

EXHIBIT 16

Volume 4

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

BEFORE THE HONORABLE WILLIAM H. ALSUP, JUDGE

FINJAN, INC.,)	
Plaintiff,)	
VS.)	No. C 17-5659 WHA
JUNIPER NETWORKS, INC.,)	
Defendant.)	
		San Francisco, California
		Thursday, December 13, 2018

TRANSCRIPT OF PROCEEDINGS

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1 these tables are generated -- there's a separate table that
2 just contains some bookkeeping information and a verdict and no
3 suspicious operations. They have separate names and they're in
4 separate tables in DynamoDB.

5 **THE COURT:** Wait a minute. Don't say anything for a
6 second.

7 (Pause in proceedings.)

8 **THE COURT:** All right. For now I'll hold my further
9 questions. Thank you.

10 Go ahead.

11 **BY MR. HEINRICH:**

12 **Q.** And just a few clarifications here. So does the verdict
13 contain or include a list of suspicious computer operations?

14 **A.** It's a simple number. It doesn't contain anything except
15 that number.

16 **Q.** Now, you mentioned there are these two tables. When a
17 request goes up to Sky ATP and the file is already seen, which
18 one of those two tables that you mentioned is consulted?

19 **A.** It only looks at the table that contains the verdicts, and
20 there's a really good reason for that. The Sky -- the SRX
21 device doesn't need to know what to do with suspicious
22 operations. The list of suspicious operations is huge. It
23 would create a tremendous amount of overhead to try to send
24 that down to the SRX.

25 And everything that needs to be done can be accomplished

1 by sending one number, and so the table that contains the
2 verdicts is consulted. There's a lookup in that table. It's a
3 very fast process. That is return -- it returns an integer and
4 that is sent to the SRX.

5 **THE COURT:** Wait. Wait. But the Claim 10 doesn't
6 require -- it doesn't -- let me put it differently -- it
7 doesn't address what gets sent back to SRX. Claim 10 ends with
8 the security profile data being put into a database. So what
9 difference does it make what gets sent to the SRX? Claim 10
10 doesn't address that.

11 **THE WITNESS:** So, Your Honor, let me explain why I'm
12 making this point.

13 Dr. Cole claimed that there was this huge efficiency gain
14 that Juniper was getting by being able to query a database very
15 quickly, and that would allow the list of suspicious operations
16 to be retrieved very quickly, and he used those words.

17 And I am countering that by saying that that is not a
18 requirement of the system. It doesn't need to retrieve the
19 list of suspicious operations very quickly like he said it does
20 because you only need to get a verdict.

21 **THE COURT:** All right. Well, that may -- you may
22 differ with him on that point, but I have a different question,
23 which was: Does Claim 10 in your view even address what gets
24 sent down to the SRX?

25 **THE WITNESS:** It does not.

1 **THE COURT:** It does not. Okay. Thank you.

2 Go ahead.

3 **BY MR. HEINRICH:**

4 **Q.** So let's kind of tie this together now by getting right
5 into the specific reason for your noninfringement opinion, and
6 what is that?

7 **A.** So my reason is that Sky ATP does not have a database as
8 the term "database" has been agreed to by the parties.

9 **Q.** And according to Claim 10, what has to be stored in the
10 database?

11 **A.** So the database has to contain a list of suspicious
12 operations. If there's no list of suspicious operations -- I
13 can't stress this enough -- if there's no list of suspicious
14 operations, then it's not considered a database of Claim 10
15 because Claim 10 has been agreed upon to be a database that
16 contains a list of suspicious operations.

17 **Q.** Okay. And what's the parties' agreed definition for
18 "database"?

19 **A.** The agreed construction is a collection of interrelated
20 data organized according to a database schema to serve one or
21 more applications.

22 **Q.** Now, in Sky ATP is a security profile that includes a list
23 of suspicious computer operations stored in a database that
24 meets this definition?

25 **A.** No.

1 **Q.** Now, what does it mean to be organized according to a
2 database schema?

3 **A.** So a database schema is a very specific thing. If you
4 have a database -- I want to give an example of a -- say you
5 have a school and the school wants to have a database of the
6 students that are in the school. And what do they want to keep
7 track of? The student's name, gender, age, GPA. If you're
8 going to have a schema in a database, you have to figure out
9 what all those fields are in advance.

10 So let's say there's someone who's the database
11 administrator at the school and they define those fields that I
12 just said and they create that database and they start entering
13 all the students' names and GPAs and gender and all that stuff
14 and it all goes into the database. That's a very strict
15 structure for that database.

16 If you then wanted to add the country of birth for that
17 student, you couldn't add it to that database. Why? Because
18 there's no field for that. We've defined the fields. That is
19 our schema.

20 And so why would we restrict ourselves in this way? Why
21 build a database that's so inflexible that we can't easily add
22 fields to it without making a whole new database? The reason
23 is that those databases have efficiencies for querying. Okay?
24 You want to ask the question "Show me all the students who are
25 18 years old and who are GPA of 3.5 or better." In a database

1 with a schema you can create a query exactly like the one I
 2 just described and immediately it will spit out all the
 3 students that meet that. That's very powerful. Okay? And
 4 that is why you have a schema in a database.
 5 **Q.** Now, are there also schema-less databases?
 6 **A.** Yes. So there's another type of database which is called
 7 schema-less. It doesn't have the properties that I just showed
 8 you.
 9 **Q.** What's the difference between a database with a schema and
 10 a schema-less database?
 11 **A.** Your Honor, I would like to be able to show them that
 12 with --
 13 **THE COURT:** Please.
 14 (Pause in proceedings.)
 15 **THE COURT:** Why don't you put it closer to the jury
 16 box.
 17 **MR. KAGAN:** Over there, Your Honor?
 18 **THE COURT:** No. I'm going to come around where my law
 19 clerk is and look so just you need to face the jury.
 20 All right. So where is our witness? Oh, there he is.
 21 All right. So go ahead and keep your voice up
 22 **MR. ANDRE:** Your Honor, may I stand where I can see it
 23 also?
 24 **THE COURT:** Of course.
 25 **MR. ANDRE:** Actually, if it's there, I'm fine here.

1 **THE WITNESS:** Let me try this without the microphone,
 2 and if anybody has any trouble hearing me, I'll pick it up.
 3 Okay? The court reporter too. You'll hear me.
 4 So first I'd like to describe a regular schema database
 5 like the one that I just talked about, and it's going to have a
 6 very specific structure. Let's say we have a student ID, age,
 7 gender, and GPA. It doesn't really matter what these fields
 8 are. I'm just giving an example.
 9 So we have these fields over here. Oh, I forgot the name
 10 but it doesn't matter. We have all of the fields that you
 11 would need for this example.
 12 And let's say that the university or high school, whatever
 13 the school is, starts entering the students into it. So the ID
 14 might be 12, the age might be 18, gender male, and GPA 3.8,
 15 good student. Okay?
 16 And we can imagine that this database is very, very big,
 17 but it can't have any information other than these things. If
 18 it did, then the schema would break. So if you tell me, "Okay,
 19 I want you to enter for student number 12 their country of
 20 origin?", I say, "Well, this database doesn't support that
 21 feature." Okay?
 22 This is a type of database called a schema database. This
 23 is the only database that is in question in Claim 10 because
 24 Claim 10 is defined, agreed to by the parties, as being a
 25 database that has a database schema.

1 Now, there's another class of databases called schema-less
 2 databases. One of my primary disagreements with Dr. Cole was
 3 his definition of a schema-less database, which I believe is
 4 incorrect. He said you have an application where you don't
 5 enter some field, then you have a schema-less database, but
 6 that's not true.
 7 A schema-less database is a form of database that's a
 8 little bit newer, and a lot of companies like Amazon are
 9 putting a lot of resources into building these type of database
 10 because they match today's applications of big data, and big
 11 data is a very different concept from having a school -- a
 12 school student database.
 13 So let me show you what I consider to be and what I
 14 believe is standard in the industry as a schema-less database.
 15 In a schema-less database, you have keys. Okay? And the
 16 database is said to be keyed off of the key, and you can take
 17 whatever information you want. I can take a packet of
 18 information in any format, and I can stick that in the database
 19 and have a key here (indicating).
 20 Okay? We've heard the term "hash." That's relevant here.
 21 You can put the hash of whatever you're putting here
 22 (indicating) over here (indicating) to help you find it later.
 23 You could even put several things of different types in a
 24 schema-less database.
 25 So now let's say that I want to put the same information

1 that I had previously put in my schema database into a
 2 schema-less database. I can do that but now you ask me, "Okay.
 3 Student 12 is from Germany. Can you put that in the database?"
 4 Sure. I'll just add some more information to my database.
 5 There's no schema. It's schema-less. So I can put whatever I
 6 want whenever I want into it.
 7 Now, it's not without its drawbacks because now if I say,
 8 "Well, show me all the students who are 18 years old who have a
 9 3.5 GPA," it's a lot of work. Right? I've got to go through
 10 the entire database. It's not structured with the schema. And
 11 that was the advantages of schema.
 12 And so a schema-less database is this kind of more
 13 free-form thing and it has a key.
 14 **THE COURT:** Can you elaborate on the key part again?
 15 Take the example where there's the one with all the circles.
 16 **THE WITNESS:** Sure. I'm going to look at this row
 17 right here (indicating) in the schema-less database.
 18 **THE COURT:** Yes. Is that entered sequentially into
 19 the file? Does normally go into -- in other words, when it's
 20 stored, does it all go in sequentially?
 21 **THE WITNESS:** So the way that it works is, in the code
 22 that manages this database -- and I am calling this a database
 23 somewhat carelessly because in the case a database has to have
 24 a schema; but I fall into the trap, and so would anybody
 25 working in this field, of using the term "database" more