IN THE UNITED STATES DISTRICT COURT
FOR THE CENTRAL DISTRICT OF CALIFORNIA
WESTERN DIVISION

GOTV STREAMING, LLC,	
Plaintiff,	
vs.	Case No. 2:22-CV-07556-RGK-SHK
NETFLIX, INC.,	
Defendant.	

DEPOSITION OF BENJAMIN BEDERSON, PH.D.

DATE: Wednesday, January 10, 2024
TIME: 9:03 a.m.
LOCATION: Willkie Farr & Gallagher LLP
1875 K Street, N.W.
Washington, D.C. 20006

REPORTED BY: Erick M. Thacker
Reporter, Notary

Veritext Legal Solutions
1250 Eye Street, NW, Suite 901
Washington, D.C. 20005

EXHIBIT
2029

A P P E A R A N C E S

On behalf of Plaintiff:

JOSHUA WYDE, ESQUIRE
Alavi Anaipakos, PLLC
609 Main Street
Suite 3200
Houston, Texas 77002
jwyde@aatriallaw.com

On behalf of Defendant:

STEPHEN A. MARSHALL, ESQUIRE
Willkie Farr & Gallagher LLP
1875 K Street, Northwest
Washington, D.C. 20006
smarshall@willkie.com

C O N T E N T S

EXAMINATION BY: PAGE

Counsel for Plaintiff 4

P R O C E E D I N G S

WHEREUPON,

BENJAMIN BEDERSON, PH.D.

called as a witness, and having been first duly sworn, was examined and testified as follows:

EXAMINATION BY COUNSEL FOR PLAINTIFF

BY MR. WYDE

Q Good morning, Dr. Bederson. Have you been deposed before?

A Yes, I have.

Q How many times?

A I don't have an exact count, but somewhere around 50 times over the last 15 years.

Q So you're -- so a novice, then? That's a joke. I just ask because -- whether I should go through extensively what a deposition is or not. That's why I ask. So since you're obviously experienced in a deposition, I won't do that.

I would like to ask that you make an effort to let me complete my question before answering, and I will endeavor to do the same

when you're answering so that the court reporter, Mr. Thacker, can accurately capture what we say.

Would you agree to this?

A Yes.

Q Okay. If you do not understand a question, would you please let me know, and I will do the best I can to clarify what it is that I'm asking. Okay?

A I'll do my best.

Q If you need a break, please let me know, and I will try to find a good stopping point relatively quickly. Okay?

A Okay.

Q However, I'll note that the rules of the testimony guidelines and the trial practice guide say that we shouldn't take a break while a question is pending, so if there's a question pending, I just ask that you answer the question before we go on break. Okay?

A Yes.

Q Do you understand that you are here today to answer questions regarding your

declarations that accompanied Netflix's IPR petitions regarding U.S. Patent No. 8,989,715 in IPR No. IPR2023-00757, Patent No. 8,478,245 in IPR No. IPR2023-00758, and U.S. Patent No. 8,103,865 in IPR No. 2023-00759?

A I don't remember all of those numbers, but that sounds right.

Q And will you understand that when I'm talking about IPRs plural, I'm referring to all of these IPRs?

A Okay.

Q What did you do to prepare for this deposition?

A I read documents and talked with counsel.

Q Did you review the expert reports for these IPRs?

A I did review my three expert reports for these three IPRs.

Q And when was that? When was the last time -- let me start that question over again.

When was the last time you reviewed

your reports?

A I think I reviewed at least part of those reports yesterday.

Q I'm going to refer to the patents using the last three digits of the patent number like you did in your expert report.

So if I refer to the '715 patent, will you understand that I'm referring to U.S. Patent No. 8,989,715?

A Yes.

Q And like you referred to the prior art references by the inventor's last name, will you understand that when I say Hariki, I'm referring to the prior art reference U.S. Patent Application Publication No. 2007/0150617?

A So I don't remember that publication number, but I do know that I refer to a document as Hariki. So assuming that that is the same document, then I'll understand it's the one that I refer to as Hariki.

Q And I will do the same thing with the other U.S. patent application publication number.

I will refer to -- it's 2003/0023755, and I'm going to refer to that by the inventor name Harris.

Do you remember that you also had a reference Harris in your report?

A Yes, I do.

Q Okay. You used Harris and Hariki as prior art in all of the IPRs, didn't you?

A Yes, I believe I did.

Q Did you interpret Hariki the same way in all of the IPRs?

A I believe I did.

Q You didn't form an opinion that Hariki worked one way in the 757 IPR and differently in the other IPRs?

A I may have referred to different aspects of Hariki in my different declarations, but I think that I understood its disclosures consistently across all three IPRs.

Q Same question for Harris. Did you interpret Harris consistently in all of the IPRs?

A So, again, I may have referred to

1 different aspects of Harris's disclosure, but I
2 believe I understood its disclosure consistently
3 across all three IPRs.
4 Q Do you understand what Wireless
5 Abstract XML as taught by Harris is?
6 A That's a technology that I believe is
7 disclosed -- described in Harris and is something
8 that I described in my report. I think I often
9 described it as WAX. So I think I have some
10 understanding of it.
11 Q So Harris refers to Wireless Abstract
12 XML as WAX for short; is that correct?
13 A That's my recollection.
14 Q Would you agree that Harris does not
15 teach sending WAX to mobile devices?
16 A Well, my opinion about Harris is in my
17 declarations. At a high level, I think that
18 Harris describes a transformation or compilation
19 process of converting XML with XML style --
20 sorry -- WAX along with WAX stylesheets and
21 device stylesheets into other formats such as
22 HTML that are transmitted to a mobile device,

wireless device.

I don't know that I formed a specific opinion that WAX was not transmitted to a wireless device, but I don't recall relying on such a transmission.

Q So if I understood you correctly -- and I'm going to say back what I think you said, and you can correct me if I'm wrong -- Harris translates the WAX into a language, such as HTML, before sending the HTML to a wireless device.

Is that what your -- is that your understanding?

A That's part of what I said. I think that translation includes other information such as WAX stylesheets and device stylesheets.

And I'm not thinking of a disclosure right now in Harris of WAX itself being transmitted to a mobile device, because I don't think I relied on that, but I don't think I formed an opinion that it doesn't.

Q Do you know if it does? Do you have an opinion one way or the other?

A Again, my opinion is in my declaration. Sitting here without my declaration in front of me, I don't know that I recall any specific -- such specific disclosure of WAX being transmitted to a mobile device.

Q All right. I am handing you what has been premarked as Exhibit 1002 from the 759 IPR, which is your declaration accompanying that IPR.

Would you please take a look at that --

MR. MARSHALL: Thanks.

BY MR. WYDE

Q -- and see if you recognize it as your report?

A Yes. This does seem to be my -- called the '865 declaration.

Q Would you turn to paragraph 84 on page 39, please, and let me know when you're there?

A Okay.

Q Take a second to review paragraph 84 and the -- it goes over to page 40 -- and the figure on page 41.

And then my question to you is: Are

you describing in this paragraph the steps that occur to translate WAX to content for a requesting device?

A In paragraph 84, I describe in part a summary or overview of Harris.

My complete opinions regarding Harris are included in other sections of my declaration, but I agree that Figure 3 includes in part a flow chart or block diagram showing that WAX XML language can be translated to a device-specific language and then returned to a requesting device.

Q After the WAX is translated into a device-specific language, is there any WAX left?

A So, first of all, as I mentioned, I think the translation process also relies on other information such as WAX stylesheets and device stylesheets.

And I'm not sure in your question what you mean by is there any WAX left. I think it is likely that there is some content from the original WAX that would -- at least would end up

in the device-specific language.

Q Would the device-specific language be characterized by a person of ordinary skill in the art as WAX?

A I think the example that I focused on was where the device-specific language was HTML.

I think a person of skill in the art probably would not characterize HTML as WAX. Even if it -- although it might contain some of the same content, HTML actually is a form of XML, as WAX is XML, so there's clearly some overlap between them.

Q Is there any teaching in Harris that a requesting mobile device understands WAX?

A Again, in my analysis of Harris, I focused on the transmitted device-specific language being HTML, which is what would be understood by the requesting wireless device.

I don't think I pointed to a disclosure in Harris of a wireless device understanding WAX that was transmitted to it, although, again, my opinion is in my report, so I'm just giving you

my general recollection of how things work.

Q Would you expect that a mobile device as disclosed in Harris would understand the WAX format?

A I don't think I formed an opinion about that.

Q Do you have an opinion here today about that?

A I don't think there's anything that special about WAX. I think it's certainly possible that a mobile device could understand WAX. I don't see any technical reason why it couldn't.

Q But my question was: Would you expect that the mobile device in Harris would understand a WAX file?

A Again, I don't see any technical reason why a mobile device couldn't understand WAX. WAX is a straightforward XML language.

There may have been architectural reasons in any particular implementation to have a mobile device understand WAX for additional

purposes, but I don't rely on such a disclosure in Harris.

Q It's your opinion that web browsers are client applications; is that correct?

MR. MARSHALL: Object to form.

THE WITNESS: I don't think I understood your question. Could you repeat it, please?

BY MR. WYDE

Q Sure. Is it your opinion that web browsers are client applications?

A To make sure I understand your question, are you asking me if a web browser meets a specific claim term such as application program, or are you asking me generally outside the context of the '865 patent whether a web browser would be considered to be a client application, or something else?

Q I am asking you in the context of your expert report whether you believe web browsers are client applications.

A So, again, to make sure I understand

your question, in the context of my report, are you asking if web browsers meets the claimed application program term, or are you asking me generally if I think web browsers are client applications?

Q The second.

A Well, there are many different forms of web browsers. They can be embedded in other components. But as I described, for example, in paragraph 117 of my declaration -- and, again, we're talking about the '865 declaration at the moment -- there can -- there is a web browser running on a mobile device that sends a request to the web server process.

So, in this case, I think that web browser running on a mobile device, in this case, the one disclosed in Hariki, might be considered by a POSITA to be a client -- client application, was that the term?

Q Yes.

A I don't know that I formed a specific opinion about that, but I think a web browser can

be considered to be an application running on a client in this context.

Q I'm going to hand you another exhibit marked 1002, but this is in the 757 IPR. You might want to make different stacks to keep them organized.

MR. MARSHALL: Thank you.

MR. WYDE: You're welcome.

BY MR. WYDE

Q Would you please turn to paragraph 60 on page 28 in the 757 expert report?

Do you see that paragraph 60 starts off and it says, quote, "Web browsers are client applications"?

A I do see that.

Q Do you -- is that your opinion that web browsers are client applications?

A As I said in my previous answer and as I wrote here, it's certainly the case that web browsers can be client applications. I was just thinking, more broadly, sometimes they might be embedded -- maybe part of some other application,

so there can be different structures, but if you have a standalone web browser running on a client, then it probably -- I think it would be reasonable to consider it a client application.

Q What is a client application?

A I wrote paragraph 60 of my '715 declaration as part of a technology background on client server architectures, and I was referring to web browsers in this context as being an application that work as a client that can communicate with a server. So I was referring to a client application as an application that can make client requests to a server.

Q And is a server a client application?

A It depends. Some applications can work as both clients and servers, so in that case -- in such a case, a server application might also be a client application.

Q So if I understand you correctly, a client application is a application that makes a request to a server. And is that server that receives the request a client application in that

scenario?

A I think these terms "client" and "server" are pretty general terms, and I'm giving a very high-level description of them.

In this very broad context, as I said, I was referring to web browser as a client application to the extent that it makes requests -- client requests of a server.

I don't think I have an opinion about generally whether a server is a client application, but as I said, it might be considered to be a client application if it itself made its own client requests of other servers.

Q When you're talking about web servers and web browsers, are they separate applications?

A I think they often are separate applications, but I don't think they have to be, right? The world is a big place. People -- software engineers can architect all kinds of systems. I certainly could imagine an application conceptually that was both a web

server and a web browser.

Q Do you know what HTTP is?

A Yes, I do.

Q What is HTTP?

A I described HTTP in the same section of my '715 report on client server architectures, where I explain that it is a protocol.

So on paragraph 60, I explain that it is a protocol that can be used for web browsers to fetch documents across the Internet from web servers.

Q Do browsers usually transmit HTTP?

A I would say that HTTP is a protocol that is used during requests and transmissions, including sometimes those requests from -- requests or receipts from browsers.

Q I'd just like to back up and ask, are web browsers and web servers usually separate applications?

A I don't think I've -- I haven't done any kind of quantitative analysis, and I don't have any way of giving you a evidence-based

answer to that question, but my general understanding is that web servers and web browsers are commonly implemented as separate components or separate applications.

Q Do you know what HTML is?

A Yes, I do.

Q And what is HTML?

A I also describe HTML in this section of my '715 declaration on client server architectures.

I explain in paragraph 60 that HTML is Hypertext Markup Language, which is a language that documents are sometimes written in that can be accessed or often retrieved and displayed by web browsers.

Q Are HTML and HTTP the same thing?

A No, they are not. They're often used together, but they're not the same thing.

Q Do browsers transmit HTML?

A Well, browsers typically work by transmitting HTTP requests, which can include a number of -- which do include a number of

components, such as headers and bodies, which can contain text that is provided within a -- through various sources, both from -- originating from the browser, as well as from web pages within the browser. So I think that it is conceivably possible that an HTTP request could include some HTML, for example, in the body of a request.

Q When you say some HTML, would that be a complete HTML page?

MR. MARSHALL: Objection to form.

THE WITNESS: So my answer was just describing my general understanding of this web technology including browsers, servers, HTML, HTTP.

In that answer, I explained that a browser can transmit an HTTP request that includes text that is provided by a web page. So when that web page makes that request, it can include what's called a body element in the HTTP request, and my understanding of the technology is that any text can be inserted in that body. So it's certainly possible, I believe,

technically, to include -- I don't remember your language -- a complete HTML --

MR. WYDE: Page.

THE WITNESS: -- page within the body of an HTTP request. I think that might be technically -- probably is technically possible.

BY MR. WYDE

Q Would you in your experience as an expert understand that to be a common occurrence?

A Programs are written in all kinds of ways. People transmit all kinds of data. I don't know, for example, how wikis make the request to post data to a server, but that's an example of a common situation where a web browser transmits information to a server. I don't know what form that data is transmitted in in various wikis, as an example. So it's certainly possible that it is common. I just don't really have -- I don't have an opinion about how often or when that happens.

Q Okay. Would you turn to page 70 in the '715 report, please?

Do you see the heading labeled c?

A I do.

Q In this section, you're analyzing limitation 1b that reads, "wherein said custom configuration is associated with an application and configures plurality rendering blocks to render content in a manner customized to said application," correct?

A It actually includes the word "and" at the end of that, but, yes.

Q In forming your opinion regarding whether the prior art meets this claim limitation, you considered all the words in this claim limitation, did you not?

A I did consider all these words.

Q And you gave the words in the claim their plain meaning as they would have been understood by a POSITA at the time of the alleged invention in light of the specification and file history, correct?

A That's right.

Q Do you see the words "customized to

said application" in limitation 1c?

A I do.

Q What in your opinion does customized to said application mean in this limitation to a person of ordinary skill in the art?

MR. MARSHALL: Objection to form.

THE WITNESS: As you said in your previous question, I applied the plain -- I think it was the plain and ordinary meaning. And so what I see here is, in this claim limitation, it it says that there are a plurality of rendering blocks that render content in a manner customized to said application.

So I understood this term to mean that the content is rendered in a manner customized to said application.

BY MR. WYDE

Q And you -- can you give me a synonym for what customized to said application means? Let me rephrase that.

Can you put -- can you tell me in other words what customized to said application means

in this context?

A I didn't form a construction of that term or I didn't provide a definition, so, no, I don't have another way of saying it. I applied the plain and ordinary meaning, as I just -- as I just described.

Q Would you agree that customized means the same as specific to?

MR. MARSHALL: Object to form.

THE WITNESS: It sounds like you're offering a construction, and I did not -- as I said, I did not offer a construction. I don't think I have a particular opinion that customized means the same thing as specific, but I did explain my understanding of that term in this section of my declaration, where I explained how, in this example, Hariki showed the elements of this limitation.

BY MR. WYDE

Q Would you look at paragraph 179 -- I'm sorry -- 129 on page 72?

And you write, Furthermore, Hariki

1 explains that the UI content package is specific
2 to the mobile device and the application
3 programs. Accordingly, a POSITA would have
4 understood that the content package is customized
5 to the web server -- web -- sorry -- web --
6 server-web browser interaction.
7 So are you saying that because the
8 content package is specific to the mobile device,
9 it is therefore customized to the mobile device?
10 A I think that helps support my opinion,
11 but my full opinion is in these three paragraphs,
12 127 to 129, about this limitation.
13 Q So you do not have a opinion whether
14 specific to means the same thing as customized?
15 A Well, I think, just generally, they
16 don't have to mean the same thing for being --
17 for Hariki's disclosures to teach this
18 customization, but I do think that Hariki does
19 explain that, as I said, the UI content package
20 is specific to the mobile device type and the
21 application programs, and that along with the
22 rest of my analysis on the other disclosures on

Hariki support my opinion that the content is rendered in a manner customized to said application.

Q So it is your opinion that a UI content package as taught by Hariki meets the claim limitation that it configures a plurality of rendering blocks to render content in a manner customized to Hariki's web browser?

A My opinion about this limitation is also, as we already mentioned, described in paragraph 127, where I explain in further detail Hariki's disclosure about the converted resources in the UI package, which I point to as disclosing a custom configuration, and that they are associated with a web browser, which is the application that I pointed to as Hariki disclosing, and that when a web browser uses those resources in the UI package to, for example, render the contents of a web page, that customizes the application.

Q So if I heard you correctly, it's the use of the resources that makes the UI content

package customized to a web browser? Is that what you're saying?

A Well, as I pointed out in paragraph 127, I pointed to the converted resources in the UI package as the custom configuration, where it's disclosing the custom configuration, and that they are associated with the web browser, which discloses the application of this limitation, and that a person of skill in the art reading Hariki would understand that when a web browser renders content such as a web page, it uses those converted resources to render that application, so that is an example of it rendering content in a manner customized to said application.

Q So, again, is a content package customized to a web browser? It seems like a yes or no question to me, sir.

A Yes. As I explained, a content package is customized to a web browser, and I gave further explanation as to why that is my opinion.

Q Thank you. What makes the UN -- UI

content package customized to the web browser? Is it -- is use sufficient?

MR. MARSHALL: Object to form.

THE WITNESS: Well, Hariki discloses in one of its figures, for example, how the application communicates with and makes requests from a UI content package. So I think that's further disclosure of this association between the configuration and the application, and I'm explaining that Hariki discloses a number of things.

One of them is that there is a connection between this configuration and the application, as disclosed in that figure. I think it might be Figure 5. I would have to check. I don't have Hariki in front of me. And as I explained a minute ago, that one of the things that happens with Hariki is that when a web page is rendered, that web page uses those resources or converted resources from the UI package, which further shows that association between the configuration and the application.

BY MR. WYDE

Q Was the UI content package customized to the web browser before it was installed on the phone?

A I don't recall having a specific opinion about that.

Q Do you have an opinion about that today?

A No.

Q Is it possible for a web browser to use content package -- UI content package resources that are not customized for the web browser?

A I don't recall having a specific opinion about that.

Q Do you have an opinion about that here today?

A That would be possible.

Q How would that be possible?

A Again, I don't think that's something I thought about before this moment, so just sitting here today, there are standard resources that are the same across everywhere, that perhaps that

wouldn't be considered to be customized. I'm not really sure, but that might be an example.

Q I'm going to hand you Exhibit 1001 from the '715 IPR -- first concerning the '715 patent. This is the subject matter of the IPR.

MR. MARSHALL: Thank you.

BY MR. WYDE

Q When you get a chance, would you please turn to column 19, starting on line 25?

And do you see where in the specification it teaches that "in response to receiving the message, at step 720 the server may locate the requested application as well as the corresponding custom configuration for the requested application by accessing a library of applications and a library of configuration data respectively"?

A Yes, I see that.

Q Do you understand what the '715 patent is saying here?

A I think I do.

Q What does it mean that a custom

configuration corresponds to the requested application?

A I think this is just using plain English language, which says that when the server locates the requested application, it's also looking for a custom configuration that corresponds to that requested application.

Q And what does correspond to the requested application mean in your opinion?

A Well, I -- as far as any analysis I did, I would have to look at any claim limitations, but I would say, outside of the context of a specific limitation, I would think of corresponding as having some relationship. But I would have to analyze a specific limitation with that to give you any further detail about it.

Q Would you agree that in this context, correspond to means designed for?

A Again, I would have to look at a specific claim limitation to tell you about my analysis of this, but just looking at this

sentence in column 19, I don't think it's saying much more about the corresponding -- except that they correspond, which is -- as I said, I think means there's at least some kind of relationship.

MR. WYDE: Object. Non-responsive.

BY MR. WYDE

Q My question, sir, was whether you agree that correspond to in this context means designed for.

A I think I just explained my opinion that I don't have a further analysis just about this word in the context of column 19, so I don't have an opinion about a construction or specific definition of the term "corresponding" and what its limitations might be.

THE WITNESS: I think it's been about --

MR. WYDE: I see you --

THE WITNESS: -- an hour.

MR. WYDE: -- looking at your watch. Would you like to take a break?

THE WITNESS: Sure, if this is a good

time.

MR. WYDE: Is this a good time, Counsel?

MR. MARSHALL: Sure.

MR. WYDE: All right. Off the record.

(Recess 10:01 a.m. to 10:12 a.m.)

BY MR. WYDE

Q Dr. Bederson, during the break, did anyone consult or confer with you regarding the substance of your testimony already given or anticipated to be given?

A No.

Q Did -- during the break, did anyone suggest to you the manner in which questions should be answered?

A No.

Q Hariki does not provide an example of a specific browser that a client is running, does it? For example, Internet Explorer, Chrome.

A I think Hariki says what it says, but I'm not recalling it naming a browser.

Q I'll represent to you that Hariki was

filed July 25th, 2006, and claims priority to a provisional application filed December 22nd, 2005.

Do you know what browsers were available to a client in the 2005, 2006 time frame?

A I don't think I performed that analysis for my declarations.

Q Do you know today here what browser were available to a client in the 2005, 2006 time frame?

A I'm not sure. What do you mean by client?

Q A wireless device as used in Hariki.

A Well, sitting here today, I know for sure at least Microsoft Pocket Explorer was available and Microsoft Pocket PC platform.

I'm pretty confident there were others built into other -- available for other operating systems, such as Symbian, but, again, I didn't perform that analysis for today, so I don't think I can be 100 percent sure which ones were

available at that point.

Q Would any of the browsers you just listed be designed to process WAX?

A I think, as I said earlier, WAX is a pretty straightforward XML technology, and I think browsers may have had the ability to -- at that point to process XML, and so it may well have been able to at least process WAX as it -- inasmuch as it is an XML file.

I think it's also possible that there could have been a web page loaded into a -- one of those browsers that could have been designed to process WAX.

So from a technical perspective, I think that's all possible. I don't think I pointed to any in my declaration.

Q When I say process WAX, I mean translate WAX into a mobile-specific language, such as HTML.

With that explanation, were any of the browsers that you mentioned designed to process WAX in that regard?

A So, again, I think my -- at least the second part of my answer would apply to that scenario, where I think it could have been possible, but I didn't point to -- point to one, and I don't think -- I don't recall Hariki specifically disclosing that or -- or Harris, either.

Q When you say it could have been possible, are you saying somebody could have done that, or it's possible that those browsers did that?

A Well, in my mind, I was thinking of the first one, someone could have done that, which I think that means the second is also true, that the browsers could have done that, because a POSITA could have implemented such a web page.

Q Could you find the '715, Exhibit 1002, your report, and turn to paragraph 130 on page 72?

A Okay.

Q And that paragraph goes over to page 73, and at the top of the page, you wrote, A

POSITA would have understood that HTML files are sent via web server --

A Oh, wait. Sorry. I missed you. Where are you?

Q Top of 1 -- sorry. Top of page 73.

A Okay.

Q And it says, "A POSITA would have understood that HTML files sent by a web server are rendered into pages in a web browser on the mobile device."

Do you see that?

A I do.

Q That's generally how web servers are designed, isn't it, for transmitting HTML pages to a browser?

A I think web servers do a lot of things, but one of the things that they can do is to transmit HTML files to a browser that requests such a file.

Q And it's not generally the other way around; web browsers are not usually in normal operation designed to transmit HTML files to a

web server, are they?

A I think, generally, web browsers, as we discussed earlier, are designed to make requests of documents. Those requests can go to web servers as well as other places. They can display the documents that are retrieved, as well as other things, such as allowing user interaction with those documents.

And as I mentioned earlier, when a browser makes a request to a web server, it can include all kinds of information in that request, and I think it could be technically possible to include an HTML file in that request.

Q Would you look at paragraph 132 on page 74, please? And you'll see in this paragraph here described -- describing how Harris could be combined with Hariki.

And the last sentence of that paragraph says, "Thus, Harris discloses a detailed process for sending HTML files to a client mobile device where the HTML files are tailored to the particular mobile device."

Do you see that?

A I do.

Q So after combining Harris with Hariki, in your combination, it's still a server that transmits HTML files to a mobile device; is that correct?

A I think that's right.

Q Do you rely on Hariki's browser sending or transmitting HTML files to a web server anywhere in your report?

A I think my report says what it says, but I'm not thinking of such a transmission right now.

Q Would you turn to paragraph 135, please, on page 75?

Now, you can read the whole thing, but the last sentence says, "Therefore, a POSITA would have been motivated to combine Hariki and Harris because while each discloses sending content specific to a mobile device, each describes in detail different aspects of the customization."

1 And my question is: Is the
2 Harris-specific content you're referring to here
3 the HTML files that the server transmits to the
4 mobile device?
5 A Could you repeat your question, please?
6 MR. WYDE: Would you read back the
7 question, please?
8 (Whereupon, the reporter read the
9 record as requested.)
10 THE WITNESS: I think that's right.
11 Harris discloses a number of languages that a
12 requesting device can understand, as I explained
13 in paragraph 132, such as WML, HDML, HTML,
14 compact HTML, in Palm Web Clippings.
15 So HTML is an example of files that are
16 tailored to a particular mobile device.
17 BY MR. WYDE
18 Q Could you turn to paragraph 137 at the
19 top of page 77, please?
20 And the first sentence says, "Harris
21 also contemplates serving multiple pages (e.g.,
22 HTML files) to the mobile client."

So, again, here you're saying that in the envisioned Harris-Hariki combination, the server is transmitting HTML files to the wireless device, correct?

A I think that's right. On this sentence, I'm explaining, as we read, that Harris discloses that you can send HTML files to a mobile client.

Q Well, you've given an opinion that Harris and Hariki can be combined to meet the claim limitations, correct?

A That's right.

Q And you have a vision of how these two systems would be integrated to meet the claim limitations?

A I mean, I didn't describe a particular system that a POSITA would build, but I did explain how these teachings together teach all of the elements of the claim limitations.

Q And do you have a vision or an idea in your head about how the combined system would operate?

A Again, I did not try and do an engineering design of what a particular system looks like, but what I did do is look at whether a person of skill in the art would read Hariki and Harris and see that, together, they would understand and be motivated to learn from these two sets of disclosures to teach all of the elements of these limitations.

Q And in that analysis, you've identified transmitting HTML files to the wireless device; is that correct?

A I have as part of my analysis, yes.

Q And you haven't identified the wireless device transmitting HTML files to the server; is that correct?

A I think that's right. I did not point to that specifically.

Q Hariki doesn't teach that its browsers generate HTML, does it?

A I think, generally, Hariki points to browsers' display of HTML, including the ability for users, for example, to click on links and

1 request additional HTML pages.
2 Q Well, you said -- and I'm looking at
3 paragraph 133, page 75 to 76, last sentence.
4 "Hariki discloses sending HTML files to
5 a mobile device. It does not expressly disclose
6 how the HTML files are generated."
7 So it's true, then, that Hariki doesn't
8 expressly disclose how HTML files are generated,
9 correct?
10 A That's what I wrote. I think that's
11 right.
12 Q And does the Harris reference disclose
13 that browsers generate HTML?
14 A I don't recall it doing so.
15 Q Okay. Could you please turn to page
16 77?
17 Do you see section e, where you're
18 discussing limitation 1d, "wherein said compiled
19 content is generated in part from execution of
20 said application"?
21 A I do.
22 Q And you identified the compiled content

as HTML pages. That's correct, isn't it?

A Yeah, I think that's right.

Q Okay. I'd like to run through a hypothetical with you. Imagine there is WAX content at an MCF and a client device that only understands HTML. The client device requests HTML content corresponding to the WAX from the web server for the first time. This is the first time anybody has ever requested this WAX content.

Do you understand the scenario so far?

A I think so.

Q The browser would transmit HTTP to make the request for that HTML, would it not?

A As I said earlier, I think I would phrase it differently. I would say the browser would use HTTP to make a request for HTML.

Q Before the request arrives at the MCF, is there any HTML generated at that point?

A I think in this scenario, you specifically said this is the first request for this WAX page, so there's no cached HTML pages, for example.

Q That is why I specified that in this scenario, yes, so with that caveat.

A While I think generally Harris describes generated HTML from WAX on demand, I don't recall if it has the ability to -- may also have the ability to generate HTML before such a request. I don't specifically recall having an opinion about that, so I think my answer is I'm not sure.

Q Well, the MCF is going to translate the WAX into some device-specific language for the requester, is it not?

A That's right, but I don't know for sure that it might not anticipate such a request and maybe generate that HTML in advance of a request.

Q So how would it know the device-specific customization to do before it got the request?

A Again, I'm just -- I'm not saying that it does. I'm just saying I don't know that it doesn't.

So, for example, maybe it just received

1 a request from a particular device, and so now
2 it's anticipating another request from the device
3 and so it's trying to get ahead. Servers make
4 optimizations all the time of anticipating
5 potential future requests and doing work that may
6 or may not be needed.
7 So, again, I don't want to rule out --
8 I'm trying to give you a technically accurate
9 answer. I don't know for sure that it doesn't do
10 that.
11 Q So you remember the givens in this
12 hypothetical are nobody has ever requested this
13 WAX content ever, so --
14 A That's right, but there --
15 Q -- in --
16 A -- but there might have been a related
17 WAX page, for example, that was requested.
18 I'm just -- again, you're asking a
19 hypothetical, so I'm giving you a hypothetical
20 answer.
21 If there were two pages, A and B,
22 that -- related, and a device requests page A,

maybe the server says, hmm, maybe they're going to request page B, I'll generate that one in advance since I've got some extra time.

Q Okay. Let's --

A I don't think that -- I don't recall that possibility being excluded in Harris.

Q All right. Let's exclude that anticipatory case and continue.

That -- assuming that didn't happen, the anticipatory creation by the MCF, before the request got to the MCF, would any HTML be generated in this scenario?

A Well, I've given you a few examples of how HTML would be generated, and you're saying, if you don't generate any HTML, then would there be any HTML generated? So I guess it seems a bit of a tautological question. You're saying, if you don't generate any HTML, is any HTML generated? So at least in that hypothetical, the answer sounds like maybe not.

Q I believe in your report, you stated that WAX -- scratch that.

So I'm looking at your '865 report. On page 28 -- I'm not actually -- I'm looking at the petition. One second.

Okay. I'm looking at page 67, paragraph 138 of your report. This is the '865.

And you write, "In Harris, the template generation process begins when a web server accepts a connection and an HTTP request from a mobile device... where headers of the HTTP request are examined by the MCF in order to determine the type of requesting device."

Do you see that?

A I do.

Q So do you stand by that statement that the template generation process begins when the web server accepts the HTTP request from a mobile device?

A I think that's right.

Q So back to this scenario, before the MCF receives a HTTP request from the mobile device, is there any template generation?

A Again, I think there is a -- I think

Harris does disclose caching, but as you -- in your scenario, we've excluded that example.

And I agree that Harris does disclose that the template generation process begins upon the HTTP request. So I think, generally, the HTML is generated in response to the request. I think that's right. I was just painting a broad picture of the way technology -- web server technology can work. And, of course, we do know Harris does specifically disclose caching as an option.

Q So excluding caching -- and I'm just saying this in another way. This may be redundant. Sorry to beat a dead horse -- the MCF does not start generating until it receives the request?

A I think that's primarily what Harris discloses.

Q Would you expect that the MCF would write the HTML to some sort of storage prior to sending it to the requesting device?

A I don't recall if Harris specifically

1 describes how that HTML might be stored. I think
2 a person of skill in the art would understand it
3 at least would be stored in RAM, temporary
4 storage.
5 So I think the answer is, a person of
6 skill in the art would expect that it would be
7 put into at least some kind of storage before it
8 is transmitted.
9 Q And what's the mechanism by which the
10 MCF would put it into RAM?
11 A I don't recall Harris specifically
12 describing that, so I can just give you an answer
13 generally about how web servers work.
14 Q Please.
15 A If it -- if a web server is running
16 some code to dynamically generate a response such
17 as HTML, which happens all the time, then that
18 would be put in -- that would be stored in some
19 kind of storage, often into RAM, into a data
20 structure or variable, and then that data would
21 be communicated to a HTTP response mechanism to
22 respond to the HTTP request. So that generated

content, such as HTML, would be transmitted to the requester.

Q Would the storage into RAM be some code running at the server that would store it into RAM?

A Again, I think this is a level of detail that isn't disclosed in Harris. I'm just giving you my general understanding of how web servers work.

Q Right.

A But, generally, web servers work with software code, and so that generation would happen with code and that storage would happen with code. And the thing that would be stored would be data, such as HTML, and then further code would be used to transmit that stored data, such as HTML, to the requester.

Q Would all of the HTML be generated prior to transmission?

A Again, I don't think that's a detail that I recall Harris disclosing, and I think servers can operate in different ways. So

sometimes they might generate everything up front and then transmit, or sometimes they might transmit data as it is being generated.

Q Do you remember in the Harris reference it disclosing that it does further processing such as targeting the encoding for particular devices?

A I'm not sure I specifically recall that.

Q Okay. I'm handing you Exhibit 1006, and this is from the 759 IPR.

If you turn to paragraph 34, please, you'll see that Harris is saying that "Once a WAX stream has been generated, it is fed into the translation engine. First, the stream of WAX enters into a set of filters that alters many of the logical tags into physical tags. Then, WAX content is translated using any number of translation sheets."

And then, finally, "The stream can then be filtered through another level of processing in ordinary to accommodate device requirements

such as character encoding."

Do you understand what Harris is discussing here?

A Yes, I think I do.

Q The WAX content being translated using any number of translation sheets, that's referring to the step of translating the WAX to a device-specific language, such as HTML, isn't it?

A Yes, I think that's right.

Q And then that stream is -- can be filtered through another level of processing in order to accommodate device requirements such as character encoding.

So would this teaching tell you that after the translation into the device-specific language, that would be processed a second time for character encoding?

A I mean, this looks to me like this is just describing multiple steps in the overall processing of WAX into a device-specific language, such as HTML.

Q Would a person of ordinary skill in the

art understand each step to be complete before the next step occurs?

A As similar to my previous answer, it's -- I think the way an engineer could actually implement this could vary. It may well be one step could be completed before the next step is started, or it could be more streamed. In fact, it describes it as a stream, in which case they could well be more continuous.

So as data becomes available out of the output of the first step, that stream might be consumed from the input of a second step. But I don't think it clearly specifies one way or the other, but I think is written -- this is written in a way that could accommodate an understanding of both.

Q Does the MCF completely generate the HTML? Let me try to ask that more plainly.

It's the MCF that generates the HTML, isn't it?

MR. MARSHALL: Object to form.

THE WITNESS: MCF is described in

1 Harris as doing many things. It's the Mobile
2 Content Framework.
3 It does say in paragraph 14 of Harris
4 that the MCF exploits the capabilities and
5 accommodates the limitations of different types
6 of wireless devices by converting WAX content to
7 device-specific content.
8 So I think it's fair that MCF, at least
9 in part, is responsible for the conversion of WAX
10 to HTML.
11 BY MR. WYDE
12 Q But I guess my question is: What
13 are -- are you able to identify the other parts,
14 if it's not solely the MCF, what else generates
15 the HTML?
16 A I think the MCF is described in Harris
17 as kind of the overall system that is managing
18 all of these pieces. I'm not -- don't have
19 anything else in mind that is converting WAX into
20 HTML, and I see plenty of disclosures of MCF
21 converting WAX to HTML.
22 I just want to be careful if I'm -- I

don't want to -- there's a lot of words in the -- in the disclosure. I don't know that it doesn't -- may also say something else that I've somehow missed. So I can tell you what it does say. It's a little harder for me to tell you what it doesn't say.

Q Do you remember Harris discussing a browser producing HTML?

A No, I do not.

Q Okay. Could you turn back to your report? And I'm again looking now at the '715, Exhibit 1002, and particularly paragraph 128 on page 71.

Would you go ahead and read that paragraph and let me know when you're done, and then I'll ask you a question about it.

A Okay.

Q Do you see that the -- you start this paragraph with "To the extent that the Patent Owner might contend that the associated application must be remote to the mobile device, Hariki discloses this also"?

A I see that.

Q And then you go on to argue that in the case that the application must be remote to the mobile device, the claimed application may also be a web server process that serves HTML files to the mobile device; is that correct?

A I think that's right.

Q So if I understand you, you're saying that to the extent that an application must be remote to the mobile device, a web browser would not meet this claim limitation, but Hariki's web server process would.

Did I understand that correctly?

A Well, in this paragraph, I didn't have an opinion about web browsers. I told you I don't have a negative opinion about web browsers. My opinion is additional -- through additional disclosures of Hariki what would be a associated application that is remote to the mobile device, and I explained my opinion about that.

Q So in 127, you say a web browser meets this limitation, and then in 128, you say to the

extent that Patent Owner might contend that an associated application must be remote, a web server also meets this application.

I infer from this that you're saying a web browser wouldn't meet this limitation. Do I have that wrong?

A Well, what I infer from this is that I pointed to the web browser with -- if the associated application does not need to be remote to the mobile device, and I pointed to the disclosures on Hariki related to the web server process when -- for the situation that an associated application must be remote to the mobile device. I just -- I have two independent opinions. I did not exclude -- did not -- I just didn't say anything about the relevance of one to the other.

Q Is a web browser remote to the mobile device?

A If the browser is on the mobile -- if it's running on the mobile device, then I think it probably is not remote to the mobile device.

Q All right. Switching topics, would you agree with me that the UI authoring system allows content providers to create content packages embodying UI skins for distribution and downloading to mobile devices on the network?

And I'm quoting you on page 53, footnote 20.

A I'm not -- in my '715 declaration?

Q I may have the citation wrong. One second. Page 64. Sorry.

A All right. Footnote 20.

Q Yeah.

A All right. I found it. But could you repeat your question?

Q Sure. Would you agree with me that the UI authoring system allows content providers to create content packages embodying UI skins for distribution and downloading to mobile devices on the network?

A In this footnote, I presented that as a direct quote from Hariki, so assuming I quoted it correctly, then I agree that Hariki says that.

Q In order for a content provider to provide content for a particular mobile device, the content provider would need to know what type of device it is creating the UI content package for; isn't that correct?

A Well, when a content provider is creating content packages embodying UI skins, I think they would at least need to know information about the characteristics of a device or device type that they were creating a UI skin for, if that was done by a person, for example.

Q And sticking with that example, would that person know what type of servers that device would interact with?

A I think in this scenario, this person would know that the UI skin they are creating would be used -- or when it is used with a particular server that it would be used to -- in combination with the HTML content that is produced to customize that HTML content and that all would be associated with that server.

Q Any server?

A Again, the scenario that I just described is, when an author creates a UI skin, they would know that that UI skin gets used with content, and so that skin would be associated with the content in that server when it is sent together to a -- to a client.

Q Would that person making the content be aware of what servers the person using the mobile device would visit?

A I don't recall if Hariki specifically discloses that, but as I said, I think what they would understand is that the UI skin would be sent to a client along with content such as HTML content from a server, and those things together would support the customization of that HTML content.

Q Regardless of what server was accessed?

A Again, I don't recall Hariki giving a lot of detail about the specific server configurations, and I think a person of skill in the art would understand that there's a number of standard configurations of servers.

So I think there's a content server and a web server, and they might be separate. I think a person of skill in the art would know that those could run together on the same hardware. So, yeah, I think that's --

Q Well, let's take a specific example. Would the person creating the UI skin know that the person using the device would visit yahoo.com?

A I don't recall that being an example disclosed in Hariki.

Q Could a UI person -- excuse me. Let me start that over again.

Could a content provider know what servers a user of the mobile device will visit? And I'm asking your opinion as a person of ordinary skill in the art at the effective filing date.

A I think Hariki -- and certainly my understanding of the combination of Hariki and Harris is that these -- I'm describing systems that are designed to work together.

If a person using a mobile device visits some other server that is not part of the system, then I don't know that the system would be relevant. Then they're just using a browser and a server. They're not using the Harris-Hariki system that I'm describing or that a person of skill would understand through these disclosures.

MR. WYDE: Could you read that answer back to me, please?

THE REPORTER: Sure.

(Whereupon, the reporter read the record as requested.)

MR. WYDE: Okay. It's been about an hour. Would you be okay taking a break?

MR. MARSHALL: Sure. Sounds good.

(Recess 11:09 a.m. to 11:23 a.m.)

BY MR. WYDE

Q So I'd like to circle back about limitation 1b. It's on page 53 in your '715 report. And in particular, if you remember, we discussed a little bit about what it means for a

1 custom configuration to render content in a
2 manner customized to said application. I just
3 want to make sure I have your opinion correct.
4 So -- and correct me if I'm wrong. I
5 don't want to mischaracterize you, but you said
6 you used the plain and ordinary meaning of
7 customized to said application; is that correct?
8 A I think that's right, yes.
9 Q And if I -- do you agree, disagree or
10 have no opinion as to whether customized to means
11 designed for or something else?
12 A Well, I think -- first of all, I think
13 it's -- it's not something I specifically said in
14 my report.
15 But sitting here today, while I don't
16 have a construction for the -- for this term, I
17 think it's a fairly broad term, and my concern
18 about the language designed for is it sounds like
19 it might be too specific. I'm not sure that
20 customized is -- I think it's probably just a
21 broader term.
22 For example, I don't know that this

claim requires customization for -- well, it just sounds like it's just -- it sounds like that may be more specific than what plain and ordinary meaning would be of customized, which I -- which I, you know, describe my analysis for in my declarations.

Q How about tailored to? Would you say customized to said application means tailored to said application?

A Again, I'm just -- I'm not going to offer a construction, certainly not on the fly. That's -- I don't think that's a term that I recall using in my declaration, so I don't want to make a new opinion about the interpretation of a term sitting here today.

Q Okay. So you have no opinion regarding that today?

A That's right.

Q Okay. Does customized to application at least imply that the custom configuration is aware of the application?

A So I didn't -- again, I didn't perform

an analysis, so I don't have an opinion about that, either. I think I showed how the disclosures do show customization. I obviously can walk through those, but I didn't try and characterize what are the limits or bounds of what customization might require.

Q In your examples, do the items you point to as a custom configuration have awareness of the application?

A Well, I think they're different scenarios, so we'd have to walk through them, certainly at least talking about whether we're talking about the browser application or the server application.

Q Well, let's say the browser application.

A So in the browser application, which includes the content displayed in the browser, I think that the generated -- looking at -- thinking about Harris for the moment, thinking about how WAX is -- is customized for a specific device, displayed within a browser, I think that

that -- that customization is designed with that specific browser display in mind.

Q Right. So the compiled content is obviously aware of the device.

Is the custom configuration, which you point to as the UI skin, not the -- not the content coming from the MCF, but the UI skin coming from Hariki's authoring tool, does that as well have knowledge of the application that will be used with it?

A Is it possible for you to give me a copy of Hariki?

Q Absolutely.

A I can answer that question more clearly with it in front of me. Thank you.

Q So this is Hariki from the 759. It's Exhibit 1005. I'm sorry. Let me give you another one.

MR. MARSHALL: Oh, yeah.

MR. WYDE: This one has highlighting in it by accident, so -- all Harikis are the same, so I'll just give you one from a different --

let's try the '245. This is Hariki '245.

MR. MARSHALL: Thank you.

MR. WYDE: You're welcome.

THE WITNESS: So if we look at, for example, Figure 3 of Hariki, it shows different resource profiles with different image characteristics.

For example, in Resource Profile Device A, item ID_2 is a PNG image, but item ID_2 for Device B is a GIF image. So that at least is an example of a disclosure where the resource profile is customized for a particular browser application that might know how to, for example, render one kind of image, but perhaps not another.

BY MR. WYDE

Q Is there a corresponding example for a web server?

A So I explain my opinion about custom configuration in the web server scenario related to limitation 1b in paragraph 128 of the '715 declaration, and while I don't point to a

specific example in Hariki, I explain how the EY package that I point to as the custom configuration is associated with a web server process because they work together to serve content to a client that then renders that content in a customized fashion.

Q And while you're in there, would you turn to page 53, please? And if you'll hold it open, I'm going to give you your corresponding report from the '245, the IPR regarding the '245, also Exhibit 1002.

MR. MARSHALL: Thanks.

MR. WYDE: You're welcome.

BY MR. WYDE

Q And your claims in here are on page 53, and so have them side by side. I'd just like to make sure that you agree that limitation 1b is the same in the '245 IPR and the '715 IPR.

A It looks like they are the same with the addition of the word "and" in the '715, but I don't think that changes my opinion.

Q Did you construe limitation 1b any

1 differently in the '245 patent than you did in
2 the '715 patent?
3 A Well, I don't think I construed any of
4 the terms, but I applied the same understanding
5 of the plain and ordinary meaning of the terms,
6 of the equivalent terms, in both the '715 and
7 '245 declarations.
8 Q Is that true of limitation 1b
9 associated with an application? Did you ascribe
10 the same meaning in both patents?
11 A Yes.
12 Q Same question for customized to said
13 application. Did you ascribe the same meaning in
14 the '245 patent as you did in the '715 patent?
15 A Yes.
16 Q And in the 758 IPR regarding the '245
17 patent, you compared the Hariki reference with
18 the claims of the '245 patent, correct?
19 A I think for my '245 declaration, I
20 similarly looked at a combination of Hariki and
21 Harris --
22 Q And --

A -- in at least one ground.

Q And these are the same Hariki and Harris that would be used in the 757 IPR regarding the '715 patent?

A That's right.

Q Is it fair to say that anything you said today about Hariki regarding the 757 IPR is equally true regarding the 758 IPR?

A As I said earlier, I think -- certainly, my intention is to understand Hariki's disclosures in a way that's consistent across all three declarations, and there are some slight variations in the claims of the '715 and '245 patent, so I may have explained my analysis slightly differently, but I think my understanding of Hariki's disclosures are consistent across the two and apply equally in my two declarations.

Q You didn't identify any functionality in Hariki's browser in the 758 report regarding the '245 that isn't equally applicable to Hariki's browser in the 757 IPR regarding the

'715 patent?

A I can't think of any.

Q Okay. In the '245 report I just handed you, would you turn to page 94, please? I'm looking at paragraph 163.

And if you look back on page 92, this is part of the section discussing claim 2, correct?

A Okay.

Q So am I reading your report correctly that you have identified Hariki's engines as the reader referenced in claim 2?

A So as I said in paragraph 163, in roughly the second sentence on page 95, "Accordingly, a POSITA would have understood that Hariki's engines (corresponding to the reader) communicate with (corresponds to issuing commands to) the files, links to files, and/or data or program objects such as buttons (corresponds to rendering blocks) based on HTML files (corresponds to compiled content comprising render commands)."

So I agree that Hariki's engines do correspond to the reader, and those work by processing any of the content that a server can send, including HTML files or images or any of the other content that would be transmitted to the mobile device.

Q When you say they process the HTML, do the -- do these engines parse the HTML directly?

A Well, as I said, it's not limited to HTML. HTML is an example, and it also sends other kinds of content, including images. So I think the engines do at least directly process and parse the image files.

Q So your -- let me formulate a good question.

So while the engines may, in your opinion, process images from the HTML, do the engines have the ability to parse the HTML directly?

A I would characterize what happened just slightly differently than the way you posed your question. So while those images may be

1 referenced by HTML, they are transmitted
2 separately from a server to the client, and the
3 engines don't need to parse HTML in order to
4 receive and process an image.
5 Q Is there --
6 A But --
7 Q Go ahead.
8 A But --
9 Q I'm sorry.
10 A -- with that context, I think that
11 while I don't see any limitation that an engine
12 couldn't parse HTML in Hariki's disclosure, I
13 think what Hariki discloses primarily is that the
14 application processes HTML and that the engines
15 process various kinds of content that might be
16 transmitted separately and referenced by the
17 HTML.
18 And I think a person of skill in the
19 art would understand that a server can make all
20 kinds of choices about what kind of content it
21 transmits. I've already talked about how HTML is
22 just an example of the kind of image format that

Harris, for example -- sorry, not image format -- document format that Harris, for example, can transmit.

And I don't think there's -- I see anything excluding the possibility that Harris or -- or Hariki responds to a request by transmitting just an image.

Q You've designed a website, have you not?

A I have.

Q Did that website use HTML?

A I've designed many websites with many different technologies, but, certainly, some of them use HTML.

Q So is it fair to say you're pretty familiar with HTML?

A I am.

Q If you will look at page -- it's all over, but 101 is an example.

A Okay. We're still on the '245 declaration?

Q Yes.

A Page 101?

Q Yes, please.

A Okay.

Q And if you look at item 256, you'll see the description file.

Do you see that?

A Do you mean 526?

Q Yes, I do mean 526. Thank you.

A Sorry. Could you repeat your question and make sure I --

Q Sure. On page 101 in Figure 6, there's an item labeled 526, description file.

Do you see that?

A I do.

Q Okay. And in that description file, you'll see the contents labeled 601, and there's three items, each one starting with item ID and then item ID underscore 1, 2 and 3.

Do you see those items?

A I do.

Q So I guess I should have asked you first: Are you also familiar with HTML tags?

A I am.

Q Okay. Is item ID a standard HTML tag?

Well, I guess it's item rather -- rather than item ID. Is item a standard HTML tag?

A I -- it's possible, but I'm not familiar with item being a standard HTML tag.

Q I know the answer, but I'm going to ask it anyway. Is this UI content package an HTML file?

A Sitting here today, I don't see a specific disclosure in Hariki of what format the user interface content package is in. It looks like it might be HTML with custom tags, or it might be XML.

Q Could you turn to page 55 of that same report, please? And I'd like to ask you about claim 11.

Specifically, do you see where the claim reads, a first block that controls the rendering of ticker information across the display of said wireless device?

A It says "across a display screen of said wireless device," but, yes, I see that.

Q What is a ticker?

A Well, I have the '715 patent in front of me, but I think it's the same spec as -- essentially the same spec as the '245.

But '715, column 9, starting at around line 42, it explains that ticker is a rendering block to display a horizontally scrolling text.

Q Do you agree with that definition?

A That's the patent in question's description, so, I mean, I agree that's how it describes it.

Q Well, to one of ordinary skill in the art, is that your understanding of what a ticker is as well?

A I think a ticker is a pretty broad term. I don't know that it has a very specific meaning. But this description, I think, is at least consistent with my general understanding of that term.

Q So it's correct that a ticker needs to

scroll?

A Again, the -- I would say this is -- as I said, it's a broad term, and I think this is a particular example or description of an embodiment. I don't know that this is a -- necessarily restricts the claim to require horizontally scrolling.

Q It actually says in column 8, starting around line 37, that it can be up or down or left or right, so I don't -- would you agree that it's not limited to scrolling up and -- left and right, horizontally?

A Well, especially because the last sentence of the paragraph in column 8 starting around 40 -- line 41 says, "It is appreciated that the rendering blocks discussed above are exemplary and are not limited to limit the scope of the present invention."

So, as I said, I think ticker is a broad term, and, certainly, an example of one is that can display horizontally scrolling text.

Q Would you say text that doesn't scroll

is a ticker?

A Again, similar to some of the other questions, I didn't offer a construction of the term "ticker," so I don't think I formed an opinion about what the specific limits are.

Certainly, I think that it is commonly -- the term "ticker" is commonly used to describe scrolling text, whether it's like a stock ticker or any other kind of information that might scroll across the screen. That's certainly the example. But I don't think I have an opinion about whether it must scroll.

Q I'm sorry to put a finer point on it, but you said I don't think I have an opinion.

Do you have an opinion?

A I don't recall forming such an opinion in my report. I don't have any additional opinions about that today.

Q Okay. I think you already have Exhibit 1002 from the '865. Would you find that? It's IPR 759.

A Okay.

Q Would you turn to page 68, please? And do you see the heading labeled "d"?

A I do.

Q Okay. In this section, you are analyzing limitation 1c that reads, said custom configuration -- excuse me. We'll start over.

"Sending a custom configuration to the wireless device, said custom configuration being specific to said application program."

Did I read that correctly?

A Yes, you did.

Q And in forming your opinion regarding whether the prior art meets this claim limitation, you considered all the words of this claim limitation, did you not?

A I did.

Q Do you see the words "specific to" in limitation 1c?

A I do.

Q What is your expert opinion as to what the meaning of specific to is?

MR. MARSHALL: Object to form.

THE WITNESS: So as with the other terms we've talked about, I did not offer a specific construction of that term, so I do not have an opinion about its specific limits, but what I did do is explain my opinion about how the combination of Hariki with Harris discloses this limitation, including that term.

BY MR. WYDE

Q Then would it be true to say you haven't formed an opinion as to whether customized for is synonymous with specific to?

A That's right.

Q And, similarly, you do not have an opinion as to whether specific to generally means the same thing as tailored to?

A That's right.

Q In this claim, it says "specific to said application."

Is that the same thing as saying application specific?

A I don't think I specifically analyzed that distinction, but I'm not thinking of any

distinction at the moment.

Q Could you turn to paragraph 79, please, on page 37?

A Okay.

Q And then the last sentence on the page says, "The customized look and feel is delivered in a content package and is specific to the type of device, manufacturer of the device, operating system, application programs, and other relevant information regarding the mobile device."

Excuse me. And you're quoting Hariki at paragraph 28. Do you see that?

A I do.

Q Are you saying that the content package being specific to -- well, strike that. Let me start over.

Is Hariki using specific to here in the same manner as in limitation 1c of the '865 patent?

MR. MARSHALL: Object to form.

THE WITNESS: So my opinion about the custom configuration being specific to said

application program, as we've already discussed, is in paragraphs 142 through 148 of my '865 declaration, and that is, I think, consistent with Hariki's overall disclosure, including the overview section that I wrote describing Hariki, which is -- which cites to the paragraph 24 of Hariki in your question.

So I think that Hariki's disclosure of allowing user to customize the look -- the look and feel -- sorry. Wrong quote. Hariki 28, where I quoted that the customized look and feel is specific to the type of device, manufacturer of the device, operating system and application programs is consistent with my analysis of Hariki.

I wasn't pointing to this disclosure in Hariki 28 as the custom configuration by itself, but that it is part of Hariki's disclosure of how a customized UI skin is specific to a web server process, which is the application program that I pointed to for the '865.

BY MR. WYDE

Q And do you have an understanding as to why the content package is specific to these items enumerated here?

A Well, I explained my opinion about that in the section about limitation 1c in paragraphs 142 through 148. And I explained how the UI content package includes customizations that are delivered with the HTML files from the server and that those two things together can configure the configurable aspects of the user interface, for example, by changing a display image or color. And that is -- it is that collection of disclosures that show that there's a custom configuration that is specific to the web server process that I pointed to for the application program.

Q But do you have an understanding as to why the content package is specific to the type of device, the manufacturer of the device, the operating system, application programs and other relevant information regarding the mobile device,

as Hariki teaches in paragraph 28?

And we can look at Hariki directly if you think that would be more productive.

A I think this disclosure is completely consistent with my analysis about 1[c], which is, as I said, Hariki describes generating this UI skin that allows customization of all -- many aspects of the elements of the mobile device --

Q So --

A -- and it is that customization that is connected to and associated and specific to the server transmission of the HTML files.

Q So I hear you that you're saying this disclosure is consistent with your analysis, but I'm not sure my message is being received the other way.

Do you understand why Hariki is saying the UI content package -- and let's just take a single example -- is specific to an operating system here, as in paragraph 28?

A Well, I think Hariki makes it clear that the UI content package is specific to many

1 different things, and so it can be designed for a
2 number of different kinds of customizations, and
3 so, as such, it's a broad disclosure of how many
4 different things can be customized.
5 So when it says that it can be
6 customized or that the UI skin can be -- can be
7 specific to an operating system, but I think that
8 speaks for -- stands on its own. I think that
9 says that one of the ways that Hariki works is
10 that a UI skin can be designed to be specific to
11 an operating system.
12 Q Can you turn to paragraph 130, please,
13 on page 64?
14 And here you'll see that you wrote, "It
15 is my opinion that there is motivation to combine
16 Hariki and Harris because, while each discloses
17 sending content specific to a mobile device, each
18 describes in detail different aspects of the
19 customization."
20 So my question is: What content
21 specific to a mobile device does Hariki disclose
22 sending?

A Well, I think we've already talked about some of the customizations that Hariki sends, but I further explain that in the preceding two paragraphs.

So the last couple sentences of paragraph 128, I explain -- I say that Hariki fills this gap in Harris by explaining how, quote, resource profiles are defined by device manufacturers for each model of mobile device. The resource profiles specify the composition format, and appearance of one or more user interface elements displayed or executed by the mobile device, end quote.

So some of the content specific to a mobile device is the composition, format and appearance of one or more user interface elements.

And then paragraph 129, I further describe how Hariki allows customization through the user interface skin by, quote, altering display and/or sound output aspects of the device, such as backgrounds, title bars, buttons,

alert sounds and so on, end quote.

So display and/or sound output aspects of the device, such as backgrounds, title bars, buttons and alert sounds are further examples of Hariki sending content specific to a mobile device.

Q I'd like to ask you about something on page 102. Would you turn there, please?

And this is limitation 12e. It starts with "eliminate."

Do you have an opinion as to the meaning of the word "eliminate"?

A So I did not offer a construction of the term "eliminate," and I did not try and understand all of its possible limits, but I did understand it sufficiently to explain in my opinion in the following paragraphs how Hariki in combination with Harris discloses this feature, including the eliminate.

Q Okay. Would you agree that eliminate means remove?

A Again, I did not offer a construction

of it, and I didn't offer an equivalency. I don't have an opinion about the equivalency of the term "eliminate" and "remove," but I did show examples of how there is disclosure of eliminating.

Q Would you agree that to eliminate means to get rid of?

A So, similarly, I did not offer an opinion about the equivalency of the term "eliminate" and "get rid of," and I don't have that opinion today because I didn't need to.

Q On that same page, in paragraph 224, you say, It is my opinion that Hariki in combination with Harris discloses this feature. For example, Harris discloses --

A Wait, wait, I'm sorry. I'm missing where you are.

Q It should be 224 --

A Oh, the beginning of 224?

Q Yes. Yes. So I'll start over.

It says, "It is my opinion that Hariki in combination with Harris discloses this

feature. For example, Harris discloses, regarding the MCF, that, quote, tags can be added and removed from the WAX language."

So are you pointing to the removal of tags from the WAX language as meeting the eliminate limitation in this limitation?

A So in paragraph 224, when I cited to Harris paragraph 28, that tags can be added and removed from the WAX language, that is context for my analysis of Harris where, in the next sentence, I explain some examples that show the elimination that meet claim limitation 12e, for example, taking content of text "welcome" and eliminating it and replacing it with text "bonjour" in French.

Q Okay. So the first part where you discuss tags being removed from WAX language, you're not saying that that elimination from the WAX language meets limitation 12e. That's just context for the -- the further pointing -- the further teaching down below?

A I think that's right.

Q Okay. And then you say -- and this is -- I think it's the last sentence in the same paragraph. "It is my opinion that the content on the WAX stylesheet can be removed."

So focusing on the word "removed," are you saying that removal meets the elimination limitation?

A Well, I gave examples of eliminating, and I was describing some of those as -- as a kind of -- well, I gave some examples of eliminating. There are additional disclosures in Harris of WAX content being removed, and I think those are further examples of this eliminating requirement.

Q So is it fair to say that removal is elimination?

A Again, I am not equating in all cases eliminating with removal, but I am saying that these disclosures of the removal of content from WAX and the translation to HTML as disclosed in Harris is a disclosure of claim limitation 12e's eliminate.

So, in other words, it can teach something without -- I'm showing it teaches it or discloses it without specifically forming an opinion that they are identical.

Q Is removal necessary or just sufficient to eliminate?

A Again, I didn't form an analysis of what the limits of the term "eliminate" are or exactly how in all circumstances how the word "remove" might map to eliminate. What I showed is that Harris discloses a specific kind of removal that meets the eliminate requirement in 12e.

Q And do you --

A Sorry. Just --

Q I'm sorry. Go ahead. I thought you were done.

A I'm not sure that I cited to one of those examples, but I recall Harris having examples of removal of not including some content at all for a particular device.

Q And is it fair to say that you are not

offering an opinion as to the limits of eliminate today as well?

A That's right. I'm not offering a construction for the term "eliminate."

Q Okay.

MR. MARSHALL: I think it's been close to an hour, so --

MR. WYDE: That's fine. That's fine. Sure.

MR. MARSHALL: Sounds good.

MR. WYDE: Okay. Let's take a break.

(Whereupon, at 12:27 p.m., a luncheon recess was taken.)

A F T E R N O O N S E S S I O N

(1:19 p.m.)

WHEREUPON,

BENJAMIN BEDERSON, PH.D.

was called for continued examination, and having been previously duly sworn, was examined and testified further as follows:

EXAMINATION BY COUNSEL FOR PLAINTIFF

CONTINUED

BY MR. WYDE

Q Okay. I'd like to start this session by looking at the '865 patent itself. I don't know whether I gave you that already.

A I don't think so.

Q I don't think so, either. So this is Exhibit 1001 from the 759 IPR. In particular, I'd like to ask you about the teachings on column 3, starting around line 44.

And if -- do you see where -- right at the beginning of that paragraph, it says, "Additionally, a template engine communicates with a device-specific profile of the wireless

device and may eliminate content of the requested application that is not supported by the wireless device based on the capabilities of the wireless device. For example, if the server determines that the wireless device has no audio capabilities, the content related to audio may be eliminated from the template."

Do you see that portion?

A I do. I think you may have just read one thing improperly towards the beginning. It says with a device profile, and I think you may have said device-specific profile.

Q Quite possibly. With that correction, do you see that general paragraph?

A I do.

Q And do you understand the process that the '865 patent is describing here?

A I think so.

Q What does it mean that the audio content is eliminated from the template?

A I think, in this example, it means that the audio is not included in the template.

Q So you said not included. Does that mean it was never in the template, or is this a case where it's removed from the template?

A Well, I think that -- I think, conceptually, the server can have content that can be used to create different templates for different wireless device requests, and so this is a case where the original content might have included the audio and perhaps that audio would have been included in a template if it was sent to one device, but in this case, it is -- creates a template without that content when it's sent to a device without audio capability.

Q Is there any trace of the audio content left in the template when it's sent to the device?

A I don't think that this provides enough detail to be sure of that. It does say that the audio, only the audio content itself has been eliminated, but it doesn't say whether or not there is any trace, for example, that there was a space where there might have been audio but it

wasn't included. I think that's just not specified here.

Q So you don't know one way of the other?

A Again, I don't see that specified in this disclosure.

Q And a person of ordinary skill in the art wouldn't know for sure?

A Not based on this paragraph, I don't see that.

Q Do you have an understanding as to why the '865 patent is teaching that the template engine may eliminate content of the requested application that is not supported by the wireless device based on the capabilities of the wireless device?

A Well, I think that is a specific design choice that comes from the overall -- some of the overall goals of this patent. So, for example, the first sentence of the summary, at column 2, starting at line 21, says, "Accordingly, a need has arisen to enable software vendors to provide generic applications regardless of the wireless

device type, thereby relieving software vendors from having to tailor their application for each given wireless device type."

So if the content includes audio and they want to make this work on different wireless device types, then the fact that the system can send audio only to devices that support audio, but not waste resources by sending it to devices that don't support audio seems like that would be useful and consistent with that goal as much as is stated in that summary sentence.

Q What resources would be wasted if it was sent?

A Well, the communication resource, the bandwidth of sending audio that wasn't used, that would be a wasted resource.

Q Now, could you turn to your Exhibit 1002 in the '865 patent, your expert report in the '865 patent IPR?

A Okay.

Q Paragraph 224 on page 102, please.

A Okay.

Q Do you see where you write, "It is my opinion that content on WAX stylesheets can be removed"?

A I see that.

Q What is a WAX stylesheet?

A Well, WAX stylesheets are described in Harris paragraph 22 around two thirds of the way down. It says, "The WAX stylesheets component 42 dictates the presentation of the WAX content, and the device stylesheets component 40 tailors the presentation of the content to the requesting device based on the attributes possessed by the requesting device."

Q Is the image you show at the top of page 76 from Harris, paragraph 29, a WAX stylesheet? It's shown in part, I'll note --

A Right. Yeah. I was going to say, I think that was a -- call it a typo. It should include the entire bit of XML code from Harris 29.

But in any case, no, this is WAX or WAX content, not the stylesheet.

Q Do you have an example of the WAX stylesheet that you can point me to in Harris?

A I don't think Harris provides a specific example of a stylesheet, no.

I should probably say, since you pointed me to that sentence in paragraph 224, I think that I probably could have written that sentence more clearly. So when it says, "It is my opinion that that content on WAX still sheets can be removed" and then going on further and continues, it's really talking about the content from WAX.

And I often talk about WAX stylesheets and WAX content together, and so I think I probably just -- essentially is a typo. It's not written clearly, so I apologize.

Q Thank you for that clarification, because, frankly, I was lost. All right. We're on the same page.

And are you pointing to -- well, let me ask you this: Does the example on page 76 -- or we could look at the full example in Harris if

you want, but is there -- have you identified content within this WAX?

A Sure. So I think, in paragraph 224, I gave an example of the string welcome that can be translated to bonjour as an example of content, which is in the second section of that WAX content on -- from paragraph 29, around the third line of the second portion.

Q That would be labeled Example 3 in the comments?

A Yes, that's right. And then I believe that is -- elsewhere in my declaration, I further describe this paragraph and talk -- walk through some of the examples.

Q So is this language here the content -- well, actually, let's take -- let's look at the full example.

Do you have a Harris reference over there?

A I do.

Q Okay. Can we look at the full example from paragraph 29? So let's look at, for

example, Example 2 here.

Do you see the image with the source ID logo?

A I do.

Q Would you also say that is content?

A Yes. I think the logo image would be -- in Example 2 is a further example of content.

Q So you said logo image, and here's what I'm trying to figure out: Is it the image that this WAX is a placeholder for that's the content, or is it literally this WAX or both or something else?

A Do you mean specifically as I am understanding the term "content items" from the claim limitation? Is that what you're --

Q Yes.

A -- getting at?

Q Yes.

A I don't think I formed a specific opinion about whether the content item is the text in this example or -- exclusively or whether

it includes the referenced image because I didn't need to. I pointed to other examples here, for example, like the welcome text as an example of elimination.

Q All right. Well, let's look at the welcome text. In the Example 3, it has a text ID of welcome.

Is the content literally between the brackets here -- is that the content, or is the content the text that will -- the MCF will translate this tag into?

A I think this example from paragraph 29 shows with its four examples different kinds of content. Some of the content is directly inside the XML, and so, for example, in Example 4, it has actual Java code inside the XML starting after the left bracket percent and ending before the percent right bracket.

Other times it clearly includes content that references other resources, such as the image example, where, clearly, the text L-O-G-O is not the image itself. That clearly is a

reference to an image from Example 2.

And in Example 3, it's not completely clear, I think, from this disclosure whether the welcome text in this example is itself the text that gets translated or if it's an ID for an external resource that gets translated. So I think it would be fair for a person of skill in the art to understand that, you know, either one would be a perfectly acceptable way to do this. I don't think that detail matters that much.

You know, obviously, the text in paragraph 30 that explains Example 3 says the ID welcome may be translated to bonjour, so that implies that is the actual text in the XML that is the content. On the other hand, it is part of a property called ID, which a person of skill in the art would often think is a reference to some external resource.

So I think it's clear that between all of these examples that Harris discloses both, including content inside the XML and referencing content that is outside this particular XML.

Q So I think you earlier were reading from paragraph 22. I may be wrong, but either way, could you look at 22 of Harris, please?

And I think it says -- let's see if we can find it. Yeah. On -- well, there's no line numbers, but the middle of the paragraph, it starts off with -- "additionally" is the first word. "Additionally, the MCF includes WAX stylesheet components 42, the device stylesheet component 44," and then it goes on to say "the WAX stylesheet component 42 dictates the presentation of the WAX content."

Do you understand what WAX content here is referring to?

A I think the WAX content referred to here is the content that is included in the WAX XML file that we were just looking at in paragraph 29.

So I think the content is the text that is displayed or the image that is displayed, whether it is directly included in the XML or referenced from the XML.

Q So let's turn back to page 102 in your '865 report, please. And do you see that the limitation goes on to say, "eliminate, using said device profile"?

Do you understand what using said device profile means?

A Yes.

Q What does that mean to use a device profile?

A I think it's a broad term, and I think that just means that the device profile has to be used in the process of this elimination.

Q Could you give me an example of using a device profile in the elimination?

A Well, I think when we were looking at the '865 patent and we were reading that example of eliminating audio in column 3 in the paragraph starting at line 44, that explains that the server determines that the wireless device has no audio capability, and that comes after a sentence that says, "Additionally, the template engine communicates with a device profile of the

wireless device and may eliminate content of the requested application that is not supported by the wireless device based on the capabilities of a wireless device."

So this looks like an example in the '865 patent of using a device profile to eliminate a content item.

Q So this example shows communication with a device profile as use?

A I think that's right.

Q Okay. Could you turn to page 72 of your expert report?

So do you see the heading f, and in the section analyzing limitation 1e, which reads, "said page description having at least one discreet low level rendering command that is within said rendering capability wireless device but that is of a syntax that is wireless device generic; and."

And in paragraph 144, the entire paragraph is -- it's your opinion that Hariki in combination with Harris discloses this feature;

isn't that correct?

A That's what it says in my paragraph 154, but you may have said 144. I may have misheard you.

Q Okay. And you identified HTML files as the page description in this limitation; isn't that correct?

A That's right. I state that in paragraph 153, where I say, "It is my opinion that the Hariki-Harris combination discloses generating HTML files (corresponding to generating a page description)."

Q And you further identified that HTML files include tags that include low level commands to render content on a device. I'm looking at paragraph 163.

Isn't that true?

A Yes, I do say that.

Q So you say tags include low level commands. Are you mapping those to the claimed low level -- discreet low level rendering commands?

A Yes.

Q Do you have an example of a discreet low level rendering command that an HTML tag might include?

A Well, first of all, I think a person of skill in the art would understand that HTML includes a wide variety of commands and tags that include low level rendering commands, such as the location of objects on the screen.

And that is supported by my analysis of claim 6, which requires a specific set of discreet low level rendering commands, including a specification of a location and a size of a screened area and an identification of a rendering block from said plurality of rendering blocks. And so in my analysis of claim 6, I provide more information about some disclosures of HTML that support that -- those requirements such as a location.

And then I further provide an additional ground in combination with Dees where I show an additional piece of art that provides

more express disclosure of some of those requirements, all of which are consistent with what a person of skill in the art would understand about HTML, including the ability to specify the locations of things, which is quite well known. I think someplace I talk about including the ability to center content, which is another further example of providing a location of content.

Q So let's take the center example. You talk about it in paragraph 246. I'm on page 109.

The center command is a discreet low level discrete rendering command?

A So I point to a disclosure in paragraph 246 of how Harris -- Harris shows that WAX includes a button that is center aligned, and then I go on to explain why the center of the screen is a physical screen position, and that in order to represent this request from -- or the specification from WAX that the device-specific generated HTML file would include comparable alignment commands, which, since HTML also

includes center, that would be well known. And, again, I further explain how Dees shows us as well --

Q Right. But I believe --

A -- or shows additional disclosure about that.

Q Sorry. I thought you were done. But I thought you used that in example of a discreet low level rendering command. That's why I just pointed to that, so you could see it.

A Yeah.

Q Is that center an example of a discrete low level rendering command?

A Yes, with the understanding that the specific disclosure I pointed to was in WAX, but that a person of skill reading this would understand that H -- that generated HTML would include a comparable alignment command.

Q What makes the center command discrete?

A Well, first of all, it is one command. It's one specific thing. So I think that is an example of why it is one discrete command and

not, for example, one combination of multiple commands.

Q And what makes the center command low level?

MR. MARSHALL: Object to form.

THE WITNESS: Again, I pointed to center from WAX. The low level rendering command that I'm pointing to is in HTML, and what I -- my opinion is that HTML would include a comparable alignment command. It may actually be another single, discrete command called center, but the disclosure I have is from WAX, but the low level rendering command I'm pointing to is in the generated HTML file.

BY MR. WYDE

Q Right. And in that generated HTML file, how do you know that that center command is low level?

And this might help you out. On page 113, you're pointing to Dees, which also has center -- well, it has line commands.

A So, as I explained earlier, while the

'865 patent doesn't -- and I said this, actually, in footnote 27 to my paragraph 158 that the '865 patent does not disclose how to distinguish a low level rendering command from any other type of rendering command.

I did look at claim 6, which gives an example of a low level rendering command. And so that provides me with at least an example, and so I showed that the prior art teaches information that is equivalent to this example of a low level rendering command.

Q Are you able to distinguish a low level rendering command from any other type of rendering command?

MR. MARSHALL: Object to form.

THE WITNESS: So I did not offer a construction of the term "low level rendering command." I certainly don't have -- did not perform an analysis on what its boundaries were and how it might be distinguished from another kind of command, and as I said, I don't think the '865 patent discloses it.

So, no, I don't have an opinion about that distinction, but what I do have is an example, so I did my analysis based on -- at least in part on that example.

BY MR. WYDE

Q What was the example in the patent that you were pointing to?

A Claim 6 of the '865 patent says that at least one discrete low level rendering command includes a specification of a location and a size of a screen area. It goes on, but -- so that's an example of a low level rendering command.

MR. WYDE: Okay. That concludes my examination. So I pass the witness.

MR. MARSHALL: No questions.

(Whereupon, at 2:00 p.m., the deposition of BENJAMIN BEDERSON, PH.D. was concluded.)

* * * * *

CERTIFICATE OF NOTARY PUBLIC

I, ERICK M. THACKER, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me; that the testimony of said witness was taken by me in stenotype and thereafter reduced to typewriting under my direction; that said deposition is a true record of the testimony given by said witness; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

ERICK M. THACKER
Notary Public in and for the
District of Columbia

My commission expires:
June 30, 2024

ACKNOWLEDGMENT OF DEPONENT

I, BENJAMIN BEDERSON, PH.D., do hereby acknowledge I have read and examined the foregoing pages of testimony, and the same is a true, correct and complete transcription of the testimony given by me, and any changes or corrections, if any, appear in the attached errata sheet signed by me.

---------- ----------

Date BENJAMIN BEDERSON, PH.D.

Stephen A. Marshall, Esquire
smarshall@willkie.com

January 15, 2024

RE: GoTV Streaming, LLC vs. Netflix, Inc.
1/10/2024, Benjamin Bederson, Ph.D. (6341426)

The above-referenced transcript is available for review.

Within the applicable timeframe, the witness should read the testimony to verify its accuracy. If there are any changes, the witness should note those with the reason, on the attached Errata Sheet.

The witness should sign the Acknowledgment of Deponent and Errata and return to the deposing attorney. Copies should be sent to all counsel, and to Veritext at errata-tx@veritext.com.

Return completed errata within 30 days of receipt of testimony.

If the witness fails to do so within the time allotted, the transcript may be used as if signed.

Yours,

Veritext Legal Solutions

GoTV Streaming, LLC vs. Netflix, Inc.

Benjamin Bederson, Ph.D. (#6341426)

E R R A T A S H E E T

PAGE_____LINE_____CHANGE_____

_____

REASON_____

PAGE_____LINE_____CHANGE_____

_____

REASON_____

PAGE_____LINE_____CHANGE_____

_____

REASON_____

PAGE_____LINE_____CHANGE_____

_____

REASON_____

PAGE_____LINE_____CHANGE_____

_____

REASON_____

_____ _____

BENJAMIN BEDERSON, PH.D. Date

&

& 1:14 2:8

0

07556 1:5

1

1 39:5 78:18 88:5
1/10/2024 120:5
10 1:12
100 36:22
1001 32:3 97:16
1002 11:7 17:4 38:17 58:12 71:11 82:20 101:18
1005 69:17
1006 54:10
101 77:19 78:1 78:11
102 91:8 101:21 109:1
109 113:11
10:01 35:6
10:12 35:6
11 79:18
113 115:20
117 16:10
11:09 65:17
11:23 65:17
1250 1:21
127 27:12 28:11 29:4 59:21
128 58:12 59:22 70:21 90:6
129 26:21 27:12 90:18
12:27 96:12
12e 91:9 93:12 93:19 95:13
12e's 94:21
130 38:18 89:12
132 40:14 42:13
133 45:3
13397 118:18
135 41:14
137 42:18
138 50:5
14 57:3
142 86:2 87:7
144 110:20 111:3
148 86:2 87:7
15 4:13 120:3
153 111:9
154 111:3
158 116:2
163 74:5,13 111:16
179 26:20
1875 1:14 2:9
19 32:9 34:1,12
1:19 97:2
1b 24:4 65:20 70:21 71:17,22 72:8
1c 25:1 83:5,18 85:18 87:6
1d 45:18
1e 110:14

2

2 70:9,9 74:7 74:12 78:18 100:19 105:1,7 107:1
20 61:7,11
20005 1:22
20006 1:15 2:9
2003/0023755 8:1
2005 36:3,5,10
2006 36:1,5,10
2007/0150617 7:15
2023-00759 6:5
2024 1:12 118:22 120:3
21 100:20
22 102:7 108:2 108:3
224 92:12,18,19 93:7 101:21 103:6 104:3
22nd 36:2
24 86:6
245 70:1,1 71:10,10,18 72:1,7,14,16,18 72:19 73:13,21 74:3 77:20 80:6
246 113:11,15
25 32:9
256 78:4
25th 36:1
27 116:2
28 17:11 50:2 85:12 86:10,17 88:1,20 93:8
29 102:15,20 104:7,22 106:12 108:18
2:00 117:16
2:22 1:5

3

3 12:8 70:5 78:18 97:18 104:9 106:6 107:2,12 109:17
30 107:12 118:22 120:17
3200 2:4
34 54:12
37 81:9 85:3
39 11:17

4

4 3:3 106:15
40 11:20 81:15 102:10
41 11:21 81:15

42 80:8 102:8 108:9,11
44 97:18 108:10 109:18

5

5 30:15
50 4:13
526 78:7,8,12
53 61:6 65:20 71:8,15
55 79:16

6

6 78:11 112:11 112:16 116:6 117:8
60 17:10,12 18:6 20:8 21:11
601 78:16
609 2:4
6341426 120:5 121:2
64 61:10 89:13
67 50:4
68 83:1

7

70 23:21
71 58:13
715 7:7 18:6 20:6 21:9 23:22 32:4,4 32:19 38:17 58:11 61:8 65:20 70:21 71:18,20 72:2 72:6,14 73:4 73:13 74:1 80:4,7
72 26:21 38:19 110:11
720 32:12
73 38:22 39:5
74 40:15
75 41:15 45:3
757 8:14 17:4 17:11 73:3,7 73:22
758 72:16 73:8 73:20
759 11:7 54:11 69:16 82:21 97:16
76 45:3 102:15 103:21
77 42:19 45:16
77002 2:5
79 85:2

8

8 81:8,14
8,103,865 6:5
8,478,245 6:3
8,989,715 6:2 7:9
84 11:16,19 12:4
865 11:15 15:16 16:11 50:1,5 82:20 85:18 86:2,21 97:12 98:17 100:11 101:18 101:19 109:2 109:16 110:6 116:1,2,22 117:8

9

9 80:7
901 1:21
92 74:6
94 74:4
95 74:14
9:03 1:13

a

a.m. 1:13 35:6 35:6 65:17,17
aatriallaw.com 2:5
ability 37:6 44:21 47:5,6 75:18 113:4,7
able 37:8 57:13 116:12
above 81:16 120:6
absolutely 69:13
abstract 9:5,11
acceptable 107:9
accepts 50:8,16
accessed 21:14 63:17
accessing 32:15
accident 69:21
accommodate 54:22 55:12 56:15
accommodates 57:5
accompanied 6:1
accompanying 11:8
accuracy 120:9
accurate 48:8
accurately 5:2
acknowledge 119:2
acknowledg... 119:1 120:13
action 118:12 118:17
actual 106:16 107:14
actually 13:10 24:9 50:2 56:5 81:8 104:16 115:10 116:1
added 93:2,8
addition 71:20
additional 14:22 45:1 59:17,17 82:17 94:11 112:21 112:22 114:5
additionally 97:21 108:7,8

109:21
advance 47:15 49:3
ago 30:17
agree 5:3 9:14 12:8 26:7 33:18 34:7 51:3 61:2,15 61:22 66:9 71:17 75:1 80:10,12 81:10 91:20 92:6
ahead 48:3 58:14 76:7 95:16
alavi 2:3
alert 91:1,4
aligned 113:16
alignment 113:22 114:18 115:10
alleged 24:18
allotted 120:20
allowing 40:7 86:9
allows 61:2,16 88:7 90:19
altering 90:20
alters 54:16
anaipakos 2:3
analysis 13:15 20:21 27:22 33:10,22 34:11 36:7,21 44:9 44:12 67:5 68:1 73:14 86:14 88:5,14 93:10 95:7 112:10,16 116:19 117:3
analyze 33:15
analyzed 84:21
analyzing 24:3 83:5 110:14
answer 5:18,22 17:18 21:1 22:11,15 38:2 47:8 48:9,20 49:20 52:5,12 56:3 65:9 69:14 79:8
answered 35:15
answering 4:22 5:1
anticipate 47:14
anticipated 35:11
anticipating 48:2,4
anticipatory 49:8,10
anybody 46:9
anyway 79:9
apologize 103:16
appear 119:6
appearance 90:11,16
appears 118:4
applicable 73:21 120:8
application 7:15,22 15:14 15:18 16:3,18 17:1,22 18:4,5 18:10,12,12,14 18:17,18,20,20 18:22 19:7,11 19:12,22 24:5 24:8 25:1,4,13 25:16,19,22 27:2,21 28:3 28:16,20 29:8 29:13,15 30:6 30:9,14,22 32:13,15 33:2 33:5,7,9 36:2 45:20 58:21 59:3,4,9,19 60:2,3,9,13 66:2,7 67:8,9 67:19,21 68:9 68:13,14,16,17 69:9 70:13 72:9,13 76:14 83:9 84:18,20 85:9 86:1,13 86:20 87:16,21 98:2 100:13 101:2 110:2
applications 15:4,11,21 16:5 17:14,17 17:20 18:15 19:16,18 20:19 21:4 32:16 100:22
applied 25:8 26:4 72:4
apply 38:2 73:17
appreciated 81:15
architect 19:20
architectural 14:20
architectures 18:8 20:6 21:10
area 112:14 117:11
argue 59:2
arisen 100:21
arrives 46:17
art 7:11,14 8:8 13:4,7 24:12 25:5 29:9 44:4 52:2,6 56:1 63:21 64:3,17 76:19 80:15 83:13 100:7 107:8,17 112:6 112:22 113:3 116:9
ascribe 72:9,13
asked 78:21
asking 5:8 15:13,15,19

16:2,3 48:18 64:16
aspects 8:17 9:1 41:21 87:11 88:8 89:18 90:21 91:2
associated 24:5 28:15 29:7 58:20 59:18 60:2,9,13 62:21 63:4 71:3 72:9 88:11
association 30:8,21
assuming 7:18 49:9 61:21
attached 119:7 120:11
attorney 118:14 120:15
attributes 102:12
audio 98:5,6,19 98:22 99:9,9 99:13,14,19,19 99:22 101:4,7 101:7,9,15 109:17,20
author 63:2
authoring 61:2 61:16 69:8
available 36:5 36:10,17,19 37:1 56:10 120:6
aware 63:8 67:21 69:4
awareness 68:8

b

b 48:21 49:2 70:10
back 10:7 20:17 42:6 50:19 58:10 65:10,19 74:6 109:1
background 18:7
backgrounds 90:22 91:3
bandwidth 101:15
bars 90:22 91:3
based 20:22 74:20 98:3 100:8,14 102:12 110:3 117:3
beat 51:14
bederson 1:10 4:3,8 35:8 97:4 117:17 119:2 119:13 120:5 121:2,22
beginning 92:19 97:20 98:10
begins 50:7,15 51:4
behalf 2:2,7
believe 8:9,12 9:2,6 15:20 22:22 49:21 104:11 114:4
benjamin 1:10 4:3 97:4 117:17 119:2 119:13 120:5 121:2,22
best 5:7,9
big 19:19
bit 49:16 65:22 102:19
block 12:9 79:20 80:9 112:15
blocks 24:6 25:12 28:7 74:20 81:16 112:16
bodies 22:1
body 22:7,19 22:21 23:4
bonjour 93:15 104:5 107:13
boundaries 116:19
bounds 68:5
bracket 106:17 106:18
brackets 106:9
break 5:10,16 5:19 34:21 35:8,13 65:15 96:11
broad 19:5 51:7 66:17 80:17 81:3,20 89:3 109:10
broader 66:21
broadly 17:21
browser 15:13 15:17 16:12,16 16:22 18:2 19:6 20:1 22:4 22:5,16 23:14 27:6 28:8,15 28:17 29:1,7 29:11,17,20 30:1 31:3,10 31:12 35:18,21 36:9 39:9,15 39:18 40:10 41:8 46:12,15 58:8 59:10,21 60:5,8,18,20 65:4 68:13,15 68:17,18,22 69:2 70:12 73:20,22
browsers 15:3 15:11,20 16:2 16:4,8 17:13 17:17,20 18:9 19:16 20:9,12 20:16,18 21:3

21:15,19,20 22:13 36:4 37:2,6,12,21 38:10,15 39:21 40:2 44:18,21 45:13 59:15,16
build 43:17
built 36:19
button 113:16
buttons 74:19 90:22 91:4

c

c 2:1 3:1 4:1 24:1 88:5
cached 46:21
caching 51:1,10 51:12
california 1:1
call 102:18
called 4:4 11:14 22:19 97:5 107:16 115:11
capabilities 57:4 98:3,6 100:14 110:3
capability 99:13 109:20 110:17
capture 5:2
careful 57:22
case 1:5 16:15 16:16 17:19 18:16,17 49:8 56:9 59:3 99:3 99:8,11 102:21
cases 94:17
caveat 47:2
center 113:7,10 113:12,16,17 114:1,12,19 115:3,7,11,17 115:21
central 1:1
certainly 14:10 17:19 19:21 22:22 23:17 64:19 67:11 68:12 73:10 77:13 81:20 82:6,11 116:18
certificate 118:1
certify 118:4
chance 32:8
change 121:4,7 121:10,13,16
changes 71:21 119:6 120:10
changing 87:12
character 55:1 55:13,17
characteristics 62:9 70:7
characterize 13:8 68:5 75:20
characterized 13:3
chart 12:9
check 30:16
choice 100:17
choices 76:20
chrome 35:19
circle 65:19
circumstances 95:9
citation 61:9
cited 93:7 95:18
cites 86:6
claim 15:14 24:12,14,16 25:10 28:5 33:11,21 43:11 43:14,19 59:11 67:1 74:7,12 79:18,20 81:6 83:13,15 84:17 93:12 94:21 105:16 112:11 112:16 116:6 117:8
claimed 16:2 59:4 111:20
claims 36:1 71:15 72:18 73:13
clarification 103:17
clarify 5:7
clear 88:21 107:3,19
clearly 13:11 56:13 69:14 103:8,16 106:19,21,22
click 44:22
client 15:4,11 15:17,21 16:4 16:18,18 17:2 17:13,17,20 18:3,4,5,8,10 18:12,13,14,18 18:20,22 19:2 19:6,8,10,12,13 20:6 21:9 35:18 36:5,10 36:13 40:20 42:22 43:8 46:5,6 63:6,13 71:5 76:2
clients 18:16
clippings 42:14
close 96:6
code 52:16 53:3 53:12,13,14,16 102:19 106:16
collection 87:13
color 87:12
columbia 118:20
column 32:9 34:1,12 80:7 81:8,14 97:17 100:19 109:17
combination 41:4 43:2 62:19 64:20

72:20 84:6 91:18 92:14,22 110:22 111:10 112:21 115:1
combine 41:18 89:15
combined 40:17 43:10,21
combining 41:3
comes 100:17 109:20
coming 69:7,8
command 110:16 112:3 113:12,13 114:9,13,18,19 114:20,22 115:3,7,10,11 115:13,17 116:4,5,7,11,13 116:14,18,21 117:9,12
commands 74:17,22 111:15,20,22 112:7,8,12 113:22 115:2 115:21
comments 104:10
commission 118:21
common 23:9 23:14,18
commonly 21:3 82:7,7
communicate 18:11 74:17
communicated 52:21
communicates 30:6 97:21 109:22
communication 101:14 110:8
compact 42:14
comparable 113:21 114:18 115:9
compared 72:17
compilation 9:18
compiled 45:18 45:22 69:3 74:21
complete 4:21 12:6 22:9 23:2 56:1 119:5
completed 56:6 120:17
completely 56:17 88:4 107:2
component 102:8,10 108:10,11
components 16:9 21:4 22:1 108:9
composition 90:10,15
comprising 74:21
conceivably 22:5
conceptually 19:22 99:5
concern 66:17
concerning 32:4
concluded 117:18
concludes 117:13
confer 35:9
confident 36:18
configurable 87:11
configuration 24:5 28:14 29:5,6 30:9,13 30:22 32:14,16 33:1,6 66:1 67:20 68:8 69:5 70:20 71:3 83:6,7,8 85:22 86:17 87:15
configurations 63:20,22
configure 87:10
configures 24:6 28:6
connected 88:11
connection 30:13 50:8
consider 18:4 24:15
considered 15:17 16:17 17:1 19:12 24:13 32:1 83:14
consistent 73:11,17 80:20 86:3,14 88:5 88:14 101:10 113:2
consistently 8:19,21 9:2
construction 26:2,11,12 34:13 66:16 67:11 82:3 84:3 91:13,22 96:4 116:17
construe 71:22
construed 72:3
consult 35:9
consumed 56:12
contain 13:9 22:2
contemplates 42:21

contend 58:20 60:1
content 12:2,21 13:10 24:7 25:12,15 27:1 27:4,8,19 28:1 28:4,7,22 29:11,14,16,19 30:1,7 31:2,11 31:11 41:20 42:2 45:19,22 46:5,7,9 48:13 53:1 54:18 55:5 57:2,6,7 61:3,3,16,17 62:1,2,3,4,6,7 62:19,20 63:4 63:5,7,13,14,16 64:1,14 66:1 68:18 69:3,7 71:5,6 74:21 75:3,5,11 76:15,20 79:9 79:13 85:7,14 87:3,8,19 88:18,22 89:17 89:20 90:14 91:5 93:13 94:3,12,19 95:20 98:1,6 98:20 99:5,8 99:12,14,19 100:12 101:4 102:2,9,11,22 103:9,11,14 104:2,5,7,15 105:5,8,11,15 105:21 106:8,9 106:10,14,14 106:19 107:15 107:21,22 108:12,13,15 108:16,19 110:1,7 111:15 113:7,9
contents 28:19 78:16
context 15:16 15:19 16:1 17:2 18:9 19:5 26:1 33:13,18 34:8,12 76:10 93:9,20
continue 49:8
continued 97:5 97:9
continues 103:11
continuous 56:9
controls 79:20
conversion 57:9
converted 28:12 29:4,12 30:20
converting 9:19 57:6,19 57:21
copies 120:15
copy 69:12
correct 9:12 10:8 15:4 24:8 24:20 41:6 43:4,11 44:11 44:15 45:9 46:1 59:6 62:5 66:3,4,7 72:18 74:8 80:22 111:1,7 119:4
correction 98:13
corrections 119:6
correctly 10:6 18:19 28:21 59:13 61:22 74:10 83:10
correspond 33:8,19 34:3,8 75:2
corresponding 32:14 33:14 34:2,14 46:7 70:17 71:9 74:16 111:11
corresponds 33:1,7 74:17 74:19,21
counsel 3:3 4:6 6:15 35:3 97:8 118:10,14 120:15
count 4:12
couple 90:5
course 51:9
court 1:1 5:1
create 61:3,17 99:6
creates 63:2 99:11
creating 62:4,7 62:10,16 64:7
creation 49:10
custom 24:4 28:14 29:5,6 32:14,22 33:6 66:1 67:20 68:8 69:5 70:19 71:2 79:14 83:5,7,8 85:22 86:17 87:14
customization 27:18 41:22 47:17 63:15 67:1 68:3,6 69:1 88:7,10 89:19 90:19
customizations 87:8 89:2 90:2
customize 62:20 86:9
customized 24:7,22 25:3 25:12,15,19,22 26:7,13 27:4,9 27:14 28:2,8

29:1,14,17,20 30:1 31:2,12 32:1 66:2,7,10 66:20 67:4,8 67:19 68:21 70:12 71:6 72:12 84:11 85:6 86:11,19 89:4,6
customizes 28:20
cv 1:5

d

d 4:1 83:2
d.c. 1:15,22 2:9
data 23:11,13 23:16 32:16 52:19,20 53:15 53:16 54:3 56:10 74:18
date 1:12 64:18 119:13 121:22
days 120:17
dead 51:14
december 36:2
declaration 11:1,2,8,15 12:7 16:10,11 18:7 21:9 26:16 37:16 61:8 67:13 70:22 72:19 77:21 86:3 104:12
declarations 6:1 8:17 9:17 36:8 67:6 72:7 73:12,18
dees 112:21 114:2 115:20
defendant 1:7 2:7
defined 90:8
definition 26:3 34:14 80:10
delivered 85:6 87:9
demand 47:4
depends 18:15
deponent 119:1 120:14
deposed 4:9
deposing 120:14
deposition 1:10 4:16,18 6:13 117:17 118:3,5 118:9,12
describe 12:4 21:8 43:16 67:5 82:8 90:19 104:13
described 9:7,8 9:9 16:9 20:5 26:6 28:10 40:16 56:22 57:16 63:2 102:6
describes 9:18 41:21 47:4 52:1 56:8 80:13 88:6 89:18
describing 12:1 22:12 40:16 52:12 55:19 64:21 65:6 86:5 94:9 98:17
description 19:4 78:5,12 78:15 80:12,19 81:4 110:15 111:6,12
design 44:2 100:16
designed 33:19 34:8 37:3,12 37:21 39:14,22 40:3 64:22 66:11,18 69:1 77:8,12 89:1 89:10
detail 28:11 33:16 41:21 53:7,20 63:19 89:18 99:18 107:10
detailed 40:19
determine 50:11
determines 98:4 109:19
device 9:21,22 10:1,4,10,15,18 11:5 12:3,10 12:12,14,18 13:1,2,6,14,16 13:18,20 14:2 14:11,15,18,22 16:13,16 27:2 27:8,9,20 36:14 39:10 40:20,22 41:5 41:20 42:4,12 42:16 43:4 44:10,14 45:5 46:5,6 47:11 47:17 48:1,2 48:22 50:9,11 50:17,21 51:21 54:22 55:8,12 55:15,20 57:7 58:21 59:4,6 59:10,19 60:10 60:14,19,21,22 62:2,4,9,10,13 63:9 64:8,15 65:1 68:22 69:4 70:8,10 75:6 79:22 80:2 83:8 85:8 85:8,10 86:12 86:13 87:20,20 87:22 88:8 89:17,21 90:8 90:9,13,15,22 91:3,6 95:21

97:22 98:1,3,4 98:5,11,12 99:7,11,13,16 100:14,15 101:1,3,6 102:10,12,13 108:9 109:4,6 109:8,11,14,19 109:22 110:1,3 110:4,6,9,17,18 111:15 113:20
devices 9:15 54:7 57:6 61:5 61:18 101:7,8
diagram 12:9
dictates 102:9 108:11
different 8:16 8:17 9:1 16:7 17:5 18:1 41:21 53:22 57:5 68:10 69:22 70:5,6 77:13 89:1,2,4 89:18 99:6,7 101:5 106:13
differently 8:14 46:15 72:1 73:15 75:21
digits 7:5
direct 61:21
direction 118:8
directly 75:8,12 75:19 88:2 106:14 108:21
disagree 66:9
disclose 45:5,8 45:12 51:1,3 51:10 89:21 116:3
disclosed 9:7 14:3 16:17 30:14 53:7 64:11 94:20
discloses 29:8 30:4,10 40:19 41:19 42:11 43:7 45:4 51:18 58:22 63:11 76:13 84:6 89:16 91:18 92:14,15 92:22 93:1 95:3,11 107:20 110:22 111:10 116:22
disclosing 28:13,17 29:6 38:6 53:21 54:5
disclosure 9:1,2 10:16 11:4 13:19 15:1 28:12 30:8 58:2 70:11 76:12 79:12 86:4,8,16,18 88:4,14 89:3 92:4 94:21 100:5 107:3 113:1,14 114:5 114:15 115:12
disclosures 8:18 27:17,22 44:7 57:20 59:18 60:11 65:8 68:3 73:11,16 87:14 94:11,19 112:17
discreet 110:16 111:21 112:2 112:12 113:12 114:8
discrete 113:13 114:12,19,22 115:11 117:9
discuss 93:17
discussed 40:3 65:22 81:16 86:1
discussing 45:18 55:3 58:7 74:7
display 40:6 44:21 69:2 79:22 80:1,9 81:21 87:12 90:21 91:2
displayed 21:14 68:18,22 90:12 108:20 108:20
distinction 84:22 85:1 117:2
distinguish 116:3,12
distinguished 116:20
distribution 61:4,18
district 1:1,1 118:20
division 1:2
document 7:17 7:19 77:2
documents 6:14 20:10 21:13 40:4,6,8
doing 45:14 48:5 57:1
downloading 61:5,18
dr 4:8 35:8
duly 4:4 97:6 118:5
dynamically 52:16

e

e 2:1,1 3:1 4:1,1 45:17 97:1,1 121:3,3,3
e.g. 42:21
earlier 37:4 40:3,9 46:14 73:9 108:1 115:22
effective 64:17

effort 4:21
either 38:7 68:2 97:15 107:8 108:2
element 22:19
elements 26:17 43:19 44:8 88:8 90:12,17
eliminate 91:10 91:12,14,19,20 92:3,6,10 93:6 94:22 95:6,8 95:10,12 96:1 96:4 98:1 100:12 109:3 110:1,7
eliminated 98:7 98:20 99:20
eliminating 92:5 93:14 94:8,11,13,18 109:17
elimination 93:12,18 94:6 94:16 106:4 109:12,14
embedded 16:8 17:22
embodiment 81:5
embodying 61:4,17 62:7
employed 118:11,14
employee 118:14
enable 100:21
encoding 54:6 55:1,13,17
endeavor 4:22
engine 54:15 76:11 97:21 100:12 109:21
engineer 56:4
engineering 44:2
engineers 19:20
engines 74:11 74:16 75:1,8 75:12,16,18 76:3,14
english 33:4
enters 54:16
entire 102:19 110:20
enumerated 87:4
envisioned 43:2
equally 73:8,17 73:21
equating 94:17
equivalency 92:1,2,9
equivalent 72:6 116:10
erick 1:17 118:2,19
errata 119:7 120:11,14,16 120:17
especially 81:13
esquire 2:3,8 120:1
essentially 80:6 103:15
evidence 20:22
exact 4:12
exactly 95:9
examination 3:2 4:6 97:5,8 117:14
examined 4:5 50:10 97:6 119:3
example 13:5 16:9 22:7 23:12,14,17 26:17 28:19 29:13 30:5 32:2 35:17,19 42:15 44:22 46:22 47:22 48:17 51:2 62:11,12 64:6 64:10 66:22 70:5,8,11,13,17 71:1 75:10 76:22 77:1,2 77:19 81:4,20 82:11 87:12 88:19 92:15 93:1,13 98:4 98:21 99:21 100:18 103:1,4 103:21,22 104:4,5,9,17,21 105:1,1,7,7,22 106:3,3,6,12,15 106:15,21 107:1,2,4,12 109:13,16 110:5,8 112:2 113:8,10 114:8 114:12,22 115:1 116:7,8 116:10 117:3,4 117:6,12
examples 49:13 68:7 91:4 92:4 93:11 94:8,10 94:13 95:19,20 104:14 106:2 106:13 107:20
except 34:2
exclude 49:7 60:15
excluded 49:6 51:2
excluding 51:12 77:5
exclusively 105:22
excuse 64:12 83:6 85:11
executed 90:12

execution 45:19
exemplary 81:17
exhibit 11:7 17:3 32:3 38:17 54:10 58:12 69:17 71:11 82:19 97:16 101:17
expect 14:2,14 51:19 52:6
experience 23:8
experienced 4:18
expert 6:16,18 7:6 15:20 17:11 23:9 83:20 101:18 110:12
expires 118:21
explain 20:7,8 21:11 26:15 27:19 28:11 43:18 70:19 71:1 84:5 90:3 90:6 91:16 93:11 113:17 114:2
explained 22:15 26:16 29:19 30:17 34:10 42:12 59:20 73:14 87:5,7 115:22
explaining 30:10 43:6 90:7
explains 27:1 80:8 107:12 109:18
explanation 29:21 37:20
exploits 57:4
explorer 35:19 36:16
express 113:1
expressly 45:5 45:8
extensively 4:16
extent 19:7 58:19 59:9 60:1
external 107:6 107:18
extra 49:3
ey 71:1
eye 1:21

f

f 97:1 110:13
fact 56:8 101:6
fails 120:19
fair 57:8 73:6 77:15 94:15 95:22 107:7
fairly 66:17
familiar 77:16 78:22 79:7
far 33:10 46:10
farr 1:14 2:8
fashion 71:6
feature 91:18 92:14 93:1 110:22
fed 54:14
feel 85:6 86:10 86:11
fetch 20:10
figure 11:21 12:8 30:14,15 70:5 78:11 105:10
figures 30:5
file 14:16 24:19 37:9 39:19 40:13 78:5,12 78:15 79:10 108:17 113:21 115:14,17
filed 36:1,2
files 39:1,8,18 39:22 40:20,21 41:5,9 42:3,15 42:22 43:3,7 44:10,14 45:4 45:6,8 59:5 74:18,18,20 75:4,13 87:9 88:12 111:5,11 111:14
filing 64:17
fills 90:7
filtered 54:21 55:11
filters 54:16
finally 54:20
financially 118:15
find 5:11 38:17 82:20 108:5
fine 96:8,8
finer 82:13
first 4:4 12:15 32:4 38:13 42:20 46:8,8 46:20 54:15 56:11 66:12 78:22 79:20 93:16 100:19 108:7 112:5 114:20
flow 12:8
fly 67:11
focused 13:5,16
focusing 94:5
following 91:17
follows 4:5 97:7
footnote 61:7 61:11,20 116:2
foregoing 118:3,5 119:3
form 8:13 13:10 15:5 22:10 23:16 25:6 26:2,9 30:3 56:21

83:22 85:20 95:7 115:5 116:15
format 14:4 76:22 77:1,2 79:12 90:11,15
formats 9:21
formed 10:2,20 14:5 16:21 82:4 84:10 105:20
forming 24:11 82:16 83:12 95:3
forms 16:7
formulate 75:14
found 61:13
four 106:13
frame 36:6,11
framework 57:2
frankly 103:18
french 93:15
front 11:2 30:16 54:1 69:15 80:4
full 27:11 103:22 104:17 104:21
functionality 73:19
further 28:11 29:21 30:8,21 33:16 34:11 53:15 54:5 90:3,18 91:4 93:20,21 94:13 97:7 103:10 104:12 105:7 111:13 112:20 113:8 114:2 118:13
furthermore 26:22
future 48:5

g

g 4:1 106:21
gallagher 1:14 2:8
gap 90:7
general 14:1 19:3 21:1 22:12 53:8 80:20 98:14
generally 15:15 16:4 19:10 27:15 39:13,20 40:2 44:20 47:3 51:5 52:13 53:11 84:14
generate 44:19 45:13 47:6,15 49:2,15,18 52:16 54:1 56:17
generated 45:6 45:8,19 46:18 47:4 49:12,14 49:16,19 51:6 52:22 53:18 54:3,14 68:19 113:21 114:17 115:14,16
generates 56:19 57:14
generating 51:15 88:6 111:11,12
generation 50:7,15,21 51:4 53:12
generic 100:22 110:19
getting 105:18
gif 70:10
give 25:18 33:16 48:8 52:12 69:11,17 69:22 71:9 109:13
given 35:10,11 43:9 49:13 101:3 118:10 119:5
givens 48:11
gives 116:6
giving 13:22 19:3 20:22 48:19 53:8 63:18
go 4:16 5:19 40:4 58:14 59:2 76:7 95:16 113:17
goal 101:10
goals 100:18
goes 11:20 38:21 108:10 109:3 117:11
going 7:4 8:2 10:7 17:3 32:3 47:10 49:1 67:10 71:9 79:8 102:17 103:10
good 4:8 5:11 34:22 35:2 65:16 75:14 96:10
gotv 1:3 120:4 121:1
ground 73:1 112:21
guess 49:16 57:12 78:21 79:3
guide 5:16
guidelines 5:15

h

h 114:17 121:3
hand 17:3 32:3 107:15
handed 74:3
handing 11:6 54:10
happen 49:9 53:13,13

happened 75:20
happens 23:20 30:18 52:17
harder 58:5
hardware 64:5
hariki 7:13,18 7:20 8:7,10,13 8:17 16:17 26:17,22 27:18 28:1,5,16 29:10 30:4,10 30:16,18 35:17 35:20,22 36:14 38:5 40:17 41:3,18 43:2 43:10 44:4,18 44:20 45:4,7 58:22 59:18 60:11 61:21,22 63:10,18 64:11 64:19,20 65:6 69:12,16 70:1 70:5 71:1 72:17,20 73:2 73:7 76:13 77:6 79:12 84:6 85:11,17 86:5,7,10,15,17 88:1,2,6,17,21 89:9,16,21 90:2,6,19 91:5 91:17 92:13,21 110:21 111:10
hariki's 27:17 28:8,12 41:8 59:11 69:8 73:10,16,20,22 74:11,16 75:1 76:12 86:4,8 86:18
harikis 69:21
harris 8:3,5,7 8:20,21 9:5,7 9:11,14,16,18 10:8,17 12:5,6 13:13,15,20 14:3,15 15:2 38:6 40:16,19 41:3,19 42:2 42:11,20 43:2 43:6,10 44:5 45:12 47:3 49:6 50:6 51:1 51:3,10,17,22 52:11 53:7,21 54:4,13 55:2 57:1,3,16 58:7 64:21 65:6 68:20 72:21 73:3 77:1,2,5 84:6 89:16 90:7 91:18 92:14,15,22 93:1,8,10 94:12,21 95:11 95:19 102:7,15 102:19 103:2,3 103:22 104:18 107:20 108:3 110:22 111:10 113:15,15
harris's 9:1
hdml 42:13
head 43:21
headers 22:1 50:9
heading 24:1 83:2 110:13
hear 88:13
heard 28:21
help 115:19
helps 27:10
hereto 118:15
high 9:17 19:4
highlighting 69:20
history 24:20
hmm 49:1
hold 71:8
horizontally 80:9 81:7,12 81:21
horse 51:14
hour 34:19 65:15 96:7
houston 2:5
html 9:22 10:9 10:10 13:6,8 13:10,17 21:5 21:7,8,11,16,19 22:7,8,9,13 23:2 37:19 39:1,8,14,18,22 40:13,20,21 41:5,9 42:3,13 42:14,15,22 43:3,7 44:10 44:14,19,21 45:1,4,6,8,13 46:1,6,7,13,16 46:18,21 47:4 47:6,15 49:11 49:14,15,16,18 49:18 51:6,20 52:1,17 53:1 53:15,17,18 55:8,21 56:18 56:19 57:10,15 57:20,21 58:8 59:5 62:19,20 63:13,15 74:20 75:4,7,8,10,10 75:17,18 76:1 76:3,12,14,17 76:21 77:11,14 77:16 78:22 79:2,4,7,9,14 87:9 88:12 94:20 111:5,11 111:13 112:3,6 112:18 113:4 113:21,22 114:17 115:8,9 115:14,16
http 20:2,4,5 20:12,13 21:16 21:21 22:6,14 22:16,19 23:5

46:12,16 50:8 50:9,16,20 51:5 52:21,22
hypertext 21:12
hypothetical 46:4 48:12,19 48:19 49:19

i

idea 43:20
identical 95:4
identification 112:14
identified 44:9 44:13 45:22 74:11 104:1 111:5,13
identify 57:13 73:19
image 70:6,9 70:10,14 75:13 76:4,22 77:1,7 87:12 102:14 105:2,6,9,10 106:1,21,22 107:1 108:20
images 75:4,11 75:17,22
imagine 19:21 46:4
implement 56:5
implementati... 14:21
implemented 21:3 38:16
implies 107:14
imply 67:20
improperly 98:10
inasmuch 37:9
include 21:21 21:22 22:6,19 23:1 40:11,13 102:19 111:14 111:14,19 112:4,8 113:21 114:18 115:9
included 12:7 98:22 99:1,9 99:10 100:1 108:16,21
includes 10:14 12:8 22:17 24:9 68:18 87:8 101:4 106:1,19 108:8 112:7 113:16 114:1 117:10
including 20:15 22:13 44:21 75:4,11 84:7 86:4 91:19 95:20 107:21 112:12 113:4,7
independent 60:14
infer 60:4,7
information 10:14 12:17 23:15 40:11 62:9 79:21 82:9 85:10 87:22 112:17 116:9
input 56:12
inserted 22:21
inside 106:14 106:16 107:21
installed 31:3
integrated 43:14
intention 73:10
interact 62:14
interaction 27:6 40:8
interested 118:16
interface 79:13 87:11 90:12,16 90:20
internet 20:10 35:19
interpret 8:10 8:21
interpretation 67:14
invention 24:19 81:18
inventor 8:2
inventor's 7:12
ipr 6:1,3,4,5 8:14 11:7,8 17:4 32:4,5 54:11 71:10,18 71:18 72:16 73:3,7,8,22 82:21 97:16 101:19
ipr2023-00757 6:3
ipr2023-00758 6:4
iprs 6:9,10,17 6:19 8:8,11,15 8:19,21 9:3
issuing 74:17
item 70:9,9 78:4,12,17,18 79:2,3,4,4,7 105:21 110:7
items 68:7 78:17,19 87:4 105:15

j

january 1:12 120:3
java 106:16
joke 4:15
joshua 2:3
july 36:1
june 118:22
jwyde 2:5

k

k 1:14 2:9
keep 17:5
kind 20:21 34:4 52:7,19 57:17 70:14 76:20,22 82:9 94:10

95:11 116:21
kinds 19:20 23:10,11 40:11 75:11 76:15,20 89:2 106:13
know 5:6,11 7:17 10:2,21 11:3,17 16:21 20:2 21:5 23:12,15 36:4 36:9,15 47:13 47:16,20 48:9 51:9 58:2,15 62:3,8,13,16 63:3 64:3,7,14 65:3 66:22 67:5 70:13 79:8 80:18 81:5 97:13 100:3,7 107:8 107:11 115:17
knowledge 69:9
known 113:6 114:1

l

l 106:21
labeled 24:1 78:12,16 83:2 104:9
language 10:9 12:10,11,14 13:1,2,6,17 14:19 21:12,12 23:2 33:4 37:18 47:11 55:8,16,21 66:18 93:3,5,9 93:17,19 104:15
languages 42:11
learn 44:6
left 12:14,20 81:9,11 99:15 106:17
legal 1:21 120:22
level 9:17 19:4 53:6 54:21 55:11 110:16 111:14,19,21 111:21 112:3,8 112:12 113:13 114:9,13 115:4 115:7,12,18 116:4,7,10,12 116:17 117:9 117:12
library 32:15 32:16
light 24:19
likely 12:21
limit 81:17
limitation 24:4 24:13,14 25:1 25:4,10 26:18 27:12 28:6,9 29:9 33:13,15 33:21 45:18 59:11,22 60:5 65:20 70:21 71:17,22 72:8 76:11 83:5,14 83:15,18 84:7 85:18 87:6 91:9 93:6,6,12 93:19 94:7,21 105:16 109:3 110:14 111:6
limitations 33:12 34:15 43:11,15,19 44:8 57:5
limited 75:9 81:11,17
limits 68:5 82:5 84:4 91:15 95:8 96:1
line 32:9 80:8 81:9,15 97:18 100:20 104:8 108:5 109:18 115:21 121:4,7 121:10,13,16
links 44:22 74:18
listed 37:3
literally 105:12 106:8
little 58:5 65:22
llc 1:3 120:4 121:1
llp 1:14 2:8
loaded 37:11
locate 32:13
locates 33:5
location 1:14 112:9,13,19 113:8 117:10
locations 113:5
logical 54:17
logo 105:3,6,9
look 11:9 26:20 33:11,20 40:14 44:3 70:4 74:6 77:18 78:4 85:6 86:9,9,11 88:2 103:22 104:16,21,22 106:5 108:3 116:6
looked 72:20
looking 33:6,22 34:20 45:2 50:1,2,4 58:11 68:19 74:5 97:12 108:17 109:15 111:16
looks 44:3 55:18 71:19 79:13 110:5
lost 103:18
lot 39:16 58:1 63:19
low 110:16 111:14,19,21 111:21 112:3,8 112:12 113:12

114:9,13 115:3 115:7,12,18 116:3,7,10,12 116:17 117:9 117:12
luncheon 96:13

m

m 1:17 118:2 118:19
made 19:13
main 2:4
make 4:20 15:12,22 17:5 18:13 23:12 40:3 46:12,16 48:3 66:3 67:14 71:17 76:19 78:10 101:5
makes 18:20 19:7 22:18 28:22 29:22 30:6 40:10 88:21 114:19 115:3
making 63:7
managing 57:17
manner 24:7 25:12,15 28:2 28:7 29:14 35:14 66:2 85:18
manufacturer 85:8 86:12 87:20
manufacturers 90:9
map 95:10
mapping 111:20
marked 17:4
markup 21:12
marshall 2:8 11:10 15:5 17:7 22:10 25:6 26:9 30:3 32:6 35:4 56:21 65:16 69:19 70:2 71:12 83:22 85:20 96:6,10 115:5 116:15 117:15 120:1
matter 32:5
matters 107:10
mcf 46:5,17 47:10 49:10,11 50:10,20 51:14 51:19 52:10 56:17,19,22 57:4,8,14,16,20 69:7 93:2 106:10 108:8
mean 12:20 25:4,14 27:16 32:22 33:9 36:12 37:17 43:16 55:18 78:7,8 80:12 98:19 99:2 105:14 109:8
meaning 24:17 25:9 26:5 66:6 67:4 72:5,10 72:13 80:19 83:21 91:12
means 25:19,22 26:7,14 27:14 33:19 34:4,8 38:14 65:22 66:10 67:8 84:14 91:21 92:6 98:21 109:6,11
mechanism 52:9,21
meet 43:10,14 59:11 60:5 93:12
meeting 93:5
meets 15:14 16:2 24:12 28:5 59:21 60:3 83:13 93:19 94:6 95:12
mentioned 12:15 28:10 37:21 40:9
message 32:12 88:15
microsoft 36:16,17
middle 108:6
mind 38:12 57:19 69:2
minute 30:17
mischaracteri... 66:5
misheard 111:4
missed 39:3 58:4
missing 92:16
mobile 9:15,22 10:18 11:5 13:14 14:2,11 14:15,18,22 16:13,16 27:2 27:8,9,20 37:18 39:10 40:20,22 41:5 41:20 42:4,16 42:22 43:8 45:5 50:9,16 50:20 57:1 58:21 59:4,6 59:10,19 60:10 60:14,18,20,21 60:22 61:5,18 62:2 63:8 64:15 65:1 75:6 85:10 87:22 88:8 89:17,21 90:9 90:13,15 91:5
model 90:9
moment 16:12 31:20 68:20

85:1
morning 4:8
motivated 41:18 44:6
motivation 89:15
multiple 42:21 55:19 115:1

n

n 2:1 3:1,1 4:1 97:1,1,1
n.w. 1:14
name 7:12 8:2
naming 35:21
necessarily 81:6
necessary 95:5
need 5:10 60:9 62:3,8 76:3 92:11 100:20 106:2
needed 48:6
needs 80:22
negative 59:16
neither 118:10
netflix 1:6 120:4 121:1
netflix's 6:1
network 61:5 61:19
never 99:2
new 67:14
non 34:5
normal 39:21
northwest 2:9
notary 1:17 118:1,19
note 5:14 102:16 120:10
novice 4:14
number 7:5,17 7:22 21:22,22 30:10 42:11 54:18 55:6 63:21 89:2
numbers 6:6 108:6
nw 1:21

o

o 3:1 4:1 97:1,1 97:1 106:21,21
object 15:5 26:9 30:3 34:5 56:21 83:22 85:20 115:5 116:15
objection 22:10 25:6
objects 74:19 112:9
obviously 4:18 68:3 69:4 107:11
occur 12:2
occurrence 23:9
occurs 56:2
offer 26:12 67:11 82:3 84:2 91:13,22 92:1,8 116:16
offering 26:11 96:1,3
officer 118:2
oh 39:3 69:19 92:19
okay 5:5,8,12 5:13,19 6:11 8:7 11:18 23:21 38:20 39:6 45:15 46:3 49:4 50:4 54:10 58:10,17 65:14,15 67:16 67:19 74:3,9 77:20 78:3,15 79:2 82:19,22 83:4 85:4 91:20 93:16 94:1 96:5,11 97:11 101:20 101:22 104:21 110:11 111:5 117:13
once 54:13
ones 36:22
open 71:9
operate 43:22 53:22
operating 36:19 85:8 86:13 87:21 88:19 89:7,11
operation 39:22
opinion 8:13 9:16 10:3,20 10:22 11:1 13:22 14:5,7 15:3,10 16:22 17:16 19:9 23:19 24:11 25:3 26:13 27:10,11,13 28:1,4,9 29:21 31:6,7,14,15 33:9 34:10,13 43:9 47:8 59:15,16,17,20 64:16 66:3,10 67:14,16 68:1 70:19 71:21 75:17 82:5,12 82:14,15,16 83:12,20 84:4 84:5,10,14 85:21 87:5 89:15 91:11,17 92:2,9,11,13,21 94:3 95:4 96:1 102:2 103:9 105:21 110:21 111:9 115:9 117:1
opinions 12:6 60:15 82:18
optimizations 48:4

option 51:11
order 50:10 55:12 62:1 76:3 113:19
ordinary 13:3 25:5,9 26:5 54:22 55:22 64:17 66:6 67:3 72:5 80:14 100:6
organized 17:6
original 12:22 99:8
originating 22:3
outcome 118:16
output 56:11 90:21 91:2
outside 15:15 33:12 107:22
overall 55:19 57:17 86:4 100:17,18
overlap 13:11
overview 12:5 86:5
own 19:13 89:8
owner 58:20 60:1

p

p 2:1,1 4:1
p.m. 96:12 97:2 117:16
package 27:1,4 27:8,19 28:5 28:13,18 29:1 29:5,16,19 30:1,7,21 31:2 31:11,11 62:4 71:2 79:9,13 85:7,14 87:3,8 87:19 88:18,22
packages 61:3 61:17 62:7
page 3:2 11:16 11:20,21 17:11 22:9,17,18 23:3,4,21 26:21 28:19 29:11 30:19,19 37:11 38:16,18 38:21,22 39:5 40:14 41:15 42:19 45:3,15 46:21 48:17,22 49:2 50:2,4 58:13 61:6,10 65:20 71:8,15 74:4,6,14 77:18 78:1,11 79:16 83:1 85:3,5 89:13 91:8 92:12 101:21 102:15 103:19,21 109:1 110:11 110:15 111:6 111:12 113:11 115:19 121:4,7 121:10,13,16
pages 22:4 39:9 39:14 42:21 45:1 46:1,21 48:21 119:3
painting 51:7
palm 42:14
paragraph 11:16,19 12:1 12:4 16:10 17:10,12 18:6 20:8 21:11 26:20 28:11 29:3 38:18,21 40:14,15,18 41:14 42:13,18 45:3 50:5 54:12 57:3 58:12,15,19 59:14 70:21 74:5,13 81:14 85:2,12 86:6 88:1,20 89:12 90:6,18 92:12 93:7,8 94:3 97:20 98:14 100:8 101:21 102:7,15 103:6 104:3,7,13,22 106:12 107:12 108:2,6,18 109:17 110:20 110:21 111:2,9 111:16 113:11 113:14 116:2
paragraphs 27:11 86:2 87:6 90:4 91:17
parse 75:8,13 75:18 76:3,12
part 7:2 10:13 12:4,8 17:22 18:7 38:2 44:12 45:19 57:9 65:2 74:7 86:18 93:16 102:16 107:15 117:4
particular 14:21 26:13 40:22 42:16 43:16 44:2 48:1 54:6 62:2 62:18 65:21 70:12 81:4 95:21 97:16 107:22
particularly 58:12
parties 118:12 118:15
parts 57:13
pass 117:14
patent 6:2,3,4 7:5,7,8,14,22 15:16 32:4,19 58:19 60:1 72:1,2,14,14,17

72:18 73:4,14 74:1 80:4,11 85:19 97:12 98:17 100:11 100:18 101:18 101:19 109:16 110:6 116:1,3 116:22 117:6,8
patents 7:4 72:10
pc 36:17
pending 5:17 5:18
people 19:19 23:11
percent 36:22 106:17,18
perfectly 107:9
perform 36:21 67:22 116:19
performed 36:7
person 13:3,7 25:5 29:9 44:4 52:2,5 55:22 62:11,13,15 63:7,8,20 64:3 64:7,8,12,16 65:1,7 76:18 100:6 107:7,16 112:5 113:3 114:16
perspective 37:14
petition 50:3
petitions 6:2
ph.d. 1:10 4:3 97:4 117:17 119:2,13 120:5 121:2,22
phone 31:4
phrase 46:15
physical 54:17 113:18
picture 51:8
piece 112:22
pieces 57:18
place 19:19
placeholder 105:11
places 40:5
plain 24:17 25:8,9 26:5 33:3 66:6 67:3 72:5
plainly 56:18
plaintiff 1:4 2:2 3:3 4:6 97:8
platform 36:17
please 5:6,10 11:9,17 15:8 17:10 23:22 32:8 40:15 41:15 42:5,7 42:19 45:15 52:14 54:12 65:10 71:8 74:4 78:2 79:17 83:1 85:2 89:12 91:8 101:21 108:3 109:2
plenty 57:20
pllc 2:3
plural 6:9
plurality 24:6 25:11 28:6 112:15
png 70:9
pocket 36:16 36:17
point 5:12 28:13 37:1,7 38:4,4 44:16 46:18 68:8 69:6 70:22 71:2 82:13 103:2 113:14
pointed 13:19 28:16 29:3,4 37:16 60:8,10 86:21 87:16 103:6 106:2 114:10,15 115:6
pointing 86:16 93:4,20 103:20 115:8,13,20 117:7
points 44:20
portion 98:8 104:8
posed 75:21
posita 16:18 24:18 27:3 38:16 39:1,7 41:17 43:17 74:15
position 113:18
possessed 102:12
possibility 49:6 77:5
possible 14:11 22:6,22 23:6 23:17 31:10,17 31:18 37:10,15 38:4,9,10 40:12 69:11 79:6 91:15
possibly 98:13
post 23:13
potential 48:5
practice 5:15
preceding 90:4
premarked 11:7
prepare 6:12
present 81:18
presentation 102:9,11 108:12
presented 61:20
pretty 19:3 36:18 37:5 77:15 80:17
previous 17:18 25:8 56:3

previously 97:6
primarily 51:17 76:13
prior 7:11,14 8:8 24:12 51:20 53:19 83:13 116:9
priority 36:1
probably 13:8 18:3 23:6 60:22 66:20 103:5,7,15
process 9:19 12:16 16:14 37:3,7,8,13,17 37:21 40:19 50:7,15 51:4 59:5,12 60:12 71:4 75:7,12 75:17 76:4,15 86:20 87:16 98:16 109:12
processed 55:16
processes 76:14
processing 54:5 54:21 55:11,20 75:3
produced 62:20
producing 58:8
productive 88:3
profile 70:8,12 97:22 98:11,12 109:4,6,9,11,14 109:22 110:6,9
profiles 70:6 90:8,10
program 15:15 16:3 74:19 83:9 86:1,20 87:17
programs 23:10 27:3,21 85:9 86:14 87:21
property 107:16
protocol 20:7,9 20:13
provide 26:3 35:17 62:2 100:21 112:17 112:20
provided 22:2 22:17
provider 62:1,3 62:6 64:14
providers 61:3 61:16
provides 99:17 103:3 112:22 116:8
providing 113:8
provisional 36:2
public 118:1,19
publication 7:15,16,22
purposes 15:1
put 25:21 52:7 52:10,18 82:13

q

quantitative 20:21
question 4:21 5:6,17,17,18 6:21 8:20 11:22 12:19 14:14 15:7,13 16:1 21:1 25:8 29:18 34:7 42:1,5,7 49:17 57:12 58:16 61:14 69:14 72:12 75:15,22 78:9 86:7 89:20
question's 80:11
questions 5:22 35:14 82:3 117:15
quickly 5:12
quite 98:13 113:5
quote 17:13 61:21 86:10 90:8,13,20 91:1 93:2
quoted 61:21 86:11
quoting 61:6 85:11

r

r 2:1 4:1 97:1 121:3,3
ram 52:3,10,19 53:3,5
rather 79:3,4
read 6:14 41:16 42:6,8 43:6 44:4 58:14 65:9,12 83:10 98:9 119:3 120:9
reader 74:12 74:16 75:2
reading 29:10 74:10 108:1 109:16 114:16
reads 24:4 79:20 83:5 110:14
really 23:18 32:2 103:11
reason 14:12 14:17 120:11 121:6,9,12,15 121:18
reasonable 18:4
reasons 14:21
recall 10:4 11:3 31:5,13 38:5 45:14 47:5,7 49:5 51:22

52:11 53:21 54:8 63:10,18 64:10 67:13 82:16 95:19
recalling 35:21
receipt 120:18
receipts 20:16
receive 76:4
received 47:22 88:15
receives 18:22 50:20 51:15
receiving 32:12
recess 35:6 65:17 96:13
recognize 11:12
recollection 9:13 14:1
record 35:5 42:9 65:13 118:9
reduced 118:7
redundant 51:14
refer 7:4,7,17 7:20 8:1,2
reference 7:14 8:5 45:12 54:4 72:17 104:18 107:1,17
referenced 74:12 76:1,16 106:1 108:22 120:6
references 7:12 106:20
referencing 107:21
referred 7:11 8:16,22 108:15
referring 6:9 7:8,13 18:8,11 19:6 42:2 55:7 108:14
refers 9:11
regard 37:22
regarding 5:22 6:2 12:6 24:11 35:9 67:16 71:10 72:16 73:4,7,8,20,22 83:12 85:10 87:22 93:2
regardless 63:17 100:22
related 48:16 48:22 60:11 70:20 98:6 118:11
relationship 33:14 34:4
relative 118:13
relatively 5:12
relevance 60:16
relevant 65:4 85:9 87:22
relied 10:19
relies 12:16
relieving 101:1
rely 15:1 41:8
relying 10:4
remember 6:6 7:16 8:4 23:1 48:11 54:4 58:7 65:21
remote 58:21 59:3,10,19 60:2,9,13,18,22
removal 93:4 94:6,15,18,19 95:5,12,20
remove 91:21 92:3 95:10
removed 93:3,9 93:17 94:4,5 94:12 99:3 102:3 103:10
render 24:7 25:12 28:7,19 29:12 66:1 70:14 74:22 111:15
rendered 25:15 28:2 30:19 39:9
rendering 24:6 25:11 28:7 29:14 74:20 79:21 80:8 81:16 110:16 110:17 111:21 112:3,8,12,15 112:15 113:13 114:9,13 115:7 115:13 116:4,5 116:7,11,13,14 116:17 117:9 117:12
renders 29:11 71:5
repeat 15:7 42:5 61:14 78:9
rephrase 25:20
replacing 93:14
report 7:6 8:5 9:8 11:13 13:22 15:20 16:1 17:11 20:6 23:22 38:18 41:10,11 49:21 50:1,5 58:11 65:21 66:14 71:10 73:20 74:3,10 79:17 82:17 101:18 109:2 110:12
reported 1:17
reporter 1:17 5:1 42:8 65:11 65:12
reports 6:16,18 7:1,3
represent 35:22 113:19

request 16:13 18:21,22 22:6 22:7,16,18,20 23:5,13 40:10 40:11,13 45:1 46:13,16,17,20 47:7,14,15,18 48:1,2 49:2,11 50:8,10,16,20 51:5,6,16 52:22 77:6 113:19
requested 32:13,15 33:1 33:5,7,9 42:9 46:9 48:12,17 65:13 98:1 100:12 110:2
requester 47:12 53:2,17
requesting 12:3 12:11 13:14,18 42:12 50:11 51:21 102:11 102:13
requests 18:13 19:8,8,13 20:14,15,16 21:21 30:6 39:18 40:3,4 46:6 48:5,22 99:7
require 68:6 81:6
requirement 94:14 95:12
requirements 54:22 55:12 112:18 113:2
requires 67:1 112:11
resource 70:6,8 70:11 90:8,10 101:14,16 107:6,18
resources 28:12,18,22 29:4,12 30:20 30:20 31:11,21 101:8,12 106:20
respectively 32:17
respond 52:22
responds 77:6
response 32:11 51:6 52:16,21
responsible 57:9
responsive 34:5
rest 27:22
restricts 81:6
retrieved 21:14 40:6
return 120:14 120:17
returned 12:11
review 6:16,18 11:19 120:7
reviewed 6:22 7:2
rgk 1:5
rid 92:7,10
right 6:7 10:17 11:6 19:19 24:21 35:5 41:7,12 42:10 43:5,12 44:16 45:11 46:2 47:13 48:14 49:7 50:18 51:7 53:10 55:9 59:7 61:1 61:11,13 66:8 67:18 69:3 73:5 81:10,12 84:12,16 93:22 96:3 97:19 102:17 103:18 104:11 106:5 106:18 110:10 111:8 114:4 115:16
roughly 74:14
rule 48:7
rules 5:14
run 46:3 64:4
running 16:13 16:16 17:1 18:2 35:18 52:15 53:4 60:21

s

s 2:1 3:1 4:1 97:1,1,1 121:3
saying 26:4 27:7 29:2 32:20 34:1 38:9 43:1 47:19,20 49:14 49:17 51:13 54:13 59:8 60:4 84:19 85:14 88:13,17 93:18 94:6,18
says 17:13 25:11 33:4 35:20,20 39:7 40:19 41:11,11 41:17 42:20 49:1 61:22 80:1 81:8,15 84:17 85:6 89:5,9 92:21 97:20 98:11 100:20 102:8 103:8 107:12 108:4 109:21 111:2 117:8
scenario 19:1 38:3 46:10,19 47:2 49:12 50:19 51:2 62:15 63:1 70:20
scenarios 68:11

scope 81:17
scratch 49:22
screen 80:1 82:10 112:9 113:18,18 117:11
screened 112:14
scroll 81:1,22 82:10,12
scrolling 80:9 81:7,11,21 82:8
second 11:19 16:6 38:2,14 50:3 55:16 56:12 61:10 74:14 104:6,8
section 20:5 21:8 24:3 26:16 45:17 74:7 83:4 86:5 87:6 104:6 110:14
sections 12:7
see 11:12 14:12 14:17 17:12,15 24:1,22 25:10 32:10,18 34:18 39:11 40:15 41:1 44:5 45:17 50:12 54:13 57:20 58:18 59:1 76:11 77:4 78:4,6,13,16,19 79:11,19 80:2 83:2,17 85:12 89:14 97:19 98:8,14 100:4 100:9 102:1,4 105:2 108:4 109:2 110:13 114:10
seem 11:14
seems 29:17 49:16 101:9
send 43:7 75:4 101:7
sending 9:15 10:10 40:20 41:8,19 45:4 51:21 83:7 89:17,22 91:5 101:8,15
sends 16:13 75:10 90:3
sent 39:2,8 63:5 63:13 99:10,12 99:15 101:13 120:15
sentence 34:1 40:18 41:17 42:20 43:6 45:3 74:14 81:14 85:5 93:11 94:2 100:19 101:11 103:6,8 109:20
sentences 90:5
separate 19:16 19:17 20:18 21:3,4 64:2
separately 76:2 76:16
serve 71:4
server 16:14 18:8,11,13,14 18:17,21,21 19:3,8,10 20:1 20:6 21:9 23:13,15 27:5 27:6 32:12 33:4 39:2,8 40:1,10 41:4,9 42:3 43:3 44:14 46:8 49:1 50:7,16 51:8 52:15 53:4 59:5,12 60:3,11 62:18 62:21,22 63:5 63:14,17,19 64:1,2 65:2,5 68:14 70:18,20 71:3 75:3 76:2 76:19 86:19 87:9,15 88:12 98:4 99:5 109:19
servers 18:16 19:14,15 20:11 20:18 21:2 22:13 39:13,16 40:5 48:3 52:13 53:9,11 53:22 62:13 63:8,22 64:15
serves 59:5
serving 42:21
session 97:11
set 54:16 112:11
sets 44:7
sheet 119:7 120:12
sheets 54:19 55:6 103:9
shk 1:5
short 9:12
show 68:3 87:14 92:3 93:11 102:14 112:22
showed 26:17 68:2 95:10 116:9
showing 12:9 95:2
shown 102:16
shows 30:21 70:5 106:13 110:8 113:15 114:2,5
side 71:16,16
sign 120:13
signature 118:18

signed 119:7 120:20
similar 56:3 82:2
similarly 72:20 84:13 92:8
single 88:19 115:11
sir 29:18 34:7
sitting 11:2 31:20 36:15 66:15 67:15 79:11
situation 23:14 60:12
size 112:13 117:10
skill 13:3,7 25:5 29:9 44:4 52:2,6 55:22 63:20 64:3,17 65:7 76:18 80:14 100:6 107:7,16 112:6 113:3 114:16
skin 62:10,16 63:2,3,4,12 64:7 69:6,7 86:19 88:7 89:6,10 90:20
skins 61:4,17 62:7
slight 73:12
slightly 73:15 75:21
smarshall 2:10 120:2
software 19:20 53:12 100:21 101:1
solely 57:14
solutions 1:21 120:22
somebody 38:9
someplace 113:6
sorry 9:20 26:21 27:5 39:3,5 51:14 61:10 69:17 76:9 77:1 78:9 82:13 86:10 92:16 95:15,16 114:7
sort 51:20
sound 90:21 91:2
sounds 6:7 26:10 49:20 65:16 66:18 67:2,2 91:1,4 96:10
source 105:2
sources 22:3
space 99:22
speaks 89:8
spec 80:5,6
special 14:10
specific 10:2 11:3,4 12:10 12:14 13:1,2,6 13:16 15:14 16:21 26:8,14 27:1,8,14,20 31:5,13 33:13 33:15,21 34:13 35:18 37:18 41:20 42:2 47:11,17 55:8 55:15,20 57:7 63:19 64:6 66:19 67:3 68:21 69:2 71:1 79:12 80:18 82:5 83:9,17,21 84:3,4,11,14,17 84:20 85:7,15 85:17,22 86:12 86:19 87:3,15 87:19 88:11,19 88:22 89:7,10 89:17,21 90:14 91:5 95:11 97:22 98:12 100:16 103:4 105:20 112:11 113:20 114:15 114:21
specifically 38:6 44:17 46:20 47:7 51:10,22 52:11 54:8 63:10 66:13 79:19 84:21 95:3 105:14
specification 24:19 32:11 112:13 113:20 117:10
specified 47:1 100:2,4
specifies 56:13
specify 90:10 113:5
stacks 17:5
stand 50:14
standalone 18:2
standard 31:21 63:22 79:2,4,7
stands 89:8
start 6:21 51:15 58:18 64:13 83:6 85:16 92:20 97:11
started 56:7
starting 32:9 78:17 80:7 81:8,14 97:18 100:20 106:16 109:18
starts 17:12 91:9 108:7
state 111:8
stated 49:21 101:11

statement 50:14
states 1:1
stenotype 118:7
step 32:12 55:7 56:1,2,6,7,11 56:12
stephen 2:8 120:1
steps 12:1 55:19
sticking 62:12
stock 82:9
stopping 5:11
storage 51:20 52:4,7,19 53:3 53:13
store 53:4
stored 52:1,3 52:18 53:14,16
straightforward 14:19 37:5
stream 54:14 54:15,20 55:10 56:8,11
streamed 56:7
streaming 1:3 120:4 121:1
street 1:14,21 2:4,9
strike 85:15
string 104:4
structure 52:20
structures 18:1
style 9:19
stylesheet 94:4 102:5,16,22 103:2,4 108:9 108:9,11
stylesheets 9:20 9:21 10:15,15 12:17,18 102:2 102:6,8,10 103:13
subject 32:5
substance 35:10
sufficient 30:2 95:5
sufficiently 91:16
suggest 35:14
suite 1:21 2:4
summary 12:5 100:19 101:11
support 27:10 28:1 63:15 101:7,9 112:18
supported 98:2 100:13 110:2 112:10
sure 12:19 15:10,12,22 32:2 34:22 35:4 36:12,16 36:22 47:9,13 48:9 54:8 61:15 65:11,16 66:3,19 71:17 78:10,11 88:15 95:18 96:9 99:18 100:7 104:3
switching 61:1
sworn 4:5 97:6 118:5
symbian 36:20
synonym 25:18
synonymous 84:11
syntax 110:18
system 43:17 43:21 44:2 57:17 61:2,16 65:3,3,6 85:9 86:13 87:21 88:20 89:7,11 101:6
systems 19:21 36:20 43:14 64:21

t

t 3:1,1 97:1 121:3,3
tag 79:2,5,7 106:11 112:3
tags 54:17,17 78:22 79:14 93:2,5,8,17 111:14,19 112:7
tailor 101:2
tailored 40:21 42:16 67:7,8 84:15
tailors 102:10
take 5:16 11:9 11:19 34:21 64:6 88:18 96:11 104:16 113:10
taken 96:13 118:3,6,13
talk 103:13 104:13 113:6 113:11
talked 6:14 76:21 84:2 90:1
talking 6:9 16:11 19:15 68:12,13 103:11
targeting 54:6
taught 9:5 28:5
tautological 49:17
teach 9:15 27:17 43:18 44:7,18 95:1
teaches 32:11 88:1 95:2 116:9
teaching 13:13 55:14 93:21 100:11

teachings 43:18 97:17
technical 14:12 14:17 37:14
technically 23:1,6,6 40:12 48:8
technologies 77:13
technology 9:6 18:7 22:13,20 37:5 51:8,9
tell 25:21 33:21 55:14 58:4,5
template 50:6 50:15,21 51:4 97:21 98:7,20 98:22 99:2,3 99:10,12,15 100:11 109:21
templates 99:6
temporary 52:3
term 15:14 16:3,19 25:14 26:3,15 34:14 66:16,17,21 67:12,15 80:18 80:21 81:3,20 82:4,7 84:3,7 91:14 92:3,9 95:8 96:4 105:15 109:10 116:17
terms 19:2,3 72:4,5,6 84:2
testified 4:5 97:7
testimony 5:15 35:10 118:4,6 118:9 119:4,5 120:9,18
texas 2:5
text 22:2,17,21 80:9 81:21,22 82:8 93:13,14 105:22 106:3,6 106:6,10,21 107:4,4,11,14 108:19
thacker 1:17 5:2 118:2,19
thank 17:7 29:22 32:6 69:15 70:2 78:8 103:17
thanks 11:10 71:12
thing 7:21 21:16,18 26:14 27:14,16 41:16 53:14 84:15,19 98:10 114:21
things 14:1 30:11,18 39:16 39:17 40:7 57:1 63:14 87:10 89:1,4 113:5
think 7:2 8:18 9:8,9,17 10:7 10:13,19,19 12:16,20 13:5 13:7,19 14:5,9 14:10 15:6 16:4,15,22 18:3 19:2,9,17 19:18 20:20 22:5 23:5 25:8 26:13 27:10,15 27:18 30:7,15 31:19 32:21 33:3,13 34:1,3 34:10,16 35:20 36:7,21 37:4,6 37:10,15,15 38:1,3,5,14 39:16 40:2,12 41:7,11 42:10 43:5 44:16,20 45:10 46:2,11 46:14,19 47:3 47:8 49:5 50:18,22,22 51:5,7,17 52:1 52:5 53:6,20 53:21 55:4,9 56:4,13,14 57:8,16 59:7 60:21 62:8,15 63:11,20 64:1 64:3,5,19 66:8 66:12,12,17,20 67:12 68:2,10 68:19,22 71:21 72:3,19 73:9 73:15 74:2 75:12 76:10,13 76:18 77:4 80:5,17,19 81:3,19 82:4,6 82:11,14,19 84:21 86:3,8 88:3,4,21 89:7 89:8 90:1 93:22 94:2,12 96:6 97:14,15 98:9,11,18,21 99:4,4,17 100:1,16 102:18 103:3,7 103:14 104:3 105:6,20 106:12 107:3,7 107:10,17,19 108:1,4,15,19 109:10,10,15 110:10 112:5 113:6 114:21 116:21
thinking 10:16 17:21 38:12 41:12 68:20,20 84:22
third 104:7
thirds 102:7
thought 31:20 95:16 114:7,8
three 6:18,19 7:5 8:19 9:3 27:11 73:12

78:17
ticker 79:21 80:3,8,15,17,22 81:19 82:1,4,7 82:9
time 1:13 6:21 6:22 24:18 35:1,2 36:5,10 46:8,9 48:4 49:3 52:17 55:16 120:19
timeframe 120:8
times 4:11,13 106:19
title 90:22 91:3
today 5:22 14:7 31:8,16,21 36:9,15,21 66:15 67:15,17 73:7 79:11 82:18 92:11 96:2
together 21:18 43:18 44:5 63:6,14 64:4 64:22 71:4 87:10 103:14
told 59:15
tool 69:8
top 38:22 39:5 39:5 42:19 102:14
topics 61:1
towards 98:10
trace 99:14,21
transcript 120:6,20
transcription 119:5
transformation 9:18
translate 12:2 37:18 47:10 106:11
translated 12:10,13 54:18 55:5 104:5 107:5,6,13
translates 10:9
translating 55:7
translation 10:14 12:16 54:15,19 55:6 55:15 94:20
transmission 10:5 41:12 53:19 88:12
transmissions 20:14
transmit 20:12 21:19 22:16 23:11 39:18,22 46:12 53:16 54:2,3 77:3
transmits 23:15 41:5 42:3 76:21
transmitted 9:22 10:3,18 11:4 13:16,21 23:16 52:8 53:1 75:5 76:1 76:16
transmitting 21:21 39:14 41:9 43:3 44:10,14 77:7
trial 5:15
true 38:14 45:7 72:8 73:8 84:9 111:17 118:9 119:4
try 5:11 44:1 56:18 68:4 70:1 91:14
trying 48:3,8 105:10
turn 11:16 17:10 23:21 32:9 38:18 41:14 42:18 45:15 54:12 58:10 71:8 74:4 79:16 83:1 85:2 89:12 91:8 101:17 109:1 110:11
two 43:13 44:7 48:21 60:14 73:17,18 87:10 90:4 102:7
tx 120:16
type 27:20 50:11 62:3,10 62:13 85:7 86:12 87:19 101:1,3 116:4 116:13
types 57:5 101:6
typewriting 118:8
typically 21:20
typo 102:18 103:15

u

u.s. 6:2,4 7:8,14 7:22
ui 27:1,19 28:4 28:13,18,22 29:5,22 30:7 30:20 31:2,11 61:2,4,16,17 62:4,7,10,16 63:2,3,12 64:7 64:12 69:6,7 79:9 86:19 87:7 88:6,18 88:22 89:6,10
un 29:22
under 118:8
underscore 78:18
understand 5:5 5:21 6:8 7:8,13 7:19 9:4 14:3

14:11,15,18,22 15:12,22 18:19 23:9 29:10 32:19 42:12 44:6 46:10 52:2 55:2 56:1 59:8,13 63:12 63:21 65:7 73:10 76:19 88:17 91:15,16 98:16 107:8 108:13 109:5 112:6 113:4 114:17
understanding 9:10 10:12 13:20 21:2 22:12,20 26:15 53:8 56:15 64:20 72:4 73:16 80:15,20 87:2,18 100:10 105:15 114:14
understands 13:14 46:6
understood 8:18 9:2 10:6 13:18 15:7 24:18 25:14 27:4 39:1,8 74:15
united 1:1
use 28:22 30:2 31:10 46:16 77:11,14 109:8 110:9
used 8:7 20:9 20:14 21:17 36:14 53:16 62:17,17,18 63:3 66:6 69:10 73:3 82:7 99:6 101:15 109:12 114:8 120:20
useful 101:10
user 40:7 64:15 79:13 86:9 87:11 90:11,16 90:20
users 44:22
uses 28:17 29:12 30:19
using 7:4 33:3 54:18 55:5 63:8 64:8 65:1 65:4,5 67:13 85:17 109:3,5 109:13 110:6
usually 20:12 20:18 39:21

v

variable 52:20
variations 73:13
variety 112:7
various 22:3 23:16 76:15
vary 56:5
vendors 100:21 101:1
verify 120:9
veritext 1:21 120:16,22
veritext.com. 120:16
vision 43:13,20
visit 63:9 64:8 64:15
visits 65:2
vs 1:5 120:4 121:1

w

wait 39:3 92:16 92:16
walk 68:4,11 104:13
want 17:5 48:7 57:22 58:1 66:3,5 67:13 101:5 104:1
washington 1:15,22 2:9
waste 101:8
wasted 101:12 101:16
watch 34:20
wax 9:9,12,15 9:20,20 10:3,9 10:15,17 11:4 12:2,9,13,14,17 12:20,22 13:4 13:8,11,14,20 14:3,10,12,16 14:18,18,22 37:3,4,8,13,17 37:18,22 46:4 46:7,9,21 47:4 47:11 48:13,17 49:22 54:13,15 54:17 55:5,7 55:20 57:6,9 57:19,21 68:21 93:3,5,9,17,19 94:4,12,20 102:2,5,6,8,9 102:15,21,21 103:1,9,12,13 103:14 104:2,6 105:11,12 108:8,11,12,13 108:15,16 113:15,20 114:15 115:7 115:12
way 8:10,14 10:22 20:22 26:4 39:20 51:8,13 56:4 56:13,15 73:11 75:21 88:16 100:3 102:7 107:9 108:3
ways 23:11 53:22 89:9
we've 51:2 84:2 86:1 90:1
web 15:3,10,13 15:16,20 16:2

16:4,8,12,14,15 16:22 17:13,16 17:19 18:2,9 19:6,15,16,22 20:1,9,10,18,18 21:2,2,15 22:4 22:12,17,18 23:14 27:5,5,5 27:6 28:8,15 28:17,19 29:1 29:7,10,11,17 29:20 30:1,19 30:19 31:3,10 31:12 37:11 38:16 39:2,8,9 39:13,16,21 40:1,2,4,10 41:9 42:14 46:8 50:7,16 51:8 52:13,15 53:8,11 59:5 59:10,11,15,16 59:21 60:2,5,8 60:11,18 64:2 70:18,20 71:3 86:19 87:15
website 77:8,11
websites 77:12
wednesday 1:12
welcome 17:8 70:3 71:13 93:13 104:4 106:3,6,7 107:4,13
western 1:2
wide 112:7
wikis 23:12,17
willkie 1:14 2:8
willkie.com 2:10 120:2
wireless 9:4,11 10:1,4,10 13:18,20 36:14 43:3 44:10,13 57:6 79:22 80:2 83:8 97:22 98:2,3,5 99:7 100:13,14 100:22 101:3,5 109:19 110:1,3 110:4,17,18
witness 4:4 15:6 22:11 23:4 25:7 26:10 30:4 34:16,19,22 42:10 56:22 70:4 84:1 85:21 115:6 116:16 117:14 118:4,6,10 120:8,10,13,19
wml 42:13
word 24:9 34:12 71:20 91:12 94:5 95:9 108:8
words 24:13,15 24:16,22 25:22 58:1 83:14,17 95:1
work 14:1 18:10,15 21:20 48:5 51:9 52:13 53:9,11 64:22 71:4 75:2 101:5
worked 8:14
works 89:9
world 19:19
write 26:22 50:6 51:20 102:1
written 21:13 23:10 56:14,14 103:7,16
wrong 10:8 60:6 61:9 66:4 86:10 108:2
wrote 17:19 18:6 38:22 45:10 86:5 89:14
wyde 2:3 4:7 11:11 15:9 17:8,9 23:3,7 25:17 26:19 31:1 32:7 34:5 34:6,18,20 35:2,5,7 42:6 42:17 57:11 65:9,14,18 69:20 70:3,16 71:13,14 84:8 87:1 96:8,11 97:10 115:15 117:5,13

x

xml 9:5,12,19 9:19 12:9 13:10,11 14:19 37:5,7,9 79:15 102:19 106:15 106:16 107:14 107:21,22 108:17,21,22

y

yahoo.com 64:9
yeah 46:2 61:12 64:5 69:19 102:17 108:5 114:11
years 4:13
yesterday 7:3

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted

fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

Veritext Legal Solutions complies with all federal and State regulations with respect to the provision of court reporting services, and maintains its neutrality and independence regardless of relationship or the financial outcome of any litigation. Veritext requires adherence to the foregoing professional and ethical standards from all of its subcontractors in their independent contractor agreements.

Inquiries about Veritext Legal Solutions' confidentiality and security policies and practices should be directed to Veritext's Client Services Associates indicated on the cover of this document or at www.veritext.com.