

EX 1026

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

NETSKOPE, INC.,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	No. 4:25-cv-02360-hsg
	)	
FORTINET, INC.,	)	
	)	
Defendant.	)	

The deposition of AARON D. STRIEGEL, Ph.D., taken for the purpose of discovery at Notre Dame, Indiana, commencing at 9:01 a.m. on the 7th day of November, 2025 taken pursuant to notice and pursuant to the Federal Rules of Civil Procedure for the United States District Courts pertaining to the taking of depositions before Trixie L. Schuzer, Certified Shorthand Reporter and Notary Public appearing remotely via videoconference.

1	APPEARANCES VIA VIDEOCONFERENCE:	1	(Witness sworn.)
2	PERKINS COIE	2	WHEREUPON:
3	MR. KYLE CANAVERA	3	AARON D. STRIEGEL, Ph.D.,
4	11452 El Camino Real	4	called as a witness herein, having been first duly
5	Suite 300	5	sworn, was examined and testified as follows:
6	San Diego, California 92130	6	DIRECT EXAMINATION
7	Phone: (858) 720-5700	7	BY MR. IWAHASHI:
8	E-mail: kcanavera@perkinscoie.com	8	Q. Just for the record my name is Ryan Iwahashi.
9	On behalf of the Plaintiff;	9	I work at Gish, PLLC. I represent the defendant and
10	GISH PLLC	10	counterclaimant, Fortinet, in this case.
11	MR. RYAN IWAHASHI	11	Good morning, Dr. Striegel.
12	50 California Street	12	A. Good morning.
13	Suite 1500	13	Q. For the record, will you please state and
14	San Francisco, California 94111	14	spell your name?
15	Phone: (415) 630-2000	15	A. Sure. My name is Aaron David Striegel, and
16	E-mail: ryan@gishpllc.com	16	Striegel is S T R I E G E L.
17	On behalf of the Defendant.	17	Q. And where do you live, just city and state is
18	* * * * *	18	fine?
19		19	A. Sure. So I'm doing this deposition from the
20		20	University of Notre Dame in Notre Dame, Indiana, in my
21		21	office.
22		22	Q. And you've been deposed before; is that
23		23	right?
24		24	A. That's correct.
25		25	Q. And about how many times?
Page 2		Page 4	
1	I N D E X	1	A. I think it's now in the teens.
2		2	Q. So you know the basics. I'm just going to go
3	WITNESS PAGE	3	over a couple different ground rules here. You
4	AARON D. STRIEGEL, Ph.D.	4	understand that you are under an obligation to tell the
5	Direct Examination by Mr. Iwahashi 4	5	truth under penalty of perjury; is that right?
6		6	A. I do understand that.
7	E X H I B I T S	7	Q. And if you don't understand the question,
8	DEPOSITION EXHIBIT PAGE	8	please just ask me for clarification. Otherwise, I'm
9	No. 1 ... declaration 7	9	going to assume you understand it; is that fair?
10	No. 2 ... U.S. Patent No. 8,543,710 19	10	A. I think that's reasonable.
11	No. 3 ... U.S. Patent No. 8,327,426 56	11	Q. Is there any reason you are unable to testify
12	No. 4 ... U.S. Patent No. 7,593,936 90	12	truthfully and accurately today?
13	No. 5 ... U.S. Patent No. 8,661,153 124	13	A. No, I don't think so.
14	No. 6 ... U.S. Patent No. 8,635,697 147	14	Q. Did you meet with counsel for -- to prepare
15		15	for your deposition today?
16		16	A. Yes, I did.
17		17	Q. How many times?
18		18	A. A couple of times. I don't recall the exact
19		19	number, but it was a couple of times, as is typical.
20		20	Q. About how long each time?
21		21	A. I would have to go back to my notes on that,
22		22	as it varied a bit.
23		23	Q. More than eight hours total preparing for the
24		24	deposition?
25		25	A. I don't think it was more than eight meeting
Page 3		Page 5	

1 with counsel. 2 Q. Did you speak with anyone other than counsel 3 in preparation for your deposition? 4 A. To the best of my knowledge, no. 5 Q. Okay. Did you review any documents in 6 preparation for your deposition today? 7 A. I did. 8 Q. What documents were those? 9 A. I had reviewed my report and its accompanying 10 materials and the materials cited in my report. 11 Q. Did you make any notes during your review? 12 A. Yes, I did. 13 Q. Do you have any materials in front of you 14 right now? 15 A. I do have my report printed out as a clean 16 version. 17 Q. Is there anyone else in the room with you 18 right now? 19 A. There is not. 20 Q. Do you have any other applications open on 21 your computer right now? 22 A. Right now I think I have Slack opened because 23 I sent a note to my student, and it looks like I 24 have -- I have GitHub open, which I could close that. 25 But otherwise, I have just the e-mail client to bring Page 6	1 declaration here of your report. 2 When is the last time you read Exhibit 1? 3 A. I believe I would have flipped through it 4 briefly this morning. 5 Q. Did you -- Are you aware of any mistakes or 6 anything you want to correct in your report? 7 A. To the best of my knowledge, no. 8 Q. And you stand by the opinions therein; is 9 that right? 10 A. I do. 11 Q. Are any of your opinions in your report based 12 on confidential information? 13 A. To the best of my knowledge, no. 14 Q. Okay. Did you review any confidential 15 information in preparing your report? 16 A. I don't believe so. 17 Q. When were you retained by Netskope? 18 MR. CANAVERA: Object, privileged to the extent 19 that gets into any -- any retention of Dr. Striegel not 20 related to this proceeding. 21 Please go ahead. 22 BY THE WITNESS: 23 A. That's a good question. I don't recall 24 exactly. I do know I've been working on this, I 25 believe, for a couple of months for this -- this Page 8
1 up the link for the Zoom, Zoom, and close out Slack too 2 and then I have set my computer to "do not disturb". 3 Q. Okay. Great. If at any point you get any 4 messages on your computer, will you please let me know? 5 A. I will. I've turned them all off, and I 6 think they're all blocked when it's on do not disturb, 7 at least I believe so. 8 Q. Okay. All right. I understand that you have 9 a clean copy of your deposition [sic] in front of you. 10 I'm going to mark that as Exhibit 1, just for the 11 record. Feel free to use the clean copy that you have 12 in front of you or you can use the electronic copy. 13 Either way is totally fine with me. 14 MR. CANAVERA: For clarity it was his declaration, 15 right, his claim construction declaration? 16 MR. IWAHASHI: Yeah, the claim construction 17 declaration. I've dropped it into the chat. You're 18 free to download it and check it out yourself too. 19 BY THE WITNESS: 20 A. It does appear to be the same report that I 21 have in front of me, Counsel. So I have just the clean 22 construction, kind of the core of the report, and not 23 the appendices printed. 24 Q. Thank you for that clarification. I was 25 about to ask you to confirm that was indeed your Page 7	1 particular report. 2 Q. Have you worked for Netskope before? 3 MR. CANAVERA: Objection; vague. 4 BY THE WITNESS: 5 A. In terms of working for Netskope, I had 6 worked on this particular matter, but I don't -- I 7 don't believe I had worked for them beyond this 8 particular case. 9 Q. Were you familiar with Netskope before you 10 were retained? 11 A. I was not familiar with Netskope outside 12 of -- I believe I had heard of them as one of, kind of, 13 the vendors in the network security space, but I was 14 not familiar with what they had offered. 15 Q. How much time did you spend preparing your 16 report? 17 A. I don't know that exact tally for sure, and I 18 would have to go through and check my notes to know. 19 Q. Was it more than 80 hours? 20 A. I don't believe it would have been more than 21 80 hours. 22 Q. Was it more than 40 hours? 23 A. I don't know for sure. I don't think it was 24 more than 40 hours. 25 Q. Was it more than 30 hours? Page 9

1 A. That, I don't know for sure. I would have to 2 go and check my notes, but I feel reasonable to say 3 that it was not greater than 40 or greater than 80. 4 Q. Have you spent any time working on this 5 matter outside of the preparation of this report? 6 MR. CANAVERA: Objection; extent that calls for 7 any privileged discussions we've had with Dr. Striegel. 8 Please go ahead and answer. 9 BY THE WITNESS: 10 A. Yeah, I don't believe I can answer that 11 question without disclosing privilege. 12 Q. So I'm not asking about content of privileged 13 discussions. I'm just wondering if you worked on 14 anything outside of -- other than this report as part 15 of this case. 16 MR. CANAVERA: Objection; vague. 17 BY THE WITNESS: 18 A. I guess I'm not quite sure to the extent -- 19 and, again, since I'm not a lawyer, I don't know what 20 would be within the realm of privileged information or 21 not. 22 Q. You're being compensated for your time in 23 connection with this matter; is that right? 24 A. That is correct. 25 Q. And, in fact, your standard hourly rate, I Page 10	1 my report and given its focus was primarily focused on 2 the patents themselves. 3 Q. Did you review any of the documents 4 incorporated by reference to the patents? 5 A. I don't recall reviewing them recently, but I 6 may have looked through documents incorporated by 7 reference when reviewing the patents, but I don't 8 recall it specifically in the -- in the recent month or 9 so. 10 Q. Do any of your opinions rely upon materials 11 incorporated by reference into the patents? 12 A. For this particular report, I do not believe 13 it relies on those materials. 14 Q. Did you review the patent file histories? 15 A. I don't recall specifically if I have seen 16 the patent file histories. 17 Q. You don't rely upon the patent file histories 18 for any of the opinions you render in your report; is 19 that right? 20 A. I do not believe I cite one of the patent 21 file histories as part of my report. 22 Q. Do any of your opinions rely upon the file 23 histories of any of the patents? 24 A. I do not believe that my opinions 25 specifically rely on file histories for this report. Page 12
1 would assume? 2 A. I believe there is a rate listed in the 3 report. 4 Q. Who wrote this report? 5 MR. CANAVERA: Objection to the extent that calls 6 for any privileged communications or the content of any 7 drafts and progress drafts in support. 8 Please do not share that information. 9 BY THE WITNESS: 10 A. So in terms of writing the report, I am the 11 final authority. When I go through and submit my 12 report, I've reviewed it thoroughly. The report is my 13 opinion carefully researched by myself, and that is 14 what I have presented to the Court. 15 Q. You did not provide a list of materials 16 considered with your report; is that right? 17 A. I do not recall a specific appendix where I 18 would have broken that out given that I had listed the 19 patents, so that I believe would have encompassed what 20 I would have considered as part of my opinion. 21 Q. What else did you consider other than the 22 patents that you've cited? 23 A. As part of my review process, I would have 24 brought my knowledge that I would have had as a 25 professor, my general understanding from the field, but Page 11	1 Q. Have you reviewed Netskope's infringement 2 contentions in this case? 3 A. To the extent that I've seen -- knowing which 4 claims are relevant and which ones are part of the 5 claim construction process, I don't know if I would say 6 that I have directly reviewed the particular 7 infringement claims, but I would have, I guess, seen 8 them, I guess, indirectly by virtue of what was in 9 dispute for claim construction. 10 Q. Can you explain what you mean by indirectly 11 there? 12 A. Yeah, I realize I probably said that a little 13 bit inelegantly. So I guess probably -- Again, I'm not 14 a lawyer, but I -- I do not recall specifically looking 15 at a, I guess, infringement. The infringement charts 16 as filed are looking at those specific materials. I 17 had just focused on the relevant aspects of claim 18 construction. 19 Q. Have you reviewed the IPR petitions filed by 20 Fortinet on any of these patents? 21 A. I do not believe I have seen the IPR 22 petitions as filed. 23 Q. Your CV is Exhibit 1 to your report; is that 24 right? 25 A. That is a good question, Counsel. I believe Page 13

1 it's Exhibit A, as part of my report, as listed in 2 paragraph 18. 3 Q. Okay. And your CV was dated March 6, 2025; 4 is that right? 5 A. I don't have it in front of me, Counsel, so I 6 would have to take your word on that. 7 Q. Is that still the most recent version of your 8 CV? 9 A. I believe since this report has been filed, I 10 have updated my CV with just general -- general papers 11 as published but that would have been the relevant CV 12 when I had filed my report. 13 Q. Anything that you've added to your CV since 14 this report that is directly relevant to your opinions? 15 A. I don't -- I don't believe so. 16 Q. So have you worked previously on any case 17 involving Fortinet before? 18 A. I have. 19 Q. What were those cases? 20 A. There is a case that I am currently on that 21 is InfoExpress versus Fortinet, and I believe there 22 would have been an IPR filed in that case. I don't 23 remember if it was Fortinet or Cisco or Fortinet and 24 Cisco jointly. I'm not a lawyer, so I don't know the 25 specifics if they can go jointly. I'm currently on Page 14	1 A. That would be correct, and that would be for 2 the '710 patent. 3 Q. And in -- starting around paragraph 43, you 4 address the term "principal believing interactions are 5 with external service"; is that right? 6 A. I don't think that paragraph is right, 7 Counsel. 8 Q. Did I say paragraph 53? 9 A. I believe you said 43, Counsel. 10 Q. Oh, I'm sorry. Starting around paragraph 52 11 you address the term "principal believing interactions 12 are with the external service"; is that right? 13 A. I believe that appears to be correct in my 14 report where I had addressed that term for the '426 15 patent. 16 Q. And starting at around paragraph 67, you 17 address the term "generic response"; is that right? 18 A. I believe that would be correct, but I would 19 have addressed generic response with regards to the 20 '936 patent. 21 Q. And starting at around paragraph forty -- or 22 let me start over. 23 Starting at around paragraph 84, you 24 address the term "arbitrary member of attributes" for 25 the '153 patent; is that right? Page 16
1 that case. 2 I don't recall the exact time frame, but I 3 believe it would have been maybe 10 -- 10 years ago, 4 maybe a little bit more, where I had been on a case 5 between Fortinet and Sophos. So I believe that case 6 had involved a suit and countersuit. I'd like to say a 7 bit over ten years ago, but I don't recall 100 percent. 8 Q. Any other cases that you've worked on 9 involving Fortinet? 10 A. To the best of my knowledge, I believe those 11 are the only two as far as I know. Yeah. 12 Q. I'm assuming you were adverse to Fortinet in 13 those cases; is that right? 14 A. I would have been adverse to Fortinet in both 15 of those cases -- well, I guess now encompassing this 16 one, and this would be the third time. 17 Q. Okay. In your declaration -- or your report, 18 you address five limitations on five different patents; 19 is that right? 20 A. I believe it would be accurate to say that I 21 address five particular limitations, if I'm getting the 22 verbiage right. 23 Q. We can go through those quickly. So in -- 24 starting at around paragraph 37 of your report, you 25 address the term "subordinate to"; is that right? Page 15	1 A. I do see that seems to be the case. 2 Q. And starting at around paragraph 98, you 3 address the term "a more reliable OS ID" for this '697 4 patent; is that right? 5 A. I believe the phrase -- and maybe I didn't 6 hear you, Counsel, correct -- was "a more reliable OS 7 ID." 8 Q. Okay. So we just ran through five terms for 9 five different patents that you address in your report, 10 right? 11 A. Correct. I believe that's the right 12 nomenclature or phrases that I had addressed this part 13 of my report. 14 Q. And you are not rendering an opinion as to 15 the proper construction of any other terms; is that 16 right? 17 A. I believe in this report, that would cover 18 the extent of the terms that I had opined on. 19 Q. And you're not offering any other opinions as 20 to any other terms in this case at this time, right? 21 A. At this time this would cover the five terms 22 that I have addressed as part of my report. 23 Q. In paragraph 25, you set forth the level of 24 skill for a POSITA in this case; is that right? 25 A. I believe that would roughly be the -- the Page 17

1 section where I had addressed it, which was Section 4 2 in my report. 24, I presented my understanding, and 3 then in 25, I had stated my opinion with regards to a 4 POSITA, P O S I T A, or POSA. 5 Q. Do you have a preference as to POSITA or 6 POSA? 7 A. I'm good either way, Counsel. 8 Q. You use the same level of skill for all the 9 patents; is that right? 10 A. I believe that would be accurate since I had 11 broken out the five patents here and it would naturally 12 follow that I had -- I'm using that same level for a 13 POSITA. 14 Q. Okay. Why did you use the same level of 15 scope for all of the patents? 16 A. In my opinion, that felt appropriate in terms 17 of the patents themselves and the general area and 18 generally kind of the field that the patents are in 19 what would be typical for a POSITA. 20 Q. Did you consider other levels of skill? 21 A. I believe I found these levels -- this level 22 of skill appropriate for a POSITA. 23 Q. Would your opinions change if there was no 24 work experience required? 25 A. Perhaps I would have to think through and -- Page 18	1 Q. Is subordinate to a term of art with a 2 particular meaning in this field? 3 MR. CANAVERA: Objection; vague. 4 BY THE WITNESS: 5 A. I guess I'm not quite following you, Counsel. 6 There's a -- seem to be with the term of the art, it 7 feels a little bit legalish, and I don't want to get 8 too far over my skis on that. 9 Q. Does a POSITA need to have read the 10 specification for the '710 patent to understand when a 11 network address is subordinate to a network segment? 12 MR. CANAVERA: Objection; incomplete hypothetical. 13 BY THE WITNESS: 14 A. I guess I'm not totally following you, 15 Counsel. I guess when I had rendered my opinion, I had 16 considered that someone would have read the 17 specification and the claims themselves when arriving 18 at my conclusions. 19 Q. What would you consider to be the relevant 20 technical field for the '710 patent? 21 A. Well, as I described earlier in my report, 22 talked about how the '710 patent addresses challenges 23 and network access control systems. 24 Q. Okay. 25 A. And I further opine with regards to security Page 20
1 and reflect a bit to give an appropriate answer on 2 that. 3 Q. So your opinions in this -- in this report 4 are relying upon that particular level of skill that 5 you've opined is correct; is that right? 6 A. I believe that would provide the foundation 7 in terms of, say, changing by year or the -- you know, 8 the particulars I would -- I would have to reflect on 9 how significant of an impact that would be. 10 Q. All right. Let's talk about the '710 patent. 11 And for the record, I'm going to just drop it into the 12 chat so we have it as Exhibit 2. 13 And, Dr. Striegel, can you just pop that 14 open, Exhibit 2, and confirm to me that it appears to 15 be a correct copy of U.S. Patent No. 8,543,710? 16 A. This does appear to be a correct copy of 17 Patent 8, comma, 543,710 B2. 18 Q. Great. And you render an opinion for the 19 term "subordinate to" in this patent; is that right? 20 A. I believe we had discussed that earlier, 21 Counsel. That is correct. 22 Q. And that is the only term for which you're 23 rendering an opinion for this patent; is that right? 24 A. For the purposes of this report, that would 25 be the term that I rendered. Page 19	1 and the rationale for the '710 patent, so I believe I 2 covered that in my report. 3 Q. So the relevant field would be network access 4 control systems; is that fair? 5 A. I think it would depend on what you would 6 consider to be, kind of, the breadth you're thinking 7 about with regards to the field. Certainly that is the 8 focus of the patent, but a field can mean a lot of 9 things, Counsel. So I don't know what you're -- kind 10 of the granularity you're looking for. 11 Q. I'm just trying to figure out how you would 12 characterize the relevant technical field for this 13 particular patent. That's it. I just want to get a 14 baseline terminology for us so we can talk about it. 15 A. Sure. So that -- If I'm following your 16 question correct, you're looking at the extent kind of 17 the broader fields that this might fall into. And if I 18 had to define a bit of a broader field, I would say 19 this falls into networking and security given, again, 20 what's described in the patent and the rationale for 21 why the patent had come about. 22 Q. So you have expertise in the field of 23 networks and security; is that right? 24 A. That's correct. 25 Q. And you were at least at the level of skill Page 21

1 of a POSITA as of the date of the '710 patent; is that 2 right? 3 A. Would you refresh my memory for the -- 4 which -- which date you're talking about for the 5 patent? 6 Q. Yeah. So in Exhibit 2, you can go up to the 7 front, the very first page, there's a provisional 8 application dated March 10, 2004. Were you a POSITA 9 under your definition of a POSITA as of that date? 10 A. Yes, I would have been as I would have 11 received my Ph.D. in 2002 after receiving my bachelor's 12 in 1998. 13 Q. So you had more experience than a POSITA 14 under your definition as of 2004; is that fair? 15 A. That would be a fair statement. 16 Q. Okay. And you have expertise in the field of 17 networking and security as of 2004; is that fair? 18 A. That would be correct. 19 Q. Okay. Did you ever use the term subordinate 20 to prior to 2004? 21 A. That's a good question. I'd have to go 22 through and review my papers or look back and think 23 about the talks I would have given related to 24 networking and security, so I couldn't say for sure. 25 Q. Okay. Before working on the '710 patent Page 22	1 would be describing something that it would be 2 subordinate to, so there would be probably a host of 3 other text along with that if one were to use it. 4 Q. Does a -- Would a POSITA need to read the 5 '710 specification to understand when a network address 6 is subordinate to a network segment? 7 A. I don't think they would need to necessarily 8 only read the specification, in that they would read 9 the -- as I described in my report, they would read the 10 claim overall, and that can help in providing that 11 context in addition to the specification. So it 12 would -- again, it would depend upon the phrasing and 13 the entirety of the context and not just subordinate to 14 a network statement as you had stated. 15 Q. Okay. So would a POSITA need to have read 16 the entirety of the '710 patent and all of its context, 17 the figures, and specification and the claims to 18 understand when a network address is subordinate to a 19 network segment? 20 MR. CANAVERA: Objection; incomplete hypothetical. 21 BY THE WITNESS: 22 A. I don't know if I would agree with that 23 statement, Counsel. When you say that they would need 24 to read all of the specification, I think as I 25 described in my report there's both parts of the claims Page 24
1 directly in this case, have you ever used the term 2 subordinate to in the context of networking and 3 security? 4 A. I don't recall using that specific term. I 5 know we had looked at various aspects of firewall rules 6 and access control. So I couldn't say 100 percent that 7 we had not used it, but I don't recall a specific 8 instance. 9 Q. Does a -- Would you have understood the term 10 subordinate to without reading the '710 patent? 11 MR. CANAVERA: Objection; incomplete hypothetical. 12 BY THE WITNESS: 13 A. I guess I'm not following you, Counsel. 14 You're asking -- Are you asking for a general 15 definition of subordinate to or, kind of, the context? 16 I'm not totally following you. 17 Q. Let me ask a better question. 18 In the context of networking and security, 19 if someone used the term subordinate to, would you 20 understand that term in the abstract? 21 MR. CANAVERA: Objection; vague. 22 BY THE WITNESS: 23 A. I would think that you would not have just 24 the two words subordinate to. There would be 25 additional context or text around that because you Page 23	1 as well as just looking at the claim -- the plain text 2 of the claim itself and parts of the specification that 3 one could read with regards to subordinate to. 4 Q. Would a POSITA need the context provided by 5 the '710 patent to understand when a network address is 6 subordinate to a network segment? 7 MR. CANAVERA: Objection; incomplete hypothetical. 8 BY THE WITNESS: 9 A. Could you maybe restate that, Counsel? I 10 kind of lost a little bit of what you said first. 11 Q. Yeah. 12 If I'm understanding your testimony so far, 13 you said there are -- there's a lot of information in 14 the patent that -- like in different parts of the 15 patent that provide context to understand the term 16 subordinate to; is that fair? 17 A. I don't know if I would characterize it that 18 way. If I'm looking through the patent itself, the 19 total of ten pages plus an amendment of which only four 20 pages are text inclusive of the respective claim 21 elements, so I don't know if I would agree with a lot 22 of information to read. 23 Q. I think I'm just not asking the right 24 question. I'm just trying to understand if a -- one of 25 your students wrote in a paper, a network address is Page 25

1 subordinate to a network segment, would you have 2 understood what they meant outside the context of this 3 patent? 4 MR. CANAVERA: Objection; incomplete hypothetical. 5 BY THE WITNESS: 6 A. I think it would depend upon what my student 7 was writing about. If we were in such a -- kind of a 8 hypothetical scenario, it would most likely have an 9 abstract, it would have probably most likely a title as 10 well as, and then various figures that we would be -- 11 typically for describing some sort of a relationship, 12 we would have perhaps a figure that might try to 13 illustrate to help the reviewers understand the paper. 14 I do describe later in my report walking 15 through one of those particular figures, Figure 1. I 16 believe I discussed that -- let's see -- I discussed 17 that both on, kind of, page 12 and beyond. 18 Q. Right. So you would need additional context 19 for your student's paper to understand what -- when a 20 network address is subordinate to a network segment, 21 right? 22 MR. CANAVERA: Objection; incomplete hypothetical. 23 BY THE WITNESS: 24 A. I don't know if I would agree with that 25 statement, Counsel. I think generally if we were to go Page 26	1 A. I guess if I'm thinking about context and 2 what you mean by context of the patent, this would be, 3 as I described in my report, bringing in not just the 4 claims themselves but also bringing in the 5 specification and other documentation that makes it 6 clear. In particular, as I've described in my report, 7 looking at just the plain and ordinary meaning of the 8 claim elements themselves also provides reasonable 9 clarity, I think. 10 Q. Okay. Right. And it's your opinion that 11 it's reasonably clear based on the figures that you 12 talk about in your report and the context of the claims 13 and the specification in general; is that right? 14 A. I believe that a POSITA could read this and 15 understand what subordinate to would mean. 16 Q. Okay. Let's look at the claims themselves. 17 So subordinate to appears in Claim 1 as one example; is 18 that right? 19 A. I believe that's correct. I list the claims 20 here in my report as being 1, 6, 8, 13, 15, and 20. 21 Q. And the full context of this term refers to 22 network destination addresses that are not in or 23 subordinate to the first network segment; is that 24 right? 25 A. So I see -- I believe you're referring to -- Page 28
1 and construct the paper in this hypothetical case, 2 we -- given if I -- we had a relationship, let's say 3 something that might be in this case, say, subordinate 4 to or perhaps dominated by or -- you know, some sort 5 of, kind of, a phrase, if we were trying to demonstrate 6 that, we would most likely add in a figure in that to 7 help the reviewers understand if perhaps -- just to 8 make sure. 9 Particularly if we had a key concept with 10 regards to the relationship, we might try to capture 11 that. But, again, it would depend upon the type of 12 thing we're trying to solve, and so some cases we might 13 need it. Other cases, we might not. I don't know in 14 particular we would probably use subordinate to. 15 I don't know -- As I usually have a lot of 16 international students, I'm not sure they pick up the 17 phrase subordinate to in terms of that being their 18 go-to choice of words. But certainly it was clear, I 19 think it would be fine in terms of trying to express a 20 relationship or control, especially thinking about this 21 patent with regards to what is stated to me it does 22 seem reasonably clear. 23 Q. Okay. And it's reasonably clear to you -- in 24 your opinion based on the contents of the patent; is 25 that right? Page 27	1 This is under Claim 1A. Says, Restricting all network 2 traffic emanating from the client device to one or more 3 network destination addresses that are not in or 4 subordinate to the first network segment. 5 Q. So it's the network address that is not 6 subordinate to the network segment; is that right? 7 A. I believe in here with regards to the claim, 8 it had talked about network destination addresses, 9 which would follow from the discussion of the network 10 access control, as in terms of what -- the particular 11 goal that would be for the patent in terms of enforcing 12 that network access. 13 Q. Right. So I'm just trying to make sure I 14 understand what needs to be subordinate to. Like, so 15 it's -- it's the network destination addresses that 16 need to be subordinate to the network segment; is that 17 right? 18 MR. CANAVERA: Uh. 19 BY MR. IWAHASHI: 20 Q. Sorry. Not subordinate to. 21 A. I think I would quibble a bit with that 22 particular definition. So a network destination 23 address would be where the traffic is destined to. A 24 network destination address would describe typically a 25 destination or host where the traffic is traveling to. Page 29

1 And so an address can be somewhat interchangeably, 2 although with a few caveats in terms of an address 3 identifies where you're going or how it gets there when 4 we're routing network traffic, and at that particular 5 vantage point, it sees the network destination 6 addresses. And then this is describing, as I said 7 before, with regards to destination addresses that are 8 not in or subordinate to the first network segment. 9 Q. Right. So I'm just trying to level set here. 10 Like, I'm not trying to ask anything tricky. I'm just 11 trying to understand exactly what needs to be in -- not 12 in or subordinate to the network segment. So let me 13 try this again. 14 You agree that it -- It's the network 15 dest- -- one or more network destination addresses that 16 are not in or subordinate to the first network segment? 17 A. I believe the claim language says network 18 destination addresses that are not in or subordinate to 19 the first network segment. 20 Q. Okay. And it's -- So it's the network 21 destination addresses that need to be not in or 22 subordinate to the network segment; is that right? 23 A. Could you state that again, Counsel? I want 24 to make sure I understand your question. 25 Q. Right. So I just want to confirm that it's Page 30	1 Q. Okay. So something has to be not in or 2 subordinate to the first network segment, fair? 3 A. Given that it's describing not in or 4 subordinate to, we would bring in the context of the 5 claim language itself as well as how these things 6 operate technically. 7 Q. What in the claims is not in or subordinate 8 to the first network segment? 9 A. Well, I believe, as I describe later in my 10 report, I walk through an example how Figure 1 helps to 11 illustrate things that are not in or subordinate to 12 with regards to, say, Figure 1. 13 Q. Right. I'm not talking about Figure 1 yet. 14 I understand that you -- We're going to get to that. I 15 just want to level set and try to figure out like is it 16 the network destination address that's not in or 17 subordinate to the network segment? Is it traffic 18 emanating from the client that's not in or subordinate 19 to the network segment? I'm just trying to figure out 20 like what that means, like -- and get an understanding 21 of like what your opinion is here. 22 MR. CANAVERA: Objection; vague. 23 BY THE WITNESS: 24 A. Sure. I'm not sure, as I said before, I'm 25 understanding your question, Counsel. As you're kind Page 32
1 the network destination addresses that are not in or 2 subordinate to a network segment; is that fair? 3 A. So this is -- particular claim elements 4 talking about network traffic. The network traffic is 5 emanating from the client device. It's going to one or 6 more of the network destination addresses that are not 7 in or subordinate to the first network segment. 8 Q. Yeah, I understand that you're just reading 9 the claim language back to me. I'm trying to 10 understand what this means. I'm just trying to level 11 set here, and I'm trying to confirm that it -- so it's 12 those network destination addresses that are not in or 13 subordinate to the network segment and not the traffic 14 or something else. That's what I'm trying to figure 15 out here. 16 A. I guess I'm not -- sorry, Counsel. 17 MR. CANAVERA: Objection; vague. 18 BY THE WITNESS: 19 A. I guess I'm not following your question, 20 Counsel, because I'm not sure it makes technical sense 21 how you posed it. 22 Q. Okay. So let me ask this a different way. 23 Do you agree that the claims literally say 24 not in or subordinate to the first network segment? 25 A. I do see that text there. Page 31	1 of mixing some things technically that are not quite 2 jiving in terms of how network traffic would work, and 3 I'm not following what you're trying to ask. 4 Q. So let me read the claim language exactly how 5 it appears. It says, Restricting all network traffic 6 emanating from the client device to one or more network 7 destination addresses that are not in or subordinate to 8 the first network segment, right? 9 A. I do see that. 10 Q. So in the context of this limitation, what in 11 the claims is not in or subordinate to the first 12 network segment? 13 A. So we're looking at -- Are we looking just 14 within this particular element, or we're looking at the 15 whole claim, correct? 16 Q. I mean, sure. I'm just -- I'm just trying to 17 figure out what exactly is not in or subordinate to the 18 first network segment. I'm not trying to trick you. I 19 just want to, like, be able to talk about this as we 20 move forward and go through the example. 21 A. Sure. So I just want to make sure too that 22 we're kind of operating correctly from a technical 23 perspective and that we're not mixing, kind of, how 24 things operate in terms of trying to understand what's 25 going on. So the claim element itself talks about Page 33

1 restricting all network traffic. 2 All network traffic by and large when we're 3 looking at it for -- for the kind of access that we 4 would be looking at here, generally most networking 5 traffic has a source address where it came from and 6 then it has a destination address where it's going. 7 This talks about network traffic that emanated from the 8 client device, and it's going to a network destination 9 address. 10 As I had described earlier, generally a 11 network destination address is how one finds the host 12 or the destination where one would like to get to or at 13 least the logical representation of where you're trying 14 to go to. So as it continues on, all traffic has the 15 source address gener- -- most of the time, and all 16 traffic generally has a destination address. And so 17 then that traffic can be inspected, see that in 18 discussion of the restricting, restricting all network 19 traffic. 20 And then, as I had described earlier, the 21 network destination address is what the device can look 22 at to try to do its restriction because that's the 23 information it has in addition to other kind of perhaps 24 pieces of state that might be relevant. And so as I 25 describe later when getting into Figure 1, these Page 34	1 Q. Do you agree with me that something needs to 2 be not in or subordinate to the first network segment? 3 A. I think we had walked through that discussion 4 just a little bit ago, Counsel. 5 Q. I'm just trying to get a yes or no qu- -- 6 Like, do you agree that something needs to be in -- not 7 in or subordinate to the first network segment? 8 A. I guess I'm not following your line of 9 questions, Counsel, because I walked through based on 10 how network traffic works and how things are 11 restricted. 12 Q. I understand that you -- 13 A. (Inaudible) the network segment and 14 subordinate to and the relationship and how network 15 traffic works. 16 Q. Right. I understand how network traffic 17 works. I get that. I appreciate that. 18 I'm trying to figure out what needs to be 19 not in or subordinate to the first network segment in 20 the context of this claim. That's what I'm trying to 21 figure out here. Are you able to answer that for me? 22 A. I guess I'm a little confused how I haven't 23 answered that question already, Counsel. 24 Q. Do you agree that an IP address is an example 25 of a network destination address? Page 36
1 network destination addresses could be in a first 2 network segment. They could be in other network 3 segments. We see that in Figure 1 in terms of the 4 overlapping sites. Some of them being part of certain 5 walled gardens. Some of them being part of other 6 walled gardens. Some walled gardens overlapping, and 7 the subordinate to is getting to all those particular 8 sites and their walled gardens, are they under the 9 control or are they separate or are a part of the 10 different walled gardens. 11 So we have a first network segment and then 12 we have -- in this case looking at where it's not in 13 that first network segment or perhaps not under the 14 control or subordinate to that first network segment as 15 defined as part of the walled gardens and described in 16 Figure 1. 17 Q. Okay. So what, in your opinion, needs to be 18 not in or subordinate to the first network segment? 19 A. (No response.) 20 Q. Is it the client source address? Is it the 21 network destination addresses? Is it something else? 22 A. I guess I'm not following your line of 23 questions there, Counsel. I thought I answered that 24 pretty clearly in terms of how network traffic worked 25 and the relationship and how it operates. Page 35	1 A. An IP address certainly could be an example 2 of a network destination address. 3 Q. Do you have any other examples in the context 4 of the internet? 5 A. There's -- As I had described a little bit 6 earlier, there's a wide variety of, kind of, illogical 7 constructs that you might do dealing with things like 8 tunneling, encapsulation, in terms of what is your 9 destination address versus an intermediary point. For 10 the general purposes of much of the internet, the IP 11 address tends to be the de facto when we're thinking 12 about the internet and a destination address. 13 Q. All right. Let's look at paragraph 33 of 14 your report. Paragraph 33 you talked about controlled 15 environments known as walled gardens; is that right? 16 A. Correct. 17 Q. Okay. Is it your opinion that walled gardens 18 were invented by the '710 patent? 19 A. I would have to think about whether walled 20 gardens would be invented by the '710 patent, as I 21 didn't render an opinion on that. 22 Q. Were you aware of walled gardens before 2004? 23 A. That's a good question, Counsel. I'd have to 24 think and probably look back a little bit at some of my 25 papers and think back to some of the Wi-Fi access that Page 37

1 we would have done at the time to render a proper 2 opinion. 3 Q. Can you explain to me what a walled garden is 4 in the context of the '710 patent? 5 MR. CANAVERA: Objection; calls for a legal 6 opinion. 7 BY THE WITNESS: 8 A. I see here, which I do offer a bit of text 9 on, I talk about a walled garden, which limits the 10 network segments or routes available, as well as the 11 network traffic permitted. In the context of the '710, 12 I also continued further talking about shaping 13 discrimination techniques, being subject to a 14 particular list of access rules that specify the walled 15 garden, which define where network access is allowed. 16 Q. All right. Let's turn to paragraph 44 of 17 your report. In paragraph 44 you say that the walled 18 garden C in Figure 1 contains a network destination 19 address that is not in or subordinate to walled gardens 20 A and B because these network segments are not 21 hierarchically related, managed, or logically dependent 22 upon each other. 23 Do you see that? 24 A. I do see that text. 25 Q. Okay. What are your -- What is "these" Page 38	1 clear because I talk about -- again, understand walled 2 garden C to contain a network destination address that 3 is not in or subordinate to walled garden A or B. 4 Because, for instance, these network segments are not 5 hierarchically related, managed by, or logically 6 dependent upon each other. And as I described before, 7 in order to make that assessment, you would need to 8 have more than one particular walled garden to compare. 9 Q. Do you agree that a walled garden is an 10 example of a network segment? 11 A. I believe it could be an example of what 12 could fall under being a network segment. 13 Q. What are some other examples of a network 14 segment? 15 A. So we could look at both the figure, again, 16 to take a look at this so we could see multiple walled 17 gardens. So we see an example of, say, walled garden A 18 versus walled garden B. And we see A contains K and M. 19 B contains P and M as part of the figure that 20 demonstrates these different walled gardens. 21 Q. Aside from a walled garden, can you give me 22 another example of a network segment? 23 A. I could look at the patent to refresh my 24 memory a bit. I believe in this case I had just 25 referred in my report to Figure 1 as part of these Page 40
1 referring to in this sentence? 2 A. In this case, my intent was to talk about 3 walled garden C as the example that I expand upon 4 further in my text, given that we see in the figure we 5 see -- I believe this is identified as 40 or walled 6 garden C contains site S. 7 Q. So when you say these network segments, are 8 you referring to walled gardens A and B? 9 A. So would be bringing in my text these network 10 segments. So as I described in the first sentence, it 11 talks about walled garden C that is not in or 12 subordinate to walled gardens A or B, and then I 13 continue to say, Because, for example, these network 14 segments are not hierarchically related, managed by, or 15 logically dependent upon each other, so that would 16 require -- or we're thinking about that as if I want to 17 describe the relationship, I would need to have more 18 than one in order to make the distinction of 19 hierarchical relation, management, or logical 20 dependents. 21 Q. Okay. I'm really just trying to understand 22 what this indefinite article is referring to. When you 23 say, these network segments, are you referring to 24 walled gardens A and B or something else? 25 A. I guess, Counsel, I think my text is pretty Page 39	1 particular paragraphs when I was describing it. I do 2 continue on a bit describing a couple of different 3 scenarios as well in the next paragraph. 4 Q. Are you able to give me any other examples of 5 a network segment other than a walled garden right now? 6 A. Off of the top of my head and without 7 rereading the patent to be precise, I could not right 8 at this moment although I think it's reasonably 9 straightforward based on what I had written in my 10 report in terms of what is a network segment and as I 11 described in my discussion of Figure 1. 12 Q. Would you consider a LAN to be a network 13 segment? 14 MR. CANAVERA: Objection; incomplete hypothetical. 15 BY THE WITNESS: 16 A. Again, Counsel, I would have to read and look 17 through the example. I believe there are discussions, 18 as I talk about in paragraph 45, with regards to 19 quarantining and certain walled garden aspects that are 20 applied. So I'd have to reflect a little bit on that 21 question. 22 Q. Would you consider the whole internet to be a 23 network segment? 24 MR. CANAVERA: Objection; incomplete hypothetical. 25 Page 41

1 BY THE WITNESS: 2 A. I'd have to reflect on that and read the 3 patent precisely to render an opinion on that. 4 Q. Would you consider a single laptop to be a 5 network segment? 6 MR. CANAVERA: Objection; incomplete hypothetical. 7 BY THE WITNESS: 8 A. Again, I'd have to specifically read the 9 patent to -- for the -- to render an opinion on that. 10 Q. Okay. Let's go back to Figure 1, which I 11 know you produced in your report. So feel free to 12 refer to your report or the patent, either way. 13 So if you look at Figure 1, site S is in 14 walled garden C; is that correct? 15 A. I do see, as illustrated, that site S is 16 listed under walled garden C. It's within the circle 17 of walled garden C. 18 Q. And so site S would have a network address 19 that is not in or subordinate to walled garden A; is 20 that right? 21 A. Sorry, I lost the middle of your question 22 there, Counsel. 23 Q. Do you agree that site S of walled garden C 24 has a network address that is not in or subordinate to 25 walled garden A? Page 42	1 indefinite. 2 Q. Okay. So can we just stick with the language 3 of the claims that you believe is clear to -- in 4 considering these questions? 5 A. I think to the extent that if we still stay 6 in a reasonable context, yes. 7 Q. Right. I'm just talking about the network 8 addresses of these particular sites in Figure 1. Okay? 9 A. Okay. 10 Q. All right. So do you agree that the network 11 address of site J is not in or subordinate to walled 12 garden A? 13 A. I do describe that in my report in 14 paragraph 44. I said, Applying this context to the 15 figures, a person of ordinary skill in the art would 16 understand site J to not be in or subordinate to walled 17 gardens A, B, and C or the sites located within those 18 walled gardens. 19 Q. Right. So you agree with my statement, 20 correct? 21 A. I agree to the extent of how I constructed my 22 sentence for my report. 23 Q. Okay. I get that you want to stick to your 24 report. I appreciate that. I'm trying to ask you 25 questions to confirm the language in your report, and Page 44
1 A. As constructed, the walled garden C would -- 2 as shown in the figure only contain site S and walled 3 garden A would not contain site S. 4 Q. Right. So site S has a network address that 5 is not in or subordinate to walled garden A; is that 6 right? 7 A. As drawn for this particular figure, the 8 rules would have been constructed such that it would 9 not -- there would not be overlap for those particular 10 set of rules. 11 Q. So do you agree with my statement? 12 A. So site S -- if I understand your question 13 correctly -- site S is part of walled garden C and that 14 would be viewed as separate from walled garden A in 15 terms of how the rules are defined. So it would not be 16 in that particular first network segment or necessarily 17 subordinate to. 18 Q. What do you mean by "necessarily subordinate 19 to"? 20 A. That it would not be in or subordinate to 21 because it's not part of that particular walled garden. 22 Q. Okay. I'm trying to use the language of the 23 claims here. Your opinion is that the claims are 24 clear, right? 25 A. Yes, and my opinion is that -- they are not Page 43	1 I'm trying to get you just to like -- like -- like, I'm 2 just trying to understand the bounds of that -- of this 3 claim limitation that you opine is clear. 4 So can you confirm that site J in Figure 1 5 has a network address that is not in or subordinate to 6 walled garden A? 7 A. As I wrote in my report, Counsel, and just 8 described the sentence in my report, that would be the 9 case. 10 Q. Do you agree that site P has a network 11 address that is not in or subordinate to walled garden 12 A? 13 A. Applying that same logic, comparing site P 14 and as the circles are drawn, that would be correct to 15 describe it for Figure 1. 16 Q. Does site K have a network address that is in 17 or subordinate to walled garden A? 18 A. Based on your discussions and following 19 through with how the figure is drawn, it would be my 20 understanding that that would be correct with regards 21 to site K as mapped to walled garden A. 22 Q. And site M has a network address that is in 23 or subordinate to walled garden A also, correct? 24 A. It is in or subordinate to walled garden A as 25 well as walled garden B. Page 45

1 Q. Is the network address of site P in or 2 subordinate to walled garden A? 3 A. Based on the figure, site P would be within 4 the circle of walled garden B but not within the circle 5 of walled garden A. 6 Q. And when you say "within the circle," that 7 means in or subordinate to; is that right? 8 A. As I would have described in my report, that 9 logic would be reasonable. 10 Q. Does site Q have a network address that's in 11 or subordinate to walled garden A? 12 A. Based on how this figure is drawn, I would 13 not understand site Q to be in or subordinate to walled 14 garden A again based on how the figure is drawn. 15 Q. What is the difference, in your opinion, 16 between a network address being in a walled garden or 17 being -- and being subordinate to a walled garden? 18 A. So as I understood the in, the in is 19 relatively -- in that it follows that a walled garden 20 defines a set of rules for what is in. Subordinate to, 21 as I described in paragraph 44, could also get into 22 with regards to being managed or logically dependent in 23 terms of a relationship. 24 Q. What does "hierarchically related" mean? 25 A. In the sense that different network entities Page 46	1 dependent might be -- say, for instance, we had talked 2 a little bit earlier about things like tunneling, 3 looking at where it might be -- say virtual 4 representations, where say a host might be represented 5 by the same IP address but it might say the load 6 balancing or other sorts of aspects of virtualization 7 behind it where it's a logical relationship but not a 8 specified, say, address relationship. 9 Q. Is it your opinion that a person of ordinary 10 skill would have understood the plain and ordinary 11 meaning of subordinate to to mean hierarchically 12 related, managed, or logically dependent? 13 A. In my report I was providing examples of what 14 that would mean or examples of how one might understand 15 it. I believe a person of ordinary skill would be able 16 to look at say Figure 1, again, and understand with 17 regards to something being in or subordinate to. 18 Q. So person of skill would have understood that 19 subordinate to means hierarchically related, managed 20 by, or logically dependent; is that right? 21 A. I believe in here I'm providing examples. 22 I'm not providing a definition specifically of 23 subordinate to, as I was describing whether or not a 24 person of ordinary skill could infer -- or whether or 25 not the particular term was indefinite. Page 48
1 can be controlled by, could require going through 2 something, to -- to browse to from a general network 3 perspective, in the sense that they may have like a 4 tree kind of arrangement. Again, it would depend upon, 5 as I describe here, the different kinds of 6 relationships that might be present as some of the 7 examples. 8 Q. What does "managed" mean? 9 MR. CANAVERA: Objection; vague. 10 BY THE WITNESS: 11 A. So in this case, as I'm describing here, I'm 12 describing the distinction between the network 13 segments. As we had talked about earlier, in order to 14 look at a relationship, we would need to have more than 15 one network segment and managed by here could refer to 16 who might own it. It could look at different 17 administrator, kind of, access, you know, manage too 18 could mean a variety of things, but it might be, for 19 instance, that -- say organization 1 might manage it or 20 organization 2 might manage or administer a particular 21 host that might be present. 22 Q. What does "logically dependent" mean? 23 A. So in the context of my report -- and I was 24 trying to provide some different examples to help 25 illustrate what subordinate to means, logically Page 47	1 Q. Are you able to give me any other examples of 2 subordinate to other than hierarchically related, 3 managed, or logically dependent? 4 A. Right off the top of my head, no, given that 5 this is what I have prepared in my report, but I can 6 certainly reflect on that and think about that more 7 deeply. 8 Q. Are you able to give me an example of when a 9 network address is subordinate to a walled garden but 10 not in a walled garden? 11 A. As I have described here with regards to 12 subordinate to, I would have to think through a little 13 bit about that specific distinction. As I do 14 understand it, even if terms are redundant on that -- 15 that's -- that does not necessarily make them 16 indefinite. But from this I -- I -- as I described in 17 my report, I gave examples of how a POSITA or POSA 18 might understand these terms in terms of inner support 19 too. 20 Q. Going back to paragraph 44, you say that a 21 person of ordinary skill in the art would understand 22 site J not to be in or subordinate to walled gardens A 23 and B and C or the sites located within those walled 24 gardens because site J is located outside of those 25 network destinations. Page 49

1 Do you see that? 2 A. I do. 3 Q. Does that mean that the test for whether a 4 site is subordinate to a network segment is whether it 5 is located within or outside that segment? 6 A. I believe here I was referring to the 7 specific figure and the examples of walled gardens is 8 drawn. 9 Q. Also in paragraph 44 you say that a network 10 segment may be considered subordinate if it operates 11 with the administrative routing or policy domain of 12 another segment regardless of its physical or 13 topological configuration; is that right? 14 A. I do see where I wrote that. 15 Q. Is that what you think the plain and ordinary 16 meaning of subordinate to is? 17 A. I don't believe I offered a specific opinion 18 as to the definition as part of my report. I had 19 described in my report why it was not indefinite. 20 Q. Is that the same as being hierarchically 21 related, managed, or logically dependent? 22 A. What do you mean by that, Counsel? 23 Q. If -- Is operating with the same -- let me 24 start over. 25 Is operating with the administrative Page 50	1 Q. You don't cite any particular part of the 2 specification there, right? 3 A. I do not see something specifically cited 4 here in that sentence. 5 Q. Do you know whether the specification uses 6 the words subordinate to? 7 A. I would have to go through and reread the 8 specification specifically to look for that phrase. 9 Q. But sitting here today, you're not aware of 10 specific mentions of subordinate to in the 11 specification; is that right? 12 A. I don't recall that exact phrasing 13 specification. 14 Q. So going back to paragraph 44, what does 15 "administrative" mean? 16 A. So this is describing as we had talked about 17 earlier with regards to examples. So it's talking 18 about -- we see over here administrative routing, or 19 policy domain talking about administrative routing or 20 policy domains, those are different domains in terms 21 of, say, management that might -- in terms of how 22 something might be managed. That those are different 23 spheres that might cover how something might operate. 24 Q. What does "regardless of physical or 25 topological configuration" mean? Page 52
1 routing or policy domain of another segment, regardless 2 of its physical or topological configuration, the same 3 as being hierarchically related, managed, or logically 4 dependent? 5 A. I don't know if I would view it necessarily 6 as having a perfect overlap given that in the first 7 part I had talked about hierarchical relationships, 8 management, managed by, and logical dependents. The 9 second part where I talk about examples of what could 10 be considered subordinate, I mention the notion of 11 administrative routing or policy domains of another 12 segment and talk about the distinction with regards to 13 physical and topological considerations. 14 Q. At the beginning of that sentence you say, In 15 the view of the specification -- in view of the 16 specification, right? 17 A. I do have it in front of me, yeah. 18 Q. What does that mean? 19 A. Are you referring to in view of this 20 specification? 21 Q. Yes. 22 A. It would be reading this specification to 23 arrive at what would be considered subordinate or what 24 could be examples of what would be considered 25 subordinate. Page 51	1 A. It would mean what I've described here. 2 Regardless of physical or topological configuration 3 given how networks can operate. 4 Q. If you look at the patent -- the '710 patent 5 at column 4, line 61 to 63 -- 6 A. Mm-hmm. 7 Q. -- it says that these lists can be manually 8 constructed to contain selected websites or other 9 resources that are relevant to the identified client or 10 group. Do you see that? 11 A. I do. 12 Q. Can one website be subordinate to a network 13 segment simply by virtue of it being included among a 14 manually selected list of websites? 15 MR. CANAVERA: Objection; incomplete hypothetical. 16 BY THE WITNESS: 17 A. Would you state that question again, Counsel? 18 Q. Can a website be subordinate to another 19 website -- sorry. Strike that. 20 Can a website be subordinate to a network 21 segment simply by virtue of being included among a list 22 of manually selected websites? 23 MR. CANAVERA: Objection; vague and incomplete 24 hypothetical. 25 Page 53

1 BY THE WITNESS: 2 A. So to the extent that I understand your 3 question, as it's described here, these lists are being 4 manually constructed to contain websites. The 5 subordinate, as I described to in here, again getting 6 back to the claim limitation that not -- are not in or 7 subordinate to to the first network segment, I would 8 not read this to say that something is necessarily -- 9 again, something is not subordinate to by virtue of 10 being included in a list as I described subordinate to 11 discussion in paragraph 44. 12 Q. In paragraph 45 you explain that a POSITA 13 would understand that constraining the infected client 14 to a walled garden that is not in or subordinate to 15 another network segment to ensure security of other 16 devices on that network. Do you see that? 17 A. I do. 18 Q. What do you mean by "other devices on the 19 network"? 20 A. So a network would typically -- although not 21 in all cases, would have multiple devices. And this is 22 describing where the infected client is constrained to 23 a specific walled garden that's not in or subordinate 24 to another network. Again, getting into the notion of 25 the in or subordinate to. Page 54	1 term isolate. We see that it's constrained. And so 2 much as whether constraining and isolation and how 3 they're related, but we see in this case it's 4 constrained by virtue of being infected -- being 5 identified as being infected with malware. 6 Q. How does an infected computer put other 7 computers at risk if they aren't on the same network? 8 MR. CANAVERA: Objection; incomplete hypothetical. 9 BY THE WITNESS: 10 A. That's a really broad question, Counsel. I 11 can give a really long answer. I'm not sure that's 12 what you want. But as I understand, your question is 13 pretty broad, if I'm understanding it correctly. 14 MR. IWAHASHI: All right. Why don't we take a 15 break right now before I move on to anything else? 16 THE WITNESS: Sounds good. 17 MR. IWAHASHI: All right. 18 THE WITNESS: How long of a break would you like? 19 MR. IWAHASHI: Let's go off the record. 20 (Break taken.) 21 BY MR. IWAHASHI: 22 Q. Welcome back, Dr. Striegel. I'm going to put 23 into the chat Exhibit 3, which is U.S. Patent 24 No. 8,327,426. Can you just pop that open and confirm 25 that that is a true and correct copy of the '426 Page 56
1 Q. And you say that it's ensuring the security 2 of other devices on the network. What network are you 3 referring to? 4 A. It would be the network where that particular 5 client was connected to. 6 Q. So the purpose is to isolate the infected 7 computer from other computers on that network segment; 8 is that right? 9 MR. CANAVERA: Objection; vague. 10 BY THE WITNESS: 11 A. So I want to make sure I understand it. I 12 don't see in my paragraph where I used the word 13 isolate, so I want to make sure I'm precisely 14 responding to your question, Counsel. 15 Q. Well, you're talking about ensuring security 16 of other devices on the network, right? 17 A. I do see that I mention that it's 18 constraining the infected client to walled garden and 19 then I continue on to ensure the security of other 20 devices on the network. 21 Q. So is the purpose to isolate the infected 22 computer from other computers on the network segment? 23 MR. CANAVERA: Objection; vague. 24 BY THE WITNESS: 25 A. I think it would -- I didn't use the specific Page 55	1 patent? 2 A. That does appear to be the case. 3 Q. In paragraph 57 of your report, you refer to 4 Figure 5, right? 5 A. I do refer to Figure 5. 6 Q. And you say that this process is further 7 detailed in Figure 5, right? 8 A. I do see that sentence. 9 Q. And by "this process," you're referring to 10 the process in Claim 1; is that right? 11 A. I believe I'm describing the overall in terms 12 of the process that happens with the first identity 13 service and the second identity service in terms of 14 what the figure illustrates. 15 Q. Do you -- do you agree that Figure 5 depicts 16 the components that are discussed in Claim 1? 17 A. I believe it provides an illustration of an 18 embodiment given some of the minor differences with 19 regards to identity services and that. It's describing 20 an embodiment of how it would be realized. 21 Q. Do you agree that each of the components in 22 Figure 5 is a separate machine? 23 A. I don't believe I would see where in Claim 1 24 it would specifically state that it would need to be a 25 separate machine. Page 57

1 Q. So is it your opinion that the different 2 components in Figure 5 can be on the same machine? 3 A. I believe in Figure 5 it talks about a first 4 identity service and a second identity service. I do 5 not see something specifically with regards to it 6 needing to be distinctive physical machines, but 7 certainly there could be separation in a virtual sense, 8 which may or may not constitute physical sense. 9 Q. So whether physical or virtual, would you 10 agree that each of the components in Figure 5 is part 11 of a separate machine? 12 A. I don't know that I would agree with that 13 statement that each of the components. 14 Q. So would you agree that the principal is on a 15 different machine than the external service, first 16 identity service and second identity service? 17 A. Generally, I would believe that the principal 18 would be on a different machine most likely than the 19 external service given that it's an external service. 20 Q. Sorry. Can you repeat that? 21 A. So I would generally believe that the 22 principal would be on a different machine as opposed to 23 the external service, which would likely be on a 24 different machine. 25 Q. Are you saying that the principal could be on Page 58	1 refer to them as separate entities? Like, I just want 2 to be able to talk about these. 3 A. I think using what's written in the figure 4 would work well. 5 Q. Okay. But you agree that these are -- at 6 least have to be separate components, right? 7 A. Inasmuch that they are listed in the figure 8 as a first identity service and a second identity 9 service that constitutes a component, they could be 10 viewed logically as different components. 11 Q. All right. In Claim 1 it's referring to a 12 machine implemented method to execute on a machine, 13 right? 14 A. I do see that. 15 Q. Which of the components in Figure 5 is 16 implementing the method? 17 A. I guess I'm -- I didn't opine specifically on 18 where things are implemented or where things are being 19 executed in my report. I was referring to the specific 20 claim terms. So I'd have to reflect a bit on that, 21 Counsel, to -- to provide a precise answer. 22 Q. Right. But to understand that particular 23 claim term, you have to understand the claim as a 24 whole, right? 25 A. You would need to understand the claim as a Page 60
1 the same machine as the first identity service and the 2 second identity service? 3 A. (No response.) 4 Q. When I'm talking about machines here, I want 5 to talk about just logical, logically. 6 A. I think one needs to be careful with regards 7 to physical and logical, and I don't know if I would 8 necessarily conflate the two given the claim language 9 as written to -- to draw that distinction here, at 10 least based on the plain text. 11 Q. Do you agree that these messages being passed 12 between the different components on Figure 5 are 13 network messages? 14 A. They -- I believe it would be correct to say 15 that they are messages based on what is occurring that 16 these would be sent as a network message using the 17 network stack as the principal. 18 Q. And network stack messages are typically sent 19 between machines, is that right, different machines? 20 A. They could be. 21 Q. I want to just be able to refer to the 22 different components in Figure 5 as something. Like, 23 if you are -- if you think that, like, some of these -- 24 like the principals in the first identity service can 25 be on the same machine, can I just re- -- how should I Page 59	1 whole, but I don't believe I walked through the -- 2 specific definitions for that. I specifically focused 3 in my report on the principal believing interactions 4 with the external service (inaudible) -- 5 Q. Right. But you opined that the process 6 detailed in Claim 1 is further detailed in Figure 5, 7 right? 8 A. I say this process. 9 Q. So if you're not referring to the process 10 detailed in Claim 1, what is this process referring to 11 in your report? 12 A. Well, it's describing here, as I note in 13 paragraph 56, specification describes that single 14 sign-on service performs proxying techniques in which a 15 user, G principal, could access a secondary identity 16 service based on authentication performed by accessing 17 the first identity service. I expand further and then 18 I talk about how that -- this process, referring to the 19 prior paragraph, is further detailed in Figure 5. 20 Q. And is that process also claimed in Claim 1? 21 A. I think it would be difficult. That seems to 22 be a bit more of a legal conclusion with regards to 23 claimed and that -- I don't want to speculate a bit as 24 opposed to the particular words that are in question 25 with regards to claim construction. Page 61

1 Q. Would you agree that Claim 5 is relevant to 2 the disclosure in Claim 1? 3 A. I'm sorry, Counsel. Do you mean Figure 5? 4 Q. Yeah. Let me repeat the question. 5 Would you agree that the process in 6 Figure 5 is relevant to Claim 1? 7 A. I believe that would be a fair statement, as 8 it's part of the specification describing the -- the 9 patent itself. 10 Q. Right. And you wouldn't have included it in 11 your report, talking about Claim 1, unless it were 12 relevant, right? 13 A. I believe it helps illustrate, as I describe 14 later in my write-up, with regards to the interplay of 15 the various identity services. 16 Q. Okay. So Figure 5 helps illustrate Claim 1; 17 is that fair? 18 A. I think it can be used to help illustrate 19 Claim 1. I couldn't speculate for sure without 20 reviewing the claims if that's the only claim it helps 21 illustrate. 22 Q. Right. But we're just focusing on Claim 1. 23 I'm not trying to exclude any other claims here. 24 Do you agree that there are four components 25 in Figure 5? Page 62	1 A. I believe in the claim language, it talks 2 about single sign-on access of the principal to the 3 identity service and other services external/internal 4 to the identity service. And then it goes further on 5 to describe as a proxy for access and it continues on 6 with regards to the overall behavior. 7 Q. Are you able to tell me which -- let me -- 8 let me start over. 9 Are you able to tell me whether the 10 identity service in Claim 1 maps to the first identity 11 service or second identity service in Figure 5? 12 A. I think in this case with regards to Claim 1, 13 it's describing the behavior. And then Figure 5 is 14 helping to describe an embodiment with two different 15 identity services that could be realized deliver 16 (phonetic) what's claimed in the patent. 17 Q. Right. I'm asking, are you able to tell me 18 whether the identity service in the claim maps to 19 either the first identity service or second identity 20 service or both of Figure 5? 21 A. I believe the claims that are being construed 22 through are the principal believing interactions are 23 with the external service, and what's not under 24 discussion is the particular identity services. I 25 describe how the process works in my report. I guess Page 64
1 A. If we view the rectangular boxes as 2 components, then there would be four components 3 described in Figure 5. 4 Q. Okay. And you see in Claim 1, it recites a 5 principal, right? 6 A. I do see that. 7 Q. Okay. Would you agree that the principal in 8 Figure 5 maps to the principal in Claim 1? 9 A. I think that's a reasonable assumption to 10 take. 11 Q. And Claim 1 also recites an external service, 12 correct? 13 A. It does. 14 Q. And would you agree that the external service 15 in Figure 5 maps to the external service in Claim 1? 16 A. I think it would be reasonable to 17 (inaudible). 18 Q. Claim 1 also recites an identity service, 19 right? 20 A. It does mention identity service. 21 Q. And Figure 5 has a first identity service and 22 a second identity service, right? 23 A. It does. 24 Q. Which of those two identity services does the 25 identity service of Claim 1 map to? Page 63	1 I'm not following, Counsel, on the specific mapping and 2 its relevance. 3 Q. It's part of the claim. You have to 4 understand the claim as a whole, right? 5 A. I believe that one needs to read the claim. 6 I did not opine on the entirety of the claim. I opined 7 on this particular term that was being considered for 8 claim construction. 9 Q. Right. So earlier in the claim it says, The 10 identity service acts as a proxy for access sessions to 11 the other services on behalf of the principal. Do you 12 see that? 13 A. Yes. 14 Q. And the principal's access sections occur 15 indirectly through the identity service and 16 transparently to the principal. Do you see that? 17 A. I do. 18 Q. Okay. And later it talks about the principal 19 believing interactions are with the external service. 20 Do you see that? 21 A. I do. 22 Q. Okay. So if the principals believing that 23 interactions are with the external service, then which 24 component are the interactions actually with? 25 A. So as it's written, the principal believes Page 65

1 that it's interacting with the external service. And 2 as the claim describes, these are occurring indirectly 3 and transparently to the principal. So if we reason 4 through there, the principal believes it's interacting 5 with the external service. Those particular identity 6 services are being done transparently. 7 So, again, the principal believes it's 8 interacting with the external service. These are being 9 proxied through these -- I guess these additional 10 identity services, but the principal still believes 11 it's interacting with that external service, and as 12 it's described, it's being done transparently. So it 13 doesn't know -- particularly because these are being 14 done in a transparent proxy manner and Figure 5 15 illustrates an example with a first and second and the 16 sequences that walk through kind of the A, B, C and the 17 different steps that are described in the 18 specification. 19 Q. Okay. So the term that we're talking about 20 here is the principal believing interactions are with 21 the external service, correct? 22 A. Yes. 23 Q. Would you agree with me that the principal 24 interactions are not actually with the external service 25 directly? Page 66	1 believes it's interacting with the external service but 2 these are -- again, reading the patent and the 3 particular claim -- that these are done transparently. 4 So the principal thinks it's interacting with the 5 external service but it's leveraging these other 6 services that are being done in a transparent manner 7 effectively through a proxy. 8 Q. Right. So do you agree with me that the 9 principal is not directly interacting with the external 10 service? 11 A. For the purposes of the single sign-on, these 12 interactions are happening indirectly. Now this is for 13 the purposes of the single sign-on. 14 Q. (Inaudible) -- 15 A. By virtue of using the external service that 16 was interacting directly to even get us to kind of this 17 point. This is -- So you had to interact with that 18 particular external service broadly as a form of kind 19 of network access because I want to be able to use the 20 external service in the first place. 21 So then we're getting into the notion of 22 authentication usually triggered -- if we look more 23 broadly, authentication request is being -- is being 24 done to be able to basically -- typically use that 25 particular external service. Might be something like Page 68
1 A. I'm not sure. I would say it would depend -- 2 so there's mechanisms that are happening and there's -- 3 the principal is interacting with that external 4 service, and then the interactions are being done 5 transparently with these identity services where the 6 principal still believes it's interacting with the 7 external service. So what gets us to the point is 8 there were interactions with the external service. 9 So I'm not sure I totally follow your 10 question because you seem to be separating that. 11 Q. So I'm talking -- I'm just asking you right 12 now about the principal believing interactions are with 13 the external service, right? 14 A. Yeah. 15 Q. That's the term at issue, correct? 16 A. Correct. 17 Q. Okay. In your opinion, do the principal's 18 interactions occur directly with the external service? 19 A. So you're asking directly, as I had described 20 earlier, these end up occurring indirectly to the 21 identity service and transparent to the principal. So 22 the principal believes it's interacting with the 23 external service. These are transparently proxied then 24 to the respective identity services. 25 So the client to the principal still Page 67	1 say, you know, if I want to get access to my email, if 2 I want access to a site, or I -- some sort of log-in or 3 proof of who I am, that's what -- what kind of cuts to 4 the core of the authentication which gets us to the 5 point for these respective interactions. 6 Q. You read all of Claim 1, right? 7 A. I did. 8 Q. And you understand all of Claim 1, right? 9 A. Yes. 10 Q. You understand it as a whole, right? 11 A. As a whole, and I read it. I didn't opine in 12 great detail on the entirety of Claim 1. 13 Q. Okay. I understand. Limitation 1A -- or I'm 14 just calling it 1A. The first limitation after the 15 preamble talks about receiving by the machine an 16 authentication request from a principal. The request 17 directed by the principal to an external service and 18 intercepted by the method for receipt. 19 Do you see that? 20 A. I do. 21 Q. Okay. So, in other words, the machine -- the 22 claim machine is intercepting a request from the 23 principal to the external service, right? 24 A. Correct. 25 Q. Separately, the claim recites the identity Page 69

1 service, right, or an identity service, right? 2 A. Describes authentication message for use by 3 an identity service on behalf of the principal. 4 Q. Right. There -- So it recites an identity 5 service, right? 6 A. It does. 7 Q. Okay. And an identity service is a separate 8 component from the machine, right? 9 A. I don't think I would agree to that 10 distinction. 11 Q. So 1C you're talking about supplying by the 12 machine an authentication message for use by an 13 identity service on behalf of the principal, right? 14 A. I'm sorry. You got 1A, 1B -- 15 Q. I'm sorry. 16 A. -- (inaudible) -- 17 Q. I have -- 18 A. -- (inaudible) marked up on my report. 19 Q. I have notes. 20 So the third limitation -- 21 A. I need you to help me out because it's kind 22 of -- 23 Q. It starts with supplying. 24 A. Okay. 25 Q. It says, Supplying by the machine an Page 70	1 identity service can be a part of the machine executing 2 the method? 3 A. I don't think it makes a distinction when I'm 4 reading it here with regards to where the identity 5 service is located. 6 Q. So is it your opinion that it's unclear where 7 the identity service is located? 8 A. No. I don't think it's that it's unclear. I 9 think that it doesn't tie the identity service to a 10 specific machine. 11 Q. So it is your opinion that the identity 12 service can be part of the machine that's executing the 13 claim process? 14 A. I don't think it specifies, based on this 15 particular claim, that it's running on a specific 16 machine. 17 Q. Okay. So -- 18 A. (Inaudible) and an identity service. 19 Q. So it's your opinion that the identity 20 service and the claim can be part of the machine as 21 executing the claim method; is that right? 22 A. I don't believe I offered specific opinion 23 here. Simply observing from reading the claim language 24 and reviewing it, that I don't see something 25 specifically saying that it is on a different machine. Page 72
1 authentication message for use by an identity service 2 on behalf of the principal. Do you see that? 3 A. Not yet. 4 Okay. All right. So about a third of the 5 way down. Okay. So after by the machine, comma, the 6 principal, semicolon, and supplying, that's what you're 7 referring to? 8 Q. Yes. I'm referring to the limitation that 9 starts supplying. 10 A. Gotcha. Okay. I just -- I didn't know if 11 there was supplying in the rest of it, since I haven't 12 memorized it. 13 Q. Okay. It says, Supplying by the machine an 14 authentication message for use by an identity service 15 on behalf of the principal, right? 16 A. I do see that. 17 Q. Okay. So that's referring to the machine and 18 separately an identity service, right? 19 A. I don't know if I would say that the machine 20 and identity service necessarily need to be 21 distinctive. Saying supplied by the machine 22 authenticates the message for use by an identity 23 service. Doesn't say where the identity service needs 24 to be located. 25 Q. So is it your opinion that this claim, the Page 71	1 Q. We talked about earlier how the claim recites 2 the identity service acts as proxy for access sessions 3 to the other services on behalf of the principal, 4 right? 5 A. I do see that in the claim language, yes. 6 Q. And we talked earlier about how the relevant 7 limitation is the principal believing interactions are 8 with the external service, right? 9 A. I do see that. 10 Q. Okay. The principal's access sessions occur 11 indirectly through the identity service and 12 transparently to the principal, right? 13 A. I do see that in the claim language. 14 Q. So do you agree that the principal's 15 interactions with the external service occur indirectly 16 through the identity service? 17 A. I'm not sure I would agree with that 18 particular wording. 19 Q. Why? 20 A. Based on how you had phrased with regards to 21 interactions and the external service and what that 22 constitutes. 23 Q. What do you mean by that? 24 A. So I believe your question, if I heard it -- 25 if I understood it, was with regards to external Page 73

1 services and interactions that seem to be more broad in 2 terms of the scope, in terms of what specifically is 3 discussed in the claim language. 4 Q. So you agree that the claims say literally, 5 The principal believing interactions are with the 6 external service, right? 7 A. It does say here, The principal believing 8 interactions are with the external service in the 9 context of the interactions that are being discussed. 10 Q. Okay. So the interactions that are being 11 discussed occur indirectly through the identity 12 service; is that right? 13 A. We described earlier the notion of it being a 14 proxy and doing this transparently for the particular 15 interactions. These interactions being related to 16 authentication. 17 Q. So my question to you is: Can you identify 18 the identity service in Figure 5? 19 A. I think I had answered this earlier when I 20 described that Figure 5 provides an embodiment with a 21 first and second identity service. The claim language 22 itself describes one of the identity services. It 23 doesn't preclude other identity services. It talks 24 about the sessions occurring indirectly through the 25 identity service and transparently to the principal. Page 74	1 services. The claim language as described does not 2 restrict you to only a single identity service. And 3 Figure 5 is an embodiment that happens to have two 4 identity services and it shows how things are proxied 5 and how it operates with regards to the external 6 service, and in this case two of the identity services 7 that are being used, and it fully comports with Claim 1 8 in my opinion. 9 Q. Is it your opinion that Claim 1 only requires 10 one identity service? 11 A. I believe, as it describes later in the claim 12 language, it talks about using a single interaction or 13 multiple interactions and that those are automatically 14 communicated. So it could be a single service. 15 Identity service would be sufficient. It could be -- 16 multiple identity services would be sufficient based on 17 the plain and ordinary meaning of the text. 18 Q. So is it your opinion that Claim 1 only 19 requires one identity service but could be more? 20 A. I believe it describes a single interaction 21 or multiple interactions as part of the claim language 22 and that being transparently proxied. 23 Q. My question was different. My question is: 24 Is it your opinion that Claim 1 only requires a single 25 identity service but could also involve more than one Page 76
1 And while that is happening, principal believes that 2 the interactions are with the external service. 3 Q. So is it your opinion that Figure 5 does not 4 adequately -- or let me -- let me try that again. 5 Is it your opinion that the depiction in 6 Figure 5 does not represent the components of Claim 1? 7 A. No. 8 Q. What is your opinion then? 9 A. You asked me with regards to, I believe, one 10 of the identity services trying to map that. Figure 5, 11 as I described earlier, is an embodiment where there 12 are two identity services present, and it describes how 13 that would operate in that particular embodiment with 14 multiple identity services. 15 Q. Okay. So it's your opinion that Claim 1 is 16 not accurately depicted in Claim 5 -- or in Figure 5; 17 is that right? 18 A. No. 19 Q. I'm trying to understand the -- you're saying 20 Figure 5 is an embodiment with two identity services, 21 and it sounds like you're saying that Claim 1 only has 22 one identity service. So I'm trying to figure out why 23 you've put Figure 5 in here, if it -- if it's not 24 showing what's in Claim 1. 25 A. No, it's showing an example with two identity Page 75	1 identity service? 2 A. Well, I think I describe in the specification 3 that I had described with regards to first and second 4 identity services as being used because it's proxied 5 and to use only that single interaction or multiple 6 interactions for authentication, but it has the ability 7 to do one or more. But that it -- it makes a choice 8 whether to use a single interaction or multiple 9 interactions for authentication of the principal. 10 Q. Do you agree with me that the identity 11 service acts as a proxy for access sessions to the 12 external service? 13 A. It does describe in the claim language where 14 it acts as proxy for access sessions to other services 15 on behalf of the principal. 16 Q. Do you agree that the external service is one 17 of the other services? 18 A. (No response.) 19 Q. If it helps, look right after the claim term 20 at issue. 21 A. Well, it describes which is one of the other 22 services that the identity service controls access to 23 and a determination as to whether to use a single or 24 multiple interactions for authentication, keeping in 25 mind that this is with regards to authentication. Page 77

1 Q. So you agree that the external service is one 2 of the other services, right? 3 A. So this focuses on authentication requests 4 for those particular services. So when we see -- which 5 is one of the other services that the identity service 6 controls access to. Since this is an authentication 7 request, this would have to do with authentication. 8 Q. That wasn't my question. My question was, do 9 you agree that the external service is one of the other 10 services? 11 A. I believe when we read this we see that the 12 principal believing interactions are with the external 13 service, which is one of the other services that the 14 identity service controls access to. 15 Q. Right. So the external service is one of the 16 other services, correct? 17 A. Well, the identity service is serving as a 18 proxy. By virtue of serving as a proxy, then it would 19 control access too by being a proxy for that particular 20 interaction. 21 Q. So we talked earlier about how the identity 22 service acts as a proxy for access to sessions to the 23 other services on behalf of the principal, right? 24 A. We had discussions certainly on that. 25 Q. Yeah. So that limitation recites access Page 78	1 A. A session in a general sense would cover a 2 broader period of time whereas an interaction might 3 cover a more specific thing in general usage of the 4 terms. 5 Q. So an access session is made up of 6 interactions then? 7 A. It could be that interactions would be events 8 that are occurring as part of an access session. 9 Q. What does it mean to be transparent to the 10 principal? 11 A. So as I describe, I believe, a little bit 12 later in my report talking about transparent proxying 13 and the notion of being unbeknownst or when we view as 14 proxying -- there are different kinds of proxies that 15 one might set up both explicit and transparency -- or 16 transparent when we -- when one configures the network. 17 Q. Does the proxy need to intercept a request 18 for it to be transparent to the principal? 19 A. It would depend upon the definition of 20 intercept. But generally for a packet to be processed 21 transparently, or a particular interaction to be 22 processed transparently, it would need to be on the 23 path such that -- I don't know if one would say that 24 it's only intercepted is the only mechanism, but in 25 essence, that it would get it and then have the ability Page 80
1 sessions, right? 2 A. I don't recall the specific term access 3 sessions. 4 Q. I can direct you to the claim language. 5 A. Yeah. Where was the term access sessions? 6 Q. It says, The identity service acts as a proxy 7 for access sessions to the other services. 8 A. Got it. Thank you. (Inaudible) -- 9 Q. (Inaudible) -- 10 A. -- (inaudible) -- 11 Q. -- (inaudible) -- sorry. Go ahead. 12 A. Yeah, sorry. I just -- those two were on 13 separate lines, and I didn't specifically recall those 14 two words being right together. 15 Q. So that recites access sessions, right? 16 A. So we see on that text the identity service 17 acts as a proxy for access sessions to the other 18 services on behalf of the principal. 19 Q. Right. The limitation at issue talks about 20 interactions, correct? 21 A. It does talk about interactions and that it's 22 the -- the terminology was specifically principal 23 believing interactions are with the external service. 24 Q. Are interactions different than access 25 sessions? Page 79	1 to apply actions or redirection or appropriate 2 transforms as part of -- generally for transparent 3 operation. 4 Q. When we're talking about the principal here, 5 you agree that we're taking about, like, the machine or 6 component and not the user person; is that right? 7 A. I would have to look specifically generally 8 for a client. Although not always. Tends to be a 9 one-to-one relationship between the client and the 10 specific machine or like a principal that many devices 11 tend to be single-user devices for while they're being 12 used. 13 Q. So is it the computer or the human user that 14 needs to believe interactions are with the external 15 service? 16 A. I don't know if I offered a specific opinion 17 as to the distinction between the user versus the 18 machine for this particular case outside of I noted in 19 a -- in my example that it could be a user, EG, or 20 principal could access a second identity service. 21 Q. So my question to you in this limitation that 22 you opined on, is it a computer or person that needs to 23 believe interactions are with the external service? 24 A. I'm not sure that distinction matters for the 25 purposes of claim language, but I would need to read Page 81

1 through specifically with regards to the term 2 principal. But in terms of how the network would 3 operate, I don't see a distinction there for the 4 purposes of this particular patent. 5 Q. What does it mean for a computer to believe 6 interactions are with an external service? 7 A. Well, I think we described earlier, the 8 notion of -- we talked a little bit about interception 9 and transparent proxy. When we're dealing with a -- 10 the notion of interception or transparent proxying, it 11 would mean the device -- or in this case the particular 12 identity service, if it's intercepting -- I believe 13 we -- we chatted about the last -- on the last patent 14 with regards to network addresses and client addresses. 15 I can send packets to a destination, but if 16 they are intercepted or transparently proxied, I may be 17 thinking I'm sending it to a specific destination 18 address. But if that particular element in the network 19 intercepts or transparently proxies it, I think I'm 20 sending data to the external service or that particular 21 destination address, but if it's intercepted, it can 22 inappropriately process it. And in this case, as it's 23 described, that this is transparent and that it happens 24 by virtue of it -- again, it's transparent as opposed 25 to explicit. Where you might configure, say, a browser Page 82	1 whether interactions are with the external service that 2 matters for this claim? 3 A. No. In the sense of -- the user thinks 4 they're going to that particular external service, 5 that's the URL that they would happen to type in or the 6 particular service that they would be using. They're 7 not intentionally choosing an intermediary. They're 8 not intentionally choosing to go to a different site to 9 provide access. 10 They are interacting with that particular 11 external service. And as far as the user is concerned, 12 it looks like that external service is operating as 13 intended and, again, transparently to the user. So 14 there's no nominal notion of the user requiring 15 additional interactions to use this particular proxy or 16 particular setting to do that. 17 Q. So I'm just trying to figure out if it's the 18 computer's belief that it's interacting with an 19 external service or if it's, like, the human user's 20 subjective belief that it's interacting with the 21 external service that matters for purposes of this 22 limitation. 23 A. I think, as I described earlier, it's sort of 24 a distinction without a difference in terms of human 25 belief or those things in terms of how it operates. I Page 84
1 setting or something along those lines where you would 2 specifically choose a proxy versus doing a bit more of 3 kind of a logical trick or a particular physical 4 interposition of a device where the traffic ends up 5 being routed through as part of the network traffic. 6 But since it's transparent, the end principal doesn't 7 know it's being intercepted and that it happens as part 8 of this process. 9 Q. You just mentioned a browser setting to 10 configure a proxy, right? 11 A. I did. 12 Q. If a computer has a browser setting to 13 configure a proxy, does the principal believe 14 interactions are with the external service? 15 A. Generally, yes, in that case in that they 16 are, from a user perspective, generally unaware that 17 the proxy as it might have been configured with -- or 18 by the administrator, they still believe they're going 19 to, say, CNN.com or the particular website. It just 20 happens to be explicitly, by virtue of the browser 21 setting, effectively made to the proxy underneath. In 22 this case, this is describing a transparent operation 23 where it's intercepted in more of a logical sense as 24 opposed to an explicit sense. 25 Q. So is it the user's subjective belief as to Page 83	1 think I'm using the external service. 2 Q. (Inaudible) -- 3 A. When I go to interact with it and type in the 4 name of the external service or interact with it, I'm 5 sending my traffic towards what I think is going to 6 arrive at that site and interact with it, whether it 7 comes from an -- and it has that entity in the mid- -- 8 in this case, it's a transparent entity in the middle 9 that intercepts that and then does the appropriate 10 requirements for identity. Whether it's one or two, as 11 we described before, or more for the purposes of 12 authentication as needed for that service, it's 13 intercepting that authentication to appropriately 14 direct it. 15 Q. Right. So here -- We talked about how there 16 are browser settings to configure a proxy, right? And 17 you mentioned earlier that an admin might set it 18 without the human user knowing, right? So in that 19 situation, doesn't the computer believe that it's 20 interacting with the proxy? 21 A. Well, the computer is sending traffic to the 22 proxy to -- that then in turn will be sent on to the 23 external service. 24 Q. Right. 25 A. So it's interacting with the external Page 85

1 service. In this case it's describing a transparent 2 case where it's intercepted, which I'm sending it 3 towards the -- the particular service and then it's 4 going from there. 5 Q. But the computer knows it's sending traffic 6 to a proxy, not the external service, right? 7 A. In that -- For that particular website, it 8 would know based on those rules that it's sending it to 9 the external proxy by virtue of the setting, the 10 destination for the get request would be the external 11 proxy if configured that way. It still believes that 12 it's interacting, because the proxy is acting on its 13 behalf, with the -- the -- or it's still -- it's 14 sending the get to the proxy. The proxy then is making 15 the request to the external service, and then the 16 external service would respond back to the proxy and 17 the proxy would send that back due to that explicit 18 setting. This is describing a transparent setting 19 where this is intercepted effectively without that 20 specific proxy setting that's occurring. 21 Q. So is it your -- It's your opinion that a 22 computer can believe it's interacting with an external 23 service even when it has a proxy set in -- configured 24 in the browser setting; is that right? 25 A. It's making a get request to the proxy. The Page 86	1 just walking through is interception of that particular 2 authentication request that it is intercepted 3 transparently. 4 Q. Given that the identity service acts as a 5 proxy for access sessions to the other services on 6 behalf of the principal and the principal's access 7 sessions occur indirectly through the identity service 8 and transparently to the principal, does the principal 9 ever not believe interactions are with the external 10 service? 11 A. Because of how it's situated and because it's 12 intercepted transparently, it believes those 13 interactions are all with the external service. 14 Q. Do you agree that the principal believing 15 interactions are with the external service is 16 redundant? 17 A. No. 18 Q. What does it add to the claim? 19 A. I guess I would correct that a bit, that it 20 helps clarify -- so one could maybe argue it's a little 21 bit redundant in the sense that a transparent proxy 22 with interception would generally -- because it's 23 intercepting that -- would be intercepting, processing, 24 and appropriately requesting that while appearing to 25 effectively be the external service. Page 88
1 proxy in turn is making the get request to the external 2 service. The traffic comes back to the proxy and back 3 to that. And as far as the computer is concerned, it's 4 making the interaction with the external service using 5 the proxy in the middle. The patent walks through, 6 though, where this is transparent and done by virtue of 7 interception, as opposed to an explicit setting. 8 Q. Is it your opinion that the principal 9 believing interactions are with the external service 10 adds something to the claim given that, as you 11 mentioned previously, it talks about a transparent 12 interception by the proxy? 13 A. It's transparent as described. So that would 14 mean that it thinks it's interacting with the 15 principal. Thinks they're interacting with the 16 external service. It's intercepted and then 17 appropriately processed to invoke, as needed, to -- to 18 use those identity services as appropriate for the 19 access. But it's -- thinks when it's interacting, it 20 believes that it's interacting with the external 21 service. 22 It happens to have, by virtue of how things 23 are configured, to require the usage of the first 24 identity and the second identity as appropriate for 25 access to get authentication because with the patent Page 87	1 It captures that -- again, that it's doing 2 this transparent proxy, is what the -- is what the 3 believing interactions are with the external service. 4 So I would say there's a little bit of overlap in the 5 notion of how the technology would work in terms of 6 what is a transparent proxy and how that interception 7 would occur. 8 Q. Does the principal believing interactions are 9 with the external service add anything to the claims? 10 A. I think one could argue that it helps clarify 11 what's going on with one -- it reinforces, again, the 12 notion of the transparent proxy and the access in terms 13 of the interception. In terms of the adding, that -- 14 I'm not a lawyer so I don't know the specifics of 15 adding. It helps reinforce the clarity, I think, as 16 much as anything else. 17 Q. So in your opinion, the principal believing 18 interactions are with the external service clarifies 19 the claim language but does not add anything; is that 20 right? 21 A. It can help clarify -- to be a bit more 22 precise -- it can help clarify is also -- in some sense 23 also helps state the benefit, which I understand is not 24 a requirement in the claims. The claims have to 25 specifically get into the benefits, but in some sense Page 89

1 this also hints as to the broader benefits that, again, 2 this is being done transparently and the principal 3 thinks the interactions are done (inaudible) there and 4 this is sometimes done behind the scenes or underneath 5 without an explicit configuration, if you will. 6 MR. IWAHASHI: All right. Why don't we take a 7 break here? Let's go off the record. 8 (Break taken.) 9 BY MR. IWAHASHI: 10 Q. All right. Welcome back, Dr. Striegel. I 11 just put Exhibit 4 into the chat. Can you pop that 12 open and verify that it appears to be a true and 13 correct copy of U.S. Patent No. 7,593,936? 14 A. Yes, that does appear to be the case. 15 Q. Okay. You start addressing the '936 patent 16 at around paragraph 60 of your report, right? 17 A. That's correct. 18 Q. And the specific term at issue for this 19 patent is "generic response," right? 20 A. Correct. 21 Q. Are there other types of responses besides 22 generic responses? 23 A. I believe I do describe some of the 24 distinctions in my report. 25 Q. Do you agree that a response can be generic Page 90	1 Q. Right. And I'm trying to understand the 2 scope of what a generic response is, right? So my 3 question to you is: Can a response be specific? 4 MR. CANAVERA: Objection; vague. 5 THE WITNESS: Sorry. 6 MR. CANAVERA: Objection; vague. 7 BY THE WITNESS: 8 A. I don't believe the patent uses the term 9 specific response. It does describe categories of 10 responses that could be grouped into what would be a 11 generic response. 12 Q. Okay. So my question to you is: Are there 13 responses that are not generic? 14 A. I believe the patent would not rule those 15 out. It talks about a generic response with regards to 16 Claim 4, as I describe in my paragraph -- or in my 17 report in paragraph 74, which talks about examples of 18 generic responses. 19 Q. So you would agree that not all responses are 20 generic; is that fair? 21 A. I believe in the context of the patent, it 22 talks about what would constitute a generic response, 23 which would seem plausible that there would be a 24 response that is not generic. 25 Q. Do you know what you would call a response Page 92
1 or specific? 2 MR. CANAVERA: Objection; vague. 3 BY THE WITNESS: 4 A. I think I described the term generic response 5 and what it means in my report or why it's not 6 indefinite, to be more precise. 7 Q. Right. So if you are opining that generic 8 response is not indefinite, that means a person of 9 skill would have understood the means and bounds of the 10 term, right? 11 A. I believe in a legal sense that would be 12 correct. 13 Q. Right. So a person of skill would be able to 14 recognize whether or not any response is generic; is 15 that right? 16 A. I believe that they would have been able to 17 understand, in the context of the claims, what the term 18 generic response -- context to the claims and the 19 specification of what it means. 20 Q. Is it possible for a response to be specific? 21 MR. CANAVERA: Objection; vague. 22 BY THE WITNESS: 23 A. I believe the patent talks about what 24 constitutes a generic response as part of its 25 specification. Page 91	1 that's not generic? 2 MR. CANAVERA: Objection; incomplete hypothetical. 3 BY THE WITNESS: 4 A. I'm not sure that's necessary for the purpose 5 of understanding the particular claim and construing it 6 to have a name for that. 7 Q. Okay. In paragraph 69 you say the automated 8 response is considered generic because it can address 9 multiple distinct anomalies that share a common 10 characteristic. Do you see that? 11 A. I do. 12 Q. Would you agree that that is the plain and 13 ordinary meaning of the term generic response? 14 A. I believe it discusses an example of a 15 generic response. And I do believe later on, as I 16 described in Claim 4, it talks about other examples of 17 generic responses. 18 Q. How would a person of ordinary skill 19 understand the term generic response in the context of 20 this patent? 21 A. I guess I'm not -- Are you talking about the 22 process one would undertake to understand generic 23 response or the term generic response? 24 Q. I'm just asking you to tell me like I'm a 25 ten-year-old, what is a generic response? Page 93

1 A. I don't know if I would necessarily describe 2 it to a ten-year-old. We're considering a POSITA or 3 POSA. I do describe in here examples of generic 4 responses and provide that as part of my report. 5 Q. All right. Going back to the sentence in 6 paragraph 69, you say a generic -- it's generic because 7 it can address multiple distinct anomalies that share a 8 common characteristic, right? 9 A. I do see that. 10 Q. What makes an anomaly distinct? 11 A. So in a broad sense, if I'm understanding 12 your question correct, different -- anomalies are 13 different attacks. Again, if we, kind of, go to the 14 notion of different viruses might manipulate, say, for 15 instance, different registry entries, but the generic 16 response of modifying a registry entry -- so one -- one 17 anomaly or one virus might manipulate this one, a 18 different might manipulate a different one. 19 And so the generic one, as I describe here, 20 is that they share common characteristics and 21 essentially can be grouped together into, say, fixing 22 registries, installing missing software, but they're 23 viewed as, sort of, broad categories of responses to 24 the particular anomalies. 25 Q. So you mentioned the example of one piece of Page 94	1 Q. All right. I'm just trying to understand 2 whether a single setting, while ignoring other 3 settings, would still be considered a generic response. 4 A. I'm not necessarily following the term that 5 you're adding in with regards to ignoring. 6 Q. So we talked about how different pieces of 7 malware can affect different parts of the registry, 8 right? 9 A. Correct. 10 Q. So if there are different parts of the 11 registry that are incorrect that need to be restored 12 and the response only addresses one of those registry 13 settings, is that a generic response? 14 MR. CANAVERA: Objection; incomplete hypothetical. 15 BY THE WITNESS: 16 A. Well, I think the broad category, as I 17 describe on here, that this is a shared common 18 characteristic, which is -- for instance, one of them 19 restoring a registry setting. Different anomalies, in 20 your example that you had given, would be distinct 21 anomalies. If one virus manipulates part of the 22 registry and a different manipulates other parts of the 23 registry, those would be distinct anomalies. The broad 24 group that they share the characteristic was that they 25 manipulated the registry, and their setting or settings Page 96
1 malware affecting one part of the registry and another 2 piece of malware affecting another piece of the 3 registry; is that right? 4 A. That could be one example. 5 Q. Okay. So in the generic response, in your 6 opinion there, would be fixing the registry, right? 7 A. It describes in Claim 4 specifically 8 restoring an incorrect registry setting. 9 Q. So if instead of fixing the registry as a 10 whole, a response only fixed one part of the registry 11 without fixing the other part of the registry, would 12 that be a generic response? 13 MR. CANAVERA: Objection; incomplete hypothetical. 14 BY THE WITNESS: 15 A. I'm not sure I would characterize it in that 16 manner, as the example given in Claim 4 says, Restoring 17 an incorrect registry setting. 18 Q. So restoring a single registry setting -- 19 well, not restoring other registry settings could still 20 be a generic response; is that what you're saying? 21 A. No. This is providing examples of generic 22 responses where it's restoring an incorrect registry 23 setting or -- I don't think it's a leap to say that 24 that could be settings that it's restoring as part of 25 the generic response. Page 95	1 would need to be restored. 2 So the generic response of fix the registry 3 may happen for anomaly A, it may happen for anomaly B, 4 but they share the characteristic for both of them for 5 fixing the registry, which is getting into the generic 6 response. 7 Q. So is fixing the registry always a generic 8 response? 9 MR. CANAVERA: Objection; incomplete hypothetical. 10 BY THE WITNESS: 11 A. I don't know if I would view it as always 12 being a generic response. But, I guess, if I'm 13 understanding your question correctly, that that -- 14 fixing a registry, since it would certainly encompass 15 multiple anomalies, would be a generic response as it's 16 given as an example in the patent. 17 Q. Okay. So is it your testimony that fixing a 18 registry setting is always a generic response? 19 MR. CANAVERA: Objection; incomplete hypothetical. 20 BY THE WITNESS: 21 A. I think this is listed as an example and 22 given that it's listed as an example where the generic 23 response could include at least one of those particular 24 examples, so I -- it could be one of the components of 25 the generic response in terms of restoring an incorrect Page 97

1 registry setting. 2 Q. What would you need to know to determine 3 whether restoring an incorrect registry setting was a 4 generic response? 5 A. I think in this, given the -- if we look at 6 the state of the various anomalies that would be under 7 consideration, many of them would likely manipulate a 8 registry entry. And as such, there would be a body of 9 anomalies that are distinct that are manipulating the 10 registry setting, that that would need to be fixed as 11 part of the response process in order to bring the 12 system back to a repaired state. Not all settings 13 necessarily need to be fixed, but most likely 14 correcting the registry, one setting or multiple, would 15 be part of a response process to be applied. 16 Q. And that response process would be generic? 17 A. In the sense that correcting registry 18 entries -- or registry settings would be -- could be 19 one part of a generic response. 20 Q. Going back to paragraph 69, you say -- you 21 talk about sharing a common characteristic. 22 A. Yes. 23 Q. What is a common characteristic? 24 A. In that the automated response, as I 25 described here, is generic because the action that's Page 98	1 action that might be undertaken to provide a bit of an 2 analogy, say, for perhaps during a normal mode of 3 operation, an application is stuck and no one could 4 respond and one might restart the computer. So the 5 generic response is to sort of -- if you plugged it -- 6 or if you unplugged it and plugged it back in is kind 7 of a generic response in terms of an action that's 8 being undertaken. 9 Q. Are applications getting stuck mid-process 10 distinct anomalies or a common characteristic? 11 MR. CANAVERA: Objection; incomplete hypothetical. 12 BY THE WITNESS: 13 A. Here I'm describing the response that's being 14 undertaken as opposed to the specific things that 15 caused an application to be stuck mid-process. So I'm 16 talking about the response that is happening. 17 Q. The response is rebooting the computer, 18 right? 19 A. I do describe in this case an analogy that 20 says rebooting a computer could help resolve issues. 21 So this is being used to illustrate the notion of a -- 22 the automated response effectively that's generic or a 23 generic broader class of solutions. 24 Q. Right. But the anomaly is the application is 25 getting stuck mid-process, right? Page 100
1 being undertaken can be -- can span multiple particular 2 anomalies, in terms of the fix or the response that 3 needs to be done. 4 Q. The fix being restoring registry settings, 5 right, as an example? 6 A. That could be an example as described in 7 Claim 4, one brings that into understand as well what 8 is a generic response because it describes potential 9 components or potential things that are done in order 10 to do a response to the particular ... 11 Q. If multiple distinct anomalies have a common 12 characteristic, isn't that common characteristic 13 something that is specific? 14 MR. CANAVERA: Objection; vague. 15 BY THE WITNESS: 16 A. I guess I'm not following that question. 17 Q. In paragraph 69 you discuss how rebooting a 18 computer can resolve various software issues that keep 19 applications stuck mid-process. 20 A. (Inaudible.) 21 Q. Can you point to me where that example is 22 disclosed in the specification in the 936 patent? 23 A. I don't see the specific term rebooting 24 mentioning. In this case, I was providing an example 25 drawing from my own expertise as to kind of a generic Page 99	1 A. So in this case I mention applications, so 2 that could be different applications getting stuck due 3 to a variety of reasons, many applications and many 4 different bugs. So one of the responses can be to 5 reboot the computer to resolve the particular issue 6 that it happened, that the reboot is what ends up 7 effectively responding appropriately so the application 8 operate correctly. 9 Q. Right. So the anomaly there is the 10 application is getting stuck mid-process, right? 11 A. So there can be different anomalies. So, for 12 instance, my Microsoft Word might freeze or my 13 Microsoft Excel might freeze or, for instance, say 14 the -- my Chrome might have multiple tabs, which 15 consumes the memory, which causes my Word to freeze. 16 There can be a variety of things which can work 17 together in this particular example which is -- it's 18 frozen and then it was resolved through the generic 19 response of just restarting the computer, which then 20 effectively kind of brings back kind of a clean slate, 21 if you will, such that the applications can continue to 22 operate correctly. 23 Q. So, Dr. Striegel, this is going to go a lot 24 more quickly if you can just listen to my question and 25 answer it. I wasn't talking about the response. I'm Page 101

1 just trying to figure out what the anomaly is here. 2 Right? I'm not talking about the response. You've 3 told me that rebooting the computer is the response. 4 I'm just trying to confirm that the application is 5 getting stuck mid-process is the anomaly. 6 MR. CANAVERA: Objection; vague, compound. 7 BY THE WITNESS: 8 A. I believe I answered your question, Counsel, 9 in terms of how I use this particular example to help 10 illustrate a common solution to a variety of different 11 issues. 12 Q. I'm not asking about the solution. I'm just 13 trying to figure out what the anomaly is. Like, what 14 is the anomaly in this situation? In this example, I'm 15 not talking about the response. I'm just trying to 16 figure out what the anomaly is. That's it. 17 MR. CANAVERA: Objection; vague and compound. 18 BY MR. IWAHASHI: 19 Q. So what is the anomaly in this example? 20 MR. CANAVERA: Same. 21 BY THE WITNESS: 22 A. Again, Counsel, I think I've answered your 23 question on this in that we're getting to the terms and 24 terms of what is a generic response and what 25 constitutes that, as opposed to what constitutes an Page 102	1 applications, again by rebooting the machine to resolve 2 the particular undesirable issue. 3 Q. Would you agree with me that a response that 4 addresses only one distinct anomaly is not a generic 5 response? 6 MR. CANAVERA: Objection; incomplete hypothetical. 7 BY THE WITNESS: 8 A. I think I would have to reflect as to a 9 specific case where there would be only one anomaly 10 where it didn't share common characteristics to 11 construct that, so I'd have to reflect on that a bit. 12 Q. Are you aware of any anomalies that don't 13 share a common characteristic? 14 A. Off of the top of my head, I'd have to think 15 about that. Again, I couldn't say for sure whether I 16 could come up with one. I don't think it would be fair 17 to the Court to try to hypothesize on it. 18 Q. Can you give me an example of a common 19 characteristic? 20 A. I think I already did. 21 Q. What was it? 22 A. I think we had spent a fair amount of time 23 talking about a common characteristic that it's 24 resolved by that particular response, which was 25 rebooting the computer to resolve the applications Page 104
1 anomaly. 2 Q. You say in your report, An automated response 3 is considered generic because it can address multiple 4 distinct anomalies that share a common characteristic, 5 and then you give this example. I want to know what 6 the anomalies are in this example. 7 A. We see -- again, we see that it addresses the 8 automated response is considered generic because it can 9 address multiple anomalies, distinct anomalies, that 10 share a common characteristic, so the application is 11 stuck. 12 Q. Is that the anomaly? 13 A. That could be an instance of that, and the 14 generic response, which is what is the claim term 15 that's being in question, is that reboot the computer. 16 And this is showing how rebooting the computer could 17 potentially fix different applications that happen to 18 be stuck. 19 Q. Are those applications that are stuck the 20 anomalies? 21 A. In terms of how I use the anomaly to describe 22 a common response, this is an example of how I'm 23 showing that there's a common response in reaction to 24 an undesired or a behavior that is happened resolved in 25 the same manner, occurring across different Page 103	1 being stuck. 2 Q. So an application being stuck is a common 3 characteristic; is that right? 4 A. It could be for a particular anomaly. This 5 is an example that I use to illustrate, sort of, a 6 shared fix that resolves that particular broad category 7 or kind of a shared -- shared the -- the application is 8 stuck while the nuance of each individual application 9 on how it gets stuck may be different. 10 Q. The applications being stuck is an example of 11 a common characteristic; is that fair? 12 A. For the example that I use to describe this 13 here, in terms of what constitutes a generic response, 14 I don't think that's entirely unreasonable. 15 Q. Are modifications to registry settings 16 another example of a common characteristic? 17 A. If the response is to fix the incorrect 18 registry setting, it would stand to reason then that 19 the common characteristic of the anomaly was that it 20 had modified the registry setting in the first place, 21 which required remediation to fix that incorrect 22 setting. 23 Q. Are you able to give me an example of a 24 common characteristic without talking about the 25 response? Page 105

1 MR. CANAVERA: Object; vague. 2 BY THE WITNESS: 3 A. Off the top of my head, I would have to think 4 about that. But I'm not -- I'm not entirely sure what 5 you're asking there. 6 Q. Every time I ask you about common 7 characteristics of distinct anomalies that you talked 8 about in your report, you immediately start talking 9 about generic responses. My question is: Can you give 10 me an example of distinct anomalies with a common 11 characteristic without discussing what the response to 12 the anomalies is? 13 A. I think, Counsel, in this case the claim term 14 that is in question is the generic response, so it 15 would be somewhat natural that we would go back to the 16 claim term in question. So I think I've answered it 17 appropriately. 18 Q. You say a response is considered generic 19 because it can address multiple distinct anomalies that 20 share a common characteristic, right? 21 A. Correct. 22 Q. I'm trying to understand what you mean by 23 that. As part of that, I want to understand when 24 multiple distinct anomalies share a common 25 characteristic and what a common characteristic even Page 106	1 Q. Oh, go ahead. 2 A. That can be distinctive from, as I describe 3 later, Claim 4 describes some of the generic responses 4 in that the generic response can include at least one 5 of -- and it provides examples of components or 6 elements that might make up a generic response. 7 Q. Is rebooting a computer always a generic 8 response? 9 A. I don't know if I would say always. It would 10 be a likely action that would occur typically after one 11 might manipulate, say, registry settings or software 12 components, that a reboot would generally be part of 13 that as part of -- Windows might go through, if we're 14 looking at Windows as a specific example, that one 15 would want to have effectively the fixed software being 16 the only ones that's actually running. 17 So one way that one might ensure that is by 18 fixing the registry, perhaps fixing the software 19 components. A reboot might ensure that that would 20 be -- only that software would be running, so a reboot 21 could be part of a generic response as we're informed 22 by Claim 4. 23 Q. Under what circumstances is rebooting a 24 computer not a generic response? 25 A. I'd have to think about that to come up with Page 108
1 is. 2 A. So as I described in my report, the automated 3 response is generic because it can address multiple 4 distinct anomalies. The response is able to address 5 those because they share those common characteristics 6 that they change the registry, changed a piece of 7 software, or something else as I describe later. 8 Perhaps a software component was deleted and removal of 9 a un- -- or an undesirable software component was 10 installed or the registry setting was modified, and the 11 generic response includes -- it's generic because it's 12 addressing those broader things in terms of categories 13 or fixes that are being applied to remediate or fix 14 those particular anomalies. 15 Q. So I heard installation of undesirable 16 software, registry modifications, processes not 17 running. Those are all common characteristics of 18 anomalies, right? 19 A. I think you're conflating a few things there, 20 so I want to be careful. I provided the example in my 21 report that rebooting could be considered a generic 22 response. It takes care of the common characteristic 23 that the applications were stuck. 24 Q. Is reboot -- 25 A. (Inaudible) -- Page 107	1 a -- if there's a case that -- where that would not be 2 a generic response. 3 Q. Can a response be generic if it doesn't 4 address multiple distinct anomalies that share a common 5 characteristic? 6 A. I think by virtue of it being a generic 7 response is covering the category of fixes that you're 8 applying, and the fixes being able to be categorized is 9 because they share that common characteristic. 10 Q. So how can a response be generic if it 11 doesn't address multiple distinct anomalies that share 12 a common characteristic? 13 MR. CANAVERA: Objection; vague. 14 BY THE WITNESS: 15 A. I missed the first part of your question 16 there. 17 Q. How can a response be generic if it doesn't 18 address multiple distinct anomalies that share a common 19 characteristic? 20 A. I think by virtue of having that shared 21 characteristic, that it's not distinctive. So in the 22 sense of, you know, different anomalies, they have 23 common characteristics where, you know, examples listed 24 here fit into the broad categories that you would 25 usually see with like antivirus, worms, and the types Page 109

1 of threats that you would typically see and be 2 concerned about an anomaly detection. 3 So they would typically manipulate the 4 registry, install software, et cetera, et cetera. 5 There's a somewhat, say, limited sphere of actions that 6 might happen and then the response is to remediate 7 those kind of broad categories of actions. There may 8 be specific things. I'd have to think of it more 9 deeply in terms of where the response might not be 10 generic. I'd have to think a little bit about -- look 11 at some of -- perhaps, say, some of the anomalies that 12 might have happened and fixes around that time frame to 13 see if I can -- if any would come to mind in terms of 14 the remediations. 15 Q. Are you able to come up with any example of a 16 response that is not a generic response? 17 A. I would have to think a bit in terms of 18 things that might be shared. I would have to think a 19 little bit. In particular what's coming to mind is 20 some of the particular hardware -- or perhaps some of 21 the physical compromises that might happen that might 22 not involve a generic broad category of responses that 23 could either be automated or observed even by say a -- 24 the particular setup as identified by this patent. 25 Q. In paragraph 71, you rely upon the Page 110	1 generic class of conditions? 2 MR. CANAVERA: Objection; incomplete hypothetical. 3 BY THE WITNESS: 4 A. I don't know if that specifically would be 5 the case. I'd have to think through some of the 6 responses and the overlap to formulate a more specific 7 opinion on that. 8 Q. If a response addresses a particular root 9 cause condition, can that be considered a generic 10 response? 11 MR. CANAVERA: Objection; incomplete hypothetical. 12 BY THE WITNESS: 13 A. If I'm understanding your question correctly, 14 I think we can look at what we had talked about earlier 15 where a specific condition might be a manipulation of a 16 registry entry, and in a generic response, it includes 17 fixing the incorrect registry setting. So there might 18 be the shared notion of where there might be worm A 19 which has, say, manipulated registry setting 1, worm B 20 might manipulate registry setting 2, but the generic 21 response involves correcting the registry. So 22 correcting registry settings as that generic response 23 with each being specific for what needs to be 24 remediated for each -- each specific type of behavior 25 that's recognized. Page 112
1 specification, and specifically you bolded a portion 2 where it talks about a recognition filter comprises a 3 particular pattern of anomalies that indicates the 4 presence or -- of a particular root cause, condition, 5 or a generic class of conditions, right? 6 A. Yeah. 7 Q. Okay. Does that mean that the system has to 8 identify a generic cause -- or generic class of 9 conditions or to -- or sorry. I'm getting ahead of 10 myself. Let me start over. 11 What is a generic class of conditions? 12 A. I believe that patent had described that. So 13 it's describing in this case a particular root cause or 14 generic class of conditions. It has -- In this case, 15 these would be broader buckets getting into, say, 16 shared characteristics. We see later in 1563 to 65 17 talks about the recognition filter, a signature of 18 conditions, or class of conditions, pairs of asset, 19 names, and values. Sees also in this case, search for 20 worms or worms in general or perhaps, say, searching 21 for a specific worm. So we might say a generic class 22 of conditions might be searching for worms whereas a 23 specific worm might be a particular condition or a 24 particular recognition. 25 Q. Does a generic response need to address a Page 111	1 Q. Paragraph 72 of your report says -- you say 2 that the specification illustrates that when a generic 3 cause is identified, a generic response may be 4 dispatched as seen below, right? 5 A. I do see that. 6 Q. Okay. Does that mean the system has to 7 identify a generic cause to create a generic response? 8 A. I believe in this case, as I stated, when a 9 generic cause is identified, a generic response may be 10 dispatched. So I don't know if it would be that a 11 generic cause necessarily needs to be identified just 12 to have the generic response be triggered. 13 Q. So is it your testimony that a generic 14 response can be dispatched without identifying the 15 generic cause? 16 A. Well, I think in this case, as I described in 17 the paragraph just above it, I talk about those generic 18 class of conditions or conditions may have a root 19 cause. So a root cause could trigger a generic 20 response because affixed to the root cause is a generic 21 response fixing the incorrect registry setting. 22 Q. In paragraph 72 -- sorry. We were just 23 there. 24 In paragraph 73, you say that the generic 25 responses may reverse those changes and correct the Page 113

1 conditions, right? 2 A. I do see that. 3 Q. Okay. What about the response makes it 4 generic as opposed to nongeneric? 5 A. In this case I think I list the things that 6 different viruses might do. The generic response would 7 be is correcting those particular conditions. So as 8 it's described a bit later, again, in Claim 4 or 9 getting into restoring it, the generic response may be 10 to fix the file, restore it to the version as observed 11 across the network. Altering the registry then or 12 changing processes that the generic response, how it's 13 categorized could involve those different components to 14 basically restore or remediate the issue that might 15 have occurred. And, again, I'd have to think a bit 16 about an example with regards to a specific action 17 that's not generic. 18 Q. In paragraph 74, you rely on Claim 4, right? 19 A. I do talk about Claim 4. 20 Q. One of the examples of Claim 4 is installing 21 a missing software component -- 22 A. Yes. 23 Q. -- right? 24 Do you agree that could be, for example, 25 Like a security patch on Windows? Page 114	1 just said? 2 A. In the sense of you have a share -- you have 3 a common -- a common action, right, that can resolve 4 potentially multiple anomalies that it could occur that 5 in -- more broadly how the system operates is through 6 the notion of the anomaly detention. And then as we 7 talked about earlier, the recognition filters and then 8 the appropriate determination of either the generic 9 class of conditions or the root cause. 10 Q. Well, let's -- So let's go back to that in 11 paragraph 71, the recognition filter 216 comprises a 12 particular pattern of anomalies that indicates the 13 presence of a root -- particular root cause, condition, 14 or a generic class of conditions, right? 15 A. Right. 16 Q. So you just said that it -- whether or not a 17 security patch is a generic response depends upon the 18 recognition filter, right? 19 A. That could be one of the elements that could 20 contribute to it and in that how it's recognized and 21 how the system operates. I'd have to do, as I 22 described earlier, a little bit more diving into what 23 components of the patch and what would be involved as 24 we talked about the notion with missing versus 25 restoration, adding versus updating, or patch what Page 116
1 A. It could be -- I don't -- I don't know if I 2 would say a security patch because it would depend upon 3 the context of the particular Windows security patch. 4 This does list here a missing software component, so I 5 don't know if a security patch is necessarily bringing 6 in a missing component. It might be updating a 7 component. 8 If the component is missing, I don't know 9 if the patch is necessarily installing that missing 10 one. You might say that it might add or perhaps update 11 as opposed to install the missing one, with regards to, 12 say, like a typical Windows patch. 13 Q. Is installing a security patch a generic 14 response? 15 MR. CANAVERA: Objection; incomplete hypothetical. 16 BY THE WITNESS: 17 A. It would depend upon the recognition filter 18 and how the anomaly is recognized in terms of that 19 being a generic response as to if the resolution 20 (inaudible) the installation of the patch. 21 Q. Sorry. Say that -- continue. Go ahead. 22 A. No, it would -- that's what I would say. It 23 would depend. 24 Q. So whether or not a response is generic 25 depends upon the recognition filter; is that what you Page 115	1 might all be involved if a patch would be a generic 2 response or it could be -- could be part of a generic 3 response. 4 Q. So does -- whether or not a response is 5 generic depend upon the recognition filter? 6 A. No -- 7 Q. Okay. 8 A. -- not (inaudible) 9 Q. What? Sorry. 10 A. Not necessarily. 11 Q. Okay. When does it depend upon the 12 recognition filter? 13 MR. CANAVERA: Objection; incomplete hypothetical. 14 BY THE WITNESS: 15 A. In that the recognition filters help identify 16 the pattern of anomalies or the generic class of 17 conditions, and those, in turn, will lead to the 18 generic response because they have that shared 19 characteristic or the shared, kind of, action, if you 20 will, to try to remediate the particular issue. 21 Q. So in cases where -- whether or not it's a 22 generic response depends upon the recognition filter 23 and the recognition filter only identifies a particular 24 root cause condition, is the response generic? 25 A. I'm not sure I would characterize quite in Page 117

1 that manner. 2 Q. How would you characterize it? 3 A. So I had used in my -- when I was describing 4 it as part of the overall process in the patent 5 describing kind of -- in a broad sense of what was 6 happening, the response is getting into the anomaly has 7 been detected and we need to do something in response. 8 The generic response is covering what is happening or 9 the groups of the categories of things that we can do 10 that can potentially remediate one or more of those 11 categories that can remediate multiple distinct 12 anomalies. So perhaps I spoke a little bit less 13 elegantly in terms of the recognition filter in that I 14 was describing that broader process of, kind of, how do 15 we get to the point of where we need the -- the 16 response because we've had the anomaly, we need to do 17 something about it as part of the system in order to 18 provide the security for the network that we're aiming 19 to provide. 20 Q. So we talked about security patches, and I 21 believe what you told me is whether or not a security 22 patch is a generic response depends upon the 23 recognition filter; is that right? 24 A. In the sense that I was describing the 25 overall process. So as I described before, maybe I was Page 118	1 BY THE WITNESS: 2 A. Again, it would depend upon what the patch 3 and as to what you mean by fixing, repairing, or 4 getting into patching to prevent a vulnerability. 5 Q. You agree that vulnerabilities are different 6 than anomalies, right? 7 A. Depending upon how we look at the terms, yes. 8 Q. Okay. What does that depend upon? 9 A. So it would depend upon are we focusing on 10 the patent or are we focusing just in a general sense 11 how one might perceive (inaudible) -- 12 Q. Is it different? 13 A. -- context vulnerability versus anomaly. 14 Q. Is there a different use of the word anomaly 15 in the patent as opposed to in the general sense? 16 A. I don't think so in the sense that usually an 17 anomaly is something that has manifested itself in 18 order to be detectable. 19 Q. Is installing a missing software component 20 always a generic response? 21 A. Again, I would have to think about is there a 22 case where it is not a generic response. And this gets 23 back to earlier when we were talking about the notion 24 of the flow and the overall process of how -- what's 25 proposed and the patent operates, where there's the Page 120
1 a bit inelegant in that I was alluding to the broader 2 process of how we get there. You know, how do we get 3 to the point where we need to do something to fix or 4 make the network -- because the generic class of 5 conditions or the root cause has been identified and 6 now there needs to be a response. 7 And so I was describing that broader 8 process of kind of how we get there. On now the actual 9 things that make up the security patch might determine 10 if it were to be a generic response, if indeed the 11 security patch is remediating or basically it's part of 12 that. It's an element in the response. So when we had 13 got into installing missing components and that, it 14 would -- that's why I had mentioned that it depends in 15 terms of whether a patch would be a generic response or 16 not. 17 Q. So what does whether a patch is a generic 18 response or not depend upon? 19 A. It would depend upon what the patch would do 20 and whether it would resolve the particular issue or 21 anomaly as detected. 22 Q. Okay. Let's say a security patch fixes one 23 single vulnerability, is that a generic response? 24 MR. CANAVERA: Objection; incomplete hypothetical. 25 Page 119	1 anomaly and the recognition, which then causes the 2 response to occur because of a recognition of the 3 anomaly. So an installation of a missing component may 4 not necessarily be a generic response if it's just 5 being installed because it's being installed. So it's 6 in reaction to a particular anomaly or not. 7 Q. Okay. Is installation of a missing software 8 component in response to a particular anomaly always a 9 generic response? 10 A. So just to make sure I understand the 11 question, so you're saying -- and, actually, could you 12 just repeat it? 13 Q. Is installation of a missing software 14 component in response to the detection of a particular 15 anomaly always a generic response? 16 A. I think if we look at the -- thinking about 17 that more broadly, that the generic response is 18 installation of the missing software component. There 19 may be a specific software component that's being 20 installed but the generic response is the installation 21 of the missing software component. 22 Q. Can you explain to me what you mean by that? 23 A. In a sense of generic responses, the generic 24 response, it provides examples in Claim 4 saying 25 installing a missing software component could be part Page 121

1 of a generic response. So I would have to think if 2 there's a case where you would install a missing 3 software component where it would not be viewed as a 4 generic response since the generic response is install 5 the missing software component. 6 Q. What if installation of the missing software 7 component only addressed a single anomaly? 8 A. I would have to think if that hypothetical 9 case could exist. 10 Q. Are you saying that it's -- you're not sure 11 if it exists or you're not sure if that would be a 12 generic response? 13 A. I would have to think of installation of a 14 missing software component in a world where there would 15 be only a specific anomaly that would require 16 installation of the missing software component. 17 Q. Let's say it did exist, would that be a 18 generic response? 19 A. I'd have to think about that whether that 20 would be technically possible. I'm not sure -- I'm not 21 sure I can speculate on that right now. 22 Q. Is removing an undesirable software component 23 always a generic response? 24 A. Again, I would have to think about the 25 specifics if it would always be an undesirable software Page 122	1 A. Again, I'd have to reflect on that too. 2 MR. IWAHASHI: Let's take a break. Off the 3 record. 4 (Break taken.) 5 BY MR. IWAHASHI: 6 Q. Welcome back, Dr. Striegel. I wanted -- I 7 dropped into the chat Exhibit 5, which is a copy of 8 U.S. Patent No. 8,661,153. Can you pop that open and 9 confirm that it looks to be a true and correct copy? 10 A. Yes, it is. 11 Q. Let's see. So in the '153 patent, the term 12 at issue is "arbitrary number of attributes," correct? 13 A. I believe that's correct. 14 Q. Okay. And in paragraph 87 of your report, 15 you say that the term refers to a user profile that 16 utilizes a variable number of attributes to determine 17 user-specific rules and conditions that control 18 bandwidth allocation, correct? 19 A. I'm trying to track that. So let's see -- 20 okay. Nevermind. So that was -- okay. So this is 21 second sentence from the bottom, right? 22 Q. Correct. 23 And you say that the term refers to a user 24 profile that utilizes a variable number of attributes 25 to determine user-specific rules and conditions that Page 124
1 or if that action would always for the -- for the 2 blanket expression. 3 Q. What if a -- let me start over. 4 What if removing the undesirable software 5 component addressed a single anomaly, would that be a 6 generic response? 7 A. Again, I would have to think of the 8 hypothetical universe where that might happen, so I 9 would have to put some more thought into that. 10 Q. Is restoring an incorrect registry setting 11 always a generic response? 12 A. I would have the same answer I had for the 13 other questions. 14 Q. Can you think of any examples when restoring 15 an incorrect registry entry would not be a generic 16 response? 17 A. Off the top of my head, without adequate 18 reflection, I'm not sure I can right this moment. 19 Q. Can you think of any examples of when 20 removing an undesirable software component would not be 21 a generic response? 22 A. I'd have to reflect on that too. 23 Q. Can you think of any examples when installing 24 a missing software component would not be a generic 25 response? Page 123	1 control bandwidth allocation, correct? 2 A. Correct. 3 Q. Is it your testimony that arbitrary means 4 variable? 5 A. As I've written it, I've used the term 6 variable to describe that which -- I think it's a fair 7 statement to say that variable and arbitrary are 8 similar. Especially if I think of the context of 9 bandwidth -- bandwidth limitation attributes at the 10 time. 11 Q. Do you know whether variable is used in the 12 specification? 13 A. I do not. 14 Q. Do you recall reading the word variable in 15 the specification? 16 A. Since I'm not sure if it has it in the 17 specification, I do not recall. 18 Q. Later in this in paragraph 87, you say -- 19 wait -- that an arbitrary number of attributes refers 20 to a list of possible attributes wherein some 21 attributes are not applicable to some users, right? 22 A. I do see that. 23 Q. Okay. What list are you referring to? 24 A. So in this case I'm referring to it in sort 25 of a generic sense drive in part on my expertise from Page 125

1 working in the area of quality service and scheduling 2 of which bandwidth limitations and how they would be 3 specified. 4 Q. You're not referring to any particular part 5 of the specification for this testimony in this 6 paragraph 87, correct? 7 A. I did not cite anything from the 8 specification directly there in 87. 9 Q. Are you aware of any particular part of the 10 specification you're relying on for the list of 11 attributes? 12 A. So I see in the next paragraph -- I guess not 13 the next paragraph to 89. I do cite to 535 to 43 14 noting that the control device can assign traffic rules 15 to each user profile, even when attributes are 16 incomplete or missing, by substituting default values 17 for the missing data. And then it also goes on to talk 18 about the number of attributes that the default values 19 will also vary and then also further talking about 20 rules. 21 Q. There are no specific examples of attributes 22 in that passage, correct? 23 A. Not in that specific passage that I cite. 24 The specification does continue talking, for instance, 25 just, say, a fairly generic, kind of, bandwidth control Page 126	1 dropping or generalized delay of fairness. So the 2 literature is vast, and there are many different ways 3 that you can characterize flows or users to try to 4 capture the type of control that you want to deliver. 5 Q. How long does the list of possible attributes 6 have to be? 7 A. I don't know if one would say that there's a 8 length that it has to be. It has to be long enough to 9 characterize the flows to the desired extent possible, 10 and then that's also subject to the caveats of what you 11 can specify quantitatively versus in a -- in a reasonable 12 manner to present to an administrator versus what you 13 might express more theoretically, in terms of, kind of, 14 user level versus higher level network behavior. That 15 can get fairly nuanced, but the list can be fairly 16 extensive in terms of attributes. 17 Q. Can the list be a single attribute? 18 MR. CANAVERA: Objection; incomplete hypothetical. 19 BY THE WITNESS: 20 A. I think it would depend upon what is -- what 21 one is trying to deliver in terms of the traffic 22 control. And, again, I'm not a lawyer, but from the 23 perspectives of traffic control, the notion of 24 specifying bandwidth limitations typically would 25 involve more than one attribute to adequately capture Page 128
1 mentioning differences between, say, upload and 2 download. The specification also talks a little bit 3 later in column 6 about the Linux Traffic Control 4 application, which does also have a myriad of settings 5 and different knobs that you can set and attributes in 6 terms of the attributes that you would like to deliver 7 to shape a particular side of traffic or restrict it. 8 Q. What exactly is an attribute? 9 A. So in this case, when we're looking at an 10 attribute, these are attributes that are specifying 11 bandwidth limitations. And the literature, as would 12 have been present at the time when the patent had come 13 about, was quite extensive, given that there had been 14 ample research in the late '90s. In particular, I was 15 one of them doing that in terms of how you might 16 specify different mechanisms for regulating traffic, 17 whether at the edge or in the core, but there were, 18 kind of, a wide variety of ways with regards to how you 19 might quantify or treat traffic. 20 So you might have attributes on, say, you 21 have a burst of traffic that's allowed at the beginning 22 followed by perhaps, say, a decreased rate after you 23 have that burst, perhaps to allow you to rapidly 24 download a small web page but then to throttle you as 25 time went on or relative shares or susceptibility to Page 127	1 it. 2 Q. Can a single attribute meet the limitation 3 arbitrary number of attributes? 4 A. That feels a bit like a linguistic question. 5 So one is a number, and I don't know getting into a 6 linguistic question when you say number of attributes, 7 the fact that it's got a plural, does that mean that 8 one -- one is a number. So, you know, I don't know. 9 I'm not a linguist. But in terms of the specified 10 bandwidth limitations, it would be that's why -- in 11 part why it is arbitrary is given the -- the wide 12 degree of types of ways to specify bandwidth 13 limitations at the time and even now. 14 Q. So if a user profile had one attribute 15 associated with it and it was just bandwidth -- maximum 16 bandwidth threshold, whatever, is that an arbitrary 17 number of attributes? 18 A. I'm not sure I would agree with that 19 characterization. 20 Q. I'm just asking the question. Is it within 21 the scope of the claims? 22 A. The claims state that it is an -- an 23 allocation profile contains an arbitrary number of 24 attributes specified bandwidth limitations. The 25 appropriate way to express that would be only one Page 129

1 attribute. I don't see that the claim language would 2 necessarily exclude it although I'd have to -- feels 3 like we're getting into, kind of, some nuance of some 4 linguistics is what -- on the interplay of arbitrary 5 number and attributes listed as a plural for num- -- 6 for attributes. 7 Q. Do you have to get into the nuances of 8 linguistics to understand the scope of this claim? 9 A. No, I don't think so. I think -- Again, I'm 10 not a lawyer. To me as an engineer, I would look at 11 this and say, okay, the arbitrary number could be one 12 or more as needed to specify those bandwidth 13 limitations. 14 Q. Turning back to paragraph 87, you say, 15 Wherein some attributes are not applicable to some 16 users, right? 17 A. I do see that. 18 Q. Can you give me an example of an attribute 19 that is not applicable to some users? 20 A. So I'm going to draw this a little bit more 21 generally using, kind of, contemporary descriptions, 22 kind of (inaudible) look at, you know, in terms of 23 bandwidth specifications. So, for instance, you know, 24 the patent had listed, say, an IB table reference rule. 25 This is column 611 through -- 16, 17, 18 -- it lists Page 130	1 arbitrary number of attributes? 2 A. So I think in here it's describing one 3 embodiment. In the case that predefined as, say, a 4 list of five attributes but more broadly that is a 5 number of attributes, that predefined number, that 6 would be present. 7 Q. So it's within the scope of the claims in 8 your opinion? 9 A. Yes, I believe so. 10 Q. Later in paragraph 87, the last sentence, you 11 say, the number of attributes used to determine 12 bandwidth allocation may vary from user to user. Do 13 you see that? 14 A. I do see that. 15 Q. Is that how a person of ordinary skill would 16 understand arbitrary number of attributes? 17 A. I believe on here it said it may vary. I 18 believe it did not say that it has to vary from user to 19 user. 20 Q. Would a system that always uses a fixed 21 number of attributes to determine bandwidth allocation 22 be within the scope of the claim? 23 A. I think it would depend in part to the extent 24 that those attributes are used across every user for 25 every setting versus some having them filled in, some Page 132
1 descriptions in this case of, say, 128 kilobytes for 2 uploads and 512 kilobytes for download. The next 3 sentence it talks about is using the Linux Space 4 Traffic Control application. So to give a bit more of 5 a concrete example, supposing that I have something 6 like what's called a VBR, or variable bit rate, kind of 7 a profile, as I had described earlier, the notion of I 8 might do, say, like a token bucket or something with, 9 say, burst, where I might allow you to push out above 10 your bit rate momentarily and then throttle you down to 11 that level. So I might say you can have, on average, 12 say, 64 kilobytes but for the first second I'll allow 13 you to push out 512 kilobytes. So if the user had that 14 burst in their profile, they might have more attributes 15 then somebody who just gets a plain cap that might be, 16 say, just 128 kilobytes. 17 Q. Can you look at column 5, lines 34 to 35 in 18 the '153 patent? 19 A. Sure. 20 Q. There it says, according to one embodiment of 21 the (inaudible) each user profile can have a predefined 22 set of attributes, correct? 23 A. Sure, I see that. 24 Q. If the user profile has a predefined set of 25 attributes, is that a profile that contains an Page 131	1 of them having the default settings applied. The 2 clay -- the -- overall it describes that you are 3 specifying your bandwidth limitations and that you're 4 using an arbitrary number of attributes to specify 5 those bandwidth limitations. So covering the different 6 ways that would be necessary to -- to specify those 7 limitations. Again, as I had talked about, given 8 that -- if we look at, say, like a Linux Traffic 9 Control model and we look at kind of the wide breadth 10 of mechanisms that had been proposed in the late '90s 11 with regards to traffic control, that there can be a 12 variety of mechanisms. 13 Now a particular device doing this may 14 elect to, you know, have a fixed set that they might 15 use, but I don't believe that if it chooses to use a -- 16 fixed number, a predefined number, that still is a 17 falls within the scope of the arbitrary number. 18 Q. So the -- Broadening this out a bit more, the 19 claim limitation reads, the user bandwidth allocation 20 profile contains an arbitrary number of attributes 21 specifying bandwidth limitations for the first user, 22 right? 23 A. Correct. 24 Q. Does this mean that each attribute specifies 25 a bandwidth limitation? Page 133

1 A. So there's a user bandwidth allocation 2 profile. It would stand to reason that the user 3 bandwidth allocation profile is specifying bandwidth 4 limitations. 5 Q. So each of the attributes would specify some 6 sort of bandwidth limitation; is that right? 7 A. Well, it is a user bandwidth allocation 8 profile specifying the limitations. In terms of the 9 limitations, it contains those attributes that specify 10 it, but the profile could contain other things that are 11 related to that -- that bandwidth allocation. 12 Q. What are other things that are related to the 13 bandwidth allocation? 14 A. So, for instance, if one wants to try to 15 enforce a bandwidth allocation, generally speaking, one 16 needs to track the bandwidth that's actually consumed. 17 So that particular profile, if it's a bandwidth 18 allocation profile, that in the bandwidth allocation 19 profile there could contain as well elements that are 20 the counters, if you will, that allow you to realize 21 those sorts of things. So the bandwidth allocation 22 profile could -- would contain those limitations but 23 that's not all that it would potentially contain. 24 It -- more likely than not, every patent 25 doesn't address this, is in order to implement it, you Page 134	1 A. Gotcha. Okay. I was looking up at page 30. 2 So ... 3 Q. You say that the term refers to a user 4 profile that utilizes a variable number of attributes 5 to determine user-specific rules and conditions that 6 control bandwidth allocation, correct? 7 A. I do write that. 8 Q. Okay. What's a user-specific rule? 9 A. So a user-specific rule, in the sense of the 10 user profile, is based on individual users. Depending 11 upon the user profile and how one might construct it, 12 you might have groups. So you might have groups that 13 apply to individual users, but the idea is that you 14 need to have the attributes to specify the rules and 15 conditions that are going to end up controlling 16 bandwidth allocation for that particular user. So 17 there -- in order to properly specify and do traffic 18 control, those are things that you need in order to be 19 able to do that. And they could be -- they allow for 20 the ability to be user specific. Could be as granular 21 as user specific or it could be more abstract beyond 22 that as well. 23 Q. What's a user-specific condition? 24 A. So there could be -- in this case I 25 believe -- so there could be -- I believe the patent Page 136
1 would need to have present ways to track in order to 2 enforce to know if they violated the bandwidth 3 allocation to choose whether -- to choose the 4 appropriate action. 5 Q. If an attribute is missing, does it need to 6 be filled in with a default value? 7 A. It could be filled in with a default value. 8 A missing attribute, again, depending upon how it would 9 be coded up, it the fact that it's missing could result 10 in it being selected for the default value that might 11 be present that will largely depend upon the embodiment 12 and how you might choose to implement the system. 13 Those are, kind of, getting to lower level details of 14 how you might react or try to effectuate the bandwidth 15 limitation selfing practice. 16 Q. Turning back to paragraph 87, it's the last 17 complete sentence on page 29, you write that the term 18 refers to a user profile that utilizes a variable 19 number of attributes to determine user-specific rules 20 and conditions that control bandwidth allocation, 21 correct? 22 A. Okay. Did -- I'm not sure I totally follow 23 you. Which paragraph? I think I jumped and I got to 24 the wrong one. 25 Q. Oh, paragraph 87, bottom of page 29. Page 135	1 talks about -- you can have different rules or 2 different reactions for the user taking into account 3 the user perhaps groups, but generally there's a user 4 profile and that is -- you have your rules. And then 5 conditions could also bring to bear aspects of traffic 6 control when we're looking at perhaps broader -- 7 broader scheduling or overall aspects that one might do 8 with regards to dynamic traffic control, that would be 9 when we're trying to do bandwidth limitations how those 10 might fit together dynamically. 11 Q. What's the difference between a rule and a 12 condition? 13 A. So in this case I'm describing here -- let me 14 see. I believe the patent brings up some of this. So 15 we see on here -- I believe it is -- this would be 16 column 5. It talks about at step 32 the traffic -- the 17 control device can establer (phonetic) user-specific 18 rules -- this would be at 554 -- and conditions based 19 on attributes in the user profile. According to one 20 embodiment of the present (inaudible) the control vice 21 [sic] can map the attributes to a traffic control rule. 22 By way of example but not limitation, a user profile 23 can contain attributes that specify upload and download 24 bandwidth allocations or user that can be mapped to a 25 traffic control rule useable by a traffic conditioning Page 137

1 model such as the Linux-based Traffic Control 2 application to regulate bandwidth usage by the 3 corresponding user. 4 Q. So what exactly is the difference between a 5 rule and a condition? 6 A. So in this case, I believe it's getting into 7 as used by the patent, the notion of their rules in 8 terms of the behavior that you'd like to deliver and 9 then the condition referring to the current condition 10 or state. When we had talked about earlier the notion 11 of what do you need to track in terms of what is the 12 current condition or state of the user. So if I'm 13 trying to impose, say, a limit of, say, 128 kilobytes, 14 the condition being that you have already sent 15 100 kilobytes based on however I might measure, smooth 16 that, understanding how much additional bandwidth you 17 might have or the limitations that you might apply to 18 try to keep you within that bandwidth profile. 19 Q. And how does the variable number of 20 attributes determine user-specific rules and 21 conditions? 22 A. This might be worded perhaps a little bit 23 inelegantly given my background in quality of service. 24 So I might say determine or perhaps more appropriately 25 say that it's to specify and -- specify those Page 138	1 that has a variable byte rate controls, say, like a 2 token bucket or the burst that we had talked about, 3 might have certain parameters filled in that would 4 govern how I shape whereas a user that might have, say, 5 a constant byte rate -- say, like you get 512 kilobytes 6 down, might not need those attributes. So it's -- In 7 some sense because the variable byte rate attributes 8 might not be relevant to a user that's under a constant 9 byte rate regime, their bandwidth profile would not be 10 completely filled out, but it doesn't mean that you 11 can't control their traffic based on what's specified. 12 So you -- Because of how different regimes 13 operate, in terms of scheduling, different components 14 are necessary depending upon a type of control, which 15 also gets to that notion of why does it say arbitrary 16 number and it's, kind of, because the complexities and 17 the nuance that get associated with how you specify 18 bandwidth limitations and it's also by -- the patent 19 references the Linux Traffic Control model because of 20 the nuance and attributes that you can bring to bear. 21 Q. What does it mean when you write that the 22 type of attributes used to determine each user's 23 bandwidth may differ? 24 A. So, again, getting to the notion -- and I 25 think this was the -- just to make sure I'm pointing to Page 140
1 user-specific rules. So it's sort of like how do you 2 capture. So drawing a bit from the patent, probably 3 instead of saying determined, I might say specify. So 4 I'm in some sense -- determine is saying here is the 5 behavior that I want to have. Specify is maybe a 6 little bit more accurate way to put it, and then we see 7 also the conditions that are then controlling the 8 bandwidth allocation, which that's observing the actual 9 traffic and what's happening then to actually do that 10 conditioning or shaping of the traffic that you're 11 trying to deliver. 12 Q. In paragraph 89, you talk about the 13 completeness of attributes. End of the first sentence. 14 A. I do see that. 15 Q. What do you mean by "completeness of 16 attributes"? 17 A. So this -- this gets in part -- I reference 18 in this case to -- so this is referencing up to -- to 19 column 248 to 58, and we see that they are -- user 20 profile -- they can specify for the corresponding 21 user -- because there can be default values or 22 generally in terms of -- suppose I have a realm of 23 attributes that I might have, and if say one user, say, 24 gets a variable byte rate profile and another gets a 25 constant byte rate profile, the user that has a profile Page 139	1 the right spot, this is -- when you're talking about 2 the type, which sentence was that? 3 Q. Paragraph 89. 4 A. Okay. I just want to make sure I got that. 5 Q. I think. 6 A. I'm looking for type. So I just want to be 7 careful. 8 Q. So last sentence of paragraph 89. 9 A. Okay. So getting back to, say, the examples 10 that I had earlier, if I have something like a token 11 bucket, say, with bursting, I might want to list, say, 12 the number of tokens, which I might have as a size. I 13 might also specify it as, say, like a byte rate and a 14 duration whereas for, say, like a constant byte rate, I 15 might just specify a certain bandwidth. 16 So depending upon how I'm doing the shape, 17 I may have elements like time, size, bandwidth. So the 18 types and the units that might come with it, I might 19 say kilobytes or kilobytes per second or I might say 20 seconds. They're different types in terms of the units 21 that I might assign to these attributes, but, again, 22 help me construct the traffic profile that I'm trying 23 to do to try to control that appropriate for the user. 24 Q. In paragraph 90, you talk about default 25 values for empty attributes, right? Page 141

1 A. I do. 2 Q. Does the control device need to substitute 3 default values for empty attributes in order to 4 establish a traffic control rule? 5 A. Not necessarily. So going back to the 6 example that I've used earlier, if I were to have one 7 user that has a variable byte rate profile that I might 8 use to control the traffic, I don't need necessarily 9 the constant byte rate attribute setting. Regardless 10 of whether I sent them to a default value or they're 11 just missing, it's sort of moot because that's not the 12 type of regime that I'm trying to impose on traffic 13 control. Similarly, if I'm imposing, say, a constant 14 byte rate shape, I don't need any of the variables that 15 rate attributes because those effectively can be 16 ignored because all I'm doing is looking to see that 17 you stay under this rate. And so whether it's present 18 or missing or not, it somewhat becomes moot because 19 it's not relevant to the degree of control that I'm 20 trying to do, but the type of shaping that I want to 21 do -- and, again, it comes back to why it says 22 arbitrary number because of the myriad of ways that you 23 can express it in things that were well-known at the 24 time in terms of those different types of 25 specifications. Page 142	1 earlier. The arbitrary number gets to when you're 2 looking at specifying bandwidth limitations, that that 3 arbitrary number, in some sense, can be necessary to 4 have appropriate flexibility because we see that -- I 5 talked about that later in my report to have the 6 requisite flexibility, to be able to properly specify 7 bandwidth limitations can require that -- again, that 8 flexibility. As we were talking about VBR, CBR, and I 9 know that's kind of technical but getting into how you 10 properly control it that you have the ability to 11 specify it to a degree of specificity for those 12 particular limitations. 13 Q. But you just said that if you have the same 14 number of attributes for every single user profile that 15 would also fall within the scope of the claims, right? 16 A. Indeed, because you have the -- the claim 17 talks about you have an allocation profile that can 18 contain an arbitrary number. One would be inclusive 19 inside of that number. That, as appropriate for 20 specifying those bandwidth limitations, if one was the 21 appropriate number that you simply said you must be 22 within X bandwidth, that could be appropriate for the 23 deployment, perhaps. Again, it would depend upon the 24 particular system, the type of -- the type of controls 25 that one might want to deliver as opposed to a, sort Page 144
1 Q. Okay. You talked about why it says, 2 arbitrary number. Can you just pull up Claim 1 in 3 front of you so you can take a look at it? And I want 4 to read the clause -- the wherein clause here just so 5 we're grounded in the same understanding. So it says, 6 Wherein the user bandwidth allocation profile contains 7 an arbitrary number of attributes specifying bandwidth 8 limitations for the first user, right? 9 A. I do see that. 10 Q. Okay. My question to you is: We talked 11 earlier about how you said a single attribute could be 12 within the scope of the claims, right, a single 13 bandwidth allocation attribute, right? 14 A. We had discussions around that. 15 Q. And it's your opinion that that would be 16 within the scope of the claims, right? 17 A. I believe it could be. 18 Q. Okay. And you also said that it -- if you 19 use the same number of attributes for every single 20 user, that could also still be within the scope of the 21 claims; is that right? 22 A. Yes, it could be. 23 Q. Okay. So if you -- My question is: What 24 does an arbitrary number of add to the claims? 25 A. I think we had some discussions on this Page 143	1 of, unmitigated or, sort of, uncontrolled user base 2 bandwidth allocation. 3 Q. I'm going to share my screen quickly just so 4 we can look at the claim together. Do you see Claim 1 5 of the '153 patent on the screen? 6 A. I do. I also have it in my report. 7 Q. I'm highlighting an arbitrary number of, 8 correct? Do you see that? 9 A. I do. 10 Q. So if that phrase wasn't there and it said, 11 wherein the user bandwidth allocation profile contains 12 attributes specifying bandwidth limitations for the 13 first user, right? 14 A. I do see that. 15 Q. How would this limitation change? 16 A. I'd have to reflect that -- on that bit and 17 think through if one were to remove that, as we had 18 discussed earlier, you know, I don't recall on the 19 patent history so I'd have do a bit of study to provide 20 a more informed answer on this. 21 Q. Okay. Is arbitrary number defined in the 22 specification in your opinion? 23 A. I believe, as I described as part of my 24 opinion, that a POSITA would be able to understand what 25 an arbitrary number of attributes, and then Page 145

1 specifically looking at the phrase that follows, 2 specifying bandwidth limitations, the POSITA would be 3 able to understand what that means. 4 Q. And it's your opinion that basically means 5 one or more? 6 A. I believe the POSITA would be able to 7 understand that that's -- you could have an arbitrary 8 number of attributes specifying bandwidth limitations. 9 Q. And that would encompass one or more 10 attributes; is that right? 11 A. I believe the minimum one wants to specify a 12 limit, you would have to have, at least have one. I 13 don't think you could have a bandwidth limit with zero 14 attributes. 15 Q. And it is your opinion it would also cover a 16 single bandwidth attribute for every single user, 17 right? 18 A. I believe it's -- 19 MR. CANAVERA: Objection; incomplete hypothetical. 20 BY THE WITNESS: 21 A. It's talking about user bandwidth allocation 22 profile and as we described, talking about per user 23 profiles and how that would operate. 24 Q. That would fall within the scope of the 25 claims? Page 146	1 A. It does appear to be so. 2 Q. If you can turn to paragraph 96 of your 3 declaration. 4 A. Sure. 5 Q. In paragraph 96, you explain that the '697 6 patent discloses two ways to determine the OS 7 associated with the packet; is that right? 8 A. So I believe in paragraph 96, I am discussing 9 Figure 6. 10 Q. Right. And there are two different ways to 11 determine the OS of a particular -- of a particular 12 device from the packet; is that right? 13 A. This one here is using two different pieces 14 of information. It was described in -- I believe up 15 here -- item -- or element 604 and then 610 as well 16 describing how it might derive that. 17 Q. So element 604 talks about taking an OS 18 fingerprint on a SYN packet; is that correct? 19 A. Correct. And SYN would be S Y N, as in 20 synchronize. 21 Q. Right. And the other way is that item 608 22 where you look at the user-agent field of the HTTP 23 packet; is that right? 24 A. That is where the -- kind of the next one 25 underneath, and then 610 goes into looking at using -- Page 148
1 A. I believe what we're looking at is -- is the 2 term arbitrary number of attributes indefinite. As I 3 described before, that I don't feel its indefinite. 4 That when you look at arbitrary number of attributes 5 coupled with specifying band limitations, that a POSITA 6 would understand what that would mean. 7 Q. Right. And if it's not indefinite, you 8 understand the scope of the term, right? 9 A. I do. 10 Q. Okay. So is a -- the same single attribute 11 across all users in the system within the scope of the 12 claims? 13 MR. CANAVERA: Objection; incomplete hypothetical. 14 BY THE WITNESS: 15 A. I'm not sure I studied or rendered a specific 16 opinion on that. So I would be remiss to speculate 17 that particular hypothetical. 18 MR. IWAHASHI: All right. Let's take our last 19 break. Off the record. 20 (Break taken.) 21 BY MR. IWAHASHI: 22 Q. All right. Dr. Striegel, I just put into the 23 chat Exhibit 6, which is U.S. Patent No. 8,635,697. 24 Can you pop that open and just confirm that appears to 25 be a true and correct copy? Page 147	1 or extracting the user agent to then try to use that 2 for the OS ID. 3 Q. You agree that the user agent field and its 4 relationship to the OS of the device that sent it 5 predates the patent; is that right? 6 A. I believe the notion of the user agent -- I 7 don't know the exact date for sure. So I'd have to 8 plumb that. But given that the patent references using 9 the user agent field, it would stand to reason that the 10 user agent field had been present in order to be 11 referenced by the patent. 12 Q. So in -- On column 3 on the '697 patent, 13 starting at line 48, it says, There are a number of 14 techniques that can be used to identify a computer's 15 operating system based on the network traffic coming 16 from that computer, right? 17 A. Correct. 18 Q. And there it's talking about techniques that 19 predate the patent, right? 20 A. I think that's a reasonable assertion given 21 what the patent is describing. 22 Q. And then one of those is from the browser 23 user agent field on HTTP requests, right? 24 A. It does describe it. It describes one as 25 TCP/IP stack fingerprinting and it also says another Page 149

1 technique, and then it mentions that these are combined 2 to accurately identify. 3 Q. Okay. And you agree that OS fingerprinting 4 predates the patent then, right? 5 A. I think that's a reasonable assertion given 6 that the patent references it. 7 Q. And do you agree that both of these 8 techniques would have been within the skill of the 9 person of a skill of art? 10 A. In the sense of there would have been tools 11 that used these techniques separately to get that sort 12 of information and also with the caveat that there 13 would be various limitations that come with the usage 14 of these tools or these approaches in terms of their 15 accuracy. 16 Q. Okay. But a POSITA would have been aware of 17 these approaches for determining the OS; is that fair? 18 A. I think it's reasonably fair to say that 19 they -- someone operating in this space and dealing 20 with these sort of things would have been plausible to 21 say that they might have been aware of some of the 22 tools at the time. Maybe a little bit less on the 23 specifics and a little bit more on just that there were 24 purported to be tools that could try to do these things 25 say separately although kind of the mechanisms and Page 150	1 especially when we try to bring in things like NAT, 2 some of those other aspects. The -- There are definite 3 limitations when you're using exclusively the sim 4 packet. 5 The incorporation of the user agent brings 6 something that can potentially make it more reliable, 7 in terms of improving the identification of the 8 operating system do in part to the type of information 9 that you get from the user agent versus what you would 10 largely infer when you're using the SYN packet. 11 Q. Is it your opinion that a more reliable OS ID 12 means the OS ID that has achieved greater accuracy to 13 trusted parameters? 14 A. I would say a more reliable OS ID, I describe 15 it here, how its achieved greater accuracy. In my 16 mind, the notion that it's more accurate means it's 17 more reliable. And the figure walks through how they 18 move from what is an okay approach with the OS 19 fingerprint at the time and how that's augmented with 20 the user agent, but there's a bit of nuance in terms of 21 will the user agent information be -- what is present, 22 what is not present in walking through that process by 23 which you can deliver a more reliable OS ID in the 24 particular situation of the deployment, say, with a NAT 25 where it becomes challenging to try to figure out what Page 152
1 layers you grab them for a bit distinctive in that it 2 would not necessarily be natural to try to bring them 3 together given the different layers that they operate 4 on. 5 Q. So the term at issue here is "a more reliable 6 OS ID," right? 7 A. That is the term, as I understand, that's 8 being disputed. 9 Q. Okay. In paragraph 103, you're relying upon 10 Figure 6 to help explain what it means to be a more 11 reliable OS ID; is that right? 12 A. I do talk about how it demonstrates that 13 address. 14 Q. Okay. Paragraph 104 you say that a more 15 reliable OS ID refers to the OS ID that has achieved 16 greater accuracy to trusted parameters? 17 A. I see that. 18 Q. Is that your opinion what the plain and 19 ordinary meaning of a more reliable OS ID is? 20 A. So that's -- I walk through how a more 21 reliable OS ID is delivered, which is by combining or 22 augmenting, say, the SYN fingerprints, which I had 23 described earlier, do have some caveats. So the usage 24 of, say, a solution that clearly depends upon SYN 25 fingerprints has some limitations, again kind of Page 151	1 was the host that was sitting, say, behind the NAT and, 2 kind of, why these were necessary in terms of it being 3 more reliable. 4 Q. Do you agree that more reliable is the term 5 of degree? 6 A. If I'm understanding your question with 7 regards to more reliable -- I'm not quite sure I follow 8 you on a degree, just to make sure I'm, kind of, 9 parsing what you're saying correctly. 10 Q. Do you agree that -- do you agree that 11 something isn't necessarily reliable just because it's 12 more reliable than something else? 13 MR. CANAVERA: Objection; vague. 14 BY THE WITNESS: 15 A. I don't know. That's taking as a premise 16 that it's not somewhat reliable. So, you know, it is 17 improving the accuracy potentially by using better 18 parameters and that's what that -- the figure walks 19 through how in the position where the particular device 20 that's trying to deliver this better OS ID for the 21 purpose of better figuring out basically which system 22 has been compromised, the usage of the user agent can 23 potentially improve the accuracy for the discernment of 24 the -- basically the compromised host or where the 25 issue is occurring. In a general -- Page 153

1 Q. (Inaudible) -- 2 A. In a general sense that it is a more reliable 3 ID, potentially when you use the user agent field. 4 Q. Would you agree that the OS fingerprint and 5 the HTTP user agent could both be wrong in terms of 6 what the OS actually is? 7 A. Potentially that could be the case that they 8 are incorrect. You know, if we're looking at the time 9 frame of the patent and those sorts of things, you 10 know, I have to look at the timing. I don't know to 11 the extent in that time frame that significant user 12 agent spoofing was a norm, that -- as to the extent of 13 that. There is nominally the notion, again, of how do 14 you try to combine it and this tries to, kind of, bring 15 together those sort of things to try to construct what 16 could be viewed as a more reliable ID when things are 17 operating properly. 18 Q. Turning back to that first sentence you have 19 in paragraph 104, what are trusted parameters? 20 A. So the trusted parameters in here -- I give 21 an example of, say, known SYN fingerprints. When I was 22 describing -- and if we look at some of the tools that 23 try to do -- so like one of the tools at the time would 24 be something called Nessus. There are certain -- 25 Q. Can you repeat the name of the tool? Sorry. Page 154	1 indicator, and that's where the user agent comes in 2 because the user agent should be considerably more 3 reliable, especially in that time frame of getting 4 closer to what the actual OS is. 5 Again, a SYN fingerprint largely, kind of, 6 does the best of an educated guess. You know at the 7 time we might have called it like statistical learning. 8 You know, nowadays we call it machine learning or maybe 9 even pretend it's AI, but it basically boils down to, 10 kind of, observed patterns, which is what those tools 11 are used for the SYN fingerprints. 12 Q. Is it your testimony that the user agent 13 field would be the more reliable OS ID at the time of 14 this patent? 15 A. It most certainly could be. As we discussed 16 earlier, a user agent -- there's not a hard-and-fast 17 requirement based on the protocol itself that it has to 18 be truthful. In that time frame, generally speaking, 19 most were more truthful than they might be nowadays 20 based on the kind of privacy concerns and evolution 21 that has happened since then, I would say, in a broad 22 sense. But at the time of the patent, generally 23 speaking, a plain HTTP get -- and the user agent would 24 likely yield a much more accurate result relative to 25 the SYN fingerprinting in terms of trying to properly Page 156
1 A. A Nessus, N E S S U S. That's basically 2 they're using SYN fingerprints. So -- 3 Q. Sorry to interrupt. 4 A. So the fingerprints, as they're going on -- 5 and Nessus is a -- is a little bit of a trick in that 6 depending upon, kind of, how you deploy it, and a lot 7 of times it's -- I elicit a remote host as opposed to 8 observing traffic inbound. So Nessus is not as much of 9 an in-band approach. 10 But there are certain things, which is what 11 Nessus used, and the patent eludes to with regards to 12 SYN fingerprints where the types of settings that you 13 choose for sequence numbers, which is what the SYN -- 14 which is operating -- you're operating on protocol. 15 Basically, observations from protocol called TCP, there 16 are certain things where you can have some certainty 17 that it's probably right, that you have a pretty good 18 guess that you think that this is the type of OS 19 because of how the protocol is specified and what must 20 be stated, what's a must versus a may. And that's what 21 the SYN fingerprints kind of do is they take advantage 22 of OSs that seem to always pick the kind of same thing. 23 That doesn't work on all OSs. 24 It can be a little bit -- It's a do you 25 have a fingerprint for the OS and does it have an Page 155	1 identify the OS. 2 Q. So we talked about trusted parameters and you 3 said that this known SYN fingerprints was an example 4 you gave in your dep -- I mean, in your report, right? 5 A. Yes. 6 Q. Okay. And that known SYN fingerprints 7 applies to the -- the fingerprinting OS ID, right? 8 A. So the fingerprints, if we're looking at, 9 let's say, this example where we say known SYN 10 fingerprints, the SYN field is 32 bits. Certain OSs 11 would have tendencies to put sequence numbers within 12 certain ranges, and so we could -- at the time the 13 tools would use that knowledge to say I think you are 14 Solaris X or you are Windows Y, and so they would use 15 those ranges to try to do that. 16 Those worked okay in the sense of, if you 17 had the OS that could be detectable by the SYN 18 fingerprints it would give you an okay ballpark. Often 19 it would struggle with regards to say versioning. The 20 user agent would have more detail in terms of that it 21 would break out browser and it would typically break 22 out OS, potentially Virgin, maybe some platform 23 information. 24 So the fingerprints here is referring to -- 25 we think about even marketing back to kind of like some Page 157

1 of the recognition filters and that, that it would say, 2 okay, SYN's that are in these range, this is likely 3 this. And, again, it's a likely -- not 100 percent but 4 it's a likely this, versus you just telling me what the 5 OS is or if the browser makes a system call to extract 6 the OS and embedded it in the user agent when it makes 7 the get request. 8 Q. So we talked earlier how there are two 9 determinations of the OS, right? 10 A. So there are two I believe that were 11 described in the patent, and this particular figure 12 shows the example of these two being put together. 13 Q. So specific to Figure 6, there are two 14 determinations of the OS, fair? 15 A. So we see an OS fingerprints, again, going 16 from those SYN fingerprints, and then the user agent 17 that then is used, which is less of a fingerprint and 18 more of it just tells you what the OS is, as opposed to 19 trying to map something. It just says I am Windows 20 3.1. 21 Q. Right. I just want to -- I have the 22 shorthand so I can refer to these. 23 A. Yeah. 24 Q. Is it fair if I call the SYN field 25 fingerprint one the fingerprint OS and then the user Page 158	1 packets. So when I see these falling across the 2 network, that comes in the -- say, the SYN packet. 3 The user agent itself is just stated. So 4 there's not a -- it's -- I don't know if I'd say 5 there's a trusted per se user agent as a benchmark. 6 The trust is that these are the parameters that I trust 7 to do a fingerprint of the OS based on the SYN packet. 8 So these are attributes that I trust from the network 9 protocol pieces of information, like the SYN 10 fingerprint, versus, say, what I observed at layer 7 11 from the HTTP protocol. 12 And as I describe a little bit later in the 13 paragraph, the -- the challenge that you run into 14 because NATs share addresses and how NATs work in terms 15 of torque mapping and protocol call manipulation, the 16 layer 7 information can be more helpful to try to, kind 17 of, piece back what was happening on that. 18 And then -- again, because it gives me 19 something more accurate, as I describe later, the whole 20 gist of the patent is instead of, you know, kind of, 21 having to go and check there's somebody back there 22 who's bad and gives me a better classification of maybe 23 which kinds of OSs might be the ones that I need to try 24 go remediate or figure out what's happened. 25 Q. All right. Let's get specific. Page 160
1 agent one the user agent OS; is that fair? 2 A. At a high level, I think that gets you in the 3 ballpark. 4 Q. Okay. So when you are talking about trusted 5 parameters, right, in paragraph 104 -- 6 A. Yeah. 7 Q. -- you give an example of a trusted parameter 8 as a SYN fingerprint, a known SYN fingerprint, fair? 9 A. Yes, I give that because we see that in the 10 packet and that's -- that's based on observations from 11 the past that constructed that SYN fingerprint and it's 12 in the packet. 13 Q. So that trusted parameter applies to the 14 fingerprint OS; is that fair? 15 A. Yeah. And probably it could be, you know, 16 worded a little bit more elegantly and say greater 17 accuracy maybe relative to trusted parameters, you 18 know, versus just saying greater accuracy to trusted 19 parameters. 20 Q. Okay. My question to you is: What's a 21 trusted parameter for the user agent OS? 22 A. So the -- Again, what happens, right, is this 23 two-stage thing that happens here. So the trusted 24 parameters relative to the trusted parameters because 25 the trusted parameters in some sense, those are the Page 159	1 The claim at issue for more reliable OS 2 ID -- or one of them at least -- is Claim 9, right? 3 A. I believe so. 4 Q. And Claim 9 depends from Claim 2, correct? 5 A. It says the method of Claim 2. 6 Q. So Claim 9 depends from Claim 2, correct? 7 A. I believe that would be correct. 8 Q. Claim 2 describes determining two different 9 OS IDs, correct? 10 A. I don't have Claim 2 in my report, but I'll 11 bring it up. So I see on Claim 2 it says, protocol 12 associative of the TCP packets and matching an OS 13 fingerprint from one or more protocol parameters, if 14 present in the TCP packets and then I see determining 15 an application parameter associated with the TCP 16 session if present and identifying a second OS ID from 17 the application parameter, so it would broader than 18 Figure 6. 19 Q. Sure. You can say it's broader. I'm not 20 going to quibble with that. I -- I just want to ground 21 us in what Claim 2 says. 22 So the first determining step has to do 23 with the fingerprinting OS ID; is that fair? 24 A. Yeah. In the sense that it's drawing OS 25 fingerprint, which comes from those protocol parameters Page 161

1 in the TCP packets. 2 Q. Okay. The second determining relates to -- 3 one example of the second determining would be to read 4 the user agent field; is that fair? 5 A. I think that's a reasonable embodiment, 6 because it's reading from the application parameter, 7 which would be layer 7. 8 Q. Right. So that first OS ID corresponds to 9 the fingerprinting OS in Figure 6, right? 10 A. The OS fingerprint, yes. So it's determining 11 what it thinks is the OS from the TCP information. 12 Q. Right. And that second OS ID relates to the 13 user agent OS, correct? 14 A. In the sense that the user agent is an 15 example of an application parameter that's used to 16 infer a second OS ID. 17 Q. Right. So now let's turn to Claim 9. 18 A. Okay. 19 Q. Claim 9 recites, ver- -- verifying the first 20 OS ID against the second OS ID wherein if the second OS 21 ID does not match the first OS ID, the session is 22 identified by the OS ID identified as more reliable -- 23 a more reliable OS ID, correct? 24 A. That's what it says. 25 Q. So you are comparing the fingerprint OS to Page 162	1 that's drawn from, say, a system call the application 2 might be doing. The user agent is one where the 3 browser itself could make a call -- a call to the 4 system is usually how it works underneath. It then 5 takes the resulting system call where you ask the 6 system what is it -- what are you. The system responds 7 I'm Windows X, Linux Y, that string comes back, that 8 gets embedded in the user agent field. 9 So as a general sort of thing, the layer 7 10 or application parameter as observed, if it's present, 11 tends on average, or a POSITA would understand, that 12 that's probably going to be more accurate than the 13 fingerprint I'm going to get from the TCP packets. And 14 so -- 15 Q. So is it -- 16 A. -- Figure 6 then describes an instance 17 specifically of using the SYN field and using the user 18 agent as an example embodiment to do this -- basically 19 what's kind of the more reliable as talked about in 20 Claim 9 where you would be picking just one instead of 21 sharing, say, both, as Claim 2 might talk about. 22 Q. Is it your testimony that the second OS ID 23 determined by the user agent field will always be more 24 reliable than the SYN fingerprinting OS ID? 25 A. In general, a POSITA would understand that to Page 164
1 the user agent OS, correct? 2 A. That would be one embodiment? 3 Q. Sure. Let's focus on that embodiment. 4 A. Okay. 5 Q. How do you make the determination that the 6 fingerprint OS is more reliable or less reliable than 7 the user agent OS? 8 A. So, again, what we had described earlier -- 9 to go back how these things work technically -- the OS 10 ID, or the OS fingerprint, as we had described, is 11 drawn from various fields in the TCP protocol. We 12 talked about the SYN fingerprint. There's other 13 mechanisms you can use, port numbers, you know. In 14 this case I used the example of SYN fingerprints, but 15 there's a variety of kind of fingerprints you can try 16 to construct to try to say which OS do I think you came 17 from. 18 Those can sometimes be bangled or garbled 19 by a NAT so it can become a little bit more 20 challenging. But you have kind of -- you have an OS 21 ID, at least a vague sense of the OS ID from the TCP 22 fields. Generally speaking, it works okay, but it 23 varies in its quality. The -- If I can get an OS ID 24 from layer 7, the application parameter specified, 25 generally that will be more reliable. Generally, Page 163	1 be more reliable than -- the application ID, in 2 general, would be more reliable than what you could 3 glean from say the layer 4 information that you would 4 get from TCP. 5 Q. So is it your -- Is it your testimony that 6 the more reliable OS ID is always going to be the 7 second OS ID in Claim 9? 8 A. In this specific case where we're looking at 9 say an HTTP and a user agent, this generally would be 10 more reliable to use the layer 7 information. If, say, 11 someone were to determine that they felt that the first 12 A -- 0 [sic] ID would be more accurate or that the, 13 say, layer 7 application parameter one was sort of 14 nonsense, you know, as perhaps comparing versus, say, 15 what you might glean from layer 4, one could choose to 16 use the layer 4 one. 17 In general, as shown in Figure 6 -- and 18 that's why Figure 6 did what it did, is that would be 19 the normal set of events that one might do, but there 20 are a variety of fingerprints one could do that would 21 let you try to do that, and you might have more, say, 22 systematic sense. But, in particular, if we're looking 23 at that time frame for that specific example of HTTP 24 where you could be inspecting HTTP, generally speaking, 25 it would be more reliable that would be -- as it would Page 165

1 be sent an appropriate -- and as you can see, even in 2 the figure to like 614 which adds in the OS ID was 3 verified. 4 So you can have sanity checks on other 5 things as well that might also try to do that. There's 6 also some questions if, you know, can you map it, does 7 it actually map to anything or not and how is it all 8 set up, and that -- there's a lot of nuance on, kind 9 of, how you do these sorts of things and how you 10 implement it, which is why I'm stating what I'm stating 11 because of how it actually works. 12 Q. So under what circumstances would the first 13 OS ID be more reliable than the second OS ID? 14 A. So if we look at, say, an HTTP user agent, an 15 HTTP user agent, if I remember correctly, is not a 16 mandatory field so I do not have to state the user 17 agent. So I may be able to see your HTTP request, it 18 may or may not be present. It could potentially be 19 spoofed, as we had talked about earlier. So it could 20 have operating systems which are unknown or garbage, 21 and one could add in a filter as well to say -- talking 22 about an OS that doesn't exist or that we don't have 23 present. 24 So it can be provided. It can be spoofed, 25 as I described earlier. In general, it is more Page 166	1 picking just the relevant host when I need to go figure 2 out who's doing something bad that I can -- I can try 3 to do that instead of just get some host that's 4 compromised due to the issues that come when you have a 5 NAT, or network address translation. So I would put it 6 very high level in network security. 7 Q. Okay. Is it your testimony that in the field 8 of network security more reliable has a well-understood 9 meaning? 10 A. I think if we look at the notion of its 11 trying to describe an operating system, an OS 12 identifier, understanding, again, the difference if I 13 look at the embodiment using Figure 6 and a user agent 14 versus just understanding things from the TCP protocol 15 information, it would comport with my knowledge and I 16 believe that of a POSITA to say that, yeah, the user 17 agent probably is going to work better than just using 18 the TCP packet information, in terms of the types and 19 granularity of information you might get when 20 considering this particular problem as identified by 21 the patent. 22 Q. Would you agree that more reliable in the 23 context of the '697 patent means greater accuracy to 24 trusted parameters? 25 A. I think I had used the example in the context Page 168
1 reliable, but that doesn't -- the patent doesn't 2 preclude you from doing a verification to ensure that 3 at least there's a sanity check or that it's present to 4 make -- to make sure that it does make sense. 5 Q. Where in the patent does it describe how to 6 make that determination as to which one is more 7 reliable? 8 A. So it does try to match them together that 9 the flow is matched with it and then it considers the 10 OS verified. That it's -- that in essence says I've 11 identified. 12 I don't see a specific case when it's 13 talking about this example from Figure 6. Again, given 14 what I described about in terms of what is viewed at 15 the time would be largely expected that the user agent 16 is going to be more reliable as a way to determine the 17 operating system. 18 Q. What would you consider to be the relevant 19 field of technology for the '697 patent? 20 A. I guess I would put it -- If we had to look 21 at that in terms of network security, we're dealing 22 with a device that sits in the network attempting to 23 detect malware, or in this case you're trying to, sort 24 of, discern or, sort of, boil the ocean, if you will, a 25 bit to say I've detected some malware, help me out by Page 167	1 to say it's a greater accuracy. And, again, as we 2 talked about earlier, the greater accuracy relative to 3 these trusted parameters, and trusted is, again, what 4 are the parameters that will let you try to infer the 5 OS. 6 In reading, again, the specification -- in 7 particular, if we walk through Figure 6, a POSITA would 8 understand that -- and learn that using the user agent 9 could be beneficial to take a better OS identifier 10 relative to say the fingerprint and what they would 11 learn with respect to how to solve that problem of 12 you're in front of the NAT, can't peek behind it, and I 13 need to have a better sense of which class of machines 14 or which machine might be compromised. 15 Q. The last sentence of paragraph 104 in your 16 report says, more reliable less means that the OS ID is 17 validated through independent or cross correlation of 18 data paths which enables the system to release more 19 trustworthy alerts and guide remediation effectively, 20 correct? 21 A. I did write that. 22 Q. Does the specification talk about how the OS 23 ID is validated through independent or cross 24 correlation of data paths? 25 A. Yes. Page 169

1 Q. Where? 2 A. We specifically went through it on Figure 6. 3 Q. So element 610 says, UAOS match OS ID 4 associated with the session, correct? 5 A. I do see that. 6 Q. That's when they match, correct? And if it 7 says yes, then OS ID is verified, correct? 8 A. Correct. 9 Q. You understand that's not what the situation 10 is in Claim 9, correct? 11 A. In Claim 9 it mentions using the more 12 reliable OS ID only. 13 Q. In Claim 9 it says that the second OS ID does 14 not match the first OS ID, correct? 15 A. Correct. 16 Q. So you agree that 614 -- Element 614 in 17 Figure 6 doesn't apply to Claim 9, right? 18 A. No. 19 Q. Why? 20 A. So if we look at this and we think about how 21 TCP works, right -- so if we're taking a TCP flow, 22 which would be an H session or broadly -- so if we look 23 at a TCP flow as an HTTP session and so it is trying to 24 match the user agent as observed during that flow with 25 a particular session. So it's looking at do they Page 170	1 Q. Right. And then in 614, that's the situation 2 where they match, correct? 3 A. They match or more granularity might be 4 offered as well. So I might get from -- So the TCP 5 flows through your Windows. When I get the user agent, 6 I might get, say, you know, your -- your Windows 7.1 or 7 something like that. 8 Q. Right. But Element 610 literally says, UA OS 9 match OS ID associated with the session, right? 10 A. Correct. 11 Q. So that's the situation where they match, 12 correct? 13 A. So it's trying to figure out do they match, 14 right. So we see on this one it's saying, okay, the 15 user agent told me this, what did the OS fingerprint 16 tell me. 17 Q. Right. And 614 is the situation where they 18 match, correct? 19 A. It does flow in. We see it says does it 20 match the OS ID associated with the session, yes. So 21 it's -- 22 Q. And -- 23 A. -- the OS ID, the OS ID has been verified, 24 and then that feeds into the next decision point. 25 Q. And you understand that Claim 9 is talking Page 172
1 actually match up in terms of what's going on and then 2 from there I can say, okay, yeah, everything matches up 3 appropriately, is it matched up with that particular 4 flow in that particular HTTP session, do those align. 5 Q. Okay. So, again, limitation 610 is talking 6 about the situation -- or is talking about determining 7 whether the UA OS ID matches the OS ID associated with 8 the session, right? 9 A. Yes. 10 Q. And the OS ID associated with the session is 11 determined in Element 606, correct? 12 A. So it does -- There's an OS fingerprint 13 that's extracted. It tries to extract it, but that 14 then feeds into the consideration with the HTTP user 15 agent. So then we're getting that second -- so the OS 16 fingerprint being the first. User agent being the 17 second. 18 Q. Right. 19 A. (Inaudible) -- 20 Q. And then your -- go ahead. 21 A. No, go ahead. 22 Q. And then you're comparing those to OS IDs, 23 right? 24 A. You go on to look and compare do they 25 comport. Page 171	1 about the situation where the first OS ID does not 2 match the second OS ID, correct? 3 A. I do see where it says comprised of verifying 4 the first against the second ID where if it does not 5 match it's identified by the OS ID identified by the 6 more reliable OS identifier. 7 Q. So would you agree with me that Element 614 8 is not the situation that Claim 9 is discussing? 9 A. Given that the -- yes and no I think that 10 would be fair to say. 11 Q. Okay. So now we're talking about determining 12 the most reliable OS ID in Element 612, correct? 13 A. Correct. 14 Q. Okay. Now, let's go back to your testimony 15 in paragraph 104 where you say more reliable thus means 16 that the OS ID is validated through an independent or 17 cross correlation of data paths, right? 18 A. Yes. 19 Q. So my question to you is: For Element 612 20 where in the patent does it talk about how to validate 21 through independent or cross correlation of data paths? 22 A. What has gotten you to this point is -- is 23 that I have an independent that's gotten me -- that 24 I've got the TCP, I've got the OS derived from it, and 25 then I also have the user agent that's brought in that Page 173

1 I've gotten as well. So I say on here we have 2 independent and then -- that we have the more reliable 3 OS ID when we selected it or needed to do that. 4 So in one case we have the more reliable 5 where they can pull it. Every lined up, we're all set. 6 In that case, we -- we're not really more reliable in 7 that it -- I guess it's good to go. And then the more 8 reliable in that it's an independent stream and that 9 it's -- again, as we had described earlier, the user 10 agent, which was, again, at the time given that we 11 would have a browser would likely make system call 12 underneath to be able to get the identifier, the OS, 13 the -- that would be the independent probably more 14 trustworthy as we've talked about in a general sense. 15 The cross correlation got into it -- I 16 think it was perhaps a little bit inelegant getting 17 into notion of that it could have been correlated and 18 everything agreed and we're all set. And then if they 19 didn't, if they weren't cross correlated, then we could 20 still release more trustworthy alerts by virtue of 21 using the more reliable one, which, again -- which is 22 getting to the overall what was the focus of the 23 patent, how do I steer you to basically fix things more 24 accurately. 25 So in the sense of put your resources, what Page 174	1 It is more likely based on my understanding of the 2 protocols, but this is going to be a more reliable 3 indicator. It wouldn't require undue experimentation. 4 They would know this by virtue of what's provided in 5 the user agent string. 6 Q. Does it say in the specification anywhere 7 that the user agent string is more reliable than the 8 SYN fingerprinting OS ID? 9 A. I don't know if it says that in the 10 specification, but a POSITA would know that given that 11 they would have -- if they had knowledge of the OS 12 fingerprint tools and how they would work and knowledge 13 of the user agent and how it would work, the POSITA 14 would know given that, say, user agent is basically a 15 plain text string and their understanding of HTTP that 16 that is a, generally speaking, more reliable 17 identifier, if I weigh the two versus each other. 18 Q. So you would agree that a POSITA would know 19 that the user agent field in HTTP contains the OS ID of 20 the -- of the device that sent it, correct? 21 A. They would know what the user agent field 22 contains, and they would expect that they could 23 generally look in there. They would also understand 24 it's not always present, which is what the patent tries 25 to, kind of, broach, is that you need both to have this Page 176
1 you're trying to fix -- because I've given you a more 2 reliable identifier, you now will target your mediation 3 at the appropriate systems instead of just generic 4 Windows. 5 Q. So where in the patent does it describe how 6 to make the determination whether the first OS ID or 7 the second OS ID is more reliable? 8 A. So in this case, I believe it would -- that a 9 POSITA would understand if I'm looking at the user 10 agent, as I've described, again, how would the user 11 agent be provided. The user agent, again, would be 12 provided, generally speaking, by the browser calling 13 the system and would be viewed as being more viable. 14 In this case, Figure 6 is providing an 15 embodiment where we would have the particular protocol, 16 this layer 7 application protocol being HTTP, and that 17 would be compared in contrast to a TCP SYN packet. For 18 different applications that may not be the case. A 19 POSITA would rely on their knowledge and the 20 reliability and what is provided by the OS ID to then 21 decide which one. 22 In general, most of the time, if there is a 23 layer 7 application identifier that's accessible, it 24 will generally be more (inaudible). So a POSITA would 25 be able to say, okay, look, I can look at that string. Page 175	1 be effective and you need to pick the one that's more 2 reliable because that more reliable one may not always 3 be available as is described in the figure. 4 The figure clearly spells out, it's not 5 always available when you're looking at it, that the 6 user agent may or may not be present. Similarly with 7 layer 7 application parameters, that information may 8 not always be present in terms of an application 9 parameter and an OS identifier. 10 Q. Are there any other ways in which a POSITA 11 would know how to determine the OS of the device from 12 an application parameter? 13 A. It would depend upon the particular 14 applications. For several of the applications at the 15 time, they would often operate in plain text or kind of 16 an ASCII or human readable format. The dominant -- 17 Many of the dominant but not necessarily all the 18 dominant protocols would have this kind of identifier 19 if we're looking at something like an HTTP or an SMTP, 20 kind of the common protocols of the time, and the most 21 likely factors of malware would have a reasonable 22 chance of having this OS information present but not 23 always, which is where the challenge comes in, is that 24 it's not always present to be able to glean that 25 application parameter and extract the OS ID. Page 177

1 Q. Focusing only on HTTP, would a POSITA have 2 known how to extract the OS of the device sending it in 3 any other way other than the user agent field? 4 A. I would have to do a little bit of thinking 5 and examination of some of the other fields. The user 6 agent field would be the most common one given that 7 it's typically present with an HTTP request. There may 8 be some other fields that may be relevant, but without 9 going through and studying it, I couldn't definitively 10 say because I haven't memorized the different HTTP 11 options. I just, kind of, read -- I have a good 12 recollection of the most common ones in particular for 13 this patent focusing on the user agent. 14 Q. Okay. You would agree that the user agent 15 field would have been the most common or obvious way to 16 extract OS information from an HTTP packet; is that 17 right? 18 A. In the sense that the user agent would have 19 the highest likelihood of containing that information 20 but also understanding the caveats that a POSITA would 21 know that sometimes getting that information quickly 22 isn't always easy. And then, in particular, when we're 23 processing layer 7, it can sometimes be more 24 challenging to do that at line rate given that HTTP is 25 sort of unstructured. A POSITA would -- would Page 178	1 something is more reliable, then it -- then it could 2 potentially be more trustworthy. The fact that can 3 potentially assist against with remediation efforts is 4 also helpful. 5 MR. IWAHASHI: All right. Why don't we go off the 6 record? 7 (Break taken.) 8 MR. IWAHASHI: I have no further questions. Thank 9 you very much for your time today, Dr. Striegel. 10 MR. CANAVERA: No questions from me. 11 THE COURT REPORTER: Real quick, did you want to 12 order or hold off? 13 MR. IWAHASHI: I'm going to need a rough, and I 14 don't know what the standard turnaround time is. 15 THE COURT REPORTER: I believe it's 14 days. 16 MR. IWAHASHI: That seems a little long. 17 THE COURT REPORTER: It's two weeks. 18 MR. IWAHASHI: So by the 21st? Yeah, that's fine. 19 A rough and normal delivery time. 20 THE COURT REPORTER: Okay. Any copy needed? 21 MR. CANAVERA: I can do standard delivery. I 22 don't need a rough. 23 THE COURT REPORTER: Off the record at 3:32. 24 (Witness excused.) 25 Page 180
1 understand that there's a user agent field that would 2 be set that they could look at but would also 3 understand that it may or may not be present. 4 Q. Going back to that last sentence of 5 paragraph 104 -- 6 A. Mm-hmm. 7 Q. -- it says, it enables the system to release 8 more trustworthy alerts and guide remediation 9 effectively. What makes an alert trustworthy or more 10 trustworthy? 11 A. In this case I'm offering my opinion that by 12 having a more reliable OS ID, that would be potentially 13 more trustworthy. And as the patent states, the goal 14 is to guide remediation more effectively. So if I have 15 a more reliable identifier of the OS that had the 16 malware, as we had talked about earlier, I can more 17 effectively steer my remediation to those hosts which 18 are potentially suspect, given the -- given what NAT 19 does to the traffic, in terms of adding an ambiguity of 20 the -- kind of the root cause or source or the actual 21 host that had the issue. 22 Q. Do more reliable and more trustworthy mean 23 the same thing? 24 A. I think it would stem from if something is 25 more reliable, then it becomes more trustworthy, but if Page 179	1 UNITED STATES DISTRICT COURT) 2 NORTHERN DISTRICT OF CALIFORNIA) 3 OAKLAND DIVISION) SS. 4 5 I, Trixie L. Schuzer, Certified Shorthand Reporter 6 and Notary Public, do hereby certify that AARON D. 7 STRIEGEL, Ph.D. was first duly sworn by me to testify 8 to the whole truth and that the above deposition was 9 reported stenographically by me and reduced to 10 typewriting under my personal direction. 11 I further certify that the said deposition was 12 taken at the time and place specified and that the 13 taking of said deposition commenced on the 7th day of 14 November, 2025, at 9:01 a.m. 15 I further certify that I am not a relative or 16 employee or attorney or counsel of any of the parties, 17 nor a relative or employee or attorney or counsel of 18 any of the parties, nor financially interested directly 19 or indirectly in this action. 20 21 22 23 24 25 Page 181

1 In witness whereof, I have hereunto set my hand
2 and affixed my seal of office at Chicago, Illinois,
3 this 21st day of November, 2025.

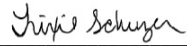
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