	Page 1		Page 3
1		1	
2	UNITED STATES PATENT AND TRADEMARK OFFICE	2	APPEARANCES:
3	BEFORE THE PATENT TRIAL	3	
5	AND APPEAL BOARD	4	BRYAN CAVE LLP
6		5	Attorneys for Petitioner
7	SYMANTEC CORPORATION	6	1290 Avenue of the Americas
8	Petitioner,	7	#33
9	v.	8	New York, New York 10104
10	FINJAN, INC.,	9	BY: ALEX WALDEN, ESQ.
11	Patent Owner.	10	JOSEPH RICHETTI, ESQ.
12		11	FRANK M. FABIANI, ESQ.
13	Case IPR2015-01892	12	
	Patent 8,677,494	13	KRAMER LEVIN NAFTALIS & FRANKEL LLP
14		14	Attorneys for Patent Owner
15		15	1177 Avenue of the Americas
16		16	New York, New York 10036
17	DEPOSITION OF	17	BY: MICHAEL LEE, ESQ.
18	JACK W. DAVIDSON	18	JEFFREY H. PRICE, ESQ.
19 20	FRIDAY, MAY 27, 2016 9:00 a.m.	19	
21	5.00 a.m.	20	
22		21	
23		22	
24		23	
25	Reported by: Adrienne M. Mignano, RPR	24	
	Job Number: J0357928	25	
	Pogo 2		Dogo 4
1	Page 2	1	Page 4 Davidson
2			J-A-C-K W. D-A-V-I-D-S-O-N, called as
3		3	a witness, having been duly sworn
4		4	by a Notary Public, was examined and
5	May 27, 2016	5	testified as follows:
6	9:00 a.m.	1 -	EXAMINATION BY
7	New York, New York	7	MR. LEE:
8		8	
9	D		Please state your full name and
	Deposition of JACK W. DAVIDSON,	1 .	Q Please state your full name and
10	Deposition of JACK W. DAVIDSON, held at the offices of Bryan Cave, 1290	9	address for the record.
10 11		9	address for the record. A My name is Jack W. Davidson, and
	held at the offices of Bryan Cave, 1290	9 10 11	address for the record. A My name is Jack W. Davidson, and I reside at 2040 Tremont Road,
11	held at the offices of Bryan Cave, 1290 Avenue of the Americas, New York, New York,	9 10 11 12	address for the record. A My name is Jack W. Davidson, and I reside at 2040 Tremont Road, Charlottesville, Virginia.
11 12	held at the offices of Bryan Cave, 1290 Avenue of the Americas, New York, New York, pursuant to Notice, before Adrienne M.	9 10 11 12 13	address for the record. A My name is Jack W. Davidson, and I reside at 2040 Tremont Road, Charlottesville, Virginia. Q Do you understand why you're
11 12 13	held at the offices of Bryan Cave, 1290 Avenue of the Americas, New York, New York, pursuant to Notice, before Adrienne M. Mignano, a Notary Public of the State of New	9 10 11 12 13 14	address for the record. A My name is Jack W. Davidson, and I reside at 2040 Tremont Road, Charlottesville, Virginia. Q Do you understand why you're here today?
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11 12 13 14 15 16 17 18 19 20 21	held at the offices of Bryan Cave, 1290 Avenue of the Americas, New York, New York, pursuant to Notice, before Adrienne M. Mignano, a Notary Public of the State of New	9 10 11 12 13 14 15 16 17 18 19 20 21 22	address for the record. A My name is Jack W. Davidson, and I reside at 2040 Tremont Road, Charlottesville, Virginia. Q Do you understand why you're here today? A Yes, I do. Q Why are you here today? A I'm here to testify on behalf of Symantec regarding the IPR, regarding Patent '494. Q Did you offer any opinions about the '494 Patent? A I did.





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Page 5 1 Davidson 2 Q Did you offer any opinions in 3 this case? 4 Yes, I submitted a declaration. Α 5 What opinions does the Q 6 declaration --7 I'm sorry. What? 8 What are the opinions in your 9 declaration? 10 A I mean, again, can you be more 11 specific? 12 Q Would you be able to give me a 13 summary of the opinions in the 14 declaration? 15 So I looked at the claim 16 language and I looked at the prior art, 17 and then I basically did an analysis of 18 the -- whether the prior art covered the 19 claim language, and my opinion was that 20 it, in fact, did. 21 Q Which prior art? 22 A There were several pieces that 23 are cited in my declaration. 24 There is a paper in the Virus 25 Bulletin by a person named Morton Swimmer, Page 6 Davidson 1 2

declaration in support of the Petitioner's 2 3 petition to the IPR Board regarding the 4 '494 Patent. So this is the declaration you 5 Q 6 were referring to earlier? 7 Yes. 8 Q Can you go to page 96 of your 9 declaration? 10 Α Yes. 11 Q Is that your signature? 12 That is my signature. 13 Q Did you sign that on September 14 10, 2015? 15 Α Yes, I did. 16 Q What is your understanding that, as of September 10, 2015, you were supposed to put into your declaration all 19 the opinions you had in this case? 20 All the what? 21 Q All the opinions you had in this 22 case? 23 Α I didn't understand. All the 24 dependents? 25 Opinions. Q

Davidson

2 I think that was. Another piece of prior art that 4 I cited was a paper by Stephanie Forrest

5 about intrusion detection. There was a 6 patent, I think it is Patent '600 by Ji. 7 I'm not sure of the number of this one, 8 but we can refer to it, Cline. I'm trying to think of other --

11 think in my declaration. I would have to 12 refer to it to see if I'm missing 13 anything. But those are certainly -- I 14 think, you know, those are certainly the 15 main ones.

10 I looked at a lot of other prior art I

16 (Whereupon, Declaration of Jack 17 W. Davidson, dated September 10, 2015, 18 was marked as Davidson Exhibit 1 for 19 identification, as of this date.) 20 BY MR. LEE:

21 Q You have been handed an Exhibit 22 marked as Exhibit number 1.

23 Do you recognize Exhibit number

24 1? 25

Yes, I do. This is my

Davidson

Opinions?

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Yes. Let me just rephrase it so Q it will be clear for the record.

Was it your understanding that, as of September 10, 2015, you were 7 supposed to put into your declaration all of your opinions that you had in this 9 case?

> Yes, they are in here. Α

11 Q Do you have any other opinion that is not in this declaration? 12

13 MR. WALDEN: Objection. Form. 14 No. I mean these are my

15 opinions. 16

Are there any corrections that 17 you would like to make at this time?

18 There are various typos in here. I don't know if you want to go through 20 those, you know.

21 In rereading it in preparation 22 for this thing, I was going, oh, typo, oh, you know, it must have been a cut and paste error. So there are certainly those

25 kinds of errors, you know, typographical



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Page 12

Page 9 Davidson 2 errors. But in terms of the opinions, no, 3 they are complete and accurate. Please describe for me the 5 process of writing your declaration. A So, I mean the first step was 7 counsel provided me the patent, and I 8 first did a prior art search, you know, at 9 the time of the patent, and collected, you 10 know, lots of material, and read those, 11 read the patent and analyzed the various 12 pieces of prior art to define, you know, 13 did I feel like it was relevant, you know, 14 was it in the scope. 15 And then at some point, counsel 16 provided me a template, you know, with a

17 document that was kind of a framework, the 18 kind of formatting and that kind of thing. 19 I began writing. I wrote a lot. At some 20 point, I think -- well, at some point, I 21 came up here and, you know, spent time 22 with counsel. They were briefing me on 23 some of the aspects of patent law. I'm 24 not an attorney so they were explaining 25 pieces of that, you know, and I

Davidson

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reference by Morton Swimmer? 3

A Yes, and that's, you know, one of the -- it's cited in my declaration.

Did you locate the Swimmer reference or was that provided to you by counsel?

8 That's a good -- I don't know. 9 I don't remember, you know, who actually 10 found that. I do subscribe to the Virus Bulletin, which is where the Morton 12 Swimmer paper appeared. It is a 13 publication I was very familiar with and 14 knew to go look in their archives.

At one point, I had subscribed 16 to it. It was kind of the place that people -- when I was teaching, I taught a course, and, you know, it is the place that you go to, you know, to know what's going on in this area.

21 So it is entirely possible, but, 22 sorry, I can't remember who, you know, identified it. I might be able to answer that if I got on my laptop and looked back, you know, but off the top of my

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Davidson 2 incorporated some of that in my 3 declaration.

We also talked about the prior 5 art, you know, and I explained to them my 6 understanding of the patent, you know, and 7 read the patent. I explained some of the 8 prior art, you know, and why I thought it 9 may be relevant to this litigation or, you 10 know, this IPR. We discussed those, you 11 know, and then I would write more. I 12 would discuss what I was writing and 13 points with the attorney.

14 And that was kind of an 15 iterative process. I mean, it is almost a 16 hundred page document; well, you know, 17 several iterations. I think I made a 18 couple of trips up here.

Q You mentioned you performed a 20 prior art search?

21 Α Yes.

19

25

22 Q Was any of the prior art that

you searched the Morton Swimmer reference?

24 Say that again.

You say there was a prior art

Davidson

head, I couldn't tell you.

Sitting here today, which are the prior references that you personally located as opposed to ones that counsel provided to you?

A I think I located Forrest. Again, you know, I think that I did, but, 9 again, I would have to go look at my 10 records, you know, to be absolutely sure.

11 Q Can you go to paragraph 9 of 12 your declaration?

I'm on paragraph 9.

13 14 Do you see where you talk about "innovative security solutions targeted mainly for U.S. Department of Defense 17 applications"?

> Α Yes, sir.

19 Q Can you describe these computer 20 security solutions?

21 So right now, Zephyr Software 22 has two contracts that we're working on. 23 One is with the -- with DARPA. DARPA is the Defense Advanced Research Project 25 Agency. And this project is looking at

ESQUIRE



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Davidson 2 securing embedded systems and industrial 3 control systems, and I think that would be

4 of interest to the military. And so this

5 project is looking at how to analyze the

6 code for those things, identify

7 vulnerability. Vulnerability is a 8 weakness in code that can be exploited by 9 a malicious adversary, who would like to

10 potentially take over the system. 11 The kinds of systems that we

12 would be talking about here might be the 13 power grid, or, you know, a system for 14 controlling water purification, or that

15 kind of thing. And so, you know, we're 16 developing solutions that analyze that

17 code, find vulnerabilities, and patch 18 those vulnerabilities.

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The other project I have is 20 being funded by ONR, the Office of Naval 21 Research. And there we are looking at a

22 different kind of system, mainly servers,

23 you know, web servers or critical servers 24 that are providing service to the

25 military, and, again, similarly analyzing

Davidson 2 the code and attempting to -- here it is 3 very specific, we're looking at trying to

4 prevent a certain kind of exploiting

5 called "program hijacking", and this is

6 where an adversary is able to take control 7 of the program, you know, and then carry

out malicious actions.

Q These computer security 10 solutions related the '494 Patent?

11 They are related in the sense

12 that the '494 Patent discusses a

13 downloadable scanner that parses code, and

14 that is one of the things that locate

15 these vulnerabilities that I mentioned

16 that you would certainly do, you know, and

17 analyze the code. So in that sense, yes,

18 very related.

19 Q What do you mean by "parses the 20 code"?

21 Α So to be able to understand the 22 code in the context of my project, you

know, these two projects, as I said, we're looking to identify vulnerabilities in the

25 code. These are weaknesses that, again,

Davidson

may be exploited by a malicious adversary.

So we are analyzing code, and to do that, you have to parse the code to

determine the structure, to determine what the program is attempting to do, you know,

and that requires different kinds of

analysis. So, again, we are looking for what are called "unintentional weaknesses"

10 in the code.

I'll make a distinction between

12 the '494 Patent and the techniques they

13 used, but there is a difference in terms

14 of the '494 in the specification is really

15 talking -- it seems to be focused on what

16 I'll call "malicious code" that

17 intentionally, you know, has code in it

18 that is going to do something maybe bad in

19 some way. And that's not in scope for,

20 you know, the projects that I'm working

on. The projects that I'm working on, it 21

is assumed that the code is, you know --

23 it doesn't include stuff that's been added

24 by, let's say, a malicious adversary.

I'm looking to understand what

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Davidson

you meant by parses or parsing. How would you explain what

parsing is to a layperson?

So, let's see, let me think

about that. How would I explain that to a

8 So are you asking me in the 9 context of the '494 Patent, you know, or

are you just talking about, again, in

general to not paying any -- you know,

12 relevant to the '494? Because the term 13

"parsing", you know, can have, depending on the context, different meanings.

15 Q How is it different in the '494 16 Patent as opposed to outside the '494

17 Patent? 18

A So, in the '494, they are talking about parsing a downloadable. So, 20 you know, that's the context of that

21 patent.

22 Q How is parsing different if it 23 is not downloadable?

24 Well, I can parse a sentence. I

25 mean, this is a common thing like, you

ESQUIRE



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Page 20

Page 17 Davidson 2 know, children learn how to parse a 3 sentence. So, you know, that might be 4 something you would say to a layperson. How would you explain what it 6 means to parse a downloadable to a 7 layperson? 8 I think, you know, I would do it 9 in very -- for a layperson, I would do it 10 in general terms that I would explain what 11 a downloadable was in this context. 12 So a downloadable is information

13 that includes program code, code that 14 could be executed. And then, in this 15 case, you know, in that context, the 16 parsing would be to take that code and 17 analyze it in some way, which means you 18 would have to, you know, again try to --19 for instance, if it was machine code, you 20 might want to, again in the context of the 21 patent, decode the instructions for the 22 particular machine, and, you know, 23 understand what those functions are that 24 would, you know, apply for what I'll call

Davidson identify the operation that this

downloadable in this case would 3

potentially carry out.

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I think you mentioned that 6 Swimmer is regarding binary executable 7 programs?

So Swimmer in the paper discusses doing virus detection on programs that are received, and the examples that he discusses are yes, for 12 the 8086 processor.

What do you mean by a binary?

14 Α So normally a binary -- when 15 we're talking about a binary program, that typically would mean a program that is designed on a particular processor at that level, I mean at the level of the 19 processor.

20 So, for instance, there are many 21 different processors, but in the context of the Swimmer paper, he discusses the 8086. That's a processor that's made by Intel, manufactured by Intel. So we're talking about, you know, a program that is

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Davidson

25 a "binary program".

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You mentioned a decoding. What is decoding?

Again, in the context of the 5 patent and some of the prior art, and specifically Swimmer, you're looking at what I will call a binary executable. So it consists of instructions

9 for a specific processor, and they are 10 encoded using basically a mapping, so, 11 say, a number, you know, that is the op 12 code might indicate a particular function 13 that is to be performed by the processor.

So the process of decoding is, 15 you know, taking that binary and first 16 determining kind of, okay, which groups of 17 bits correspond to an instruction. And 18 then once you have done that in 19 determining, okay, what does this 20 instruction do, what is the operation it's 21 going to perform, and what are the 22 operands, O-P-E-R-A-N-D-S.

So that would be very common, 24 you know, to analyze a binary operation 25 process that you would do, you know, to Davidson

1 going to run directly on that -- designed to run directly on that particular

processor, designed to run.

What does it mean when a 6 program, a file, is in binary format?

7 In some sense -- again, the question is difficult to answer because, you know, in some sense, everything on the computer is binary. That's the way our digital computers work. So, you know, it 11

is difficult to answer your question 12

13 without being more specific, but everything ultimately is a binary.

What do you mean by --MR. LEE: Strike that.

Q What does "binary" mean?

18 Binary means there are two 19 states of a bit, zero and one.

So would it be fair to say that

21 binary means a mathematical representation 22 where there is only two states, one or 23 zero?

24 Again, you know, it depends on 25 the context. I mean typically you group





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