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UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

- - - - - x
OXYLABS LT, UAB, :
Petitioner, : Case IPR2024-00126
v. : U.S. Patent No.
BRIGHT DATA LTD., : 11,616,826
Patent Owner. :

- - - - - X

Videotaped Deposition of JAMES OLIVIER, Ph.D.
Conducted Virtually
Monday, August 12, 2024
10:02 a.m. EDT

Job No.: 547750
Pages 1 - 86
Reported by: Debra A. Whitehead

1 Videotaped Deposition of JAMES OLIVIER, Ph.D.,
2 conducted virtually.

3
4
5 Pursuant to notice, before Debra Ann Whitehead,
6 E-Notary Public in and for the Commonwealth of
7 Virginia.

A P P E A R A N C E S

ON BEHALF OF PETITIONER:

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RAEHEL MEYEROWICH, A/V Technician

DAVE SULLIVAN, Video Specialist

C O N T E N T S

EXAMINATION OF JAMES OLIVIER, Ph.D.	PAGE
By Ms. O'Brien	6

EXHIBITS MARKED IN TODAY'S SESSION

(None Marked)

EXHIBITS MARKED IN PRIOR SESSIONS

(Not attached)

OXYLABS EXHIBIT	PAGE
Exhibit 1002	6
Exhibit 1003	16
Exhibit 1004	50
Exhibit 1005	11
Exhibit 1023	22

Transcript of James Olivier, Ph.D.
Conducted on August 12, 2024

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P R O C E E D I N G S

VIDEO SPECIALIST: Here begins Media

10:01:47

Number 1 in the videotaped deposition of Dr. James

10:01:47

Olivier in the matter of Oxylabs LT, UAB, versus

10:01:49

Bright Data Limited; in the U.S. Patent and

10:01:55

Trademark Office, before the Patent Trial and

10:02:03

Appeal Board; Case Number IPR2024-00126.

10:02:05

Today's date is August 12, 2024. The

10:02:14

time on the video monitor is 10:02 a.m. The

10:02:17

remote videographer today is Dave Sullivan,

10:02:20

representing Planet Depos. All parties of this

10:02:23

video deposition are attending remotely.

10:02:25

Would counsel please voice-identify

10:02:29

themselves and state whom they represent.

10:02:32

MS. O'BRIEN: This is Elizabeth O'Brien

10:02:32

of Cherian, LLP, representing Patent Owner Bright

10:02:36

Data, Limited. And with me is Tom Dunham of the

10:02:39

same firm.

10:02:42

MR. WALLIS: This is Chad Wallis,

10:02:43

representing petitioner, from Norton Rose

10:02:46

Fulbright. Along with me is Eagle Robinson. And

10:02:50

petitioner is Oxylabs, UAB.

10:02:55

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Oxylabs LT, UAB v. Bright Data Ltd.
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Transcript of James Olivier, Ph.D.
Conducted on August 12, 2024

6

1	VIDEO SPECIALIST: Thank you.	10:03:00
2	The court reporter today is Debbie	10:03:00
3	Whitehead, representing Planet Depos.	10:03:00
4	The witness will now be sworn.	10:03:07
5	JAMES OLIVIER, Ph.D.,	10:03:07
6	having been duly sworn, testified as follows:	10:03:15
7	EXAMINATION BY COUNSEL FOR PATENT OWNER	10:03:15
8	BY MS. O'BRIEN:	10:03:15
9	Q And with that, I believe we're ready to	10:03:26
10	proceed. Thank you, Dr. Olivier, for joining us.	10:03:28
11	Do you understand that you're here today	10:03:33
12	to testify regarding your declaration submitted as	10:03:35
13	Exhibit 1002 in IPR 2024-00126 of Patent Number	10:03:38
14	11,616,826?	10:03:46
15	(Oxylabs Exhibit 1002, previously marked,	10:03:46
16	not attached.)	10:03:46
17	A Yes, I do.	10:03:50
18	Q And during this deposition I may refer to	10:03:50
19	that patent as the '826 patent.	10:03:54
20	Is that agreeable?	10:03:57
21	A Yes.	10:03:57
22	Q I will be asking a series of questions.	10:03:59

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Transcript of James Olivier, Ph.D.
Conducted on August 12, 2024

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1	And to help the court reporter I will need you to	10:04:04
2	provide verbal answers to my questions.	10:04:06
3	Do you understand that?	10:04:07
4	A Yes.	10:04:11
5	Q Now, if I ask a question that's unclear	10:04:11
6	or if you haven't heard something, please feel	10:04:15
7	free to ask me to repeat or for clarification.	10:04:18
8	Okay?	10:04:20
9	A Okay.	10:04:23
10	Q From time to time your counsel may object	10:04:23
11	to a question, but unless you're instructed not to	10:04:27
12	answer, you still need to answer each question.	10:04:30
13	Do you understand that?	10:04:34
14	A Yes.	10:04:36
15	Q Now, because we are remote, if you refer	10:04:37
16	to any materials that we cannot see on camera,	10:04:41
17	please let us know what you are referring to so	10:04:45
18	that we can look at the same document. Okay?	10:04:47
19	A Okay.	10:04:50
20	Q And I will try my best to keep track of	10:04:50
21	time and to take a break every hour. But if you	10:04:55
22	need a break at any time, please do ask. Okay?	10:04:57

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Transcript of James Olivier, Ph.D.
Conducted on August 12, 2024

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1	A	Okay.	10:05:01
2	Q	And we provided to your counsel a link to	10:05:03
3		all of the exhibits that we may discuss today.	10:05:06
4		Do you have access to those exhibits?	10:05:09
5	A	Yes.	10:05:16
6	Q	Now, if you could please open up Exhibit	10:05:17
7		1002, which is your declaration, and let me know	10:05:19
8		when you have that?	10:05:23
9	A	I have it.	10:05:29
10	Q	To confirm for the record, this is a	10:05:29
11		declaration that you prepared and signed in	10:05:31
12		connection with your work in this matter.	10:05:33
13		Correct?	10:05:35
14	A	Correct.	10:05:37
15	Q	Sitting here today, are there any	10:05:37
16		corrections that you've identified that you would	10:05:41
17		like to make to your declaration before we get	10:05:43
18		started with questions?	10:05:46
19	A	Not that I can think of off the top of my	10:05:49
20		head. If I see any, I'll let you know.	10:05:53
21	Q	You previously offered testimony in	10:05:55
22		IPR2022-00687 regarding U.S. Patent Number	10:06:03

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1	11,190,622. Correct?	10:06:08
2	A Correct.	10:06:14
3	Q Do you stand by your testimony in that	10:06:14
4	case?	10:06:18
5	A Yes.	10:06:20
6	Q With respect to Paragraph 38 of your	10:06:20
7	declaration?	10:06:28
8	A Paragraph 38.	10:06:34
9	Q You cited Exhibit 1023, referred to as	10:06:35
10	The Definitive Guide in your declaration.	10:06:37
11	Correct?	10:06:41
12	A Hold on one second, I'm not at Paragraph	10:06:43
13	38 yet.	10:06:46
14	At 37 I started discussing the	10:07:02
15	~~HTTP-The-Definitive-Guide.~~	10:07:05
16	Q And in Paragraph 38 you cited Figure 6-12	10:07:09
17	in your declaration.	10:07:21
18	Do you see that?	10:07:24
19	A Yes, I do.	10:07:24
20	Q This figure shows a three-level proxy	10:07:25
21	hierarchy. Right?	10:07:29
22	A Yes.	10:07:33

1	Q	Do you agree that Proxy 1 acts like a	10:07:34
2		server with respect to the web client?	10:07:40
3	A	The client, it's not called web client on	10:07:49
4		the left, but the client on the left.	10:07:52
5	Q	Do you agree that Proxy 1 acts like a	10:07:57
6		client with respect to Proxy 2?	10:08:00
7	A	Yes.	10:08:03
8	Q	Do you agree that Proxy 2 acts like a	10:08:03
9		server with respect to Proxy 1?	10:08:08
10	A	Yes.	10:08:12
11	Q	Do you agree that Proxy 2 acts like a	10:08:13
12		client with respect to Proxy 3?	10:08:17
13	A	Yes.	10:08:20
14	Q	Do you agree that Proxy 3 acts like a	10:08:21
15		server with respect to Proxy 2?	10:08:26
16	A	Yes.	10:08:28
17	Q	Do you agree that Proxy 3 acts like a	10:08:28
18		client with respect to the origin server?	10:08:33
19	A	Yes.	10:08:37
20	Q	Do you agree that the origin server is	10:08:37
21		always acting like a server?	10:08:42
22	A	On this example it's only acting as a	10:08:49

Transcript of James Olivier, Ph.D.
Conducted on August 12, 2024

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1	server.	10:08:52
2	Q Do you agree that in this example the	10:08:55
3	client is always acting like a client?	10:08:57
4	A In this example shown here, yes.	10:09:01
5	Q If you could please go to Paragraph 41 of	10:09:04
6	your declaration and let me know when you're	10:09:14
7	there?	10:09:23
8	A I'm there.	10:09:23
9	Q You cited Exhibit 1005, referred to as	10:09:24
10	RFC 2616 in your declaration. Correct?	10:09:28
11	(Oxylabs Exhibit 1005, previously marked,	10:09:28
12	not attached.)	10:09:28
13	A Correct.	10:09:37
14	Q Do you see where you quoted, "Any given	10:09:38
15	program may be capable of being both a client and	10:09:44
16	a server; our use of these terms refers only to	10:09:47
17	the role being performed by the program for a	10:09:52
18	particular connection"?	10:09:54
19	A Yes.	10:09:58
20	Q Do you agree with that statement from RFC	10:09:58
21	2616?	10:10:06
22	A Yes, I do.	10:10:09

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1	Q	And scrolling down to Paragraph 42, you	10:10:10
2		included an image of a request and response chain	10:10:19
3		from RFC 2616.	10:10:21
4		Do you see that?	10:10:24
5	A	Yes.	10:10:27
6	Q	And each V, Victor, in that image refers	10:10:27
7		to a single connection. Correct?	10:10:32
8	A	Yes.	10:10:38
9	Q	So when RFC 2616 refers to the role being	10:10:38
10		performed by the program for a particular	10:10:45
11		connection, is it your understanding that the	10:10:47
12		particular connection is the V?	10:10:51
13	A	It's a little more tricky than that, but	10:11:00
14		the V is representing the PCP IP connection	10:11:03
15		between the user agent and the proxy servers.	10:11:09
16		You have to be -- it's kind of a	10:11:16
17		simplification of it, but it's not the single	10:11:21
18		connection. Because there's multiple connections	10:11:24
19		going back and forth.	10:11:26
20	Q	Would you agree there's a single	10:11:27
21		connection between the user agent and the	10:11:33
22		intermediary A?	10:11:39

1	A	No; there's two connections. There's a	10:11:42
2		TCP/IP connection from user agent to A and another	10:11:44
3		TCP/IP connection from A back to the user agent as	10:11:48
4		well.	10:11:52
5		Yeah, you could call that a single TCP/IP	10:11:53
6		connection if you wanted to. They're just two	10:11:56
7		different paths back and forth between them.	10:11:58
8		In other words, it's not a one-way	10:12:02
9		connection.	10:12:04
10	Q	Would you agree there is a single	10:12:04
11		connection between Intermediary A and Intermediary	10:12:16
12		B?	10:12:21
13	A	There's a single two-way connection	10:12:24
14		between the two.	10:12:27
15	Q	And is there a single two-way connection	10:12:35
16		between Intermediary B and Intermediary C?	10:12:38
17	A	Correct.	10:12:41
18	Q	And a single bidirectional connection	10:12:41
19		between Intermediary C and Origin Server O?	10:12:47
20	A	Yes.	10:12:52
21	Q	Is your understanding of this figure from	10:12:52
22		RFC 2616 consistent with the client server roles	10:13:02

1	we just discussed for the proxy hierarchy in The	10:13:09
2	Definitive Guide?	10:13:15
3	A Yes.	10:13:18
4	Q In your opinion, is there a difference	10:13:18
5	between acting like a server and being server	10:13:26
6	hardware?	10:13:31
7	A I guess I don't understand what you mean	10:13:35
8	when you say "being server hardware." Could	10:13:38
9	you -- could you clarify that term?	10:13:43
10	Q As an expert in computer networking, are	10:13:50
11	you familiar with server hardware components?	10:13:52
12	A I am familiar with components that	10:14:00
13	typically go into what we call servers.	10:14:01
14	Q Are you familiar with a blade server?	10:14:07
15	A Yes, I am.	10:14:12
16	Q And in your opinion, would a person of	10:14:12
17	ordinary skill in the art understand a blade	10:14:19
18	server to be a server hardware component?	10:14:21
19	A They would understand that a blade server	10:14:27
20	hardware could act as a server if it was	10:14:31
21	programmed with the right software so that it	10:14:32
22	performs the functions of a server.	10:14:35

1	The hardware itself is something that	10:14:39
2	could be programmed to do lots of different	10:14:43
3	things, so it's how the particular software is	10:14:45
4	installed and activated on a particular piece of	10:14:48
5	hardware that allows it to act in the role of a	10:14:52
6	server.	10:14:55
7	Q With respect to Paragraph 47 of your	10:15:00
8	declaration -- will you let me know when you're	10:15:16
9	there, please?	10:15:20
10	A Sure.	10:15:21
11	I am there.	10:15:26
12	Q You cited Exhibit 1015, referred to as	10:15:31
13	RFC 791, in your declaration. Correct?	10:15:34
14	A Correct.	10:15:42
15	Q You identified the source address and	10:15:42
16	destination address in an IP packet header.	10:15:49
17	Correct?	10:15:53
18	A Correct.	10:15:54
19	Q In Kocherlakota when the client computer	10:15:54
20	11 sends an IP packet, would you agree that the	10:16:06
21	source address is the IP address of the client	10:16:11
22	computer 11?	10:16:14

Transcript of James Olivier, Ph.D.
Conducted on August 12, 2024

16

1	A	Oh, hold on a second. Okay. The -- I	10:16:19
2		have -- the question is, in Kocherlakota -- I am	10:16:24
3		going to bring up Kocherlakota right now. And	10:16:29
4		then I'll have to have you repeat the question.	10:16:34
5		Okay. And is your question in -- in	10:16:50
6		Kocherlakota was what? Could you repeat it?	10:16:53
7	Q	I will repeat the question. And for the	10:17:03
8		record, Kocherlakota is Exhibit 1003.	10:17:05
9		(Oxylabs Exhibit 1003, previously marked,	10:17:09
10		not attached.)	10:17:09
11	Q	And my question was, in Kocherlakota,	10:17:09
12		when the client computer 11 sends an IP packet,	10:17:12
13		would you agree that the source address is the IP	10:17:18
14		address of the client computer 11?	10:17:20
15	A	Yes.	10:17:27
16	Q	In Kocherlakota, when the client computer	10:17:28
17		11 sends an IP packet, what is the destination	10:17:35
18		address?	10:17:40
19	A	It is Proxy 17.	10:17:47
20	Q	And we're turning to your declaration,	10:18:01
21		Exhibit 1002. If you could please go to Paragraph	10:18:09
22		51 and let me know when you're there.	10:18:13

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1	A	Okay.	10:18:31
2	Q	You opined that TCP is implemented on	10:18:37
3		basically every common operating system, including	10:18:42
4		Microsoft Windows, Apple iOS running on iPhones,	10:18:47
5		Android for mobile, and the BSD operating system.	10:18:52
6		Correct?	10:18:57
7	A	Correct.	10:18:59
8	Q	Is Microsoft Windows a client operating	10:18:59
9		system?	10:19:05
10	A	Microsoft Windows can operate both as a	10:19:09
11		client and a server.	10:19:11
12	Q	And in your opinion, would a person of	10:19:23
13		ordinary skill in the art understand that	10:19:26
14		Microsoft Windows is a client operating system, a	10:19:30
15		server operating system, both, or neither?	10:19:35
16	A	So the person of ordinary skill would	10:19:44
17		understand that Microsoft Windows is an operating	10:19:47
18		system that can be configured to operate as the	10:19:50
19		role of a client, can be configured to operate in	10:19:56
20		the role as a server, can be configured to operate	10:19:59
21		both in the role of a client and a server at the	10:20:02
22		same time.	10:20:08

1	Q	In your opinion, would a person of	10:20:08
2		ordinary skill in the art understand the phrase	10:20:20
3		"client operating system" to be a term of art?	10:20:26
4	A	I would think they would say that it's an	10:20:35
5		operating system that's operating in the role of a	10:20:37
6		client.	10:20:39
7	Q	In your --	10:20:39
8	A	As I said, operating systems can be	10:20:45
9		configured to run in many, many different ways.	10:20:47
10		And if it was configured to run in the role of a	10:20:53
11		client, they would think of that as a client	10:20:55
12		operating system.	10:20:57
13	Q	And I apologize for interrupting.	10:21:06
14		So as we discussed, an intermediary can,	10:21:09
15		in your opinion, operate as both a client and a	10:21:13
16		server. Correct?	10:21:16
17	A	Correct.	10:21:18
18	Q	And in your opinion, that intermediary	10:21:18
19		would have an operating system that is configured	10:21:26
20		to operate as both a client and a server, if I	10:21:30
21		understand your testimony.	10:21:35
22		Is that correct?	10:21:35

1	A	That's correct.	10:21:36
2	Q	And so would a person of ordinary skill	10:21:36
3		in the art say that that intermediary uses a	10:21:46
4		client operating system?	10:21:51
5	A	I would say they're -- it depends on the	10:21:58
6		context. So it's hard to definitively answer that	10:22:03
7		question.	10:22:07
8		I would say that they would say that it's	10:22:08
9		an operating system that's been configured to	10:22:11
10		operate in the role of a client. Whether it's	10:22:14
11		exclusively configured in that regard or not is	10:22:19
12		something that one of ordinary skill would want to	10:22:24
13		know before saying it was definitively a client or	10:22:28
14		a server.	10:22:31
15	Q	Would a person of ordinary skill in the	10:22:31
16		art say that intermediary uses a server operating	10:22:45
17		system, even though that intermediary can also	10:22:51
18		operate as a client?	10:22:55
19	A	So when you say "server or operating	10:23:00
20		system," I'm assuming you meant that the operating	10:23:03
21		system was configured to operate in the role of a	10:23:06
22		server.	10:23:08

1	Is that what you meant?	10:23:09
2	Q I will strike that question, as I am	10:23:15
3	trying to clarify your testimony. So strike that	10:23:17
4	question. Let's start again.	10:23:20
5	If that intermediary is configured to	10:23:25
6	operate as both a client as a server, would it be	10:23:27
7	improper for a person of ordinary skill in the art	10:23:36
8	to say that intermediary uses a server operating	10:23:39
9	system, given that the intermediary can also	10:23:42
10	operate as a client?	10:23:46
11	MR. WALLIS: Objection. Form.	10:23:53
12	A And I guess do you mean improper -- when	10:23:54
13	you generally call those systems that are doing	10:24:00
14	both proxies in order to make that distinction,	10:24:03
15	it's not improper to say it's a server operating	10:24:08
16	system, because it's an operating system that's	10:24:12
17	been configured to perform the role of a server.	10:24:15
18	It would be incorrect to -- I'll just	10:24:22
19	leave it there.	10:24:26
20	Q Is Apple iOS running on an iPhone a	10:24:27
21	client operating system?	10:24:42
22	A Well, again, I've seen in configured iOS	10:24:50

1 to run both as a client and a server. So in that 10:24:56
2 regards it can operate as a client operating 10:25:01
3 system exclusively; it can operate as a server 10:25:04
4 operating system exclusively, although that 10:25:09
5 generally doesn't happen except as in some rare 10:25:12
6 events; and it can operate as both. 10:25:15

7 Q And if the iPhone is configured to 10:25:34
8 operate as both a client and a server, would a 10:25:36
9 person of ordinary skill in the art say that 10:25:39
10 iPhone uses an operating system as opposed to a 10:25:44
11 client operation system specifically? 10:25:47

12 MR. WALLIS: Objection. Form. 10:25:50

13 A So I think if you look at Paragraph 51 10:25:57
14 it's kind of clear when we're talking about 10:25:59
15 operating systems we don't distinguish them by 10:26:02
16 client server; we say this is a type of operating 10:26:05
17 system, this is a type of operating system. 10:26:07

18 Q With respect to Paragraph 53 of your 10:26:23
19 declaration? 10:26:28

20 A Yes, I'm there. 10:26:36

21 Q Thank you. You state that a POSITA would 10:26:37
22 have known how to implement the keep-alive 10:26:39

1	mechanism in the TCP protocol. Correct?	10:26:42
2	A Well, a POSITA would have understood how	10:26:50
3	to implement the keep-alives. They're generally	10:26:52
4	well-taught in school. And this is just an	10:26:59
5	example of something that a POSITA would have	10:27:01
6	knowledge of.	10:27:04
7	Q In your opinion, is the term "keep-alive"	10:27:07
8	a term of art?	10:27:11
9	A It's almost self-defining. It's a way of	10:27:19
10	saying if something is alive or not. If you want	10:27:22
11	to call that a term of art, you can.	10:27:26
12	Q In your opinion, would that be a term of	10:27:34
13	art known to a POSITA?	10:27:36
14	A Oh, a POSITA would know what that is,	10:27:41
15	yes. I guess my only question is, would people	10:27:43
16	outside of POSITAs know? Probably they could	10:27:46
17	figure it out also.	10:27:49
18	Q Can you please open Exhibit 1023 and let	10:27:50
19	me know when you have that open?	10:28:06
20	(Oxylabs Exhibit 1023, previously marked,	10:28:04
21	not attached.)	10:28:07
22	A Okay, I have it open.	10:28:07

1	Q	Can you please go to PDF Page 115, which	10:28:24
2		is Exhibit Page 114 of 658, and let me know when	10:28:33
3		you're there?	10:28:38
4	A	Okay, yes.	10:28:39
5	Q	Do you see the fourth bullet on this page	10:28:44
6		says, "Keep-alive connection should not be	10:28:53
7		established with a proxy server that isn't	10:28:57
8		guaranteed to support the connection header"?	10:29:00
9	A	Oh, are you at?	10:29:07
10		Are you on Page 114?	10:29:13
11	Q	I am on Exhibit Page 114 of 658, which	10:29:16
12		corresponds to PDF Page 115.	10:29:22
13	A	So Chen -- sorry, I'm having difficulty	10:29:30
14		finding the page.	10:29:55
15		The -- mine -- are we using the page	10:29:57
16		numbers in the lower left-hand corner?	10:30:03
17	Q	So the PDF pages and the exhibit pages	10:30:05
18		don't line up, they are one number off from each	10:30:12
19		other. If it's easier for you, I can refer to the	10:30:15
20		PDF page as opposed to the exhibit page to make	10:30:20
21		sure we're at the same spot. And I, for the	10:30:25
22		record, will read the exhibit page.	10:30:29

1	Does that make sense?	10:30:31
2	MR. WALLIS: Just to clarify, I think	10:30:32
3	there's a difference between he's referring to the	10:30:34
4	local page number, which I think is 94 on your	10:30:37
5	page, not the PDF. So there are three technically	10:30:40
6	different numbers that are being used here.	10:30:45
7	A Yeah, I've got Page 134 of 659 on the	10:30:48
8	right. I have from the actual document 114 in	10:30:52
9	Chapter 5, Web Servers.	10:30:55
10	Is that the page you want me on?	10:30:57
11	Q I apologize.	10:30:59
12	MS. O'BRIEN: And thank you, Chad, for	10:31:01
13	clarifying. Internal page number.	10:31:02
14	Q No. I am looking for in the bottom	10:31:05
15	right-hand corner, there is exhibit page	10:31:08
16	numbering. And I'm looking for Page 114 of 658.	10:31:12
17	A Okay. Because that's not close to my PDF	10:31:19
18	page numbers.	10:31:22
19	Q I see. For me that is PDF Page 115. But	10:31:24
20	if our PDFs are not lining up, I will simply refer	10:31:30
21	to the exhibit page number in the bottom	10:31:33
22	right-hand corner.	10:31:36

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1	A	Okay. Yeah, because I'm just using the	10:31:40
2		one that I downloaded from your link.	10:31:44
3		Okay, so I'm on 114 of 658.	10:31:48
4	Q	Yes. Thank you.	10:31:53
5	A	Okay.	10:31:55
6		MR. DUNHAM: Can we go off the record for	10:31:58
7		one second, please?	10:31:59
8		A/V TECHNICIAN: Going off the record at	10:32:02
9		10:32 a.m.	10:32:04
10		(A recess was taken.)	10:32:06
11		A/V TECHNICIAN: We are going back on the	10:34:31
12		record. The time is 10:34 a.m.	10:34:32
13		BY MS. O'BRIEN:	10:34:38
14	Q	Dr. Olivier, are you on internal Page 94	10:34:39
15		of Exhibit 1023?	10:34:45
16	A	Yes, I am.	10:34:47
17	Q	Do you see the fourth bullet says,	10:34:48
18		"Keep-alive connections should not be established	10:34:53
19		with a proxy server that isn't guaranteed to	10:34:56
20		support the connection header"?	10:34:59
21	A	Yes, I do.	10:35:05
22	Q	Do you agree with this statement?	10:35:15

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1	A	I didn't analyze this statement in	10:35:59
2		forming my opinions, so I don't have an opinion on	10:36:01
3		this statement. I didn't -- I didn't analyze it	10:36:08
4		in any detail.	10:36:11
5		It's obvious at the time they said that	10:36:14
6		you couldn't -- you should be careful when	10:36:17
7		establishing a keep-alive connection with a proxy	10:36:22
8		server that isn't guaranteed to support the	10:36:25
9		connection header, but I don't recall the	10:36:27
10		connection header off the top of my head.	10:36:30
11	Q	So you did not consider this statement in	10:36:31
12		forming your opinions in your declaration?	10:36:41
13	A	I did not consider this in my opinions,	10:36:47
14		correct.	10:36:50
15	Q	And if you could please go to internal	10:36:53
16		page Roman numerals XIV. And let me know when	10:37:10
17		you're there.	10:37:25
18	A	Oh, okay I've got it. XIV.	10:37:50
19	Q	Do you see the second bullet from the	10:37:53
20		bottom refers to Chapter 6?	10:37:56
21	A	Yes.	10:38:00
22	Q	Do you see that this guide describes HTTP	10:38:00

1	proxy servers as intermediary servers that act as	10:38:10
2	platforms for HTTP services and controls?	10:38:15
3	A Yes.	10:38:19
4	Q Would you agree with that description of	10:38:19
5	HTTP proxy servers?	10:38:27
6	A Yes; because they act in the role as a	10:38:38
7	server in some situations.	10:38:40
8	Q Can you please go to internal Page 140,	10:38:41
9	and let me know when you're there.	10:39:08
10	A 140. Okay, I'm there.	10:39:17
11	Q Do you agree that one way to cause client	10:39:30
12	traffic to get to a proxy is to modify the client	10:39:38
13	such that the client sends HTTP requests directly	10:39:43
14	an intentionally to the proxy instead of to the	10:39:48
15	origin server?	10:39:53
16	MR. WALLIS: Objection. Form.	10:40:00
17	A So could you repeat the question, please?	10:40:07
18	Q Do you agree that one way to cause client	10:40:18
19	traffic to get to a proxy is to modify the client	10:40:23
20	such that the client sends HTTP requests directly	10:40:29
21	and intentionally to the proxy instead of to the	10:40:34
22	origin server?	10:40:40

1	A	Yes.	10:40:41
2	Q	Do you agree that a second way to cause	10:40:41
3		client traffic to get to a proxy is to modify the	10:40:47
4		network such that the network infrastructure	10:40:52
5		intercepts and steers web traffic into a proxy	10:40:55
6		without the client's knowledge?	10:40:59
7		MR. WALLIS: Objection. Storm.	10:41:01
8	A	Yes.	10:41:05
9	Q	Do you agree that modifying the network	10:41:05
10		typically relies on switching and routing devices?	10:41:13
11	A	Yes.	10:41:24
12	Q	Do you agree that a POSITA would	10:41:25
13		understand a switch is used to connect multiple	10:41:32
14		devices on the same network?	10:41:36
15	A	They would call that a Layer 2 switch.	10:41:42
16		Switching is kind of a nebulous term, it has to be	10:41:46
17		in context, believe me, I know, I teach it in	10:41:48
18		class. But if you say a Layer 2 switch, that	10:41:52
19		would be correct.	10:41:54
20	Q	Do you agree that a POSITA would	10:42:00
21		understand that a router is used to connect	10:42:01
22		multiple networks?	10:42:03

1	A	Yes, a router performing Layer 3 routing.	10:42:05
2	Q	And you referenced a Layer 2 switch in	10:42:08
3		your answer. Correct?	10:42:22
4	A	I talked about what people typically	10:42:25
5		think of switching, which is a Layer 2 switch,	10:42:27
6		yes.	10:42:31
7	Q	Would a POSITA be familiar with a Layer 3	10:42:31
8		switch?	10:42:36
9	A	That's where it gets a little tricky.	10:42:38
10		The -- it's something that comes up a lot.	10:42:40
11		So Cisco will use the term Layer 3	10:42:44
12		switching to talk about what's taking place at	10:42:48
13		what we would call Layer 3 routing because they	10:42:53
14		put the -- what they call the forwarding	10:42:55
15		information base into the line card, so it works	10:42:59
16		as fast as what we generally think of as Layer 2	10:43:03
17		switching.	10:43:06
18		So it definitely depends on the context	10:43:08
19		of what you're talking about in that regard.	10:43:10
20	Q	Would a POSITA be familiar with a Layer 4	10:43:13
21		switch?	10:43:21
22	A	Layer 4 switches are generally not --	10:43:24

1	those are generally using -- I mean, they're not	10:43:34
2	near -- nearly as common as a Layer 3 or a Layer 2	10:43:40
3	network element. They would understand that it's	10:43:46
4	operating at the Layer 4 of the OSI protocol, a	10:43:50
5	POSITA would.	10:43:57
6	Q Can you please go to Exhibit 1023,	10:44:07
7	internal Page Number 147.	10:44:38
8	A Okay.	10:44:50
9	Q Do you see the section In-Flight URI	10:44:51
10	Modification?	10:44:57
11	A Yes.	10:44:57
12	Q Do you see in the last paragraph of the	10:44:58
13	section that the HTTP specifications forbid	10:45:06
14	general intercepting proxies from rewriting the	10:45:11
15	absolute path parts of URIs when forwarding them,	10:45:14
16	except for replacing an empty path with a slash?	10:45:19
17	A HTTP specifications forbid general	10:45:29
18	intercepting proxy from rewriting the absolute	10:45:31
19	path parts of URIs ...	10:45:34
20	Do I know that off the top of my head,	10:45:41
21	no. But I see where it says that in this	10:45:43
22	document.	10:45:46

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1	Q	Do you agree with that statement?	10:45:49
2	A	Again, I didn't analyze this statement in	10:45:54
3		forming my opinions, so it would take me a while	10:45:59
4		to go through all this and understand exactly what	10:46:02
5		they're referring to when they say this.	10:46:07
6	Q	Can you please turn to internal Page 169	10:46:10
7		and let me know when you're there.	10:46:32
8	A	Okay.	10:46:50
9	Q	This document describes public proxy	10:46:51
10		caches as shared proxy servers called caching	10:47:05
11		proxy servers or more commonly proxy caches.	10:47:12
12		Do you see that?	10:47:17
13	A	Yes.	10:47:18
14	Q	Do you agree with that statement?	10:47:19
15		MR. WALLIS: Objection. Form.	10:47:24
16	A	I don't see anything wrong with it.	10:47:38
17		Again, it's not something I analyzed in forming my	10:47:43
18		opinion, but I don't see anything wrong with it.	10:47:45
19	Q	If you can please turn to internal Page	10:47:54
20		461, and let me know when you're there.	10:48:02
21	A	Okay, I'm there.	10:48:34
22	Q	Do you see the section titled Network	10:48:35

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1	Element Control Protocol?	10:48:42
2	A Yes.	10:48:44
3	Q Do you see that this document describes	10:48:44
4	network elements as including routers and	10:48:52
5	switches?	10:48:56
6	A Yes.	10:48:56
7	Q Do you agree with that statement?	10:48:56
8	A That network element control protocol	10:49:06
9	allows network elements such as routers and	10:49:08
10	switches to talk to server elements?	10:49:12
11	I'm -- off the top of my head, I'm not	10:49:19
12	that familiar with network element control	10:49:20
13	protocol, but -- so I don't have an opinion on	10:49:24
14	that one way or another.	10:49:26
15	Q Do you see that this document describes	10:49:27
16	server elements include web servers and proxies?	10:49:34
17	MR. WALLIS: Objection. Form.	10:49:41
18	A The sentence says that the network	10:49:45
19	element control protocol allows network elements	10:49:47
20	to talk to server elements, such as -- such as,	10:49:49
21	for example, web servers and proxy caches that	10:49:52
22	serve the application layer requests.	10:49:58

1	Q	In your opinion, would a POSITA	10:50:01
2		understand a difference between network elements	10:50:03
3		and server elements?	10:50:08
4	A	Well, in general the network elements are	10:50:15
5		working at Layer 3 and below, and the server	10:50:19
6		elements, like the proxy caches, proxies, are	10:50:22
7		working at above Layer 3.	10:50:28
8	Q	And in your opinion, a POSITA would be	10:50:32
9		familiar with the OSI model?	10:50:40
10	A	Oh, yes. It's the first thing they	10:50:43
11		learn.	10:50:45
12	Q	Do you agree that Layer 7 is the	10:50:46
13		application layer using, for example, HTTP	10:50:49
14		protocol?	10:50:53
15	A	Now that -- they are familiar with it,	10:50:57
16		but there's a lot of exceptions within it. So an	10:50:58
17		application layer -- I don't know if HTTP is still	10:51:02
18		at Layer 7 or not. But it's definitely one of the	10:51:06
19		higher level protocols. I think we may think that	10:51:10
20		it -- I'm not quite sure where HTTP fits in.	10:51:14
21		I know it's a Layer 4, 5, or 6, 7 layer	10:51:19
22		protocol, depending how you look at it. Some	10:51:24

1	people will call it Layer 7 because it's -- it's	10:51:27
2	only for the particular application, which is a	10:51:29
3	web browser.	10:51:34
4	Q Do you agree that obtaining web pages	10:51:36
5	operates on the application layer?	10:51:45
6	A Again, I didn't form an opinion on that.	10:51:57
7	Generally you would say yes, that the HTTP is a	10:52:01
8	Layer 7 protocol because the application is the	10:52:06
9	web browser. Yeah, I don't see anything wrong	10:52:09
10	with that.	10:52:16
11	Q Do you agree that Layer 4 is the	10:52:16
12	transport layer using, for example, TCP protocol?	10:52:30
13	A Yes.	10:52:35
14	Q Will you please turn back to your	10:52:35
15	declaration, Exhibit 1002, and turn to Paragraph	10:52:53
16	56, and let me know when you're there.	10:53:03
17	A Okay.	10:53:17
18	Q For the term "client device," did you use	10:53:17
19	the construction, quote, Communication device that	10:53:21
20	is operating in the role of a client, close quote,	10:53:25
21	in your analysis?	10:53:29
22	A Yes. Well, I guess operating role of	10:53:32

1	a -- yes, I mean, that is correct. Yes.	10:53:39
2	Q Is your understanding of communication	10:53:41
3	device a device that communicates over the	10:53:50
4	internet?	10:53:53
5	A I don't know that it's restricted to just	10:53:58
6	communicating over the internet. I guess a	10:54:01
7	communication device is something that can	10:54:04
8	communicate.	10:54:06
9	Q So to clarify, your understanding of	10:54:12
10	communication device is a device that can	10:54:19
11	communicate.	10:54:22
12	Is that correct?	10:54:23
13	A That would be what I would -- that would	10:54:25
14	be what I would apply to the term "communication	10:54:29
15	device."	10:54:31
16	Q And do you agree that operating in the	10:54:34
17	role of a client means sending requests and	10:54:37
18	receiving responses?	10:54:42
19	A Yes.	10:54:48
20	Q And with respect to Paragraph 57 of your	10:54:48
21	declaration, for the term "first server," did you	10:54:58
22	use the construction, quote, a device that is	10:55:04

1	operating in the role of a server and that is not	10:55:08
2	the first client device or the web server, close	10:55:11
3	quote, in your analysis?	10:55:14
4	A Yes.	10:55:17
5	Q Do you agree that operating in the role	10:55:17
6	of a server means receiving requests and sending	10:55:22
7	responses?	10:55:27
8	A Yes.	10:55:29
9	Q The district court construction for the	10:55:30
10	first server term is, quote, server that is not	10:55:40
11	the client device or the web server, close quote.	10:55:45
12	Correct?	10:55:49
13	A Are you -- are you reading from my	10:55:59
14	declaration?	10:56:01
15	Q If it's helpful, I will refer you to	10:56:04
16	Paragraph 57 of your declaration, in the first	10:56:06
17	sentence.	10:56:12
18	A Okay. Yes. That's what -- that's what I	10:56:19
19	put there, yes.	10:56:30
20	Q In your opinion, does the claimed first	10:56:30
21	server need to be a server or just act as a	10:56:41
22	server, or something else?	10:56:46

1	A	The -- it must operate in the role of a	10:56:57
2		server.	10:57:01
3	Q	And when you say "it," do you mean a	10:57:15
4		device --	10:57:21
5	A	The first -- the first server, right.	10:57:22
6		The device that's operating the role of a server,	10:57:26
7		and is not the first client or the web server.	10:57:29
8	Q	And in your opinion, is the first server	10:57:31
9		a device that can communicate?	10:57:35
10	A	Yes.	10:57:40
11	Q	With respect to Paragraph 60 of your	10:57:40
12		declaration, you opined that server operating	10:58:03
13		system means, quote, an operating system capable	10:58:11
14		of operating in the role of a server, close quote.	10:58:16
15		Correct?	10:58:20
16	A	Correct.	10:58:26
17	Q	Based on your understanding, can a client	10:58:26
18		device also operate in the role of a server?	10:58:34
19		MR. WALLIS: Objection. Form.	10:58:39
20	A	So a device can operate both as a client	10:58:42
21		and a server, depending on how it's configured.	10:58:47
22		MS. O'BRIEN: We've been going for just	10:59:10

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1	about an hour here. Let's take a ten-minute break	10:59:12
2	and return at ten after the hour. Okay?	10:59:17
3	A/V TECHNICIAN: We are going off the	10:59:24
4	record at 10:59 a.m.	10:59:25
5	(A recess was taken.)	10:59:28
6	A/V TECHNICIAN: We can go back on the	11:10:49
7	record. The time is 11:11 a.m.	11:10:50
8	BY MS. O'BRIEN:	11:10:56
9	Q Dr. Olivier, did you speak with anyone	11:10:57
10	about your testimony during the break?	11:11:01
11	A No.	11:11:03
12	Q And earlier I asked you questions about	11:11:04
13	the windows -- Microsoft Windows operating system.	11:11:16
14	Do you recall that?	11:11:19
15	A Yes, I do.	11:11:27
16	Q And I believe your testimony was that the	11:11:28
17	Microsoft Windows operating system could be	11:11:31
18	configured to operate in the role of a client or	11:11:35
19	it could be configured to operate in the role of a	11:11:38
20	server or it could be configured to operate as	11:11:40
21	both a client and a server.	11:11:45
22	Is that correct?	11:11:47

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1	A	That's correct.	11:11:49
2	Q	How would a POSITA implement Microsoft	11:11:55
3		Windows and configure it to operate exclusively in	11:12:01
4		the role of a client?	11:12:05
5	A	You would have to go into the	11:12:14
6		configuration of the operating system and disable	11:12:23
7		all of the server functionality.	11:12:25
8	Q	I'm sorry, are you finished with your	11:12:42
9		answer?	11:12:43
10	A	Yes.	11:12:43
11	Q	When you say "disable all of the server	11:12:44
12		functionality," what do you mean by "server	11:12:51
13		functionality"?	11:12:54
14	A	Disable all of the features of the	11:12:58
15		operating system that play the role of a server.	11:13:00
16	Q	And what are some examples of those	11:13:09
17		features?	11:13:17
18	A	The FTP server could be one of those	11:13:24
19		features. The IIS feature could be one of those	11:13:27
20		features. I don't recall any others off the top	11:13:33
21		of my head. I guess there's probably some	11:13:38
22		database access stuff that could behave as a -- as	11:13:41

1	a server that is receiving requests and processing	11:13:44
2	them for information.	11:13:47
3	Those are just a few that come to mind.	11:13:53
4	Q And in your opinion, if a POSITA were to	11:13:55
5	disable those features, then the Microsoft Windows	11:14:06
6	operating system would be understood to be a	11:14:13
7	client operating system.	11:14:18
8	Is that correct?	11:14:20
9	MR. WALLIS: Objection. Form.	11:14:20
10	A If you disabled all of the server	11:14:25
11	functionality of the operating system, then that	11:14:27
12	operating system can only operate in the role of a	11:14:31
13	client.	11:14:34
14	Q And in such a case, a POSITA would refer	11:14:47
15	to that as a client operating system?	11:14:50
16	MR. WALLIS: Objection. Form.	11:14:55
17	A It would be an operating system that	11:15:01
18	couldn't perform the role of a server. How they	11:15:02
19	would refer to that, they generally refer to	11:15:06
20	operating systems by the name of the operating	11:15:10
21	system, not the particular roles that have been	11:15:12
22	allowed or disallowed.	11:15:18

1	Q	And in your opinion, how would a POSITA	11:15:22
2		implement Microsoft Windows to be configured to	11:15:36
3		operate exclusively in the role of a server?	11:15:41
4	MR. WALLIS:	Objection. Scope.	11:15:46
5	A	That I'm not even -- again, it would be	11:15:53
6		the same approach, but it would be -- it would	11:15:55
7		take a lot of work because it -- it's hard to	11:16:05
8		remove all the client functionality.	11:16:14
9		But if it was hypothetically possible to	11:16:21
10		remove all the client functionality, then the	11:16:24
11		operating system could operate exclusively in the	11:16:26
12		role of a server.	11:16:29
13	Q	And is your testimony about configuring	11:16:30
14		an operating system to operate exclusively in the	11:16:49
15		role of a server limited to Microsoft Windows or	11:16:54
16		operating systems generally?	11:16:58
17	A	My testimony about what? Which part of	11:17:04
18		my testimony are you referring to?	11:17:10
19	Q	I'll reask the question.	11:17:12
20		Your testimony about configuring	11:17:21
21		Microsoft Windows to operate exclusively in the	11:17:25
22		role of a server by disabling the client	11:17:29

1 functionality, is that testimony limited to 11:17:34
2 Microsoft Windows, or is that testimony about 11:17:42
3 disabling client functionality applicable to any 11:17:44
4 operating system? 11:17:47

5 MR. WALLIS: Objection. Form. 11:17:49

6 A So if you removed all the client 11:17:54
7 functionality out of an operating system, then 11:17:56
8 that operating system, as far as the client server 11:18:00
9 roles, could only operate in the role of a server. 11:18:07
10 I mean, it could have other roles, too, such as a 11:18:10
11 database or a cache or something. 11:18:13

12 But the -- in general, when you remove 11:18:16
13 all the client functionality out of any software, 11:18:22
14 the software cannot have that functionality 11:18:25
15 anymore and would not be able to act in this case 11:18:27
16 as the role of a client. 11:18:31

17 Q And in your opinion, if a POSITA was 11:18:41
18 using an operating system and wanted to configure 11:18:53
19 that operating system to operate exclusively in 11:18:57
20 the role of a client, then the POSITA would 11:19:05
21 disable the server functionality. 11:19:06

22 Is that correct? 11:19:08

1	A	Yeah, for whatever hypothetical reason he	11:19:12
2		wanted to do that.	11:19:13
3		That's not to say he couldn't back in and	11:19:17
4		go back in and reenable it all. But when he	11:19:20
5		disables it, it couldn't perform the client	11:19:23
6		functionality if he disabled all of the client	11:19:26
7		functionality.	11:19:28
8	Q	Can you please turn to Paragraph 61 of	11:19:48
9		your declaration and let me know when you're	11:19:51
10		there.	11:19:54
11	A	Yes.	11:20:02
12	Q	In the alternative, you opined that	11:20:02
13		server operating system means a general-purpose	11:20:10
14		server operating system such as, e.g., UNIX,	11:20:14
15		LINUX, Microsoft Windows NT. Correct?	11:20:19
16	A	Correct.	11:20:24
17	Q	And you cited Exhibit 1022, Column 8,	11:20:24
18		Lines 53 to 55, for support. Correct?	11:20:30
19	A	Correct.	11:20:37
20	Q	Can you please open Exhibit 1022, turn to	11:20:37
21		Column 8, and let me know when you're there.	11:20:44
22	A	Okay.	11:21:09

1	Q	This reference refers to a	11:21:10
2		general-purpose server operating system employed	11:21:31
3		on server computer 202. Right?	11:21:34
4	A	Yes.	11:21:41
5	Q	Is it your understanding that server	11:21:41
6		computer 202 relates to internet server 102 of	11:21:58
7		Figure 1?	11:22:05
8	A	Could you repeat your question?	11:24:01
9	Q	Is it your understanding that server	11:24:13
10		computer 202 relates to Internet Server 102 of	11:24:13
11		Figure 1?	11:24:13
12	A	Yes.	11:24:28
13	Q	In your opinion, is internet server 102 a	11:24:28
14		web server?	11:24:35
15		MR. WALLIS: Objection. Scope.	11:24:39
16	A	It could act as a web server.	11:25:26
17	Q	Figure 1 also shows clients 1 through N	11:25:29
18		with Reference Number 128. Right?	11:25:48
19	A	Yes.	11:25:58
20	Q	Will you please turn to Column 6 and let	11:25:58
21		me know when you're there.	11:26:06
22	A	Okay.	11:26:20

1	Q	The bottom of Column 6, starting at Line	11:26:21
2		66, do you see clients 128 include personal	11:26:26
3		computers, multi-processor systems,	11:26:31
4		microprocessor-based or programmable consumer	11:26:36
5		electronics, network PCs, minicomputers, mainframe	11:26:39
6		computers, and the like?	11:26:45
7	A	Yes.	11:26:47
8	Q	Is that consistent with your	11:26:48
9		understanding of a client device?	11:26:51
10	A	It -- this is describing it in terms of	11:27:03
11		client, not client devices. So typically these	11:27:05
12		could operate in the role of a client. But some	11:27:16
13		of the -- such as a mainframe computer, I guess	11:27:21
14		could operate in the role of a client if it's	11:27:30
15		configured to act as such.	11:27:35
16	Q	LINUX is an operating system. Right?	11:27:44
17	A	Correct. We call it LINUX, but yeah.	11:28:07
18	Q	I'm sorry, could you please repeat that	11:28:10
19		for me?	11:28:13
20	A	Sorry, we generally call it LINUX, but	11:28:13
21		that's fine. I knew what you were talking about.	11:28:16
22	Q	Thank you. And an operating system	11:28:18

1	includes a kernel and utilities. Right?	11:28:24
2	MR. WALLIS: Objection. Form.	11:28:27
3	A That is the typical software	11:28:32
4	architecture. That's part of the typical software	11:28:36
5	architecture of an operating system. There's	11:28:40
6	generally more to an operating system than just	11:28:45
7	the software architecture of an operating system	11:28:47
8	that just does two components.	11:28:50
9	Q There are different types of LINUX	11:28:54
10	operating systems. Right?	11:28:58
11	A Correct.	11:29:01
12	Q They all use the same LINUX kernel.	11:29:01
13	Right?	11:29:05
14	A Oh, I have no idea about that.	11:29:07
15	Q Are you familiar with a LINUX server?	11:29:14
16	A Yes.	11:29:18
17	Q What is your understanding of a LINUX	11:29:21
18	server?	11:29:22
19	MR. WALLIS: Objection. Scope.	11:29:25
20	A That a LINUX server was derived from	11:29:29
21	Berkeley's UNIX operating system that in the LINUX	11:29:35
22	operating system does what's typically kernel	11:29:45

1	functionality, such as memory mapping,	11:29:50
2	transporting information between processes, things	11:29:55
3	of that nature.	11:29:58
4	Q Is a LINUX server a type of hardware?	11:30:11
5	A Is a LINUX server? No. People sell	11:30:18
6	hardware with an operating system, with a LINUX	11:30:25
7	operating system installed.	11:30:31
8	Q Turning back to your declaration, Exhibit	11:30:36
9	1002. Will you please turn to Paragraph 64 and	11:30:56
10	let me know when you're there.	11:31:02
11	A Okay.	11:31:13
12	Q Regarding the embodiment of Figure 3, you	11:31:13
13	opined that there is no selecting by either client	11:31:17
14	102 or agent 122 in this process. Correct?	11:31:22
15	A Correct.	11:31:28
16	Q In the embodiment of Figure 3, client 102	11:31:29
17	sends a web request to the acceleration server	11:31:39
18	162, which responds with a list of agents that may	11:31:45
19	assist. Correct?	11:31:49
20	A Correct.	11:31:49
21	MR. WALLIS: Objection. Form.	11:31:50
22	A Correct.	11:31:53

1	Q	In your opinion, does acceleration server	11:31:53
2		162 perform any selecting in this process?	11:31:56
3	A	So when it's selecting the -- when it's	11:34:37
4		selecting the list which may assist, the	11:34:54
5		acceleration server is doing selection.	11:34:59
6	Q	The client 102 receives the list of	11:35:06
7		agents from the acceleration server 162. Right?	11:35:18
8	A	Correct.	11:35:23
9	Q	The client 102 then sends the original	11:35:24
10		request to all of the agents in the list. Right?	11:35:27
11	A	Yes.	11:35:43
12	Q	Each agent will respond to the client's	11:35:44
13		request. Right?	11:35:51
14	A	Yes.	11:35:55
15	Q	An agent may respond with a list of peers	11:35:55
16		and check sums of the chunks that each of them	11:36:04
17		have. Right?	11:36:06
18	A	Yes.	11:36:11
19	Q	The client 102 then decides which of the	11:36:13
20		agents in the list to use as its agent for this	11:36:18
21		particular request. Right?	11:36:22
22	A	Correct.	11:36:25

1	Q	Based on your testimony, the client 102	11:36:26
2		is not performing selecting here. Correct?	11:36:31
3	A	No; I'm talking about when the particular	11:36:38
4		case that it's going to the web server. The only	11:36:40
5		device disclosed as contacting the web server is	11:36:48
6		agent 122, and which does only when the agent 122	11:36:50
7		does not identify any peers. In this case there	11:36:55
8		is no selecting.	11:37:01
9	Q	So your testimony is referring to the	11:37:15
10		specific act of the agent going to the web server,	11:37:19
11		and not the preceding steps of the process.	11:37:26
12		Is that correct?	11:37:31
13	A	Correct. Because I say, "in that case."	11:37:31
14		So I'm referring to this particular case here.	11:37:33
15	Q	So when the agent does not have	11:37:36
16		information about the request or if the	11:38:20
17		information is no longer valid, the agent will	11:38:23
18		load the information directly from the web server.	11:38:27
19		Right?	11:38:30
20	A	Correct.	11:38:32
21	Q	The agent then prepares a list for the	11:38:32
22		client, identifying itself as the only peer.	11:38:35

1	Right?	11:38:38
2	A Right.	11:38:39
3	Q And in your opinion, the agent is not	11:38:40
4	performing selection here. Right?	11:38:44
5	A Right.	11:38:48
6	Q What is your understanding of the term	11:38:48
7	"selecting"?	11:38:55
8	A You have to be able to choose among a	11:39:00
9	set. There's no selecting if there's only one	11:39:08
10	answer. In other words, if I give my students a	11:39:11
11	multiple-choice question and I only have A, they	11:39:14
12	don't have to select the right answer.	11:39:19
13	Q If you could please open -- excuse me.	11:39:26
14	If you could please turn to Paragraph 164 of your	11:39:42
15	declaration. And I will be referring to the Cohen	11:39:46
16	reference, which is Exhibit 1004, if you want to	11:39:51
17	have that open as well.	11:39:56
18	A Okay.	11:40:01
19	(Oxylabs Exhibit 1004, previously marked,	11:39:55
20	not attached.)	11:39:55
21	Q Just let me know when you're ready,	11:39:55
22	please.	11:40:03

1	A	You said 164?	11:40:18
2	Q	164 of your declaration, please.	11:40:19
3	A	Okay.	11:41:24
4	Q	Do you agree that Cohen uses the word	11:41:26
5		"transparently" to mean unknowingly establish a	11:41:31
6		connection between the client and a proxy?	11:41:36
7	A	Well, I guess unknowingly to whom?	11:41:54
8	Q	Do you agree that in Cohen the client	11:42:00
9		does not know that its requests are being	11:42:04
10		redirected from the origin server to a proxy?	11:42:09
11	A	In some examples, yes. In the majority	11:42:17
12		of the examples, yes.	11:42:20
13	Q	Can you please point me to an example in	11:42:22
14		Cohen where the client purposefully uses a proxy?	11:42:32
15	A	Where the client purposely uses a proxy?	11:42:40
16		I don't know an example in Cohen where the client	11:42:58
17		purposely uses a proxy.	11:43:01
18	Q	With respect to Paragraph 164 of your	11:43:04
19		declaration --	11:43:21
20	A	Right.	11:43:23
21	Q	-- where Cohen says proxy redirector 104	11:43:24
22		transparently establishes a TCP connection between	11:43:30

1	the client and a proxy, do you agree that the	11:43:34
2	client is unaware of that connection with the	11:43:40
3	proxy?	11:43:46
4	A At that time, yes.	11:43:51
5	Q Do you agree the client thinks it is	11:43:54
6	sending a request to a web server?	11:43:58
7	A Yes.	11:44:02
8	Q And you agree the proxy redirector will	11:44:05
9	redirect the client's request to a proxy cache	11:44:08
10	instead of to the web server. Right?	11:44:13
11	A Correct.	11:44:18
12	Q And if the proxy cache does not have a	11:44:23
13	cached copy of the requested object, the proxy	11:44:28
14	cache will establish a separate connection with	11:44:31
15	the origin server to obtain the requested object.	11:44:34
16	Correct?	11:44:38
17	A Correct.	11:44:39
18	Q Do you agree that Cohen teaches it is the	11:44:43
19	proxy cache, not the proxy redirector, that	11:44:47
20	determines whether to obtain content from the web	11:44:52
21	server?	11:44:56
22	A Yes, it checks its cache, like most	11:44:59

1 caches. And if it doesn't have it in its cache, 11:45:01
2 it will contact a web server. 11:45:05

3 All of its content had originally come 11:45:08
4 from the web server, but if it needs -- if it 11:45:10
5 has -- if it has a particular content that the 11:45:16
6 person's looking for, the proxy cache will contact 11:45:19
7 the web server. 11:45:24

8 Q Do you agree that the requested object is 11:45:31
9 always obtained using a proxy cache? 11:45:36

10 MR. WALLIS: Objection. Form. 11:45:40

11 A By that do you mean it always passes 11:45:50
12 through the proxy cache? 11:45:52

13 Q I'll reask the question. 11:46:00

14 Do you agree that the requested object is 11:46:03
15 always sent from the proxy cache? 11:46:13

16 A That -- the teachings of Cohen are that 11:46:25
17 the -- to use the cache. Whether there's any 11:46:31
18 exceptions to that, I didn't study. It's not what 11:46:35
19 the patent is about. 11:46:43

20 Q Do you agree that if the proxy cache does 11:46:51
21 not have a cached copy of the requested object and 11:47:04
22 establishes a connection with the origin server to 11:47:12

1	obtain the requested object, that the origin	11:47:16
2	server will see the IP address of the proxy cache?	11:47:20
3	A Under typical situations, yes. Unless	11:47:32
4	there's some sort of NATing going on at the other	11:47:35
5	side in the ISP, which also happens.	11:47:41
6	Q Do you agree that the same proxy cache	11:47:46
7	may be used for multiple requests?	11:47:53
8	A It could, depending how the proxy	11:48:03
9	redirector selects the proxy cache. There's	11:48:07
10	different ways of selecting a cache in the Cohen	11:48:10
11	reference.	11:48:14
12	Q You agree that the proxy redirector may	11:48:19
13	select a proxy cache based on IP header	11:48:21
14	information, such as the origin server IP address.	11:48:24
15	Correct?	11:48:27
16	A I believe that was one way. Another way	11:48:33
17	was round robin selection. I think there was a	11:48:35
18	load balancing one in there also.	11:48:38
19	Q And if the proxy redirector selects a	11:48:40
20	proxy cache based on IP header information, Cohen	11:48:48
21	teaches that all objects from a specific origin	11:48:52
22	server will be served by a specific proxy.	11:48:57

1	Correct?	11:49:01
2	A So that was kind of a long question.	11:49:19
3	Could you repeat it?	11:49:22
4	Q When the proxy redirector selects a proxy	11:49:23
5	cache based on IP header information, Cohen	11:49:30
6	teaches that all objects from a specific origin	11:49:36
7	server will be served by a specific proxy.	11:49:41
8	Correct?	11:49:46
9	A I'll have to review Cohen for a second.	11:49:50
10	So that's one embodiment taught in Cohen.	11:51:10
11	Q Do you mean the embodiment of Figure 1?	11:51:17
12	A Yes.	11:51:32
13	Q Do you rely on the embodiment of Figure 1	11:51:32
14	in your analysis in the declaration?	11:51:38
15	A Yes, I do. It's one of the teachings of	11:51:45
16	Cohen.	11:51:48
17	Q And do you rely on the fact that proxy	11:51:48
18	redirector may select one of the available proxy	11:52:02
19	caches based on IP header information in your	11:52:06
20	analysis in the declaration?	11:52:11
21	A Yes.	11:52:15
22	Q And with respect to Column 7, Lines 46 to	11:52:17

1	48 of Cohen, does Cohen's teaching that when the	11:52:23
2	proxy cache is selected based on IP header	11:52:32
3	information, that all objects from a specific	11:52:36
4	origin server will be served by a specific proxy,	11:52:41
5	did that teaching impact your analysis?	11:52:49
6	A Did that teaching impact ...	11:52:55
7	That all objects from a specific origin	11:52:58
8	server have to be served from a specific proxy? I	11:53:12
9	don't think my analysis rested on that disclosure,	11:53:17
10	that I can recall.	11:53:24
11	Q Did you consider that disclosure in	11:53:25
12	forming your opinions?	11:53:37
13	A Yes; I considered the entire document.	11:53:43
14	Q With respect to Paragraph 177 of your	11:53:50
15	declaration. Will you let me know when you're	11:54:05
16	there, please.	11:54:12
17	A Okay.	11:54:18
18	Q You opine that there is analysis of the	11:54:23
19	URL in the selecting process. Correct?	11:54:34
20	A Correct.	11:54:42
21	Q Is the analysis of the URL material to	11:54:42
22	your understanding of the meaning of selecting?	11:54:48

1	MR. WALLIS: Objection. Form.	11:54:56
2	A Material? It's one of the ways that	11:55:01
3	Cohen teaches it performs selection.	11:55:04
4	Q With respect to Paragraph 201 of your	11:56:21
5	declaration -- will you let me know when you're	11:56:24
6	there, please.	11:56:29
7	A Sure. I'm there.	11:56:30
8	Q You agree that Claim 18 of the '826	11:56:43
9	patent requires selecting by the first server	11:57:03
10	multiple client devices. Correct?	11:57:08
11	A Correct.	11:57:15
12	Q And in Paragraph 201 of your declaration	11:57:16
13	you opine that Cohen discloses that the proxy	11:57:22
14	redirector selects from multiple client devices.	11:57:26
15	Correct?	11:57:31
16	A Correct.	11:57:36
17	Q The proxy redirector of Cohen selects one	11:57:37
18	proxy cache. Correct?	11:57:42
19	MR. WALLIS: Objection. Form.	11:57:49
20	A So if it's doing round robin, it will	11:57:55
21	select one cache, then it will select the next	11:57:58
22	one, then it will select the next one.	11:58:01

1	Q	When the proxy redirector is performing	11:58:14
2		round robin and selects one cache and then the	11:58:16
3		next one and then the next one, that refers to	11:58:22
4		selecting different proxy caches for different	11:58:29
5		requests. Correct?	11:58:33
6	A	For whatever the next request that came	11:58:38
7		in, yes.	11:58:39
8	Q	And do you agree that the proxy	11:58:40
9		redirector 104 selects from available proxy	11:59:02
10		caches?	11:59:10
11	A	Available proxy caches. What -- yes.	11:59:23
12	Q	And if you could please turn to Paragraph	11:59:37
13		206 of your declaration and let me know when	11:59:48
14		you're there.	11:59:51
15	A	Yes.	12:00:04
16	Q	You opine that the proxy cache may send	12:00:05
17		the content received from an origin server	12:00:09
18		directly back to the client. Correct?	12:00:11
19	A	I'm sorry, what was your question again?	12:00:24
20	Q	You opined that the proxy cache may send	12:00:27
21		the content received from an origin server	12:00:31
22		directly back to the client. Correct?	12:00:35

1	A	Correct.	12:00:39
2	Q	And in that case the proxy cache would	12:00:39
3		not send the content back to the proxy redirector.	12:00:44
4		Correct?	12:00:49
5	A	Correct.	12:00:52
6	Q	And in order to do so, the proxy cache	12:01:13
7		would need to have the IP address of the client.	12:01:16
8		Correct?	12:01:21
9	A	Yes.	12:01:25
10	Q	If you could please open Exhibit 1003,	12:01:26
11		which is Kocherlakota, to have it handy, along	12:01:57
12		with your declaration, please.	12:02:03
13		And let me know when you have Figure 1 of	12:02:08
14		Kocherlakota, please.	12:02:13
15	A	Okay.	12:02:36
16	Q	In Kocherlakota, you agree that the	12:02:43
17		client was purposefully and knowingly using proxy	12:02:47
18		servers. Right?	12:02:51
19	A	Correct.	12:02:53
20	Q	In Kocherlakota, you agree that every	12:02:56
21		request from client computer 11 passes through	12:03:06
22		proxy server 17. Correct?	12:03:10

1	A	So I believe that's correct.	12:03:23
2	Q	If it's helpful, I can refer you to	12:03:44
3		Paragraph 76 of your declaration. Of course you	12:03:47
4		are not limited to that paragraph. And I will	12:03:51
5		confirm whether you -- you do agree that every	12:04:02
6		request from client computer 11 passes through	12:04:06
7		proxy server 17. Right?	12:04:10
8		MR. WALLIS: Objection. Form.	12:04:17
9	A	So web servers are accessed through the	12:07:01
10		proxy chain.	12:07:08
11	Q	I'm sorry, Dr. Olivier, are you still	12:10:03
12		reviewing the reference to provide an answer?	12:10:05
13	A	No. I provided an answer.	12:10:07
14	Q	And your answer I believe was that the	12:10:10
15		client obtained content from the web server	12:10:17
16		through the proxy chain?	12:10:19
17		Is that correct?	12:10:21
18	A	Yes.	12:10:22
19	Q	Okay. And do you agree that every	12:10:22
20		request from client computer 11 necessarily passes	12:10:27
21		through proxy server 17?	12:10:32
22	A	When you say "request," I would say	12:10:37

1	what's taught is the requests for -- from web	12:10:40
2	servers pass through there, pass through proxy 17.	12:10:45
3	Q But you agree that every request for	12:10:50
4	content from a web server that is sent from client	12:10:56
5	computer 11 will pass through proxy server 17.	12:10:58
6	Is that correct?	12:11:03
7	A Correct.	12:11:04
8	Q And is it your understanding that every	12:11:05
9	request for content from a web server will pass	12:11:21
10	through proxy server 19, even if the French	12:11:27
11	language functionality of proxy server 19 is not	12:11:36
12	desired?	12:11:43
13	A So your question was that it will always	12:14:05
14	pass through proxy 19 even if the French services	12:14:08
15	were not asked for?	12:14:13
16	Q I will just reask the question for	12:14:16
17	clarity. That is the basic gist.	12:14:26
18	So is it your understanding that every	12:14:29
19	request for web content from a web server will	12:14:32
20	pass through proxy server 19, even if the French	12:14:38
21	language functionality of proxy server 19 is not	12:14:43
22	desired?	12:14:47

1	A	No.	12:14:50
2	Q	Is it your understanding that every	12:14:56
3		request for web content from a web server will	12:15:12
4		pass through proxy server 21, even if the wait	12:15:15
5		avoidance functionality of proxy service 21 is not	12:15:21
6		desired?	12:15:27
7	A	So in the example presented in	12:19:35
8		Kocherlakota, the -- since the third proxy is the	12:19:38
9		last one, I don't know what happens if you ask to	12:19:56
10		skip that. But will every connection pass through	12:20:00
11		that? It would seem like that's reasonable. I	12:20:10
12		didn't analyze that in detail.	12:20:14
13	MS. O'BRIEN:	Okay. It seems we've been	12:20:26
14		going a little over an hour now, so let's take a	12:20:27
15		ten-minute break and return at 30 after the hour.	12:20:29
16		If we could please go off the record.	12:20:34
17	A/V TECHNICIAN:	We are going off the	12:20:37
18		record. The time is 12:20 p.m.	12:20:38
19		(A recess was taken.)	12:20:40
20	A/V TECHNICIAN:	We are back on the	12:30:08
21		record. The time is 12:30.	12:30:14
22	BY MS. O'BRIEN:		12:30:20

1	Q	Dr. Olivier, did you speak with anyone	12:30:20
2		during the break about your testimony here?	12:30:24
3	A	No one.	12:30:27
4	Q	And before the break we were discussing	12:30:27
5		the Kocherlakota reference in tandem with your	12:30:32
6		declaration.	12:30:38
7		Do you have those exhibits still handy?	12:30:38
8	A	Yes.	12:30:42
9	Q	And is it your understanding that the	12:30:42
10		response from the web server will traverse the	12:31:09
11		same pathway as the request, just in the opposite	12:31:12
12		direction?	12:31:16
13	A	I believe so, yes.	12:32:01
14	Q	And if you could please turn to Paragraph	12:32:02
15		103 of your declaration, and let me know when	12:32:11
16		you're there.	12:32:15
17	A	Yes.	12:32:31
18	Q	Actually, I'm sorry, can you please turn	12:32:31
19		to Paragraph 108 of your declaration, and let me	12:32:47
20		know when you're there.	12:32:53
21	A	Okay.	12:33:01
22	Q	Do you see where you quoted Kocherlakota	12:33:01

1	stating, The services of that proxy are to be	12:33:07
2	skipped as defined by the X in Box 249?	12:33:13
3	A Yes.	12:33:17
4	Q Is your understanding of the word "skip"	12:33:17
5	as used in Kocherlakota referring to skipping the	12:33:23
6	services of a particular proxy?	12:33:28
7	A Yes.	12:33:36
8	Q And even if the services of that proxy	12:33:36
9	are skipped, the request will still pass through	12:33:46
10	that proxy. Correct?	12:33:52
11	A Figure 7? So you're asking what happens	12:33:59
12	when it skips it in Box 429 -- or 249, sorry. It	12:35:57
13	will skip -- it will still pass through it but	12:36:11
14	will not apply the service provided by the proxy	12:36:14
15	to it.	12:36:16
16	Q Thank you. And can you please go to	12:36:16
17	Paragraph 110 of your declaration.	12:36:35
18	A Okay.	12:36:44
19	Q And let me know when you're there.	12:36:44
20	A I'm there.	12:36:46
21	Q Do you see where you quoted Kocherlakota	12:36:47
22	stating that the first proxy will skip the second	12:36:50

1	proxy and jump to the third proxy?	12:36:56
2	A Yes.	12:37:00
3	Q Is it your understanding that the	12:37:00
4	services of the second proxy will not be utilized?	12:37:05
5	MR. WALLIS: Objection. Form.	12:37:12
6	A Yes; because it doesn't even go to the	12:37:16
7	second proxy.	12:37:19
8	Q So is it your understanding that the	12:37:24
9	request will not be sent to the second proxy?	12:37:27
10	A Correct.	12:37:32
11	Q And in that case is your understanding of	12:37:32
12	the request pathway client computer 11, proxy	12:37:42
13	server 17, proxy server 21, web server 15?	12:37:48
14	A Could you read that again?	12:38:00
15	Q In that particular example when the first	12:38:03
16	proxy will skip the second proxy and jump to the	12:38:07
17	third proxy, is your understanding of the request	12:38:11
18	pathway client client computer 11 to proxy server	12:38:15
19	17 to proxy server 21 to web server 15?	12:38:20
20	A Yes.	12:38:26
21	Q And in that same example, would the	12:38:27
22	response traverse the opposite direction, being	12:38:33

1	web server 15 to proxy server 21 to proxy server	12:38:37
2	17 to client computer 11?	12:38:41
3	A Yes.	12:38:46
4	Q In that example when the first proxy will	12:38:46
5	skip the second proxy and jump to the third proxy,	12:38:55
6	is it your understanding that the services of the	12:39:01
7	third proxy will be utilized?	12:39:04
8	A I think you may be able to skip the	12:39:18
9	services also under some configuration. Where is	12:39:20
10	Kocherlakota at?	12:39:33
11	I don't know if Kocherlakota gives an	12:40:22
12	example of skipping that services, but definitely	12:40:24
13	you have the ability to skip services within	12:40:32
14	Kocherlakota of different proxies.	12:40:36
15	Q And in order to skip the services of a	12:40:40
16	particular proxy, you agree that relates to the X	12:41:04
17	in Box 249 or Box 255 as examples shown in Figure	12:41:09
18	7. Correct?	12:41:18
19	A Correct.	12:41:20
20	Q And those indications in the text windows	12:41:20
21	249 and 255 are for a specific URL shown in the	12:41:31
22	text windows 247 and 253. Correct?	12:41:38

1	A	Correct.	12:41:44
2	Q	And if there is a request for a URL that	12:41:44
3		does not match the example shown in Boxes 247 and	12:41:54
4		253, you agree the request will travel along the	12:41:59
5		default pathway from client computer 11 to proxy	12:42:06
6		17 to proxy 19 to proxy 21 to web server 15.	12:42:12
7		Correct?	12:42:18
8	A	Correct.	12:42:19
9	Q	And in that default pathway, will the	12:42:20
10		services of proxy 17 be utilized?	12:42:26
11	A	If you've done no configuration other	12:42:44
12		than the default, which then all the services	12:42:47
13		would be utilized in the example they give here.	12:42:51
14	Q	And when you say "all the services," do	12:43:01
15		you mean the services of proxy 17, the services of	12:43:03
16		proxy 19, and the services of proxy 21?	12:43:07
17	A	Yes.	12:43:10
18	Q	And still in Paragraph 110 of your	12:43:10
19		declaration, do you see where you quoted	12:43:33
20		Kocherlakota stating, "The advanced features allow	12:43:37
21		the user to define which proxy servers are	12:43:41
22		employed for predetermined URLs"?	12:43:47

1	A	Yes.	12:43:50
2	Q	Is your understanding of the word	12:43:51
3		"employed" referring to the services of the proxy	12:43:58
4		servers?	12:44:03
5	A	Yes.	12:44:07
6	Q	Is your understanding of the word	12:44:07
7		"employed" referring to whether the request is	12:44:15
8		sent to a proxy server?	12:44:19
9	A	Well, to employ it, it must be sent	12:44:28
10		there. There's different ways of configuring it	12:44:33
11		in the advanced features.	12:44:37
12	Q	If you could please look at Kocherlakota,	12:45:21
13		Column 1, starting at Line 31, and let me know	12:45:25
14		when you're there, please.	12:45:32
15	A	I'm here.	12:45:50
16	Q	Do you see that Kocherlakota states, "A	12:45:51
17		third type of proxy might be an efficiency proxy	12:45:56
18		to protect against the delays of internet usage,	12:46:00
19		sometimes referred to as the worldwide wait. An	12:46:04
20		efficiency proxy may contain a local cache for	12:46:09
21		storing frequently accessed files, and it may	12:46:13
22		reduce the size of files actually transmitted onto	12:46:16

1	the client."	12:46:18
2	A I see that.	12:46:20
3	Q Is that consistent with your	12:46:22
4	understanding of the wait-avoidance proxy server	12:46:36
5	21 described in Kocherlakota?	12:46:40
6	A That could be one way to implement a	12:48:01
7	wait-limiting proxy. Another way would be just to	12:48:05
8	have high-speed connections to web servers of	12:48:07
9	particular types. So I don't think that the	12:48:10
10	Kocherlakota defines the mechanism that it's using	12:48:19
11	to limit the wait.	12:48:22
12	Q Can you please turn to Paragraph 102 of	12:48:50
13	your declaration and let me know when you're	12:48:53
14	there?	12:48:57
15	A I'm there.	12:48:57
16	Q You opine that Kocherlakota teaches that	12:49:04
17	proxy servers are a special type of server.	12:49:14
18	Correct?	12:49:17
19	A Correct.	12:49:18
20	Q What do you mean by that statement,	12:49:18
21	specifically "type of server"?	12:49:28
22	A That the Kocherlakota describes that the	12:49:38

1	internet has many different types of servers. One	12:49:39
2	type is a proxy server which provides services to	12:49:44
3	a user, but also establishes said systems to web	12:49:50
4	servers.	12:49:58
5	Q And in your opinion, is that a special	12:50:06
6	type of server because a proxy server operates in	12:50:08
7	the role of a client as well as a server?	12:50:17
8	A That could be one way of looking at it,	12:50:24
9	yes.	12:50:26
10	Q And the roles that are performed by a	12:50:26
11	proxy are based on the software installed thereon.	12:50:47
12	Correct?	12:50:53
13	A The software that's operating thereon,	12:50:55
14	yes.	12:50:58
15	Q With respect to Paragraph 105 of your	12:50:58
16	declaration, you opine that Kocherlakota teaches	12:51:13
17	that proxies such as Proxy 17 are server machines.	12:51:23
18	Correct?	12:51:29
19	A Yes.	12:51:37
20	Q What do you mean by the phrase "server	12:51:38
21	machine"?	12:51:45
22	A Hardware.	12:51:54

1	Q	Is Proxy 19 of Kocherlakota a server	12:52:04
2		machine?	12:52:09
3	A	It's hardware that acts in the role of a	12:52:13
4		server, along with acting in other roles.	12:52:16
5	Q	And if I understand your testimony	12:52:23
6		correctly, you said server machine refers to the	12:52:37
7		hardware. Correct?	12:52:41
8	A	Well, no. You asked me what the	12:52:46
9		machine -- the question what the machine meant	12:52:49
10		there, and I said that refers to the hardware.	12:52:50
11	Q	Thank you for clarifying that.	12:52:54
12		So based on your understanding of	12:53:04
13		Kocherlakota, is there any difference in hardware	12:53:05
14		among Proxies 17, 19, and 21?	12:53:09
15	A	I didn't see any distinction they made of	12:53:18
16		the hardware. They could or could not be the same	12:53:21
17		hardware. They're performing -- Kocherlakota is	12:53:27
18		describing more their functionality.	12:53:29
19	Q	And you agree that Proxies 17, 19, and 21	12:53:38
20		are all intermediaries. Correct?	12:53:42
21	A	Intermediaries? And by "intermediaries"	12:53:47
22		you mean proxies?	12:53:52

1	Q	I will ask the question differently.	12:53:54
2		You agree that Proxies 17, 19, and 21 all	12:54:00
3		perform both client and server roles. Correct?	12:54:10
4	A	Correct.	12:54:14
5	Q	Based on your understanding of	12:54:15
6		Kocherlakota, is there any difference in the	12:54:21
7		operating systems among Proxies 17, 19, and 21?	12:54:26
8	A	I think Kocherlakota is kind of silent on	12:54:39
9		what operating systems.	12:54:43
10	Q	I'm sorry, are you finished with your	12:54:55
11		answer?	12:55:23
12	A	Yes. Yes.	12:55:23
13	Q	Based on your earlier testimony, I	12:55:28
14		believe you opined that an operating system could	12:55:33
15		be configured to operate exclusively as a client	12:55:39
16		or exclusively as a server or both a client and a	12:55:42
17		server.	12:55:47
18		Is that correct?	12:55:47
19		MR. WALLIS: Objection. Form.	12:55:49
20	A	It's definitely hypothetically possible	12:55:55
21		to do that.	12:55:58
22	Q	And Proxies 17, 19, and 21 all perform	12:56:04

1	client and server roles. Correct?	12:56:13
2	A Correct.	12:56:18
3	Q And so would you -- strike that.	12:56:19
4	Is there any difference in the operating	12:56:27
5	system used by Proxies 17, 19, and 21, based on	12:56:32
6	your understanding?	12:56:36
7	A My understanding is the operating system	12:56:43
8	is immaterial to teachings of Kocherlakota.	12:56:46
9	I'm finished.	12:57:08
10	Q Thank you. So generally with reference	12:57:09
11	to Figure 1 of Kocherlakota, but not limiting you	12:58:17
12	to that figure, you previously agreed that proxy	12:58:21
13	server 17 acts as both a client and a server.	12:58:30
14	Right?	12:58:34
15	A Correct.	12:58:36
16	Q Now, is it your opinion that proxy server	12:58:36
17	17 is a communication device that is operating in	12:58:41
18	the role of a client?	12:58:46
19	A Yes.	12:58:51
20	Q And you agreed that proxy server 19 acts	12:58:52
21	as both a client and a server. Correct?	12:59:00
22	A Correct.	12:59:04

1	Q	And in your opinion, is proxy server 19 a	12:59:04
2		device that is operating in the role of a server	12:59:12
3		and that is not client computer 11 or web server	12:59:16
4		15?	12:59:19
5	A	Correct.	12:59:21
6	Q	And you previously agreed that proxy	12:59:21
7		server 21 acts as both a client and a server.	12:59:28
8		Correct?	12:59:32
9	A	Correct.	12:59:35
10	Q	And in your opinion, is proxy server 21 a	12:59:35
11		device that is operating in the role of a server	12:59:40
12		and that is not the client computer 11 or the web	12:59:44
13		server 15?	12:59:47
14	A	Correct.	12:59:50
15	Q	If you could please turn to Paragraph 137	12:59:50
16		of your declaration generally. And let me know	13:00:39
17		when you're there, please.	13:00:45
18	A	Okay.	13:01:03
19	Q	Claim 15 requires the first server is a	13:01:04
20		TCP/IP server. Correct?	13:01:13
21	A	Correct.	13:01:17
22	Q	Based on your understanding of Claim 15,	13:01:17

1	is a TCP/IP server a type of hardware?	13:01:24
2	A No.	13:01:29
3	Q In forming your opinions, did you	13:01:29
4	consider the fact that the district court found	13:02:01
5	the specification does not include servers as a	13:02:06
6	type of communication device?	13:02:09
7	A Servers as a type of communication	13:02:15
8	device?	13:02:17
9	I recall that, yes.	13:02:26
10	Q And did that finding by the district	13:02:27
11	court impact your analysis?	13:02:36
12	A I mean, I considered it, but it wasn't	13:02:42
13	material to my analysis.	13:02:46
14	Q If you could please scroll to Paragraph	13:02:49
15	143 of your declaration and let me when you're	13:03:06
16	there.	13:03:12
17	A Okay.	13:03:23
18	Q And Claim 18 requires the first server to	13:03:23
19	select the IP addresses of multiple client devices	13:03:33
20	from the list. Right?	13:03:41
21	A Right.	13:03:44
22	Q And with respect to Paragraph 144, you	13:03:44

1	opined that proxy server 17 selects the IP address	13:03:52
2	of proxy 19 to forward the URL to proxy 19.	13:03:59
3	Right?	13:04:04
4	A Could you repeat your question?	13:04:39
5	Q With respect to Paragraph 144, you opined	13:04:42
6	that proxy server 17 selects the IP address of	13:04:50
7	Proxy 19 to forward the URL to Proxy 19. Right?	13:04:56
8	A In some situations, yes.	13:05:03
9	Q If proxy server 17 jumped to Proxy 21,	13:05:04
10	then it's your understanding that proxy server 17	13:05:23
11	would select the IP address for Proxy 21. Right?	13:05:26
12	A Correct.	13:05:31
13	Q For a single request, proxy server 17	13:05:31
14	selects the IP address of Proxy 19 or Proxy 21.	13:05:50
15	Correct?	13:05:56
16	A Correct.	13:05:58
17	Q In your opinion, in the context of	13:05:58
18	proxies, would a POSITA be familiar with the	13:06:22
19	phrase "blind relay"?	13:06:26
20	A They could or could not. I don't have an	13:06:56
21	opinion whether they would.	13:06:59
22	Q Do you recall when we discussed the,	13:07:00

1	quote, default pathway where a URL does not match	13:07:15
2	a URL in the text windows 247 or 253 of Figure 7?	13:07:23
3	A Yes.	13:07:32
4	Q And in such a case you opined that all	13:07:32
5	the services of all of the proxies would be used	13:07:42
6	in the default pathway. Correct?	13:07:45
7	A Correct. As long as you didn't include	13:07:49
8	any other selection of any other features, you	13:07:54
9	would pass -- the Kocherlakota teaches you pass	13:07:58
10	through each one and getting -- and get the	13:08:00
11	services of each one in what we're calling the	13:08:03
12	default pathway.	13:08:06
13	Q And if all of the services of all of the	13:08:06
14	proxies were skipped and a request path from	13:08:14
15	client computer 11 to proxy server 19 -- excuse	13:08:20
16	me, from client computer 11 to Proxy 17 to Proxy	13:08:26
17	19 to Proxy 21 to web server 15, with none of the	13:08:30
18	services being used, would those proxies be	13:08:35
19	considered blind relays?	13:08:40
20	A First off, I don't recall that I could	13:08:48
21	come up with a way where we skipped all the	13:08:50
22	services in -- there wasn't a specific teaching in	13:08:53

1	Kocherlakota where he skipped all the services of	13:09:04
2	all the proxies.	13:09:06
3	And then your question is if we did find	13:09:07
4	that, would they be called blind relays then?	13:09:10
5	Q Yes. If all of the services of all of	13:09:13
6	the proxies were skipped, but the request still	13:09:19
7	passed through all of the proxies, would the	13:09:25
8	proxies be considered blind relays?	13:09:28
9	A I didn't perform that analysis, so I	13:09:33
10	don't know the answer to your question.	13:09:38
11	Q Okay. We did analyze an example where	13:09:42
12	the services of Proxy 17 are skipped and the	13:09:49
13	request passes from Proxy 17 to Proxy 19 to Proxy	13:09:55
14	21 to web server 15. Correct?	13:10:03
15	A Yes.	13:10:06
16	Q In that scenario where the services of	13:10:07
17	Proxy 17 are skipped, is Proxy 17 considered a	13:10:13
18	blind relay?	13:10:17
19	MR. WALLIS: Objection. Form.	13:10:18
20	A Yeah, I didn't see blind relays mentioned	13:10:26
21	in Kocherlakota, and I didn't perform an analysis	13:10:30
22	of blind relays in Kocherlakota. So again, I	13:10:33

1	don't know the answer to your question. I don't	13:10:36
2	have an opinion on that.	13:10:41
3	Q If you could please turn to Paragraph 159	13:10:46
4	of your declaration, and let me know when you're	13:11:00
5	there.	13:11:05
6	A I'm here.	13:11:42
7	Q And if it's helpful, I'll refer you to	13:11:42
8	Figure 6 of Kocherlakota as well. But my question	13:11:57
9	is, in Kocherlakota, the client enters information	13:12:04
10	into an applet which is provided to Proxy 17.	13:12:09
11	Right?	13:12:14
12	A Provided from Proxy 17. The applet?	13:12:18
13	Q The client enters information into an	13:12:22
14	applet which is provided to Proxy 17. Right?	13:12:28
15	A The applet is -- the information is	13:12:33
16	provided. The applet is provided from Proxy 17.	13:12:35
17	Information is provided back to Proxy 17 from the	13:12:40
18	applet.	13:12:44
19	Q And based on the information in the	13:12:46
20	applet, Proxy 17 then establishes sessions with	13:12:51
21	the other proxies. Right?	13:12:56
22	A Correct.	13:12:59

1	Q	And in Paragraph 159 of your declaration,	13:13:00
2		after a session has been established between two	13:13:24
3		proxies, your opinion of adding an IP address of a	13:13:28
4		proxy is based on removing and then re-adding a	13:13:43
5		proxy to the list of proxies.	13:13:48
6		Is that correct?	13:13:50
7	A	Correct.	13:13:52
8	Q	And in your opinion, is the list of IP	13:14:04
9		addresses recited in Claim 1 a list of available	13:14:06
10		proxies?	13:14:12
11		MR. WALLIS: Objection. Form.	13:14:18
12	A	The list? It's the list of available	13:14:28
13		proxies at the time we set up the original	13:14:32
14		connection, the original chain of proxies.	13:14:35
15	Q	And in the context of the '826 patent, is	13:14:44
16		your understanding of the list of IP addresses	13:14:56
17		recited in Claim 1 a list of IP addresses for	13:15:01
18		available proxies?	13:15:08
19	A	So you're asking if in the '826 patent	13:16:15
20		the list in the embodiment is of available	13:16:19
21		proxies?	13:16:26
22	Q	I'll reask the question.	13:16:26

1	In the context of the '826 patent, is the	13:16:30
2	list of IP addresses recited in Claim 1 a list of	13:16:34
3	available proxies at the time of the initial	13:16:42
4	connections being set up?	13:16:45
5	MR. WALLIS: Objection. Form.	13:16:53
6	A It says in -- that it's a list of agents	13:16:58
7	that may be suitable to handle the request from	13:17:02
8	this IP address.	13:17:06
9	Q And in the Claim 1 preamble, do you see	13:17:23
10	where Claim 1 recites a list of IP addresses	13:17:28
11	stored in the first server?	13:17:31
12	A Yes.	13:17:35
13	Q And when we were discussing Kocherlakota,	13:17:35
14	I believe you testified that Kocherlakota	13:17:42
15	discloses a list of IP addresses of available	13:17:46
16	proxies at the time the initial session	13:17:51
17	connections are made.	13:17:55
18	Is that correct?	13:17:56
19	A Well, Kocherlakota says they're	13:18:01
20	available. The list comes from the -- the applet	13:18:05
21	that transferred the information to Proxy 17.	13:18:14
22	MS. O'BRIEN: We've been going a little	13:18:40

Transcript of James Olivier, Ph.D.
Conducted on August 12, 2024

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1	under an hour. If we could take a five-minute	13:18:41
2	break -- or excuse me, if we could take a	13:18:48
3	ten-minute break as opposed to an hour lunch break	13:18:52
4	at this time for me to go over my notes, is that	13:18:55
5	okay with you, Dr. Olivier?	13:18:57
6	THE WITNESS: Sure. Absolutely.	13:18:59
7	MS. O'BRIEN: Okay. Let's take a	13:19:01
8	ten-minute break and return at 30 after the hour,	13:19:04
9	please. If we could go off the record.	13:19:07
10	A/V TECHNICIAN: We are going off the	13:19:10
11	record. The time is 1:19.	13:19:11
12	(A recess was taken.)	13:19:13
13	A/V TECHNICIAN: We are back on the	13:30:43
14	record. The time is 1:30.	13:30:50
15	BY MS. O'BRIEN:	13:30:54
16	Q Dr. Olivier, did you discuss your	13:30:55
17	testimony with anyone during the break?	13:30:57
18	A No.	13:31:00
19	MS. O'BRIEN: And thank you very much for	13:31:03
20	your time today. I have reviewed my notes, and I	13:31:05
21	have no further questions at this time. And so I	13:31:07
22	pass the witness.	13:31:12

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1 MR. WALLIS: No redirect for us. So we 13:31:13
2 can go ahead and wrap things up here. 13:31:17

3 MS. O'BRIEN: Then we are all finished. 13:31:19

4 Thank you again very much, Dr. Olivier. 13:31:21

5 THE WITNESS: Thank you. 13:31:26

6 A/V TECHNICIAN: We are going off the 13:31:26
7 record. The time is 1:31. 13:31:27

8 (Off the record at 1:31 p.m. EDT.)

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(DATE) (SIGNATURE)

C E R T I F I C A T E

I, Debra Ann Whitehead, E-Notary Public in and for
the Commonwealth of Virginia, do hereby certify:

That JAMES OLIVIER, Ph.D., the witness
whose deposition is hereinbefore set forth, was duly
sworn by me before the commencement of such
deposition and that such deposition was taken
virtually and is a true record of the testimony
given by such witness.

I further certify that the adverse party,
OXYLABS LT, UAB, was represented by counsel at the
deposition.

I further certify that the deposition of
JAMES OLIVIER, Ph.D., occurred virtually, on Monday,
August 12, 2024, from 10:02 a.m. to 1:31 p.m. EDT.

1 I further certify that I am not related to
2 any of the parties to this action by blood or
3 marriage, I am not employed by or an attorney to any
4 of the parties to this action, and that I am in no
5 way interested, financially or otherwise, in the
6 outcome of this matter.

7
8 IN WITNESS WHEREOF, I have hereunto set my
9 hand this 12th day of August, 2024.

10
11 My commission expires:
12 October 31, 2027

13
14  

15 -----
16 E-NOTARY PUBLIC IN AND FOR THE
17 COMMONWEALTH OF VIRGINIA
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