Is that the first thing that it does or is that what needs to take place in order for it to request content?

Q Well, tell me your understanding. How does that work? How does an application running on a client make a request for content?

A Well, it has to connect first.
Q Okay.
A It has -- it has to -- it has to establish a connection with a relevant domain in which the content that it would like exists.
Q Okay. And with reference to paragraph 78, would you agree that to make a request for content an application running on the client first initiates the request for a resource on a network?
A Can you provide me some more context? Because if you only look at paragraph 78, and I previously stated that we need to know do we have a connection, can we hit a DNS server? Are we in the right domain?

If those things line up, then, yes, you could put out a GET request, as it states. But those other things need to have taken place first. Hence, paragraph 78 has a lot of preconditions before it that have taken place in order for us to get the paragraph 78 and be looking at block 352.

Q Would you agree, sir, that the example shown in Shribman of the GET request is the full GET HTTP://WWW.AOL.com/index.HTML HTTP/1.1?

A That's the example in that paragraph.

Q Are you aware of any other examples shown in Shribman of a request for content?

A By example of a -- of a GET?

Q My question is: Are you aware of any other example of a request for content, that is disclosed in Shribman, other than the particular request I quoted to you from paragraph 78?

A Oh, I -- I would have to review, you know, Shribman to -- to see. There are contextual discussions of requesting content, but I don't know -- I would have to look and review the document again to see if there are any specific requests that uses a formal, you know, pneumonic like that.

Q Sir, and, again, if it's helpful to you, with reference to

paragraph 79 of Shribman, which you also cite in your declaration, after the application initiates a request for content would you agree that the client module then looks up the IP address of the web server 152 that is the target of the request?

A Applications don't usually do that process.

Q So let me ask my question again, so you have it firmly in mind, sir. And I'm getting to it, to help you, I'm pointing you to paragraph 172.

After the application initiates a request for content --

A I'm sorry, excuse me, 172 in which document?

Q Oh, I said paragraph 79, sir.

A Oh, paragraph 79.

Q And my question is: After the application initiates a request for content would you agree that the client module then looks up the IP address of the web server 152 that is the target of the request?

A That is what is in paragraph 179. I know it is an example. I take it that that's what it's intended to do. But mechanically, you know, it just doesn't happen that way.

Q Okay. So -- so -- and just so the record is clear, you stated in paragraph 179, did you mean to refer to paragraph 79?

A I'm sorry, 79.

Q Thank you. Oh, no problem, sir, I just want to make sure our record is clear.

So is it your testimony that notwithstanding the language of paragraph 79, you believe that in reality the system would operate differently; is that a fair statement?

MR. ABRAMSON: Object to the form.

A IP addresses are -- although they are physical, they're managed by different mechanisms and processes within the client that can be a workstation, laptop, phone, whatever, the mechanics of

looking up the IP address is generally not a process of client module of an application, that's all that I'm saying.

So the -- so to accurately answer your question, I have to provide that as an augment to my -- to the -- the -- the example, here, that is being given, is very general in that it's assuming that because we're on the internet every address resolution is going to be an IP address, which is generally the case.

Q If I could ask you to look at the second sentence of paragraph 79 of Shribman, and my question is going to be: Do you agree or disagree with this sentence?

And the sentence reads, quote: The client module 224 then looks up the IP address of the server 152 that is the target of the resource request (e.g., the IP address of the web server that is the host of www.aol.com in the example above); do you agree with that portion of the second sentence?

A Given my prior comment on appropriate context of how things work, yes, that example is valid.

Q Would you agree, then, that the client module sends the IP address of the web server to the acceleration server 162?

A Not unless I know exactly how that application is constructed, because generally, as I explained in my prior answer, an application-level program would generally not be manipulating IP addresses.

Q So when you analyzed the Shribman reference, did you apply the teachings of the reference as they literally appeared within the four corners of the document, or did you bring to your analysis additional knowledge and experience that you have gained over the years?

A I analyzed it with the obviousness of a person working in this area, which is, as I explained to you, if you have just a basic understanding about

the layers in which an application operates on a network, especially on the internet, you would know the responsible areas of address resolution.

And I can understand why patents are written this way, because they want to provide these examples. But applications in the real world of implementation and engineering operate a little bit differently.

Q So were you including your knowledge of how applications in the real world operate when you were reading the disclosure of Shribman 733?

MR. ABRAMSON: Object to the form.

A I -- I -- I applied in my thinking the -- the -- the obvious notion about what they were trying to communicate.

Q Okay.

A Not necessarily in the exact process explanation, saying using an IP address, but there needed to be, in this instance, and by example in my

declaration, address resolution taking place.

Q Sir, and then still with reference to paragraph 79 of Shribman, would you agree that the client module does not send the GET request to the acceleration server 162?

A I -- I would agree in the example -- in examples given in Shribman, that it does not send that request to that device.

MR. DUNHAM: Counsel, I always promise the witness a break after an hour, and I see we've gone just about an hour, if this is a good time we can take a short 10-minute break.

MR. ABRAMSON: It's up to you. How are you?

THE WITNESS: I'm fine.

MR. DUNHAM: Okay. Let's go a little longer.

MR. ABRAMSON: If you want, I don't object.

MR. DUNHAM: I mean, I'm happy

to continue, but I always -- in fact, let's take 10. I'd like to. I want to reset a few things based on the testimony, and I'd like to give the witness just a short break, as well.

MR. ABRAMSON: Sure.

THE VIDEOGRAPHER: The time is 1:03 p.m. We are off the record.

(Recess.)

THE VIDEOGRAPHER: The time is 1:13 p.m. We're back on the record. Please proceed.

BY MR. DUNHAM:

Q Mr. Teruya, during the break did you have any interaction with Mr. Abramson or any member of his team?

A No.

Q If helpful to you, I'm going to ask you some questions that -- that, in part, refer to paragraph 80 of the Shribman reference. And my question, sir, is: In response to receiving the IP address of the web server from the client module would you agree that the

acceleration server prepares a list of agents that may be suitable to handle the request for the particular IP address that was provided?

A What is the question again?

Q My question, sir, is: In response to receiving the IP address of the web server from the client module would you agree that the acceleration server prepares a list of agents that may be suitable to handle the request for the particular IP address that was provided?

MR. ABRAMSON: Object to the form.

A That is not so stated in that paragraph, because it generically says: Server 152.

Q So other than clarifying that the server is 152, would you agree with the remainder of that statement?

MR. ABRAMSON: Object to the form.

A I would agree that that's what paragraph 80 states.

Q And I'm asking you for your

understanding, sir, of the Shribman reference as you applied it in your declaration.

A My application --

MR. ABRAMSON: Object to form.

A My application of Shribman is taking their example and explanation of -- that supports their -- their application for a patent, and apply it to the claims of the '044 patent, that's what I did in my evaluation.

So if we want to take a part of Shribman, and look at it in context with what I state in my declaration, we can go through that.

But I did not do a top-to-bottom analysis of all the -- the intricacies of Shribman to see what -- what possible, you know, methods and processes could be compounded in -- in their application to provide, you know, alternate examples of what I used.

Q Would you agree that in Shribman, in response to receiving a request from the client module,

acceleration server 162 sends a list of agents to client 102?

A That's what they state. I agree that that's what they state.

Q Do you agree that's what Shribman teaches?

MR. ABRAMSON: Object to the form. Withdrawn. You can answer that.

A That -- that's -- that's what's written. I agree with what's written. That's what they're indicating that that process that they're -- that they're trying to define, as an example, that's what it states.

Q Would you agree that the list necessarily includes the IP address of each agent?

A I would -- I would say that that is a dependency on the implementer, because even in that paragraph it states that, you know, that it could handle requests from the IP address. You know, people have designed things that don't necessarily use IP addresses, sometimes.

Q So you --

A And that would not be a limitation on the application of Shribman.

Q I see. So is it fair that the way you reviewed Shribman, the reference to the IP address in paragraph 80 is something you felt could be also read as something different than an IP address?

A The context of which I made my evaluation was something operating on the internet, which is what '044 states. So in my thinking, and in answering or documenting in my declaration, I made the assumption in my evaluation that we were always talking about the internet.

So I think that if you would like me to evaluate Shribman in its entirety, which is kind of where we're going with all these questions, I would need to look at the appropriate context of evaluation of Shribman, because my evaluation of Shribman was narrowly focused to -- to look at how it -- it applied to the '044 patent.

Q Sir, would you agree that according to Shribman the list of agents that acceleration server 162 sends to client 102 necessarily includes the IP address of each agent?

A Are we -- what paragraph are you referring to?

Q I'm asking for your understanding of Shribman.

A Okay. In the context of a person applying Shribman to an actual developed product, I would say that would be a choice of the implementer, as an example, an implementer could choose to use a different entity as address resolution, it could choose to use an addressing scheme that did not use what we would know as an outside IP address.

There are a number of things that -- that would change the answer to your question based on, is this an internal application, network application using IP addresses, is it an external outside firewall implementation?

So generically speaking, you

could apply that answer. It would work. But to get to an absolute, more context is needed.

Q So when you reviewed Shribman, for purposes of your analysis in this case, did you take into account these other possibilities that you've just been testifying about?

A No, because I only sought to find an analogous reference to '044 to provide example that existed previously or in other implementations.

Q So if in your declaration you stated, quote, this list necessarily includes the IP address of each agent, close quote, do you now mean that that statement had some conditionality associated with it?

A No. That is what is stated in Shribman. You are asking me a hypothetical about Shribman.

Q I'm not asking you --

A I see that that could be different.

Q I'm asking you about the

teachings of Shribman, sir. I'm not posing any hypotheticals.

I'm simply asking for your understanding of the disclosure and how you applied it in your analysis.

A My analysis was, I quoted Shribman, understanding what that particular instance could satisfy, and I quoted him directly.

Q Would you agree, sir, that in response to receiving the list of agents from the acceleration server the client module of Shribman then sends a GET request to all of the agents in the list?

A What example are you pointing me to, what paragraph?

Q I'm asking you, first, for your understanding of the disclosure of Shribman, sir.

A Possibly.

Q Under what circumstance is yes and under what circumstance is no?

A Did I provide an -- did I provide this response in my declaration?

Q Sir, can you first try to

answer my question, and then we'll work from there, please?

A Well, I believe the specificity of my answer requires some context. However, you could have cache exhaustion occurring to where one of the agents or all of the agents no longer have current information, in which case the response -- the request would not necessarily occur that way.

Q So let me make sure you have my question squarely in mind, sir. And my question is: In response to receiving the list of agents from the acceleration server, would you agree that the client module then sends the GET request to each of the agents in the list?

A I'm not sure, without -- without reviewing this, because I believe there is a condition. I believe there is a condition exists that that would not be the case.

Q If you look at the first sentence of paragraph 67 of your declaration, do you agree that the direct

testimony you provided reads, quote: Client 102 reaches out to each agent in the receipt list, sending each agent the URL of the desired content, close quote.

A All right.

Q Would you agree that that -- that I accurately read the sentence that you included in your declaration?

A That is an example of Shribman.

Q Is there any discussion in your declaration of any other embodiment or operation of Shribman with respect to that issue?

A No.

Q Would you agree that in Shribman, in response to receiving the GET request from the client module, each agent responds to the client 200 with whether it has information regarding the request?

A If you are asking me to specifically look at Shribman, without the context of 404, I would have to review the document and see if that scenario is true in all use cases.

Q Sir, did you review the Shribman 733 reference prior to your deposition today?

A Yes.

Q Okay. If it helps you, let's look at paragraph 83 of Shribman, which you also cite in your declaration. Please let me know when you're there.

A I'm here.

Q In paragraph 83 would you agree with the second sentence, which reads: As shown by block 382, upon receiving the request from the client, each agent that received the request from the client responds to the client 200 with whether it has information regarding the request, which can help the client to download the requested information from peers in the network, close quote?

MR. ABRAMSON: I'm going to object to all questions that ask if the witness agrees with literal disclosure in the document. I think the proper question in all these examples, and you've been doing it

repeatedly today, the proper question is: Do you see where the document states X. He can -- he can answer, subject to that objection.

MR. DUNHAM: Well, counsel, I'm going to ask you to not make speaking objections. If you have a form objection, please make it.

I've asked the witness initially his understanding of the reference. And he has had some difficulty with that, and he has asked me repeatedly for context. I've simply been trying to help the witness by giving him that context.

BY MR. DUNHAM:

Q So with that, Mr. Teruya, let me ask you a fresh question.

Would you agree that in response to receiving the GET request from the client module each agent responds to the client with whether it has information regarding the request?

A Conditionally, yes.

Q Under what condition are you --

do you believe an agent does not respond with information regarding the request?

A In the state where that information doesn't exist in any agent.

Q Would you agree that in the disclosure of Shribman, in response to receiving a request from a client, the agent does not respond with the actual content that the client has requested?

A Can you state that again, please?

Q Certainly. Would you agree that in response to receiving a request from a client, the agent does not respond with the actual content that the client has requested?

MR. ABRAMSON: Objection, ambiguous.

A Where is that referenced in Shribman?

Q Sir, I'm asking you, first, for your understanding of Shribman.

A I would like to review where that discussion takes place in Shribman.

Q So are you asking me to point

you to the portion of Shribman that you need to review, is that what you're asking for?

A That's what I'm asking you to do.

Q Well, in your report you cite paragraph 83 of Shribman for that proposition, so I'm really following your report.

A Now, what is your question?

Q My question is: In response to receiving a request from a client would you agree that the agent in Shribman does not respond with the actual content that the client has requested?

MR. ABRAMSON: Objection, lack of foundation.

A I can see that that is inferred.

Q So is that your understanding of Shribman?

MR. ABRAMSON: Objection, form.

A I'll -- I'll state again, I believe that that is what is inferred.

Q Would you agree that in Shribman each agent sends to the client a list of peers and checksums of chunks of the desired content that the peers have?

A That is what is stated in paragraph 83.

Q And is that your understanding of what Shribman discloses with respect to the agent's response to the client upon receiving the request for --

MR. ABRAMSON: Asked and answered.

A I can only respond by saying: This is the representation provided by Shribman.

Q Do you have some disagreement with that language from Shribman?

A No, my -- I -- I pass no judgment on Shribman. Shribman was used as a reference for me. My -- my -- I was not paid to evaluate Shribman. I was -- I was paid to evaluate my opinion as to how Shribman could be applied, as well as other documents that -- or instruments that could apply to each patent.

Q And, sir, I'm only asking about the way I've read your declaration and how it appeared to me you may have applied Shribman, that's all I'm trying to work through with you.

A I understand that. And if you need more context from what I provided in my declaration, I would be happy to provide that to you if you would reference the section of my declaration that you would like to have a discussion about.

Q Sir, unfortunately, in depositions the questioning attorney selects the order and manner of question. I'm trying to be very linear with you, and not jumping around, so let me continue my cross-examination, please.

If it's helpful to you, with reference to Shribman paragraph 84, and that's for your benefit, but would you agree that after receiving responses from each agent in the list the client then decides which agent to use as its agent for the particular information request?

A That is what is being stated by Shribman in that paragraph.

Q Would you agree that after selecting an agent, according to Shribman, the client notifies the selected agent that the client is going to use that agent and notifies the other agents that the client is not going to be using them for a particular request?

A Is that relevant to a particular paragraph or in the teaching in its entirety? Because I believe there are conditions that could possibly introduce a different scenario based on a use case, a specific use case.

Q Sir, I'm just trying to gain your understanding of Shribman. And would you agree that --

A I -- I'm providing you an answer. You asked me to something specific, I said it is conditional based on whether or not we're looking at this narrow example in this paragraph or are we looking at Shribman in its entirety, that introduce other examples in other

paragraphs.

Q Sir, would you agree that according to Shribman, after deciding which agent to use, client 102 sends a request for specific chunks of content to the selected agent?

A Say that again, please.

Q Sure. Would you agree that, according to Shribman, after deciding which agent to use, client 102 sends a request for specific chunks of content to the selected agent?

A I -- I believe that Shribman -- I believe that Shribman states that once you have the agent that you're going to use that the client does this specific request to that agent.

Q And are those requests from the client to that agent requests for specific chunks of content, according to Shribman?

A Ask that again, please.

Q Once the client has selected a particular agent would you agree that the client sends a request to that agent for

specific chunks of content?

A I believe how it works is -- I believe how it works, if I understand -- if I remember correctly, is the response for the request -- the -- the -- you know, the chunk request or the media request or whatever, from the client goes out, and I believe the -- the agent needs to determine whether or not it can respond to the client, meaning, does it have that information or doesn't it have that information.

Q Would you agree that in responding to the client each agent sends to the client a list of peers and checksums of chunks of the desired content that the peers have?

MR. ABRAMSON: Object to the form.

A I don't have a -- I don't have a recollection of the exchange of checksums.

Q So that's just not something you recall today, is that your testimony?

A That's something I don't recall

today.

Q Do you know, according to Shribman, whether the client, in order to obtain content from a peer, do you know whether the client sends the GET request to the peer in order to obtain the desired content?

MR. ABRAMSON: Object.

MR. DUNHAM: I didn't hear the objection.

MR. ABRAMSON: Objection with regard to the scope of direct. You can answer.

A I don't recall whether or not that request is from a client to an agent necessarily has to be an HTTP GET.

Q Sir, would you agree that Shribman discloses a primarily peer-to-peer file sharing system and method?

MR. ABRAMSON: Object to the form, vague, ambiguous.

A I -- I don't know that I would characterize Shribman to be that.

Q So do you --

A It is a possible application. However, I don't know that that was the -- I don't believe that was the entirely the implementation of Shribman.

Q So if you look at paragraph 65 of your declaration, do you disagree with the first sentence, that says: Quote, Shribman discloses a primarily peer-to-peer file sharing system and method, close quote?

A I'm sorry, what paragraph is that again?

Q 65.

A Okay.

Q Well, sir, I'm sorry, my question I'm trying to get to, is I asked: Would you agree that Shribman discloses a primarily peer-to-peer file sharing system and method?

A I'll -- that's what I wrote. I -- you know, I think there's a -- I think the scope can be larger. However, you know, that's a disclosure that they made.

Q Well, do you agree with that

characterization as it appears verbatim in paragraph 65 of your declaration?

A I'm -- you're asking me to agree at what I wrote there?

Q Well, I asked you --

A It is -- it is a possible implementation. It is a possible implementation.

Q Sir. Sir, I'm not going to engage in a discussion with you, but when I asked you the question the first time you took issue with it, so to assist you I pointed you to a specific paragraph of your declaration.

A Okay. What is the question?

Q Sir, would you agree that an object of Shribman is to reduce the need for any client to go directly to the origin server to retrieve desired content?

A That wasn't your original question. Are we moving to a different question?

Q Each question, sir, I ask you stands alone. So please, as I ask them,

just do your best to answer. If you need clarification I'm happy to, and I'm happy to repeat that question if helpful to you.

A Okay. I was not aware that we were finished with the previous question. I'm sorry.

Q So let me ask you a question, sir.

Would you agree that an object of Shribman is to reduce the need for any client to go directly to the origin server to retrieve desired content?

MR. ABRAMSON: Object to the extent that's beyond the scope of his declaration.

A I believe that that is one of the motivations. I don't know that it's the primary tenet of the -- of the system and methods. I believe they were trying to create a more efficient methodology to retrieve data.

So given that, given that scenario, it's within the scope of the

objective.

Q I'm sorry, it's within the scope of what?

A The object -- the overall objective.

Q Objective? Yes, thank you, sir.

Would you agree that Shribman teaches getting cached content from peers in order to reduce the burden on the web server?

A That is one of its -- that it follows with the scope of their objective of providing more efficient retrieval of data.

Q I'm going to refer to paragraph 66 of your declaration for a moment.

You cited in paragraph 72 of Shribman as support for client 102 sending its IP address to the acceleration server; right?

A That is Shribman's example, yes.

Q And this citation refers to the signup request shown in Figure 13 of

Shribman; correct?

A I believe so.

Q Now, you cite in paragraph 79, as support for client 102 sending the IP address of the web server 152 to the acceleration server 162 to obtain a list of agents; correct?

A I -- I did.

Q And this citation to paragraph 79 refers to the find agent request shown in Figure 13; correct?

A I'm sorry, the what?

Q This citation refers to the find agent request that is shown in Figure 13; correct?

A I believe so.

Q Do you agree that the acceleration server 162 is then looking for agents with an IP address that is numerically close to the IP address of the web server 152?

A I believe that is in the scope of their discussion to look for, you know, geographically geolocated IP address for facilitation of efficient

communication.

The address mechanism is, you know, I don't recall all the specifics, but I -- I did see that discussion.

Q Sir, then do you agree that the IP address of the client is, therefore, not relevant to which agents will be in the list?

A The client's IP address --

MR. ABRAMSON: Object, beyond the scope of the direct. You can answer.

A The client's IP address is independent of the process, other than to respond to the client with regard to an agent list.

Q Would you agree that the signup request, as referenced in paragraph 72 of Shribman and cited in your declarations, paragraph -- let me start again, I want to make this clearer for you. I don't mean for that question to be confusing.

So with reference to paragraph 66 of your report, and the

citations therein to Shribman, would you agree that the signup request and the find agent request are two different types of requests?

A Can you restate that question, please?

Q Sure. With respect to paragraph 66 of your declaration, and the citations that you provide therein, would you agree that the signup request and the find agent request of Shribman are two different types of requests?

A I believe I referred to that as a registration, correct? Your term of signup is that the client will register with the acceleration server, and in that context, that is a separate request than requesting addresses of the agent from the acceleration server.

Q Is it your understanding that Shribman refers to that communication that you cite in paragraph 72 as a signup request?

A I -- I don't recall that language. It -- it may -- it may be very

well the case, but I don't recall the language.

Q Would you agree that, according to Shribman, it is the agent, not the client, that determines where to obtain the requested content?

A Conditionally.

Q Under what condition does the agent not determine where to obtain content requested by a client?

A When the agents don't have the content.

Q And when an agent doesn't have the content, according to Shribman, what happens?

A I believe the content is directly -- directly responded to by the -- the server that holds the data.

Q Following up on your answer, when a -- when an agent does not have information regarding the content, and the content needs to be obtained from a server, according to Shribman what is your understanding of how that process works?

A To be accurate, let me find and review what I wrote about that scenario.

Q That's fine. And just for the record, if you're looking at specific passages in your report, I'll just ask you to please note those for us.

A Okay.

Q Thank you.

A Okay. Can you ask your question again, please?

Q Sure. I had asked you what is your understanding of how Shrib- -- of Shribman's disclosure when the agent determines that the requested information sought by the client is not available?

A Is not available to the agent?

Q Sure, let's take that case.

A In that scenario the agent makes the request to the server.

Q Okay. So -- and that's what I was trying to get to. Is it your understanding, then, that when an agent receives a request for content from client, and the agent does not have that content available, the agent requests

that content from the web server?

A That is correct, that is stated by Shribman.

Q Could you refer, please, to paragraph 100 of your declaration? And please let me know when you're there.

A I'm there.

Q In paragraph 100 you stated, quote, selecting additional devices from a group selection when one is already selected would be obvious to a POSITA; do you see that?

A Yes.

Q How would it be obvious to use multiple devices given that Shribman expressly discloses the client selecting a single agent?

A It would be -- it's obvious by use case, suppose the agent goes away? There is a discussion about deficiencies based on geolocation. Suppose, you know, that path has now become degraded?

You know, degradation, dynamic degradation is probably the number one example of -- in a use case to -- to have

more than one connection.

Q Are you talking about a specific disclosure that's in Shribman or are you talking about your knowledge of just how the internet works?

(Reporter clarification.)

MR. DUNHAM: I'm sorry, did you get what you need.

THE REPORTER: I need the answer.

BY MR. DUNHAM:

Q So Mr. Teruya, I think she would like you to repeat your answer, if possible.

A Wow. Okay. I don't know if I can do that verbatim, but I would -- I said: It's an obvious conclusion because of the nature of the internet and the -- the dynamic nature of the internet and -- and path resolution. Paths degrade, you know, with great frequency.

So if you're looking for an efficient communication methodology in order to provide faster delivery of data, in a data communication scenario, it --

it's obvious that you would -- you would put in the mechanics and the process to be able to dynamically change your connections in order to have the efficiencies of -- of transfer.

Q Sir, would you agree that the Shribman reference does not disclose selecting more than one agent by the client device?

MR. ABRAMSON: Object to the form.

A I don't recall that it states -- it states: Simultaneous connectivity. I -- I merely stated in my -- my paragraph, there, that you have the ability to select additional devices, whether that be static or dynamic, you know, it's -- it's -- it -- it's an obvious mechanism to how things work.

Q Please refer to paragraph 101 of your declaration.

A Okay.

Q And to help with the context, paragraph 101 states: Claim 94 depends from claim 89 and covers the second

device being randomly selected from the group. It would have been obvious to a POSITA to have made this selection randomly, especially in view of the fact that dependent claims in Shribman disclosed particular rules for selection.

Do you see that?

A Yes.

Q And my question I wanted to try to understand is: Was there disclosure in Shribman for making that selection of the second device randomly from the group?

A I -- I don't recall. However, the mechanics of Shribman infers that geolocation for -- for enhanced communication delivery, was one of the factors that it used in a selection process. It would seem to reason that if -- if that is your criteria, then design of the pool would necessarily be weighted with that attribute.

So the randomness of connectivity is largely structured and architected in a way that you would pick

randomly, rather than specifically, from a list that would -- would meet that criteria, much like in -- in -- you know, in round robin DNS selection.

Q Was the round robin DNS selection disclosed in Shribman?

A No, it's an obviousness of -- it's an example of obviousness.

Q So when you're using obviousness, I just want to understand, do you mean obvious beyond what's disclosed in Shribman, is that how I should understand you?

A Yes. Yes, in most cases, that's true.

Q Could you go to paragraph 115 of your declaration, please.

A Okay.

Q Down near the bottom of page 42, and spilling over to page 43, there's a sentence that reads, quote, in addition, a POSITA would understand that in the circumstances described in Shribman the agent must be doing DNS lookups in order to request the content

as described; do you see that sentence?

A Yes.

Q Now, would you agree that in Shribman it is the client, not the agent, that sends the IP address of the web server to the acceleration server?

A I'm sorry, state that again.

Q Would you agree that in Shribman it is the client device that -- not the agent, that sends the IP address of the web server to the acceleration server?

A I don't recall that, at this time.

Q And in the sentence that we just reviewed together, in paragraph 115 of your declaration, I just want you to focus on the word: "Must be doing DNS lookups."

Do you see that phrase?

A Yes.

Q Why is it that you have testified that the agent must be doing DNS lookups?

A Because one of the criteria of

Shribman, that there was discussion, was to geolocate IP addresses in order to facilitate faster retrieval. You don't want to present the server that an agent that is in Hong Kong, when you're in LA, and there's another agent in LA.

You would want the agent for that client, at the top of its list of selection, to be in LA. The most convenient way to order that list is by doing a DNS lookup and getting geolocated addresses.

Q And my question, sir, is: What support do you have for your statement that the agent must be doing the DNS lookup in Shribman?

A I -- I don't know that there is a specific methodology defined in Shribman for that. I'm saying that it would be obvious that that would be occurring.

Q Sir, could you look at paragraph 79 of the Shribman reference, and please let me know when you're there.

A I'm there.

Q In the second sentence of paragraph 79, would you agree that Shribman describes that the client module 224 then looks up the IP address of the server 152 that is the target of the resource request.

Do you see that?

A Yes.

Q Are you aware of any disclosure in Shribman that says that the agent looks up the IP address of the server that is the target of the resource request?

A I don't recall, at this time. I would have to review this more carefully.

Q In your declaration, did you cite any support for the notion that the agent of Shribman does a DNS lookup in order to request content sought by a client device?

A A DNS lookup is an address translation in order to effectively do things. You know, it's -- it's an inherent process at using the internet.

It -- its use is generally inferred.

Q And my request, sir, is simple: I just was unable to find this, so I'm asking for your assistance. Is there any place in your declaration where you provide support for the statement that a POSITA would understand that in the circumstances described in Shribman the agent must be doing DNS lookups in order to request the content as described?

A I -- I believe that every element that in using an IP address is using some form of DNS lookup no matter what that device is.

Q Is it --

A Because part of address resolution on the internet is an inherent process of address resolution, every device must do it.

Q So if a client device sends to an agent the IP address for a domain posted on the server, is it your understanding that the agent that received that IP address from the client device --

MR. ABRAMSON: Objection, lack of foundation.

MR. DUNHAM: Sir, I haven't finished my question. Please allow me to finish. I'm just trying to elucidate further from the witness's explanation.

MR. ABRAMSON: You might want to rephrase it, because it sounded like an incomplete question to me. Lack of foundation.

MR. DUNHAM: Please allow me to ask my questions, counsel.

MR. ABRAMSON: Go ahead.

BY MR. DUNHAM:

Q Mr. Teruya, is it your understanding that if a client device has performed a DNS lookup and has the IP address for the location where a domain is hosted on a server on the internet, and the client device provides that IP address to an agent, must the agent necessarily do another DNS lookup to determine the IP address for that domain?

MR. ABRAMSON: Objection, lack

of foundation.

A I don't know how to answer that, because the connectivity chain you just described would -- would not -- would not map correctly in order to provide an answer to that question.

MR. DUNHAM: Okay. We've been going over -- a little bit over an hour, so let's take another 10-minute break.

THE WITNESS: Okay.

MR. ABRAMSON: You good?

THE VIDEOGRAPHER: The time is 2:18 p.m. We are off the record.

(Recess.)

THE VIDEOGRAPHER: The time is 2:31 p.m. We're back on the record. Please proceed.

BY MR. DUNHAM:

Q Mr. Teruya, just as a housekeeping note, I believe you're in a different time zone than me, so if it comes to a point that you would like to take a break for lunch, please do not hesitate to let me know.

A Okay.
Q Great.
A Thank you.
(Exhibit No. 1018 was identified for the record.)
BY MR. DUNHAM:
Q I'd like to take -- you're welcome.
I would like you to take out Exhibit 1018, the reference referred to as Sharp KK. And please keep your declaration available to you, as well.
A Okay.
Q Mr. Teruya, you would agree that Sharp KK discloses a content delivery system; correct?
A Yeah, that's -- yeah, that's what they purport.
Q Do you agree that a POSITA would understand the content delivery system of Sharp KK to be a closed system?
MR. ABRAMSON: Object to the form.
A I -- I would not agree with that.

Q Why not?
A I believe it could be applied either publicly or privately. You know, it could be open or closed. I don't -- I don't -- I don't find that specific constraint.
Q Would you agree that all of the desired content available within the system disclosed in Sharp KK, must be located within the system?
MR. ABRAMSON: Object to the form.
A Could you -- could you provide that question again, please?
Q Sure. Would you agree that all of the content that is available within the content delivery system disclosed in Sharp KK, must exist within the system itself?
A As it is disclosed in Sharp, in the embodiment that I reviewed, I would -- I would say that would be true, generally.
Q Why only generally, sir?
A Because we don't know what

connections are between the servers and the proxy for those storage sections. What is that, is it an internal network, is it a HSSI link, is it an ATM link to a data cluster? We don't know what those are, so we can't make a determination to say they're all enclosed in this -- in this system. It could -- it could be taking a hop across the river.

Q Would you agree that within the disclosure of Sharp KK all of the content that -- that is available within the system must be in -- must be on at least one of the devices that are shown within the system?

A I would agree that in order to evaluate the structure being explained in the embodiment, we can infer that that is an architecture that could exist.

Q Are you aware of any disclosure in Sharp KK that would permit one of the client devices to make a request for content that is not included on any of the other devices that are disclosed in the content delivery system?

A I'm not absolutely sure about that inference. Is there -- is there an example in my declaration that -- that you are -- that you used in order to ask that question?

Q You've included various figures and cited various paragraphs in Sharp KK in your declaration, and I've reviewed all of them, and I'm just trying to confirm if it's your understanding that in the content delivery system of Sharp KK all of the content that could be requested by any of the clients must already be within the system, itself.

A As I stated before, my evaluation of Sharp KK, specifically embodiment number three, is relevant to finding analogous examples to the patent in question.

So if you would like me to provide additional content, context, to what example I cited in Sharp KK, relevant to the claims we're talking about in the patent, I would be happy to answer that.

But I didn't do an overall evaluation of Sharp KK as a standalone evaluation of what every single embodiment of Sharp defines. That was not what I was paid to do.

Q And my question -- thank you for that, sir.

My question is: In your review of Sharp KK did you identify any disclosure that would permit a client device within the system to obtain content that was on a server that is not part of the system?

MR. ABRAMSON: Object to form.

A I don't recall at this time.

However, to give you a more accurate answer, let me review the section of my declaration where I specifically go through Sharp KK, if you would allow me to.

Q Certainly.

A Okay. What was your question again?

Q My question is: Are you aware of any disclosure in Sharp KK that would

permit a client device to seek content from a web server that is not within the content delivery system of Sharp KK?

A I do not believe there is a -- a specific disclosure. I believe its ability to exist is inferred.

Q Is there a particular portion of Sharp KK you would point to, to support your belief that such a use would be inferred?

A I should say the possibility is inferred.

Q With reference to paragraph 151 of your declaration --

A Yes.

Q -- if you could turn there, please, let me know when you're there.

A I'm there.

Q The second sentence of that paragraph states, quote, the proxies are caching HTTP proxies, then you have a -- some additional quoted language in the citation. I'm interested in that phrase caching HTTP -- strike that.

I'm interested in the phrase:

Caching HTTP proxies. Do you see that phrase?

A Yes.

Q What did you mean by caching HTTP proxies, as used in paragraph 151 of your declaration?

A Sharp calls out a -- a cache methodology, which I guess because the Japanese translation they misspelled cache, but it's disclosed in the embodiment that they have caching storage. It's -- it's -- it's spelled out below the proxies in the diagram. I think it's 8B, or something.

Q I would agree that the caching HTTP proxies disclosed in Sharp KK are HTTP proxy servers.

A I -- yeah, they could be, you know, they could be proxy in function, you know? Proxy's a fairly generic term. So a proxy server within a specific internet configuration may be different than the translation proxy, for instance.

Q Well, sir, my question is specifically about the caching HTTP

proxies disclosed in Sharp KK. Would you agree that those are HTTP proxy servers that are disclosed?

A In what embodiment section that I reviewed, I would -- I would consider those caching at HTTP proxies.

Q I'm sorry, I didn't understand your answer. Could you repeat that, please?

A I said: In the embodiment that I reviewed, they could be construed to be HTTP proxies. But I believe somewhere in there, not under the strict definition of something like SOCKS. Cache is a relative term. You can cache a web page.

Q In paragraph 61 of your declaration --

A Yes.

Q -- do you understand that the Sharp KK discloses proxies deployed for load balancing; do you see that?

MR. ABRAMSON: Which paragraph, Tom?

MR. DUNHAM: 61.

MR. ABRAMSON: Of his

declaration?

MR. DUNHAM: Yes, sir.

MR. ABRAMSON: On the '044 patent?

MR. DUNHAM: Yes, sir.

THE WITNESS: Okay. I'm there.

BY MR. DUNHAM:

Q When you reference the proxies, in the first sentence of paragraph 61, were you referring to the HTTP proxy servers that are disclosed in Sharp KK?

A Not necessarily.

Q So what were you referring to, then, sir, when you referenced proxies deployed for load balancing in paragraph 61 of your declaration?

A Well, this -- I'd have to go through -- I -- I don't -- I really don't recall it, it's generally understood by the -- by the -- by what sharp has defined itself to be, that -- that these multiple devices were attempting to load balance in delivering the content.

And because the information

appears to be -- have some level of redundancy, you know, that -- that was my -- my definition and explanation.

Q Would you agree that Figure 20 of Sharp KK is the figure that corresponds to embodiment number three that you referenced earlier?

A Yes, I believe so. I can double check that right now. Yes.

Q So can you put Figure 20 up on your screen in front of you, sir?

A I have it.

Q Would you agree that in Figure 20 there are two clients shown, and they are labeled 4E and 4F?

A Yes, that's correct.

Q And would you agree there are two HTTP proxies shown, labeled 3a -- I'm sorry, strike that.

Three HTTP proxies shown, labeled 3a, 3b, and 3c?

A There are three proxies indicated in the figure. They did not specifically state that they were HTTP proxies.

Q Would you agree that the three proxies shown, 3a, 3b, and 3c are each caching proxies?

A It would -- I would agree with -- I would agree that that could be their designation.

Q Okay. Do you see corresponding to each of the three proxies, 3a, 3b, 3c, do you see the associated cache storage section 6a, 6b, and 6c?

A Yes.

Q Taking proxy 3a as an example, what is your understanding of the functionality provided by cache storage section 6a of Sharp KK?

A Specifically?

Q Yes, sir.

A I -- I -- I would just -- my analysis of Sharp KK, in my declaration, didn't specifically break down the structure of that particular proxy.

Q Is that your answer, sir?

A Yes, it's a device that -- it's a device that provides a function in the example provided by Sharp. I didn't -- I

did not break down the specificity of what -- how that proxy is constructed.

Q Just so my record is clear, sir, and I apologize if I asked you this previously, you did review embodiment 3 of Sharp KK; correct?

A I certainly did.

Q Do you have an understanding of the functionality provided by cache storage section 6a as associated with proxy 3a?

A I'm sorry, what was that question again?

Q Sure. Do you have an understanding of the functionality provided by cache storage section 6a as associated with proxy 3a and as shown in Figure 20 of Sharp KK?

A Not with any specificity. I treat the proxy and the -- its caching capability as a -- as an entity. I don't know the specific mechanics.

Q In paragraph 61 of your declaration, you indicate that proxies are assigned to users by a central

server; correct?

A Correct.

Q When you refer to the central server, in that particular statement of your declaration, which component shown on Figure 20 were you referring to?

A The -- I'm sorry, what paragraph are you looking at, again?

Q 61 of your declaration, sir.

A Yes. I believe that -- I believe I'm referring to the communications server, if I'm correct. I think the communications server, if I accurately remember, is the one that assigns the -- the connection.

Q Again, with reference --

A Let me -- let me review my -- in my declaration, where I take that apart.

Okay. What was the question again?

Q In paragraph 61 of your declaration you stated that proxies are assigned to users by a central server. And my question is: Is that server 2

that's shown on Figure 20?

A Yes.

Q With reference to paragraph 151 of your declaration, can you please let me know when you're there.

A I'm here. I'm there.

Q Sure. Thank you.

In the first sentence you state that: Server 2 assigns one of a plurality of proxy devices, 3a, 3b, 3c, to handle requests for content, from clients. And then the sentence goes on.

MR. ABRAMSON: Objection to form, misstates the document.

BY MR. DUNHAM:

Q Do you see that language in the first sentence of paragraph 151 of your declaration?

A You dropped out there, so can you -- can you provide that question again?

Q Absolutely. I'm just trying to get you to look at particular language that is in the first sentence --

A Okay.

Q -- of paragraph 151 of your declaration. And the language I'm interested in is: The server 2 assigns one of a plurality of proxy devices, 3a, 3b, 3c, to handle requests for content from clients.

Do you see that passage?

A Yes.

Q Is it your understanding --

MR. ABRAMSON: Object to the form. Objection to form, partial quote.

MR. DUNHAM: The witness is free to read the entire sentence to himself.

MR. ABRAMSON: I know, Tom, but you're quoting it, and then you're quoting it incorrect. It's usually -- I said: You are quoting it in a -- in a confusing way, but he can answer.

MR. DUNHAM: Counsel, I ask you to limit your objections to nonspeaking objections, please.

///

BY MR. DUNHAM:

Q Mr. Teruya, with reference to the first sentence of paragraph 151 of your declaration, will you agree that Sharp KK teaches that server 2 assigns a proxy device 3a, 3b, 3c to handle requests for content from clients?

MR. ABRAMSON: Again, object to the form.

A Let me review one thing. I believe that to be true, but let me review something to make sure that that's an accurate answer.

Can you state your question again, please?

Q Sure. So you would agree that Sharp KK teaches that server 2 assigns a proxy 3a, 3b, 3c to be used by client 4; correct?

MR. ABRAMSON: Same objection.

A Eventually.

Q Is there another device within Sharp KK that assigns a proxy to be used by a client, other than server 2?

A No, not -- not in the

embodiment that I reviewed.

Q Are you aware of any disclosure in Sharp KK where a device other than server 2 assigns a proxy to be used by a client?

A I did not review in any detail or specificity any embodiment, aside from embodiment number three.

Q In paragraph 151 of your declaration, you use the phrase: Proxy devices; do you see that?

A Yes.

Q What do you mean by proxy devices?

A So as I stated before, I treated all the elements of what is in -- in Figure 20, that indicates a proxy, from the cache storage section to the proxy communications section, to the response requests extract execution section, I treated those as a device that provided functionality and -- and role as a proxy.

Q Do you know whether the Sharp reference, itself, ever uses the phrase,

quote, proxy device, close quote?

A I -- I don't recall.

Q Would you agree that in Sharp KK the client 4 directly contacts the server 2 to re -- make a request for content?

A I'm -- I'm sorry, what? Can you repeat that again?

Q Certainly. Would you agree that in Sharp KK the client 4 directly contacts the server 2 to make a request for content?

A In order to give you an accurate answer, let me review a section of my declaration that handles, I believe, the scenario of exhaustion.

Can you ask your question again, please?

Q You agree that in Sharp KK the client 4 directly contacts the server 2 to make a request for content; right?

MR. ABRAMSON: Object to the form.

A I think the difficulty in that question, to be absolutely accurate,

would be that are we treating server 2 in that illustration of embodiment 3 as a singular role as a server or are we parsing out the functionality of what, in essence, is the acceleration server in the context of the patent to assign an agent address, which is the proxies, but it is a subset of server 2.

Q So with reference to Figure 20 of Sharp KK --

A Yes.

Q -- would you agree that client 4 directly contacts the box shown as server 2 to make a request for content?

A Eventually.

Q In order to obtain content in sharp KK, does the client always have to make a request for content of server 2?

MR. ABRAMSON: Object to the form.

A It -- in appropriate context, it will, at some point. But in the acceleration of the delivery, in the load balancing delivery, that content will come from the proxy caches.

So in order to get the assignment, the answer would be yes. In subsequent sessions, the answer would be no. So I don't really know how to answer that question with a singular answer.

Q Sure. And I understand your explanation. Let me -- let me try and break it into two pieces, and I'm recognizing the difference between requesting content and obtaining content.

So I just want to make sure the record is clear in terms of how you're applying the teachings of Sharp KK in connection with your declaration.

So my first question is: You would agree that Sharp -- in Sharp KK the client 4 directly contacts server 2 to make a request for content; correct?

A Eventually. Again, eventually.

Q Okay. Well, would you agree that always has to happen at some point in the process? That's all I'm trying to establish.

A Let me review this again, because I -- I don't know that that use case is always the case.

Okay. There's multiple use cases defined by Sharp. So there is the case where Sharp discloses that either the clients can fetch content from server 2 via the proxies. Okay?

The other use cases, server 2 may receive a request from the client, which may transmit directly from the client, so it would respond.

So technically, in that use case, but not in every use case, that statement could be true.

Q Can you identify for me any use case in Sharp where the client does not make a request for content of server 2 at some point in that particular use case?

A That it does not -- I'm sorry, can you repeat the question.

Q Sure. Can you identify for me any use case in Sharp where the client does not make a request of server 2 for content at some part in the process of

the client requesting and obtaining content?

A Well, the use case would be that the client fetches the content from the proxy.

Q Prior to a client fetching content from a proxy, 3a and 3b shown in Figure 20, would you agree that the client previously had to contact server 2 in order to be assigned to one of the proxies?

A Yes, that is stated by -- by Sharp.

Q Would you agree that server 2 keeps track of each request for content that's made by any of the clients in the system?

A Well, can you be more specific? What is keep track?

Q My question is: Would you agree that server 2 keeps track of each request for content that is made by any clients within the system?

A Does that mean does it keep a log or what -- what does that mean?

Q I'm simply asking for your understanding of the disclosure, sir.

A Well, I'm -- I'm -- I'm trying to -- I'm trying to understand the specificity of the question. Keeping track is -- is -- what -- what is keeping track?

Q Are you aware of any circumstances within Sharp KK where server 2 is able to determine if content requested by any client was previously requested by another client?

A So the use case example that you are stating is -- let's use the example clients, which is 4 -- what is it, 4e and "f"? Is that right? Clients 4e and 4f, the use case is: Does the server know that 4e or 4f are -- are making the same request?

Q Do you know if this ever -- will have some way to determine if 4f, for example, is requesting content that had been previously requested by 4e?

A I -- I -- I'm not aware of a scenario like that, since typically the

request will be coming to the proxy is -- is what I would assume to be obvious, since this is a load balancing network.

It's going to make a request for specific content. And the server will respond or the proxy will respond to returning the requested content.

Now, the server or proxy may have a process within it in order to log that information so it can sequentially be able to track at some later date.

But I don't know if that exists in any specific architecture or design that I -- I see existing in -- in the embodiment.

Q With reference to Figure 20 of Sharp KK, would you agree that client 4e will not contact any of the proxies, 3a, 3b, or 3c for content until after client 4e has made a request to server 2?

A Can you ask that question again, please?

Q Sure. Would you agree that embodiment 3, shown in Figure 20 of Sharp KK, before client 4e goes out to proxy

3a, 3b, or 3c to obtain content, client 4e must have previously contacted server 2?

A I -- I would say that in most cases that would be true.

Q Are you able to point to any disclosure in Sharp KK showing a case where client 4e did not first have to contact server 2 before being directed to one of the proxies to obtain content?

A Not without more analysis to all the other embodiments in Sharp.

Q Well, with respect to the embodiment you said you analyzed, are you aware of any disclosure in Sharp KK where client 4e could be directed to proxies 3a, 3b, or 3c without first having contacted server 2?

MR. ABRAMSON: I'm going to object to this line of questioning on the grounds that it's beyond the scope of his direct examination.

I don't believe this relates to anything he stated in his declaration and I don't think this

is admissible.

MR. DUNHAM: Counsel, I disagree completely. The analysis that Mr. Teruya provided, for example, in paragraph 152 through 163, specifically goes into the messaging between the different alleged elements of the network.

And I'm merely having the witness explain to me his understanding of the operation so I can understand his analysis.

MR. ABRAMSON: Yeah, you're asking him for his opinion on an order of events. And I don't believe that his declaration addresses that, at all, but if you can point to it?

MR. DUNHAM: I don't have to justify that to you now, counsel. I'm going to ask, if you have an objection, please make it, and then I'll ask the witness to answer the question.

MR. ABRAMSON: I'll state my

objection and then, you know, if and when it's appropriate we'll argue that that's not admissible. He can answer.

THE WITNESS: Can you ask your question again? I'm sorry.

BY MR. DUNHAM:

Q Sure. I just want to know, within the embodiments that you reviewed within Sharp KK, are you aware of any embodiment where client 4e would obtain content from any of the proxies that are shown without first having made a connection to server 2?

A Not that I'm aware of.

Q Okay.

A Not that I recall.

Q And if you look at paragraph 155 of your declaration, in the very first sentence there's a quote that states: Request executing section 33 of client 4 receives a response message to instruct the request executing section 33 to acquire content -- a content from a designated proxy, close quote; do you see

that statement?

A Yes.

Q And do you see the phrase: Response message, that you -- the words, response message, a response message that are used in that paragraph?

A Yes.

Q Would you agree that in order for request executing section 33 of client 4 to receive a response message, something must have preceded that in order for it to be a response, would you agree with that?

A Generically, yes.

Q So there is a sequence of the flow of messages that you described in your declaration, including your reference to a response message; correct?

A Yes, I would assume that there is a response to every request. Well, generally, generally, there are conditions where you won't receive a response.

Q But with respect to paragraph 155, you're specifically discussing the

sequence of messaging that occurs as you've analyzed Sharp KK; correct?

MR. ABRAMSON: Object to the form.

A As it's stated, as Sharp KK states that is what they are describing.

Q Now, in paragraph 159 of your declaration, and I would ask you to turn to that -- strike that.

Let me just ask you to turn to paragraph 159, and let me know when you're there.

A I'm there.

Q And please take a moment and read paragraph 159 to yourself. I have questions about both of the sentences in that paragraph.

A Okay. Your question?

Q First, with respect to the first sentence of paragraph 159, it states: In the principal embodiment shown in Sharp KK the functionality of the first and second servers are combined into one unit.

Do you see that language?

A Yes.

Q Are you aware of any disclosure in Sharp KK that shows the functionality of the first and second servers being separated and not combined into one unit?

A I -- I did not apply that constraint to the entire -- the entire Sharp document.

Q Okay. And again, I -- we'll get to the second sentence, too, but I just want to make sure I understood in the first sentence, you used the word principal embodiment.

So my question, sir, is: Are you aware of any disclosure in Sharp KK that shows the functionality of what you're referring to as the first and second servers, where they are not combined into one unit?

A I can't answer that without reviewing the entire document, which I did not specifically do with the specificity that I did for embodiment 3.

Q Okay. So with respect to embodiment 3, are you aware of any

disclosure within Sharp KK that the functionality of what you're referring to as the first and second servers, in the first sentence of paragraph 159, are not combined into one unit?

A Yeah, I -- I don't know that to be true, either. I believe that -- I believe Sharp is talking about functionality and role more from a Meta standpoint than a physical device, per se.

It's much like a Window's -- Microsoft Window's server having multiple virtual roles in a physical server, it could embody actual multiple physical server, a physical server with multiple virtual server instances.

So that the fact that Figure 20 was drawn like it was, I -- I cannot assume that that is a physical unit as opposed to a virtual unit, in which case it could be singular or it could be separated, you know, by the M function.

Q Is there any portion of the disclosure that -- in Sharp KK that you

can point me to that would state that the server could -- is virtual and could be divided into more than one component?

A No, that -- I mean, this is pretty common knowledge about, you know, VMs and virtualization. Virtualization is how -- how we have the cloud today. Virtualization is a basic tenet of computing, you know, in this era, I mean, going back 20 years.

Q Is it your testimony that in preparing your declaration, with respect to Sharp KK, the only embodiment that you analyzed and are relying on for alleged invalidity would be embodiment 3?

A That's the one that -- embodiment 3 represented the most, I would say, compelling and analogous example to the claims in the patent.

Q And my question, sir, is: In performing your analysis, as set forth in your declaration, and in forming the opinions that you formed regarding Sharp KK, is embodiment 3 the only embodiment that you are relying on to support your

opinions?

A I think that can be answered to the principal extent, I believe I referred to another embodiment, may not be in the '044 patent, but I may have done it in the other patent. I'm not entirely sure. I have -- I would have to review them both side-by-side as to whether or not I did make a reference to another embodiment.

MR. DUNHAM: And I see we've been going a little bit over an hour, so what I would propose is a short lunch break. We can do, say, 30 minutes or 45, if that works for you? But if you need more time, that's perfectly fine, sir.

MR. ABRAMSON: It's up to the witness. I've got very convenient food. Keith, it's up to you.

THE WITNESS: How about 45 minutes?

MR. ABRAMSON: Sounds great.

MR. DUNHAM: That's perfect. Thank you.

THE VIDEOGRAPHER: The time is 3:32 p.m. We are off the record.

(Recess.)

THE VIDEOGRAPHER: The time is 4:16 p.m. We are back on the record. Please proceed.

(Exhibit No. 1014 was identified for the record.)

BY MR. DUNHAM:

Q Mr. Teruya, I'd ask you to take out a copy of the Luotonen reference, which was Exhibit 1014 in the '866 IPR proceeding.

A Okay.

Q Please let me know when you have that available.

A Okay.

Q So I'd like you to take a look and, for yourself, review the terminology on page 20 of -- strike that. Let me start -- let me make this easier for you.

Would you please turn to the page number 22 of the Luotonen reference.

MR. ABRAMSON: What do you

mean by page 22?

MR. DUNHAM: The copy I have says page 22 in the lower corner.

MR. ABRAMSON: Okay. What's the -- what's the first line in the page?

MR. DUNHAM: Sure. It's the page that says, at the top, I guess it's chapter four, web proxy servers, and then it says: Terminology, in bold letters across the page.

MR. ABRAMSON: Yeah. Yeah. Okay.

THE WITNESS: Okay.

BY MR. DUNHAM:

Q Okay. So Mr. Teruya, do you have page 22 of Luotonen available to you?

A Yes.

Q What I'm going to ask you to do is just read to yourself the terminology that's down near the bottom of the page, that says: Proxy (server).

I'm going to have some

questions about specific language within that, that terminology, but I would like you to have an opportunity to read the whole statement that's in Luotonen.

A Okay.

Q So I'd like to direct your attention to the portion of that statement, it's the beginning of the second sentence, and, again, feel free to read as much of it as you need, but it's the language that says: A proxy acts both as a server as well as a client, and then it goes on from there.

Do you see that terminology?

A Yes.

Q With your understanding -- strike that.

Did you review the Luotonen reference in connection with the preparation of your declaration and the '866 IPR petition in this case?

A Not the entire volume, only what is relevant to what I used as an example in my declaration.

Q Well, do you believe that

Luotonen's discussion of proxy servers would have been relevant to the discussion of your declaration?

A Yes, it is relevant.

Q Okay. So my question, sir, is: When Luotonen states a proxy acts as both a server as well as a client, was it your understanding that the proxies disclosed in Luotonen can simultaneously act as both a server and a client?

A It could.

(Exhibit No. 1021 was identified for the record.)

BY MR. DUNHAM:

Q Could you also pull out the Prince reference, sir?

A Okay.

Q Get that available to you.

A Prince is from the '044 patent?

Q And that would be Exhibit 1021 yes, sir from the '044.

A Okay. I have that open.

Q And if it's helpful to you in your '044 declaration -- I mean, I'll just generally reference you to the

section starting at paragraph 172, and again, that's just -- if that's a helpful for you I'll note that's where you discuss in Prince?

A Okay. I'm there.

MR. ABRAMSON: Sorry, what's the declaration?

MR. DUNHAM: The '044 declaration, for Prince, starting at paragraph 172.

MR. ABRAMSON: 172? Okay.

MR. DUNHAM: Yes, sir.

MR. ABRAMSON: Sorry.

BY MR. DUNHAM:

Q Mr. Teruya, do you have the Prince reference available?

A Yes, I do.

Q Would you agree that Prince discloses a cloud-based proxy service provision through DNS?

A I -- I don't know what -- do you want to provide me a definition of cloud in -- in a -- in your context?

Q Well, do you have an understanding of how a person of ordinary

skill in the art would understand the word "cloud" in the context of the Prince reference?

A That a person of -- a POSITA would ask me the same question. What is -- what are we talking about is a specific cloud, are we talking an AWS cloud, meaning, you know, what Google and Amazon runs as cloud service or are we talking the internet as a cloud?

Q Well, if you look at paragraph 23 of Prince, sir, tell me when you're there.

A Paragraph 23?

Q Yes, sir.

A Okay. Let me read that.

Okay. I reviewed that section.

Q What is your view of how a POSITA would understand the third sentence, that says: The cloud-based proxy service is provisioned through DNS?

A Today or when that document was -- or that book was written? Because I think given the time this specific, you know, time reference would -- you would

interpret it differently.

Q Going in connection with your analysis and the opinions you formed in this case, what timeframe did you apply when you read, for example, the Prince reference?

A I used the time reference relevant to the analysis of the patent, which is, what, 2000 -- 2013 or something like that?

Q Okay. So the question I asked for you is a POSITA -- can we agree, then, that a POSITA is a person of ordinary skill in the art at the time of the invention of the '044 and '866 patents?

A Okay. Or before.

Q Pardon?

A Or before. I mean, you could -- you could -- I mean, you could be 50 years old, you know, but your knowledge of the skill is not going to go away, it travels with you.

Q Sure. And I'm just trying to get agreement with you that if I say

POSITA I mean as of the time of the invention of the '044 and '866 patents, so our questions can be clear and your answers can be clear; is that fair?

A That's not accurate, because you -- you -- it's, like, you can't un-hear something. You know, if you have the experience, you may apply -- you may apply a point in time where things are naturally understood, as I am doing in this case.

When you are talking about cloud-based service is when Luotonen was written we didn't have AWS. We didn't have Microsoft out there with Azure. We didn't have things like that that are commonly used today as cloud-based services. In that time, cloud was -- it's on the internet.

Q So when you cite, in paragraph 23 of your declaration, what timeframe did you apply for the perspective from which you understood that paragraph?

MR. ABRAMSON: All right.

Which reference are you referring

to?

MR. DUNHAM: I'm sorry?

MR. ABRAMSON: Which reference is your question referring to.

MR. DUNHAM: Paragraph 23.

MR. ABRAMSON: Of?

MR. DUNHAM: Prince reference.

MR. ABRAMSON: Oh.

THE WITNESS: And -- and what is my reference, time period reference in my declaration?

MR. DUNHAM: That's what I'm trying to ask you, is when you say --

MR. ABRAMSON: I don't know that I introduced any time relevance in my declaration.

BY MR. DUNHAM:

Q So let me try to ask a clear question to you, sir.

What I'm asking you is, when you cited the Prince reference and, for example, paragraph 23, and described what you understood Prince to be disclosing, was there a particular point in time that

you were using as the date from which you would interpret that particular disclosure?

A Let me review my Prince response, here, because I don't recall quoting paragraph 23.

Okay. Can you ask your question again, please?

Q Sure. My question is -- it's a straightforward question, I'm just trying to understand -- what timeframe did you utilize when you formed your understanding and opinion about what the Prince reference disclosed, including, for example, paragraph 23?

A My specific reference to paragraph 23 has no time reference based on it, my comment was about records and the DNS server are changed so it points to proxy servers.

Q And -- and again, my question is: Is your statement, for example, that you're talking about in your report, is that formed on your knowledge as of the time you drafted your declaration or some

different point in time?

A My comments in this particular section are about the mechanics, what is trying to be explained as to how Prince can be applied to the claims in the patent for each particular section and claim of the patent and how I can view the two and determine what their references are, and if -- if there is in any kind of analogous taxonomy between the two.

Q Sure. And when you did that, were you bringing to bear the knowledge that you have at the time you prepared your declaration or the knowledge that you may have had at some other point in time?

A I -- I don't understand the question. I brought -- I brought my experience to doing the analysis.

Q Sure. And with respect to the experience that you brought -- maybe I'll try to make it easier for you to see what I'm asking.

So you said you brought your

experience to do your analysis; is that correct?

A You know, this is a very confusing line of questioning. You asked me originally about section 23, and we were having a conversation about what cloud-based -- what -- what cloud means, okay?

And I said, it has time relevance as to what a cloud is at the time Luotonen was written as opposed to what a cloud is now.

Now you're talking about my time reference in using my experience in explaining the relevance of these two documents that I was asked to reference with each other.

Q And my question, sir, is the same question. I'm just trying to understand that when you read Prince what experience base were you drawing on, your experience as of the time you drafted the declaration or your experience as of some other time?

A My experience.

Q As of what point in time, sir?
A As of the moment that I'm reading and trying to do the analysis.
Q Okay. And that's all I'm trying to understand. So you were drawing on and reading Prince from the experience you had at the time you read Prince to do your analysis; is that correct?
MR. ABRAMSON: Object to the form.
A You know, I -- I'm not understanding what you're saying. I'm -- I'm really sorry, but I'm -- I'm not getting it.
Q No, and I'm just trying to make it a clear understanding that -- let me break it down in a few --
(Reporter clarification).
MR. ABRAMSON: Apologies, just commenting on Mr. Dunham, he's trying to confuse the record.
MR. DUNHAM: Counsel, I am not trying to confuse the record. I am giving the witness every opportunity

to explain the analysis he's performed, and I'm actually trying to assist him.

So please, if you have an objection, state it, and please do not disrupt my examination further.

BY MR. DUNHAM:

Q So Mr. Teruya, when you reviewed the -- strike that.

What year did you review the Prince reference in connection with your work in this case?

A 2020.

Q Okay. So when you read the Prince reference in 2020, did you bring to that review and your understanding of Prince the knowledge and experience that you had acquired up through 2020?

A I would assume so.

Q Okay. That's all I was trying to understand, sir, so thank you.

So if we go back now to paragraph 23 of Prince, and in particular this sentence, the third sentence, that says: The cloud-based

proxy service is provisioned through DNS.

When you reviewed Prince, what was your understanding of what the cloud-based proxy service was?

A Isn't paragraph 23 in Luotonen?

Q I'm referring to the Prince patent application publication, this is the exhibit that I asked you to bring out.

A Okay. You also asked me to bring out Luotonen. You asked me about paragraph 23 of Luotonen.

Q I asked you about page 22 of Luotonen, and then I asked you to bring out Prince. So let's make sure you have the right document.

MR. ABRAMSON: Can we please get on the same page, gentlemen.

THE WITNESS: Sorry.

BY MR. DUNHAM:

Q As I begin each line of questioning, sir, do you have available to you the Prince reference? And this would be Exhibit 1021.

A Oh, I'm looking at the Prince reference, and you're asking me about paragraph 23, now, correct?

Q Yes, sir.

A Okay.

Q So my question is -- the third sentence says: The cloud-based proxy service is provisioned through DNS; do you see that?

A Yes.

Q So what is your understanding of how you interpreted cloud-based proxy service as used in paragraph 23 of Prince when you reviewed it in this matter?

A I do not believe that I used -- I do not believe that I gave any weight to the fact that it was cloud-based. I do not believe that in my thinking at the time that whether it was cloud-based or internet-based factored into my analysis because, frankly, don't think there's -- there is difference, but there's not that much difference in -- in referencing what we needed to show.

Q If you could look at paragraph

172 of your '044 declaration, please.

A Okay.

Q And do you see Figure 1 from Prince's replicated in your declaration?

A Yes.

Q Again, do what you like, sir, but, again, I'm just trying to help you. You may find it easier to look at the first page of the Prince patent, because that same figure appears but it's a whole lot bigger and easier to read. But I leave it to you. I'm just trying to help you.

So can you tell me when you have Figure 1 so you can take a look at it?

A Okay. Let me see if I can rotate it. Okay. I have it.

Q Perfect. Would you agree that, according to Prince, the customers, 135A through L, can register for the cloud-based proxy service 185 using the service server 125?

A Can you repeat the question?

Q Sure. Would you agree that

according to Prince the customers, 135A through L, can register for the cloud-based proxy service 185 using the service server 125?

A I'm -- I'm sorry, let me parse your question again. Can you -- can you ask me again, please?

Q Sure. Would you agree that the customers, 135A through L, can register for the cloud-based proxy service 185 of Prince, using the service server 125?

A I'm having difficult with the use of the word cloud-based service.

Q Do you see the title of Prince, at the top of the page, of the first page of the Prince patent, the patent application, more correctly.

Are you able to see the title, sir?

A Yes.

Q Would you agree that Prince is directed to distributing transmission of requests across multiple IP addresses of a proxy server in a cloud-based proxy service?

MR. ABRAMSON: Object to the question, it's beyond the scope of the direct. Go ahead, you can answer.

A Again, whenever this document is claiming to be a cloud-based proxy service, all right, may not -- I may not share the same definition of cloud-based proxy, and I have treated it as a proxy server.

Now, the diagram that you gave me makes no specific reference for that service server 125 to be cloud-based. The assumption is made, however, but the specificity of cloud-based isn't provided to me. That is not how -- that was not part of my analysis to break down cloud-based service.

Q Sir, would you agree that, again, with reference to Figure 1, that the customer's 135A through L, register for service 185 using the service server 125?

A Yes, I can -- I can state that that is -- that is represented there.

Q Okay. And would you agree that the customers in Prince are the owners of domains?

A I don't know that. I don't have that information.

Q So you don't know whether in Prince the customers that are discussed in the patent are actually the owners of the domains; is that your testimony?

A I don't have information to answer that. Do you need -- do you need me to further my answer?

Q If you have more to say, please say it.

A A client could be a customer that has their own domain name, right? In that case, do they own their domain name? We don't really know, in the application, how the customers are being identified. If the customer is identified using their e-mail address they may be using a domain identifier that doesn't even belong to them.

So there isn't enough information for me to give you a very

specific answer of what you're asking.

Q Do you know whether, according to the disclosure of Prince, the customers 135A through L own or control domains that are hosted on the origin servers?

A I don't know. Let me review the record here and I will -- give me a few minutes, and I will see what -- and refresh my memory if -- if I did come across that.

MR. ABRAMSON: Objection.

What was your question again?

BY MR. DUNHAM:

Q Would you agree that, according to Prince, the customers, 135A through L, own or control domains that are hosted on the origin servers?

A With respect to domain names, I have -- I don't have sufficient information to answer one way or the other.

MR. ABRAMSON: Hang on.

Objection. This is way beyond the scope of his declaration,

Mr. Dunham.

MR. DUNHAM: Counsel, you can make your objection. The witness testified in his deposition extensively about the message flow in the nodes and the network. And I'm working through with him -- I'm trying to work through with him his understanding of the nodes and what messages flow. I'm barely started with my examination.

This is directly relevant to his declaration. I'm actually using the figure right out of his report. So I disagree with you completely, counsel. But in the future just please state your objection and let me continue my examination.

MR. ABRAMSON: Go ahead.

BY MR. DUNHAM:

Q Mr. Teruya, would you agree that according to Prince a customer 135 can change DNS records such that the domain of that customer is mapped to one or more IP addresses of the proxy servers

120.

A Repeat the question, please.

Q Sure. Would you agree that according to Prince a customer 135 can change DNS records such that the domain of that customer is mapped to one or more IP addresses of proxy servers 120?

A I don't know that I can answer that question, as presented, because the address resolution using DNS, we have no presumption on what the origin of those domains are and the mechanism by which the claim is being made that the customer is changing that DNS address.

Q Sir, would you agree that a DNS query from a client for a particular domain, according to Prince, will resolve to an IP address of the proxy server 120 and not the IP address of the origin server that hosts that domain?

A It would depend on the architecture.

Q Well, I'm asking you if, according to Prince, do you --

A In the example that Prince is

giving, that I stated in my declaration, following each step that they were given -- giving in their in -- in their documentation, that I referenced, that that's accurate in that regard.

Q Okay. Would you agree that within Prince the customer 135 selects which IP address or addresses of proxy server are included in the DNS records?

A Say that again. Ask me again, please.

Q Sure. Would you agree that the customer 135 within Prince selects which IP address or addresses of proxy server 120 are included in the DNS records?

A I'm -- I'm really sorry, but I need to hear that again.

Q Sure. Would you agree that the customer 135 selects which IP address or addresses of proxy server 120 are included in the DNS records?

A Given -- there are some givens here -- given that the client is able in -- in the deployment of -- of this example is able to make a selection, that

could be accurate.

Q Would you agree that customer 135, changing the DNS records, according to Prince, alters the flow of traffic to the origin server 130 -- 130 by directing it through proxy server 120?

MR. ABRAMSON: Objection.

A You know, I -- I need your -- I need to review my declaration here, because you are asking me, if I get your question correctly, that the client is changing the DNS record; correct.

Q No, I said the customer?

A The customer? Customer, client, synonymous, to me. So 135 is changing the DNS record?

Q Yes, is that your understanding?

A No, I'm asking you, is that your question?

Q Sorry, what I'm asking you, is: Do you agree that the customer 135 changing the DNS record alters the flow of traffic going to the origin server from the client by redirecting that flow

through the proxy servers 120?

A In the manner in which the question was asked, no, I do not agree.

Q And is that because you feel that the customer doesn't change the DNS record?

A That isn't -- it's an interaction issue as to a customer could change a DNS record given the authority to do so, and the mechanics to do so.

But in the manner in which the question was asked, with appropriate context, no, I can't agree, unless we define more specificity to what you're asking.

Q Would you agree that, according to Prince, the DNS record for any given domain is changed such that the IP address that is returned when that particular domain is resolved will be the IP address of a proxy server rather than the IP address of an origin server that hosts that domain?

A Present that question to me again.

Q Will you agree that, according to Prince, the DNS records are changed such that the IP address that is returned to a DNS resolved request for any given domain is changed to be the IP address of the proxy server rather than the IP address of the origin server on which that domain resides?

A The mechanics for that to happen are documented in Prince for that to occur. So in that context, I agree that that is what has been defined.

Q And still with reference to Figure 1 from paragraph 172 of your report, will you agree that according to Prince there is no direct flow of traffic between the client devices 110 and the origin servers 130?

MR. ABRAMSON: Object, beyond the scope.

A I will have to look at that for a little bit before I can give you an answer.

MR. DUNHAM: And counsel, in response to your request, I'm loathe

to do this, I would just invite you to read paragraphs 173 and 174 of Mr. Teruya's deck, which directly discuss exactly the flow of messages and the routing of messages that I am currently questioning him about.

MR. ABRAMSON: That doesn't -- yeah, I am fully aware of those paragraphs, believe me. But that does not -- that's not your question.

You're fishing for information to support amendment, Mr. Dunham, that's what this deposition has been about so far, so let's get that on the table. But go ahead ask your questions. You have my objections not that -- I'm not going to tell him not to answer. Just go ahead and let's get this done.

MR. DUNHAM: Motion to strike in an absolutely improper objection, which we will call to the attention the board, sir.

MR. ABRAMSON: It's -- it's

really beyond -- you're using this deposition as a -- as an opportunity to fish for information to support a motion to amend.

MR. DUNHAM: I am directly questioning the witness about his understanding of Prince and how he has applied it. It's coming directly from his report.

MR. ABRAMSON: Proceed.

THE WITNESS: Can you ask your question, again?

MR. DUNHAM: Certainly, sir.

BY MR. DUNHAM:

Q Would you agree that, according to Prince, there's no direct flow of traffic between the client devices 110 and the origin servers 130?

MR. ABRAMSON: Objection. You can answer.

A I don't know that that's the case in that I applied the examples relevant to the claim and method being used in the patent.

So to look at models outside of

what I defined here, in the flow in 173 and 174, beyond the scope of that answer on how that interchange is documented there, I don't know that I -- I -- I'm not in a position to agree with that unless I'm given the opportunity to -- to do that analysis.

Q Well, sir, in paragraph 174, do you state, quote, records in DNS server 140 are changed so as to point to proxy servers 120?

A Yes.

Q And then, in my -- in the next sentence of paragraph 174 of your declaration, which states: When client 110 requests content from origin server 130 client 110 is instead directed to proxy server 120.

Do you see that?

A Yes.

Q And my question to you, sir, I'll ask it again, is: Are you aware of any disclosure of Prince where when client 110 requests content from origin server 130 client 110 contacts origin

server 130?

MR. ABRAMSON: Same objection.

You can answer.

A I never made that investigation.

Q So is it your testimony you just don't know whether Prince discloses that functionality?

MR. ABRAMSON: Same objection.

A Yeah, I -- I -- I'm -- I can't -- the -- the way in which you pose the question is, do I agree. I can't agree, at this time. I don't have sufficient information.

Q Would you agree, according to Prince, it is the client device 110 that performs the DNS query and not the proxy server 120?

A I -- I -- I can't agree to that absolute.

Q Why not?

A Because there are address translations that are occurring that -- that may not necessarily be seen, in which case that would not be an accurate

answer.

Q Is there anything in the Prince reference you can point to that would show that proxy server 120 performs a DNS query?

A It's a given. Mr. Dunham, it's a given that that has to take place.

Q Okay. So when -- when you read Prince did you just assume that these things that you feel are given were part of the disclosure of the reference?

A Yeah, you know, there are a lot of things in here that you -- you don't need to specify. That's the mechanics of how things work.

Q Would you agree that, according to Prince, a client device 110 will not know that the DNS response that it received provides the IP address of a proxy server instead of the IP address of the origin server?

A Can you -- can you give me that question again?

Q Certainly. Would you agree that, according to Prince, a client

device 110 will not know that the DNS response that it received would be the IP address of the proxy server instead of the IP address of the origin server?

A The analysis of that would require that I know what the -- what the specific state and process of 110 wants to see and does it matter. If it's doing a content retrieval, it doesn't matter. But if it's used for some other purpose, it may matter.

So I -- I don't know how to answer that. I -- I -- I don't know how to agree, and your question is if I agree, I don't know how to agree without knowing more.

Q Sir, with respect to the disclosure of Prince will you agree that the client device 110 is unaware that a proxy server is being used in -- in connection with obtaining responses to requests?

MR. ABRAMSON: Object to form.

A I think you asked me the same question.

Q I'm just asking for your understanding of how you interpreted the Prince reference and how you applied it.

A The method at which I applied Prince is, as I explained before, is to go back, look at the claim in the patent, and ascertain whether or not there are analogous taxonomies between Prince and the '404 patent. That was my mission.

My mission was not to dissect and take apart and know all the nuances of Prince. I only looked at things that were relevant to look for analogous taxonomies between these two examples, one from the patent, one from Prince.

Q Well, when you reviewed the Prince reference did you read all of the reference?

A Not in its entirety.

Q Would you agree, then, that, according to Prince, the client device 110 transmits an IP packet with an HTTP request to the IP address of the proxy server 120?

A At some point.

Q What does the proxy server do to your understanding, when it receives an HTTP request from one of the client devices?

A In -- in -- in what context?

Q When the proxy server receives an HTTP request from a client device.

A A content request?

Q Pardon?

A A content request?

Q Yes, sir. What does the proxy server then do?

A It generally fulfills the content request in -- in -- in the manner in which the -- the flow takes place to return and satisfy that request in its reply structure.

Q Would you agree that upon receiving the requests the proxy server 120 forwards the request to the origin server?

MR. ABRAMSON: Object to the form.

A I -- I would -- I would -- I would assume that the conditions exist

that that would take place based on whether or not the information was available where that step was not necessary.

Q I mean, paragraph 174 of your declaration on the '044 patent, in the fourth sentence you stated: Upon receiving this request proxy server 120 forwards the request to origin server 130; do you see that?

A Yes.

Q What does the proxy server 120 need to do in order to forward the request to the origin server 130?

A It makes that request, in order to return to -- to satisfy -- to fulfill the chain of events for the request for data.

Q According to your understanding of Prince, does the proxy server have to do anything with the IP header of the request?

A Proxies always do something with the IP header.

Q And I'm asking for your

understanding of how this process works according to the sentence you cited in your declaration. What does the proxy of Prince need to do in order to forward the request to the origin server?

A I'm sorry, ask your question again.

Q Sure. I'm asking for your understanding, specifically, of how Prince achieves the proxy server 120 forwarding the request to the origin server 130 as you have stated in paragraph 174 of your declaration?

A It -- it -- it's kind of clearly written there, the client 110 sends a request to resource request to the proxy server. And then it says: Upon receiving this request a proxy server forwards the request to the origin server.

Q Does the proxy server have to change anything in the request in order to forward it to the origin server?

A That would depend on the chain of events that occurred before, in what

was pointed where, with DNS, with the DNS servers.

Q Well, I'm asking you according to Prince, sir, does the proxy server --

A I am quoting Prince.

Q Okay. Where are you quoting from, sir?

A It -- in the beginning of my -- of 174 I say: Records in the DNS server are changed to point to the proxy servers. And it says: If the client requests contact from the -- from the origin server, client 110, instead, directs to the proxy server. Those are all defined in DNS.

Q Sir, my question is about the proxy server 120 forwarding the request to the origin server. And let me ask you specifically.

Does the proxy server in forwarding the request to the origin server need to change the source IP address of the packets?

A I don't have enough information to know how the internal mapping is

working.

Q In connection with preparing your declaration and forming your opinions, did you seek to determine the information at that level of detail or not?

A I did not.

Q In the next sentence of paragraph 174 of your declaration, you state that: Origin server 130 responds to this request sending the requesting information to proxy 120; do you see that?

A I'm sorry, where are you -- where are you at?

Q Still in paragraph 174 of your declaration, and now I'm --

A Okay.

Q -- moving to the next sentence, and I'm just going to ask you about it, so I'm only quoting it to you to make it clear what I'm referring to, in paragraph 174 you state: Origin server 130 responds to this request sending the requested information to proxy 120.

Do you see that?

A Yes.

Q What destination address, according to Prince, goes in the packets that the origin server is sending as that response?

A I don't know. I will have to review that, because it doesn't -- it doesn't necessarily need something specific because the request chain has the return address. It's responding to a request.

So if there is special handling, that is managed by Prince, that isn't relevant to this claim or method, that I didn't apply here, I would have to look that up and answer that for you.

Q So as you testify today, do you know specifically whether Prince discloses any sort of special handling, to use your phrase, regarding how the origin server 130 responds to the request from the proxy server 120?

A I -- can you ask that again?

Q Sure. I'm just trying to

understand that, sitting here today, as you testified, do you know whether the origin server invokes any sort of special handling, just to use the phrase you used, in responding to the request from the proxy server 120?

A Not without further investigation.

Q Is that an investigation that you previously performed or not?

A Likely not.

Q And then the last sentence -- and strike that, I'm sorry.

The next sentence in paragraph 174 of your declaration, says: Proxy 120 then forwards this response to client device 110.

Do you see that?

A Yes.

Q Is there anything that you're aware of, according to Prince, that proxy 120 has to do to the packets in order to forward the response to client device 110?

A Other than a classic handoff in

special use case?

Q I'm just asking you for your understanding of the disclosure of Prince, that's all, sir.

A The disclosure of Prince that I used is a straightforward example, it is not all encompassing.

If you would like me to give -- to make a statement to you that I agreed with something Prince is doing, that I haven't investigated, I can't do that.

Q Well, I'm just asking you, sir, if you have an understanding of whether proxy 120 needs to make any changes to the packets that it received from origin server 130 in order to forward the response to client device 110?

A I have no investigation on what the packet manipulation that a real life implementation of Prince would use that just from a process level of what is stated here, that proxy 120 forwards the response to the client device, whether there are any secondary use cases, abnormal use cases, recovery, any of that

kind of stuff, I don't know.

I don't know how to answer that. I didn't investigate it. What I do know is what -- what Prince says happens between proxy 120 forwarding the response back to the client.

Any other manipulations in that path is not obvious to me, not with the information that I've been provided in order to answer the question.

(Exhibit No. 1012 was identified for the record.)

BY MR. DUNHAM:

Q I'd like you to turn -- to take out Exhibit 1012, which is the Squid reference, please.

MR. ABRAMSON: Sorry, I didn't hear the reference there.

MR. DUNHAM: It's Squid, Exhibit 1012.

MR. ABRAMSON: Squid? Okay. Squid?

THE WITNESS: Okay.

///

BY MR. DUNHAM:

Q And feel free to refer to any portion of the reference, of course, that's helpful. But by way of example, I would direct you to page 24, PDF page 24 of Squid, and it has a picture at the top showing a client device, a Squid server, and then three different servers.

A I'm sorry, what page was that, PDF page?

Q PDF page 24, sir.

A Okay. Okay. I'm on page 24.

Q And if it's helpful to you, I'll also reference you to your '044 declaration, starting at approximately page 46 -- I'm sorry -- paragraph 46.

MR. ABRAMSON: 4-6.

MR. DUNHAM: 4-6, yes.

BY MR. DUNHAM:

Q Just to give you context.

A Okay.

Q Sir, and I'm pointing to page 24 of the PDF Figure 1-1 on Squid, as just a convenient way to ask the questions, but please, I'm asking you for

your knowledge and understanding of Squid.

So would you agree that Squid teaches having an HTTP proxy server in between a client and some other type of server, such as an HTTP serve, an FTP server and a gopher server, as examples.

A Yeah, that's a basic example.

Q Okay. Would you agree that according to Squid, the Squid server in the middle, can simultaneously act as both a server to the requesting client and as a client to the web servers shown off to the right?

A That's a classic definition, yes.

Q Now, if you could turn to paragraph 116 of your declaration, in the '044. And please let me know when you're there.

A Okay. I'm there.

Q And please read paragraph 116 to yourself, if would you, because I have questions about portions of the paragraph

but I certainly want you to have an opportunity to review the whole paragraph.

A Okay. Okay. What is your question?

Q Do you see the quoted language included at the very end of paragraph 116 of your declaration, that states: Squid uses a pool of external processes to make queries in parallel; do you see that language?

A Yes.

Q And that's citing to page Exhibit 112 (sic) at page 46; right, PDF page 46?

A Let me make sure that that's accurate. Okay. What's your question?

Q Sure. If you could, please, take a look at the disabled-internal-DNS discussion that appears on PDF page 46 of Squid. And I ask you to read that to yourself and let me know when you've had a chance to review it.

A Okay.

Q Okay. Can we agree that the

last clause, which is the quotation in the last sentence of paragraph 116 of your declaration, which reads: Squid uses a pool of external processes to make queries in parallel, can we agree that that quote comes out of this disable-internal-DNS section of the Squid reference on page PDF page 46?

A For the disabled-ident lookups.

Q No, the disable-internal-DNS?

A Oh, I'm sorry. Read the wrong section.

Q Okay. Please, then, let me make sure the record is clear. Please take a moment to read the disable-internal-DNS section that appears on PDF page 46 of Squid.

A Okay. What is your question?

Q I'm trying to make sure I have the right citation, first. So if you look at the last clause of paragraph 116 of your declaration and, in particular, the quote about Squid using a pool of external processes, I want to make sure that the citation that you provided in

your declaration is to that same language that appears in the disable-internal-DNS section of Squid on PDF page 46?

A Yes.

Q Would you agree, then, that the disable-internal-DNS section of Squid is referring to the resolution of DNS queries?

A Say that again? Ask me again, please.

Q Sure. Would you agree that the disable-internal-DNS section of Squid, on PDF page 46, and, in particular, the quote that Squid uses a pool of external processes to make queries in parallel, is referring to making DNS queries in parallel?

A I would say that the statement of Squid using pools for external processes to make parallel queries is accurate.

Q And would you agree, though, that according to this disclosure of Squid that you cited, this is describing DNS queries?

A What I quoted here was the process by which Squid uses parallel queries. This option is a daemon option within basically UNIX to, in the function of this module of DNS to run, this is a -- this is a -- an option, a command line option in the launch of -- of the DNS service.

Q And if this option is enabled then is it fair to say that what it permits is doing DNS queries in parallel?

A No, this -- this option has nothing to do with the parallel or nonparallel use. This is a -- this is an option that controls internal and external functionality.

Q So does this particular option bear on making requests for content from a web server in parallel?

A No, this is a DNS process.

Q Okay. And that's what I'm trying to understand. So this is a DNS process?

A This is a DNS process, and the one option is using one mechanism, the

other is using the C library, and the other is avoiding the use of the C library.

But the fact that it's stating that it's giving you the -- the reasoning on why you would -- may want to choose one or the other -- other, basically from a load standpoint in these early servers, that issues like this today they don't matter anymore. We have plenty of resource in machines in order to make it happen, not at the time of the invention of Squid, where people would pay attention to this kind of stuff.

Now you would not be impacted by parallel queries as what was being concerned about then, this was a very novel thing at this point in time, to be doing parallel queries. It was very early in the day to be doing parallel queries.

MR. DUNHAM: Mr. Abramson, if we take a break, and I'm -- I'm sure I can be ready by quarter of, I'm very close to wrapping up. I would

like to confer with my colleague, just check my final notes, and I think we will only have to go a few minutes beyond that.

MR. ABRAMSON: Okay. That's great. How much time do you want?

MR. DUNHAM: 'Til quarter of the hour, how is that? So it's about 13 minutes or so.

MR. ABRAMSON: I'm good.

THE VIDEOGRAPHER: The time is 5:32 p.m. We are off the record.

(Recess.)

THE VIDEOGRAPHER: The time is 5:47 p.m. We are back on the record please proceed.

BY MR. DUNHAM:

Q Mr. Teruya, when we were just coming back on you said you wanted to say something; is that correct?

A Yes, I -- I -- I misstated in my last answer to you that the switch, configuration switch for Squid, which was for the application, and in reality in that time of use these were compiler

options because in order to configure these applications these switches needed to have been passed and the application would compile with these configurations.

So I was inaccurate in stating that it was a -- an option for the operation. It was a compiler switch.

Q Thank you. With that, Mr. Teruya, I have nothing further for you today, and I pass the witness to Mr. Abramson.

MR. ABRAMSON: We have no questions. I think we're done.

MR. DUNHAM: We would ask that the witness read and sign the transcript for standard procedure.

MR. ABRAMSON: Yes, we shall. We shall we reserve the right to read and sign thank you.

MR. DUNHAM: Thank you.

MR. ABRAMSON: Mr. Teruya, thank you again. I appreciate your time today.

Go off the record.

THE VIDEOGRAPHER: One second, please.

The time is 5:49 p.m. We are off the record.

THE REPORTER: Mr. Dunham, I understand you have a standing order?

MR. DUNHAM: Yes, we would like a rough today and a rush tomorrow.

THE REPORTER: And Mr. Abramson, when do you want your copy?

MR. ABRAMSON: We will take a -- if we could, we would like a rush to that -- no, a rough, a rough today, a rough today, and on the -- on the other one, just standard delivery.

(Signature having not been waived, the deposition of Keith Teruya was concluded at 5:49 p.m.)

ACKNOWLEDGMENT OF DEPONENT

I, Keith Teruya, do hereby acknowledge that I have read and examined the foregoing testimony, and the same is a true, correct and complete transcription of the testimony given by me and any corrections appear on the attached Errata sheet signed by me.

_____ _____

(DATE) (SIGNATURE)

CERTIFICATE OF SHORTHAND REPORTER

I, Cassandra E. Ellis, Registered Professional Reporter, the officer before whom the foregoing proceedings were taken, do hereby certify that the foregoing transcript is a true and correct record of the proceedings; that said proceedings were taken by me stenographically and thereafter reduced to typewriting under my supervision; and that I am neither counsel for, related to, nor employed by any of the parties to this case and have no interest, financial or otherwise, in its outcome.

IN WITNESS WHEREOF, I have hereunto set my hand this 29th day of October 2021.

_____

CASSANDRA E. ELLIS, CSR-HI, CCR-WA, RPR, CRR
REALTIME SYSTEMS ADMINISTRATOR
NOTARY PUBLIC

E R R A T A S H E E T

IN RE: NETNUT v. Bright Data

RETURN BY: _____

PAGE	LINE	CORRECTION AND REASON
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____ _____

(DATE) (SIGNATURE)

E R R A T A S H E E T C O N T I N U E D

IN RE: NETNUT v. Bright Data

RETURN BY: _____

PAGE	LINE	CORRECTION AND REASON
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____
____	____	_____

_____ _____

(DATE) (SIGNATURE)