

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PALO ALTO NETWORKS, INC.

Petitioner

CASE NO.

vs.

IPR2016-0151

FINJAN, INC.

Patent Owner

DEPOSITION OF AVIEL RUBIN, PH.D.

VOLUME II

TUESDAY, DECEMBER 20, 2016

10:03 A.M.

903 DULANEY VALLEY ROAD

TOWSON, MARYLAND 21204

REPORTED BY: R. Dwayne Harrison

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2		2 AVIEL RUBIN, Ph.D.	
3 ON BEHALF OF THE PALO ALTO NETWORKS, INC.:		3 Palo Alto Networks, Inc. vs. Finjan, Inc.	
4 SHOUVIK BISWAS, ESQUIRE		4 Tuesday, December 20, 2016	
5 Morrison Foerster		5 Exhibit No.	Marked
6 1650 Tysons Boulevard, Suite 400		6 Exhibit 1 Declaration of Dr. Aviel D.	
7 McLean, Virginia 22102		7 Rubin In Support of Petitioner's	
8 Telephone: 703-760-7774		8 Reply to Patent Owner Response	48
9 Email: Sbiswas@mofo.com		9 Exhibit 2 Patent Owner Response	54
10		10 Exhibit 3 Patent Application 2007/0113282	57
11 ON BEHALF OF FINJAN, INC.:		11 Exhibit 4 U.S. Patent Number 8,141,154	59
12 MICHAEL LEE, ESQUIRE		12 Exhibit 5 Declaration of Dr. Aviel D. Rubin	
13 Kramer Levin Naftalis & Frankel LLP		13 In Support of Petition For Inter	
14 990 Marsh Road		14 Partes Review	59
15 Menlo Park, California 94025-1949		15 Exhibit 6 Petition For Inter Partes Review	
16 Telephone: 650.752.1716		16 of U.S. Patent Number 8,141,154	116
17 Email: Mhlee@kramerlevin.com		17	
18		18	
19		19	
20		20	
21		21	
22		22	
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24		24	
25 ALSO PRESENT: CONWAY BARKER, VIDEOGRAPHER		25	
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2		2 THE VIDEOGRAPHER: Stand by, please. We	
3 WITNESS: AVIEL RUBIN, Ph.D.		3 are now on the record in the matter of Palo Alto	
4 Examination By:	Page	4 Networks Incorporated vs. Finjan Incorporated before	
5 Mr. Lee	48	5 the United States Patent and Trademark Office. The	
6		6 location of this deposition is Sheraton North	
7		7 Baltimore, 903 Dulaney Valley Road, Towson, Maryland.	
8		8 Today's date is December 20th, 2016 and the time is	
9		9 approximately 10:03. This is the video deposition of	
10		10 Dr. Rubin.	
11		11 Would counsel please introduce yourselves	
12		12 and state who you represent?	
13		13 MR. LEE: Michael Lee from Kramer Levin	
14		14 representing Finjan.	
15		15 MR. BISWAS: Shouvik Biswas from Morrison &	
16		16 Foerster representing Palo Alto Networks.	
17		17 THE VIDEOGRAPHER: My name is Conway Barker	
18		18 representing Gore Brothers Reporting and	
19		19 Video-conferencing, 20 South Charles Street, Baltimore,	
20		20 Maryland. The court reporter is Dwayne Harrison.	
21		21 Would you please swear in the witness and	
22		22 we can proceed?	
23		23 Whereupon,	
24		24 AVIEL D. RUBIN, Ph.D.,	
25		25 called as a witness, having been first duly sworn to	

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<p style="text-align: right;">Page 48</p> <p>1 tell the truth, the whole truth, and nothing but the 2 truth, was examined and testified as follows: 3 EXAMINATION BY MR. LEE: 4 Q Please state your full name and address for 5 the record? 6 A Aviel Rubin, 3 Thornhaugh, 7 T-H-O-R-N-H-A-U-G-H, Court, Pikesville, Maryland 21208. 8 Q Do you understand why you are here today? 9 A Yes. 10 Q Why are you here today? 11 A I'm here to give deposition testimony. 12 Q Is it regarding IPR2016-00151? 13 A Yes. 14 (Rubin Exhibit 1 was marked for purposes of 15 identification.) 16 THE REPORTER: Exhibit 1. 17 BY MR. LEE: 18 Q You've been handed an exhibit marked as 19 Exhibit Number 1. Exhibit Number 1 is entitled 20 Declaration of Dr. Aviel D. Rubin In Support of 21 Petitioner's Reply to Patent Owner Response. It has 22 the case number IPR2016-00151. 23 Do you recognize Exhibit Number 1? 24 A Yes, I do. 25 Q What is Exhibit Number 1?</p>	<p style="text-align: right;">Page 50</p> <p>1 A I don't remember. Maybe about a year ago. 2 There was -- when the petition was first filed, I 3 believe I wrote a declaration. 4 Q You're talking about a previous declaration 5 for this case, correct? 6 A Yes. 7 Q So those two declarations contain all the 8 opinions you had in this proceeding, correct? 9 A I believe so. 10 Q Do you have another opinion that's not in 11 your declaration? 12 A No. 13 Q As you sit here on December 20th, 2016, is 14 there anything that you're aware of concerning the 15 bases of your opinions that's not in Exhibit Number 1? 16 A No. 17 Q This is your second declaration for this 18 proceeding, correct? 19 A I think so. 20 Q Why did you draft a second declaration for 21 this proceeding? 22 A There was a patent owner response that 23 contained Finjan's arguments and, in response to that, 24 the Petitioner filed another response to that and I was 25 asked to provide my opinions on that response and so I</p>
<p style="text-align: right;">Page 49</p> <p>1 A It's my declaration. 2 Q Is it your signature on page 14? 3 A Yes. 4 Q And you signed it your declaration on 5 December 6, 2016, correct? 6 A Yes. 7 Q Was it your understanding that as of 8 December 6th, 2016 you were supposed to put all the 9 opinions that you had in this case? 10 A I'm sorry? 11 Q Was it your understanding that as of 12 December 6, 2016 you are supposed to put all the 13 opinions you had in this case? 14 MR. BISWAS: Objection, form. 15 A You mean into my declaration? 16 Q Correct. 17 A I had other opinions in the case in an 18 earlier declaration, but all of my new opinions since 19 then went into this. 20 Q So it is your -- it's true that as of 21 2006 -- 2016 you put in all of the opinions you had in 22 this case into your declaration, correct? 23 MR. BISWAS: Objection, form. 24 A Into both of my declarations. 25 Q When was the previous declaration?</p>	<p style="text-align: right;">Page 51</p> <p>1 provided those here. 2 Q Can I direct you to paragraph 1, the last 3 sentence in paragraph 1 where you state: "This 4 supplemental declaration addresses positions and 5 testimony raised by Patent Owner Finjan and its Patent 6 Owner Response." 7 Do you see that? 8 A Yes. 9 Q What do you mean by positions? 10 MR. BISWAS: Objection, form. 11 Q Which positions from patent owner are you 12 referring to? 13 MR. BISWAS: Objection, form. 14 A Do you have Finjan's response for me to 15 look at? 16 Q Which positions does your declaration 17 respond to? 18 MR. BISWAS: Objection. Vague and 19 ambiguous. 20 A I would want to go through that document 21 and show you. I don't -- haven't memorized them. 22 Q So your declaration does not identify which 23 positions your declaration addresses, correct? 24 MR. BISWAS: Objection, form. 25 A I think that, if you read my declaration,</p>

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<p style="text-align: right;">Page 52</p> <p>1 it would be clear which positions of Finjan's that I'm 2 responding to.</p> <p>3 Q Isn't it true your declaration only 4 identifies two positions from patent owner's response, 5 paragraph 16 and paragraph 26?</p> <p>6 A I'm not comfortable saying that. I would 7 need to get the patent owner response and go through 8 the whole thing and then go through my declaration and 9 match up the point that I make in my declaration with 10 the patent owner response to answer that.</p> <p>11 Q So sitting here today, can you tell me what 12 other positions -- where else in your declaration do 13 you identify positions other than paragraph 16 and 14 paragraph 26?</p> <p>15 MR. BISWAS: Objection, form.</p> <p>16 A I believe that the entire declaration is 17 responsive to various positions and I think, as I start 18 looking through it, for example, section 3, Roman 19 numeral III, talks about one of ordinary skill in the 20 art knowing that hooks scripts would include a call to 21 a first function, I believe.</p> <p>22 THE REPORTER: I'm sorry, what?</p> <p>23 A Include a call to a first function is 24 responsive to the patent owner's position that that's 25 not the case and the whole document, the way that I</p>	<p style="text-align: right;">Page 54</p> <p>1 that? You're declaration is only 15 pages, correct?</p> <p>2 A Right.</p> <p>3 Q Or 14 pages. So how many positions from 4 patent owner's response are you responding to?</p> <p>5 A What I would do is I would take the patent 6 owner response and I would take each paragraph in my 7 declaration and find what it was responding to to fill 8 in such a table.</p> <p>9 (Rubin Exhibit 2 was marked for purposes of 10 identification.)</p> <p>11 THE REPORTER: Exhibit 2.</p> <p>12 BY MR. LEE:</p> <p>13 Q You've been handed an exhibit marked as 14 Exhibit Number 2. Exhibit Number 2 is from case number 15 IPR2016-00151 and it's titled Patent Owner Response. 16 Do you recognize Exhibit Number 2?</p> <p>17 A Yes.</p> <p>18 Q Can you tell me -- what does section 3 of 19 your declaration respond to in Patent Owner Response?</p> <p>20 A Page 20 of the patent owner response -- 21 well, on page 17 there's a summary paragraph that sets 22 up the next few sections. In part, I was responding to 23 that. But the details are provided in -- on page 20 in 24 section 2 where the section is titled "petitioner has 25 not identified a call to a first function in Ross" and</p>
<p style="text-align: right;">Page 53</p> <p>1 wrote it was to look at positions in the patent owner 2 response that I disagreed with and to give kind of 3 elaborations on the positions that I had before about 4 that that are responsive to what the patent owner said.</p> <p>5 So I can't say that it's limited to those 6 two paragraphs. I think the whole thing is a response.</p> <p>7 Q So it's your position that patent owner's 8 response takes the position that scripts could not 9 include a call to a first function, correct?</p> <p>10 A I need to look at that to refresh my 11 memory. But, off memory, I believe that a patent owner 12 was making the claim that there was no call to a first 13 function.</p> <p>14 Q No call to a first function in -- it could 15 be included in a hook script, right?</p> <p>16 A In Ross.</p> <p>17 THE REPORTER: In Ross?</p> <p>18 A R-O-S-S.</p> <p>19 Q Are there any other positions that you're 20 going to provide at this point?</p> <p>21 A Again, I think that everything in my 22 declaration is responsive to the positions. If you 23 want a table of which paragraph corresponds to which 24 position, then I have to take the time to create that.</p> <p>25 Q How much time would you need to create</p>	<p style="text-align: right;">Page 55</p> <p>1 that section is being responded to by my section 3 2 where I explained that hook script could include a call 3 to a first function.</p> <p>4 THE REPORTER: Could include?</p> <p>5 A Could include a call to a first function.</p> <p>6 Q What do you mean could include a call to a 7 first function?</p> <p>8 MR. BISWAS: Objection, vague.</p> <p>9 A If you take the pseudocode in figure 4 of 10 Ross, it would have been obvious to one of ordinary 11 skill in the art that that code could be written as my 12 pseudocode which I include in there which calls the 13 hook function in the code itself. So it includes a 14 call to a first function.</p> <p>15 Q Looking at section IV of your declaration 16 where you say "based on the teachings of Ross, a person 17 of ordinary skill in the arts would have known that the 18 HTTP content and the hook scripts could be received 19 over the same network."</p> <p>20 Which section of the patent order response 21 are you responding to?</p> <p>22 A There's a section in the patent owner 23 response on page 25 titled 4: "Ross does not teach or 24 suggest receiving content over a single network, the 25 content including a call to a first function" and that</p>

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<p style="text-align: right;">Page 56</p> <p>1 section attempts to argue that the HTTP content and the 2 hook content are coming from different networks and I 3 respond to that in my section 4. 4 Q In section V, which section are you 5 responding to? 6 Just so it's clear for the record, section 7 V is entitled "based on the teachings of Ross a person 8 of ordinary skill in the art would have known to invoke 9 an original function with its original input if a 10 security computer found an original function to be 11 safe." 12 A This is in response to page 38 of the 13 patent owner response C, section C, where it says "Ross 14 does not disclose a receiver for receiving an indicator 15 from the security computer whether it is safe to invoke 16 the second function with the input." 17 Q Is section VI your declaration responding 18 to the same paragraph -- I mean, same section as well 19 on page 38 of the patent response? 20 A I wasn't finished with section V. It's 21 also responding to B on page 35 where it says "Ross 22 does not disclose for invoking a second function with 23 the input." 24 Q Fair to say that section VI of your 25 declaration is responding to section C of the patent</p>	<p style="text-align: right;">Page 58</p> <p>1 Q Exhibit Number 3 is the Ross reference, 2 correct? 3 A That's right. 4 Q I direct your attention to figure 6 of 5 Ross. 6 A Okay. 7 Q Do you see that box labeled script 8 processing engine 618? 9 A Yes. 10 Q It's your opinion that script processing 11 engine 618 is the recited content processor, correct? 12 A It's the script processing engine. 13 Q Yes. Is the script processing engine the 14 recited content processor, in your opinion? 15 MR. BISWAS: Objection, form. 16 A This is a dataflow diagram and that is 17 showing part of the content processing. 18 Q So script processing engine 618 alone does 19 not meet the recited content processor, right? 20 MR. BISWAS: Objection, form. 21 A Are you talking about content processor 22 from the asserted patent claims? 23 Q Correct. 24 A Oh, I thought you were talking about 25 something in Ross which I didn't see called by those</p>
<p style="text-align: right;">Page 57</p> <p>1 order response at page 38? 2 A I need to look at it more carefully, but I 3 think section V might be responding to B and section 4 VI responding to C. But, in general, they're dealing 5 with related issues. 6 Q And is it fair to say that section VII of 7 your declaration is responding to section D of page 40 8 of patent order response? 9 A Yes. 10 Q It's your opinion that Ross discloses a 11 content processor, correct? 12 THE REPORTER: I'm sorry, a what? 13 MR. LEE: A content processor. 14 A For questions about Ross, would it be 15 possible for me to get a copy of Ross? 16 Q Sure. 17 (Rubin Exhibit 3 was marked for purposes of 18 identification.) 19 THE REPORTER: Exhibit 3. 20 BY MR. LEE: 21 Q You've been handed an exhibit marked as 22 Exhibit Number 3. Exhibit Number 3 is by Ross. It is 23 patent application 2007/0113282. 24 Do you recognize Exhibit Number 3? 25 A Yes.</p>	<p style="text-align: right;">Page 59</p> <p>1 words. 2 So would it be possible for me to take a 3 look at the '154 patent claims? 4 Q Sure. 5 (Rubin Exhibit 4 was marked for purposes of 6 identification.) 7 THE REPORTER: Exhibit 4. 8 BY MR. LEE: 9 Q You've been handed an exhibit marked as 10 Exhibit 4. Exhibit Number 4 is entitled U.S. Patent 11 Number 8,141,154. 12 Do you recognize Exhibit Number 4 as the 13 '154 patent? 14 A Yes. 15 Q Let me ask the question again. 16 Is it your opinion that Ross's script 17 processing engine 618 is the recited content processor? 18 A Do you have my original declaration? 19 [Witness reviews.] 20 Q Yes. 21 (Rubin Exhibit 5 was marked for purposes of 22 identification.) 23 THE REPORTER: Exhibit 5. 24 BY MR. LEE: 25 Q You've been handed Exhibit Number 5.</p>

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