

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

PALO ALTO NETWORKS, INC.,) U.S. Patent No.
FORTINET, INC. and WATCHGUARD) 8,111,629
TECHNOLOGIES, INC.,)
)
Petitioners,)
)
v.)
)
SELECTIVE SIGNALS, LLC,)
)
Patent Owner.)
-----)

Monday, November 12, 2018

Deposition of SAMUEL H. RUSS, PH.D.,
taken at the offices of Duane Morris LLP
505 9th Street, NW, Suite 1000, Washington, D.C.,
beginning at 10:14 a.m., before Nancy J. Martin, a
Registered Merit Reporter, Certified Shorthand
Reporter.

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I N D E X

PAGE

TESTIMONY OF SAMUEL H. RUSS, PH.D.

BY MR. DEVLIN

4

E X H I B I T S
PREVIOUSLY MARKED

NUMBER	DESCRIPTION	MARKED
Exhibit 1001	Patent No. US 8,111,629, 15 pages	16
Exhibit 1003	Declaration of Samuel H. Russ, 68 pages	15
Exhibit 1004	U.S. Patent No. US 8,085,775, 14 pages	17
Exhibit 1005	U.S. Patent No. US2006/0262789 A1, 7 pages	18

1 WASHINGTON, D.C., MONDAY, NOVEMBER 12, 2018;

2 10:14 A.M.

3 - - -

4
5 SAMUEL H. RUSS, PH.D.,

6 having been first duly sworn/affirmed,

7 was examined and testified as follows:

8
9 EXAMINATION

10 BY MR. DEVLIN:

11 Q. Good morning, Dr. Russ.

12 A. Good morning.

13 Q. My name is Tim Devlin. I represent Selective
14 Signals in this matter. Do you understand that?

15 A. Yes.

16 Q. Could you state your full name for the
17 record.

18 A. Samuel Hardie Russ, and that's H-a-r-d-i-e.

19 Q. Thanks. And is it Dr. Russ, just to be
20 clear?

21 A. Yes.

22 Q. Thank you. I'll address you by Dr. Russ.

1 Have you ever been deposed before?

2 A. Yes, I have.

3 Q. How many times roughly?

4 A. 20 to 30 times.

5 Q. Are they mostly patent matters?

6 A. Yes.

7 Q. Are they all patent matters?

8 A. Basically, yes.

9 Q. What do you mean by "basically" there?

10 A. Yes. All of the depositions have been
11 patent -- let me slow down. Yes, all my depositions
12 have been patent matters. Yes.

13 Q. Have you ever provided testimony at a trial
14 in court?

15 A. Yes, I have.

16 Q. About how many times?

17 A. Three times.

18 Q. All patent matters?

19 A. Yes.

20 Q. Are those matters all listed in your CV, at
21 least for the last four years?

22 A. Yes.

1 Q. And that question was with respect to both
2 deposition and trial; is that right?

3 A. Yes.

4 Q. Thank you. Just making it clear.

5 You've been through this before, but let's go
6 over the ground rules so that we're all clear. You
7 understand this is a deposition?

8 A. Yes.

9 Q. I'll be asking questions today. To the
10 extent you understand them, you'll provide answers to
11 those questions; correct?

12 A. Yes.

13 Q. And this deposition is related to an inter
14 partes review petition that was filed by Palo Alto
15 Networks; correct?

16 A. Yes.

17 Q. And others; right?

18 A. Yes.

19 Q. We'll get to that in a few minutes. Do you
20 understand that your testimony today is under oath?

21 A. Yes.

22 Q. It can be used in this proceeding or in

1 court; correct?

2 A. Yes.

3 Q. And you've sworn to tell the truth, the whole
4 truth, and nothing but the truth; right?

5 A. Clearly.

6 Q. And you'll do that; right?

7 A. Absolutely.

8 MR. McPHERSON: Let him finish his sentence
9 completely before you jump on top, or she'll have a
10 hard time recording your answers.

11 THE WITNESS: Will do. My apologies.

12 BY MR. DEVLIN:

13 Q. I'll try to do the same thing so we're not
14 talking over one another.

15 Speaking of the court reporter, you
16 understand that your questions today need to be
17 verbalized, no nods of the head or shakes of the head
18 so we can get it on the record; right?

19 A. Yes.

20 Q. If any of my questions are unclear for any
21 reason, will you let me know?

22 A. Yes.

1 Q. I encourage you to do that. I'm not trying
2 to trick you today. I want to get a clear record of
3 where you stand, where I stand, where we agree, where
4 we disagree. Okay?

5 A. Okay.

6 Q. We'll take a break every 10 minutes. I don't
7 think we'll be going all that long. Certainly not all
8 day. A few hours today. I tend to take a break every
9 hour or so. If you need a break sooner, just let me
10 know. All right?

11 A. Okay.

12 Q. The only caveat to that is that if there's a
13 question pending, we'll get an answer to that question
14 before we go on break. Is that fair?

15 A. Yes, I understand.

16 Q. Is there any reason, medical or otherwise,
17 that would impede your ability to give complete and
18 accurate testimony today?

19 A. None that I'm aware of.

20 Q. Are you represented by counsel today?

21 A. I don't think so.

22 MR. McPHERSON: That would be me.

1 THE WITNESS: I guess the answer is yes.

2 BY MR. DEVLIN:

3 Q. In your work as an expert, have you ever
4 worked with a law firm of Duane Morris before?

5 A. Yes, I have.

6 Q. About how many times?

7 A. I think three times.

8 Q. How about a law firm called Quinn Emanuel?

9 A. Yes.

10 Q. About how many times?

11 A. Once.

12 Q. And how about Blank Rome? Have you heard of
13 them?

14 A. No.

15 Q. Never worked for Blank Rome as far as you can
16 recall?

17 A. Correct. I have not worked with them as far
18 as I can recall.

19 Q. Prior to this matter, have you ever been
20 engaged as an expert for Palo Alto Networks?

21 A. Yes.

22 Q. About how many times?

1 A. Once.

2 Q. Was that also with Duane Morris or different
3 counsel?

4 A. It was with Duane Morris.

5 Q. How long ago was that?

6 A. Very recently. It was in the matter with
7 Implicit Networks.

8 Q. How about Fortinet? Have you ever been
9 engaged as an expert for Fortinet?

10 A. No.

11 Q. How about a company called WatchGuard
12 Technologies?

13 A. No.

14 Q. Never been an employee of any of those
15 entities we just named, either the law firms or any of
16 those three companies?

17 A. No.

18 Q. Have you ever done any consulting or contract
19 work other than what we've mentioned in this expert
20 stuff for either any of those law firms or those three
21 companies?

22 A. No.

1 Q. You understand that there's district court
2 litigation ongoing between Selective Signals and
3 Palo Alto Networks, Fortinet and WatchGuard?

4 A. Yes.

5 Q. Have you been retained as an expert for any
6 reason with respect to that district court litigation?

7 A. No.

8 Q. Who is your current employer?

9 A. The University of South Alabama.

10 Q. What's your job title?

11 A. Associate professor.

12 Q. Is -- let me restart that question.

13 You have attached a copy of your CV to your
14 declaration in this matter; is that right?

15 A. Yes.

16 Q. Is that CV accurate to the best of your
17 knowledge?

18 A. Yes.

19 Q. Any updates to it from the time that it was
20 submitted that you can think of right here?

21 A. Some of the cases in the CV may -- I may --
22 that list zero reports or depositions, there may be

1 some since then and then maybe a publication or two.

2 Q. Any change in your employment status or
3 anything like that since -- I shouldn't say "like
4 that." Let me rephrase that.

5 Any change in your employment status since
6 you submitted your CV in that matter?

7 A. No.

8 Q. How did you come to be involved in this
9 matter? How was the first contact made? How did that
10 start?

11 A. My offhand recollection is that I was
12 approached by counsel as a potential expert witness in
13 the matter. "Counsel" being Duane Morris.

14 Q. Was that done directly as opposed to some
15 organization that facilitates the identification of
16 expert witnesses for matters?

17 A. The particular conversation was direct. Now,
18 I do work through such an agency for Duane Morris,
19 and, of course, once a contact was made, we went back
20 to the agency and made sure everything was still done
21 through the agency. But the original contact, my
22 recollection, was direct.

1 Q. Was what?

2 A. Was direct.

3 Q. Thank you. Your understanding is that the
4 connection was made through the agency?

5 A. The original connection to the Duane Morris
6 organization was through the agency.

7 Q. I see. In prior engagements, you mean?

8 A. Yes.

9 Q. Understood. Sorry. Continue. I interrupted
10 you.

11 A. That summarizes the situation, yes.

12 Q. Okay. And so was it the same individuals at
13 Duane Morris that you were working with before in any
14 of those matters that contacted you for this matter?

15 A. My recollection is one person was. David
16 Dotson.

17 Q. In all of your work as an expert witness
18 before any tribunal -- so before the patent office or
19 before any court, are you aware of any that has ever
20 been excluded for any reason?

21 A. Not to my knowledge.

22 Q. Has any tribunal -- so that's patent office

1 or court, court being a judge or a jury -- rendered a
2 decision that was inconsistent with an opinion that
3 you had offered in that matter?

4 A. I don't understand your question. I'm not an
5 attorney. I don't know what you mean "inconsistent
6 with."

7 Q. Sure. I'll give you an example, see if that
8 helps.

9 Have you ever rendered an opinion that a
10 patent claim was invalid?

11 A. Yes.

12 Q. And once that has happened for that given
13 matter, has any tribunal, patent office, judge, or
14 jury ever decided that the patent claim was valid in
15 contrast to your opinion? Just an example like that.

16 A. I'm not sure if this is an example you're
17 talking about. In the matter of Better Mouse vs.
18 SteelSeries, I had held the opinion that the patent
19 was infringed, and the jury ruled it was not
20 infringing.

21 Q. Thank you. And that's an example of what I
22 mean when I was saying "inconsistent with your

1 opinion." Does that help?

2 A. Yes.

3 Q. All right. So with that example and with
4 that kind of understanding in mind, about how many
5 times has any tribunal, patent office, judge, jury,
6 made a decision that was inconsistent with an opinion
7 that you had given in that matter?

8 A. I believe the answer is once, and that was
9 the one case, the one that I've just mentioned.

10 Q. Let me just put in front of you some exhibits
11 we're going to work with today to make sure we're all
12 on the same page there.

13 A. Okay.

14 (Deposition Exhibit 1003 was previously
15 marked for identification.)

16 BY MR. DEVLIN:

17 Q. So let me just do this one first as an
18 example. I'm going to hand to you a document that is
19 identified on the bottom right with a label
20 "PAN-1003." Do you see that?

21 A. I do see that.

22 Q. All right. And do you have an understanding

1 that that's an exhibit number that's been used to
2 identify this document in the proceeding?

3 A. Yes.

4 Q. All right. And can we agree we see the title
5 of this document is "DECLARATION OF SAMUEL H. RUSS IN
6 SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S.
7 PATENT No. 8,111,629."

8 A. I see that.

9 Q. And can we agree this is the declaration
10 you've submitted in this matter?

11 A. Yes.

12 Q. I'm just going to call it your declaration or
13 "the Russ declaration" today. Is that clear?

14 A. Yes.

15 (Deposition Exhibit 1001 was previously
16 marked for identification.)

17 BY MR. DEVLIN:

18 Q. All right. Now, I'm handing you a document
19 that's entitled U.S. Patent No. 8,111,629.

20 Do you see that?

21 A. I do.

22 Q. And on the bottom right it has a label

1 PAN-1001. Do you see that?

2 A. I do.

3 Q. So this has been identified in that matter as
4 Exhibit 1001; right?

5 A. Yes.

6 Q. All right. And can we call this the '629
7 patent?

8 A. Yes.

9 MR. DEVLIN: Let's just do these two others
10 while we're on a roll.

11 (Deposition Exhibit 1004 was previously
12 marked for identification.)

13 BY MR. DEVLIN:

14 Q. I'm handing you a copy of U.S. Patent
15 No. 8,085,775 to Pappu, et al.

16 A. I see that.

17 Q. Do you have any preferred pronunciation of
18 that name?

19 A. I do not.

20 Q. How would you say it?

21 A. Pappu.

22 Q. Do you mind if we call this "the Pappu

1 reference" or "the '775 patent"?

2 A. Yes.

3 Q. You understand this has been identified in
4 this matter by the exhibit number PAN-1004?

5 A. Yes.

6 Q. I think I just mentioned it, but let me just
7 ask it again to make sure. Will you understand if we
8 refer to this as "the '775 patent"?

9 A. Yes.

10 MR. DEVLIN: Thank you.

11 (Deposition Exhibit 1005 was previously
12 marked for identification.)

13 BY MR. DEVLIN:

14 Q. And then lastly I'm handing you a copy of
15 "United States, Patent Application Publication,
16 US 2006/0262789." Do you see that?

17 A. I do.

18 Q. And do you see this has been identified in
19 this matter as Exhibit PAN-1006?

20 A. Yes.

21 Q. And would it be okay if I refer to this
22 document as the "Peleg reference" or "the '789

1 application"?

2 A. Yes.

3 Q. Either of those is fine?

4 A. Yes.

5 Q. Thank you. If there's any confusion, just
6 let me know.

7 Let's take a look at your declaration,
8 Exhibit 1003. Are you there?

9 A. Yes.

10 Q. How was this declaration prepared? What was
11 the process?

12 A. I and counsel authored -- I authored part of
13 the document. And to be clear, counsel authored the
14 "Relevant Legal Standards" section, and I discussed
15 the matter with counsel. And at that point I wrote,
16 put some words on the page, and it became an iterative
17 process where we would take turns kind of editing the
18 document.

19 Clearly a declaration like this has to be
20 closely tied to the petition because the petition
21 cites so many paragraphs in the declaration. So
22 the -- counsel obviously kind of kept a close eye on

1 paragraph numbering and things like that. So the
2 declaration was prepared jointly with counsel. To be
3 clear, these are my opinions that I fully support and
4 agree with and understand.

5 Q. Does the declaration set forth all of the
6 opinions and the bases for those opinions that you
7 have in this matter to date?

8 A. They represent the opinions that I have
9 expressed in this matter to date, yes.

10 Q. You mentioned that counsel for Duane Morris
11 had drafted a legal standards section; right?

12 A. Yes.

13 Q. Did you understand it when you read it?

14 A. Yes.

15 Q. Did you edit it at all?

16 A. No.

17 Q. Did you ask any questions about it to
18 counsel?

19 A. Not that I recall offhand.

20 Q. You applied the legal standards that are set
21 forth in the legal standards section of your
22 declaration when rendering your opinions in this

1 matter. Is that fair?

2 A. Yes.

3 Q. Are there any legal standards that you
4 applied that are not set forth in the legal standards
5 section of the declaration?

6 A. Not that I'm aware of at the moment.

7 Q. Let's turn to some of the paragraphs in your
8 declaration, kind of walk through it together. Let's
9 start at Paragraph 25. Let me know when you're there.

10 A. I am there.

11 Q. Do you see this is the first paragraph in the
12 "Relevant Legal Standards" section; right?

13 A. Yes.

14 Q. I'm going to direct your attention to the
15 next page, the last sentence in that paragraph. And
16 it reads, "I have been asked to provide my opinions
17 regarding whether the claims of the '629 patent are
18 anticipated or would have been obvious to a person
19 having ordinary skill in the art at the time of the
20 alleged invention, in light of the prior art." Do you
21 see that?

22 A. I see that.

1 Q. Do you have any opinions of anticipation in
2 this matter?

3 A. My offhand recollection is that I do not.
4 The opinion here is one of obviousness.

5 Q. Is it correct that -- let me start that
6 question over.

7 Is this sentence here in Paragraph 25 of your
8 declaration correct, that you were asked to provide
9 your opinions regarding whether the claims of the '629
10 patent were anticipated or would have been obvious?

11 A. I think the sentence is correct, that, you
12 know, I was asked to look at both anticipation and
13 obviousness.

14 Q. Did you consider the issue of anticipation?

15 A. Not that I expressed any opinion on, no.

16 Q. I understand that, that there's no opinion in
17 this declaration. Before you submitted this
18 declaration, did you consider any issues of
19 anticipation or potential anticipation?

20 A. This was a long time ago, back in February
21 when the report was issued. I don't specifically
22 recall if I did or not.

1 Q. Did you analyze any of the prior art that's
2 cited in this declaration to determine whether it
3 might anticipate any claim of the '629 patent?

4 A. I don't have a specific recollection one way
5 or another if I did.

6 Q. Does the fact that your report indicates that
7 you were asked to provide opinions on anticipation
8 suggest to you that that's something you would have
9 considered?

10 A. It's something I would have considered.

11 Q. Do you remember why you decided not to
12 include any opinions of anticipation in your
13 declaration?

14 A. I don't have a specific recollection of that.

15 Q. Is it fair to say that if you did find a
16 piece of prior art that you believe anticipated any
17 claim of the '629 patent, you would have identified
18 that in this declaration?

19 A. Suffice to say if I had formed an opinion
20 that there was a piece of art that anticipated, I
21 would have put that in my declaration, yes.

22 Q. If we could flip back to Paragraph 8 a little

1 earlier in your declaration. By the way, I think I
2 may, along the way already, have used the term
3 "report" instead of "declaration." If I do, will you
4 understand that we're talking about your declaration
5 here that we've identified as Exhibit PAN-1003?

6 A. Yes. I think that was clear in the earlier
7 line of questioning, yes.

8 Q. Thank you. And I may do the same in the
9 future, and we understand that we're talking about the
10 same exhibit, 1003?

11 A. Yes. And if I have any questions, obviously
12 I'll bring them to your attention.

13 Q. Thank you. Paragraph 8 provides an overview
14 of the opinions that you're providing in this matter.
15 Is that fair?

16 A. I think that's fair.

17 Q. And the general overview is that in your
18 opinion, certain claims of the '629 patent would be
19 obvious over the combination of the '775 patent in
20 view of the '789 application. Is that fair?

21 A. Yes.

22 Q. There's a "Materials Reviewed and Relied

1 Upon" section right above Paragraph 9. Do you see
2 that?

3 A. I do.

4 Q. Does this accurately identify all of the
5 materials that you reviewed and relied upon in your
6 declaration?

7 A. It identifies all the materials that I relied
8 upon, and, of course, I also relied upon my knowledge
9 of the art, but these are the materials I relied upon.

10 Q. Thank you. Were there other materials,
11 besides your general knowledge, other actual documents
12 that you reviewed in coming to your opinions in this
13 matter?

14 A. None that I recall at the moment.

15 Q. Looking at this table of the materials that
16 spans Pages 3 to 4 in Paragraph 9, do you see that?

17 A. I do.

18 Q. The first of those is the '629 patent. Do
19 you see that?

20 A. Yes.

21 Q. The second is "Select portions of the
22 prosecution history." Do you see that?

1 A. I do.

2 Q. Why does it say, "Select portions" there?

3 A. I don't recall -- I mean my offhand
4 recollection is prosecution histories are fairly
5 voluminous. So my offhand recollection is it was a
6 summary of the prosecution history that was relevant
7 here, but I don't recall details at the moment.

8 Q. Do you know who would have selected the
9 portions, you or counsel?

10 A. I don't recall.

11 Q. Do you recall having read the complete file
12 history or prosecution history of the '629 patent when
13 you were forming your opinions in this case?

14 A. I know I reviewed at least part of it. My
15 offhand recollection is I reviewed at least most of
16 it, in fact, but I don't specifically recall.

17 Q. The -- so there's a gap 1002 to 1004, and
18 that's because your declaration itself is 1003; right?

19 A. Yes.

20 Q. Just to account for that gap.

21 And then the remaining exhibits, 1004 through
22 1010, those are all different prior art references

1 that you looked at in some way in informing your
2 opinions for this declaration. Is that fair?

3 A. Yes.

4 Q. Who selected those prior art references for
5 your review?

6 A. I know counsel identified most of them, but
7 my offhand recollection is that counsel identified
8 most of them. My offhand recollection is that counsel
9 identified most of them.

10 Q. Are there any specifically that you recall
11 identifying initially rather than counsel?

12 A. Not that are on this list.

13 Q. Did you conduct an independent search for
14 prior art that might be relevant in rendering your
15 opinions in this matter?

16 A. I don't specifically recall doing that.

17 Q. Are there other specific prior art references
18 that you remember identifying with respect to this
19 matter that ultimately did not make their way onto
20 this list?

21 A. None that I recall at the moment.

22 Q. Without being able to identify them

1 specifically, can you answer yes or no categorically
2 that there was some such prior art or there was not
3 any such prior art that you identified that did not
4 make its way to this list?

5 A. In terms of specific -- I'm sorry. Can you
6 please repeat the question.

7 Q. Yeah. I'm trying to fine tune my question
8 and answer -- my question and your answer. So I want
9 to be clear, I'm not asking you to try to remember the
10 name or number or anything specific about any such
11 prior art records that you might have identified. I'm
12 just asking if you remember categorically whether
13 there is any such prior art even though you couldn't
14 remember the specific name or number?

15 A. There was, you know, prior art that I
16 consulted. You know, mainly to refresh my
17 recollection of the art and how different things work,
18 but there was nothing that I relied upon here in
19 forming my opinions.

20 Q. Thank you. And to be clear, you can't
21 recall, sitting here right now, the identity any such
22 other prior art that you had looked at to refresh your

1 recollection. Is that fair?

2 A. I cannot recall at the moment. That is fair.

3 Q. What was the general process of how you came
4 to your obviousness opinions in this matter?

5 A. Well, I studied the '629 patent. I studied
6 the materials that were shown there on Pages 3 and 4,
7 and, you know, went through the -- once I kind of did
8 a general study, went through the claims of the '629
9 patent and lined up the theories expressed here about
10 how the prior art discloses elements of the claim.

11 Q. Could you turn to Page 5 of your declaration.
12 Page 5. Do you see there's a heading there for your
13 background and qualifications?

14 A. Yes.

15 Q. And then if you could turn then to Page --
16 sorry, Paragraph 16, which is within that section;
17 right?

18 A. I see that.

19 Q. And it talks here about your work at a
20 company called Scientific-Atlanta; right?

21 A. Correct.

22 Q. And it says that you became a staff expert in

1 home networking. Do you see that?

2 A. I do.

3 Q. Then it goes on to kind of describe some more
4 information there; correct?

5 A. Correct.

6 Q. I just want to talk about the staff expert
7 information. What was that?

8 A. Well, I was originally hired to do technology
9 exploration by the company in 2000. The first
10 assignment that I was given was to explore new
11 technologies in the area of home networking. So my
12 team developed groundbreaking wireless video
13 demonstration that was publicly displayed in 2000.
14 Later I led the team that developed the coaxial home
15 networking system. As you can see there, that system
16 actually won an Emmy award in 2013.

17 Q. Congrats on that. That's pretty interesting.
18 I have no Emmy awards or really no other rewards at
19 all.

20 The staff expert, was that any sort of
21 official title or designation within
22 Scientific-Atlanta?

1 A. No. That's why it's in lower case letters.
2 I became someone that was relied upon for home
3 networking knowledge in the company.

4 Q. Got it. Understood. That's what I was
5 getting at. So that's just a colloquial description
6 of a kind of role that you played in the company.
7 Fair?

8 A. Yes.

9 Q. In your view, does the '629 patent in this
10 matter pertain at all to traffic within a home
11 network?

12 A. I think it mainly pertains to traffic that
13 you would find at a router, although I believe the
14 patent itself says it can apply other places as well.
15 And the patent describes it as an electronic network
16 apparatus, and it has packets flowing through it. I
17 mean to the extent there's something with a similar
18 function inside a home network, I suppose it could be
19 applicable to home networking, but mainly it has to do
20 with -- again, if we're speaking very broadly and
21 generally, with routing.

22 Q. Could you turn to Page 29, Paragraph 64.

1 A. Okay. I've turned there.

2 Q. And here's a section on the "Claim
3 Construction." That's what Paragraph 64 is; correct?

4 A. Yes.

5 Q. Do you offer any opinions regarding claim
6 construction in this matter?

7 A. I offer no specific like -- I don't offer any
8 claims to be constructed or, excuse me, to be
9 construed. So, you know, so this sort of -- you know,
10 I applied what I believe to be the broadest reasonable
11 interpretation consistent with the plain meaning in
12 light of the specification and did not have anything
13 more specific than that.

14 Q. The last sentence in this Paragraph 64 says,
15 "The plain meaning is the ordinary and customary
16 meaning to those skilled in the art." Do you see
17 that?

18 A. Yes.

19 Q. Is it your view that whatever the ordinary
20 and customary meaning was of a given claim term or
21 phrase to someone skilled in the art at the time of
22 the invention here, that was what you applied here?

1 A. Yes.

2 Q. Okay. Thank you. So in other words, the
3 broadest reasonable interpretation is consistent with
4 the plain meaning. I guess that's what I'm trying to
5 get at. Is that a fair summary of what you're saying
6 here in Paragraph 64?

7 A. Yes. It is consistent with the plain meaning
8 in light of specification.

9 Q. Thank you. Is there anything in the
10 specification, in your opinion, that would have
11 changed what otherwise would have been the plain
12 meaning to a person of ordinary skill in the art at
13 the time?

14 A. Well, I don't have my report memorized, but I
15 don't -- to the extent I expressed that opinion, it
16 would be in this report.

17 Q. Thank you. In other words, if there is such
18 an opinion where you believe what otherwise would be
19 the plain meaning would be altered by the
20 specification, you would have noted that in this
21 report somewhere?

22 A. Yes.

1 Q. Thank you. The next section says,
2 "Overview." Do you see that?

3 A. Yes.

4 Q. Sorry. It's right --

5 A. Right below it. Paragraph 65. Yes, I see
6 that.

7 Q. Let me ask that question in a better way.

8 The next section also begins on Page 29 of
9 your report, and it's entitled "Overview." Do you see
10 that?

11 A. Yes.

12 Q. And that's an overview of the technical
13 opinions that you're going to give. Is that fair?

14 A. Yes.

15 Q. On Paragraph 66 you talk about the
16 prosecution. Do you see that?

17 A. Yes.

18 Q. And there's a couple of subparagraphs (1)
19 through (4) within Paragraph 66. Do you see that?

20 A. Yes.

21 Q. Does -- Subparagraph No. 2 refers to
22 something called the "traffic characteristics." Do

1 you see that?

2 A. I see that.

3 Q. Then there's a footnote there that's dropped
4 at the bottom of Page 30 and continues onto Page 31 of
5 your declaration. Do you see that?

6 A. I see that.

7 MR. DEVLIN: Why don't you go ahead and read
8 that footnote to yourself, and let me know once you've
9 had a chance to get through it.

10 (The witness reviewed Exhibit 1003.)

11 THE WITNESS: I see that.

12 BY MR. DEVLIN:

13 Q. This footnote is about the traffic
14 characteristics that are described in the '629 patent.
15 Do you see that?

16 A. Yes.

17 Q. Why did you draw up this footnote?

18 A. To make clear that I understood the patent
19 specifications definition of the term "traffic
20 characteristics."

21 Q. Why is it important?

22 A. Well, it's a -- well, it's a plain term. I'm

1 sorry, to be clear, "traffic packet characteristics"
2 are a claim term. So I felt like the scope of that
3 term was important to understand.

4 Q. Why is the scope of that particular term
5 important to understand for your declaration?

6 MR. McPHERSON: Object to the form of the
7 question.

8 THE WITNESS: Well, the scope of every claim
9 term is important. This particular one, I just felt
10 like additional clarification was warranted.

11 BY MR. DEVLIN:

12 Q. You note that the traffic characteristics
13 described by the '629 patent include header
14 information. Do you see that?

15 A. That's what's in the footnote, yes.

16 Q. What's "header information"? Sorry. Let me
17 strike that question and ask a different one. You
18 said that's what's in the footnote. So I want to make
19 sure we're on the same page about something.

20 It is correct that the traffic
21 characteristics that are described by the '629 patent
22 include header information?

1 A. I believe that that statement is correct,
2 yes.

3 Q. Thank you.

4 A. And the quote that I have after that
5 statement is my basis for saying that.

6 Q. Your quote is from the '629 patent itself;
7 correct?

8 A. Yes.

9 Q. And this quote is from the specification of
10 the '629 patent; right?

11 A. Yes.

12 Q. There's some words emphasized in that
13 footnote within the quote on the bottom of Page 31.
14 Do you see that?

15 A. Yes.

16 Q. Why did you emphasize those words?

17 A. To explain the basis of my opinion, that
18 traffic characteristics are described by the '629
19 patent as including header information.

20 Q. If you can take a look at -- let's turn to
21 Page 33. And that starts a new section, the beginning
22 of which is titled "Challenge 1." Do you see that?

1 A. Yes.

2 Q. Challenge 1 is -- have you ever heard the
3 term "count" in the context of inter partes reviews or
4 IPRs?

5 A. I have not heard the term "count."

6 Q. Challenge 1 -- well, you tell me what
7 Challenge 1 means there.

8 A. That, at least in other IPR cases I've been
9 involved with -- and again, I'm not an attorney -- if
10 I had -- was making a case that Prior Art A
11 invalidated a patent and then Prior Art B invalidated
12 the same patent, they would be listed as different
13 challenges.

14 Q. Understood. So Challenge 1 is the
15 obviousness challenge based on, as it says, "Pappu
16 alone, or in combination with Peleg"; is that right?

17 A. Yes.

18 REPORTER MARTIN: Combination with what?

19 MR. DEVLIN: Peleg, P-e-l-e-g. Pappu was
20 P-a-p-p-u.

21 Q. The first reference described in any detail
22 in this section on Challenge 1 beginning on Page 33 of

1 your report is the Pappu reference; right?

2 A. That is correct.

3 Q. Let's talk a little bit about that. If you
4 look at Paragraph 72 -- let me know when you're there.

5 A. Okay.

6 Q. It begins, "Pappu proposes a solution that
7 avoids these known problems in the prior art,
8 describing a mechanism for using observed behavior of
9 a flow to effectively identify, classify, and control
10 information packet flow in a network." Do you see
11 that?

12 A. Yes.

13 Q. There's a colon and there's a quote from
14 Pappu underneath that.

15 A. Yes.

16 Q. What is a "flow" in that sentence?

17 A. Pappu, I believe, defines flow in Column 6,
18 Lines 16 and 17. It says -- actually, my quote starts
19 Line 15. "According to one embodiment of the
20 invention, a flow is a set of packets that are related
21 in some manner." Again, that's Pappu, Column 6,
22 Lines 15 through 17.

1 And then it goes on to describe examples 6,
2 34 and following, "the flows may represent web
3 browsing traffic, Voice Over IP traffic, video
4 traffic," just to name some examples.

5 Q. On Page 36 there's a heading, d. Do you see
6 that?

7 A. Yes.

8 Q. It says, "Identifying flow type using
9 observed characteristics of the group." Do you see
10 that?

11 A. I do.

12 Q. What's a "flow type" there?

13 (The witness reviewed the document.)

14 THE WITNESS: What Pappu describes as a flow
15 type I explained for example in Column 8, Line 26,
16 "The type of traffic that a particular flow represents
17 can be estimated from that flow's behavioral
18 statistics." So flow type is the type of traffic that
19 a flow represents.

20 BY MR. DEVLIN:

21 Q. Can you give us some examples of the types of
22 traffic?

1 A. Further down that same passage it calls out
2 P2P, which is peer to peer. Voice over IP, et cetera.
3 And then back on the previous page, Column 6 talks
4 about "P2P, Voice Over IP and video," for example.
5 "Video traffic."

6 Q. What lines are you referring to there?

7 A. Column 6, Lines 34 through 37.

8 Q. So let me identify this list that's in
9 those -- sorry, in that sentence at Column 6, Lines 34
10 through 37. "Web browsing traffic, P2P traffic, Voice
11 Over IP" or "(VOIP) traffic, File Transfer Protocol,"
12 or "(FTP) traffic, Hypertext Transfer Protocol," or
13 "(HTTP) traffic, gaming traffic, video traffic, etc."
14 Do you see that?

15 A. I do.

16 Q. So each of those -- and I know I paraphrased
17 some of them, but each of those is an example of a
18 flow type. Do I have that right?

19 A. I believe so. The previous sentence, in
20 fact, says, "The flows that pass through router 102
21 may represent many different types of traffic." So,
22 yes, I believe that's a fair representation.

1 Q. Could you turn to Paragraph 78.

2 A. Okay.

3 Q. Are you there?

4 A. Yes.

5 Q. In the third line down -- we're still talking
6 about what goes on in Pappu; correct?

7 A. Yes.

8 Q. Thanks. Third line down, Paragraph 78, it
9 says, "When a packet arrives at a router it is checked
10 to see if it matches an existing packet flow." Do you
11 see that?

12 A. I do.

13 Q. How is a packet checked to see if it matches
14 an existing packet flow in Pappu?

15 A. "In one embodiment of the invention" -- it's
16 described at Column 6, Line 17. "In one embodiment
17 of" Pappu, "packets are ground into a flow if those
18 packets share a sufficient amount of header
19 information. More specifically, in one embodiment of
20 the invention, packets are deemed to belong to the
21 same flow if they have the same five tuple in common."
22 And tuple is t-u-p-l-e.

1 So in one embodiment of Pappu, that is how
2 packets are checked to see if they match the existing
3 flow.

4 Q. Are there any other embodiments described in
5 Pappu for how that happens?

6 A. Well, it says in 2, 41 and following, "In one
7 embodiment of the invention, flows are identified and
8 classified based upon their observed behavior." The
9 step of identification is, I believe, this process of
10 determining which flow that a packet belongs to and it
11 says, "observed behavior." Pappu then discusses a lot
12 about observed behavior, for example, in Figure 4.

13 Q. Any other embodiments in Pappu for describing
14 how a packet is checked to see if it matches an
15 existing packet flow?

16 A. There may be others. I don't recall at the
17 moment.

18 Q. Could you turn to -- I want to look at
19 something on Page 40 of your declaration.

20 A. Okay.

21 Q. I want to focus -- there's an excerpt here of
22 Figure 3 from the patent, from the '629 patent; right?

1 A. Yes.

2 Q. I'm sorry. Let me restate that.

3 That's a copy there on Page 40 of your
4 declaration of Figure 3 from the '775 patent of the
5 Pappu reference; right?

6 A. Yes, that is correct.

7 Q. Thank you. And this is still within your
8 summary of the disclosure of the Pappu reference that
9 began on Page 33; correct?

10 A. Yes, I believe that's correct.

11 Q. And in Box 306 of Figure 3 there's a
12 reference -- you can read the whole thing -- but to
13 actions associated with a given policy. Let me know
14 when you've read that.

15 A. I see that.

16 Q. Here's my question. Let me just ask my
17 question, and then feel free to look at Pappu or
18 certainly look around in your declaration, if you need
19 to, to consult those to answer it. But in Pappu, are
20 all the packets that are identified to be within a
21 given flow, are all those packets treated identically?

22 A. I would say no.

1 Q. Why not? Or why would you say that, I mean?

2 A. If you look at Column 14, Line 57 through
3 Column 15, Line 5. This is talking about the
4 behavioral statistics that are being accumulated. As
5 you work your way down to the end, it talks about a
6 moving average flow rate discussed above, and then and
7 an instantaneous flow rate. The instantaneous flow
8 rate now at the top of Column 15 is "(derived by
9 dividing the size of the most recently arrived packet
10 of the flow by the inter-arrival time gap between the
11 most recently arrived packets)."

12 So in calculating an instantaneous flow rate,
13 it is the behavior of the most recent two packets that
14 derive the calculation of that.

15 Further up in Column 7 --

16 Q. If I could just pause there with you for a
17 second. That calculation has to do with calculating
18 the behavioral statistics of the flow; right?

19 A. Yes.

20 Q. Okay. Thank you. I just wanted to confirm
21 that.

22 A. Yes.

1 Q. Now, you were going to go to Column 7?

2 A. Yeah. And let me be clear about that. The
3 example I just gave that began at Column 14, the
4 paragraph up above talks about how this is a sample
5 flow block as shown in Figure 4. So the narrative
6 that I just referenced from the specification is tied
7 to Figure 4 in the specification.

8 Now, working back up to Column 7, which is
9 similarly talking about behavioral statistics 7,
10 Line 37, if you kind of go down from there, it talks
11 about, again, this instantaneous flow rate, and then
12 goes -- talks about the moving average flow rate. The
13 moving average flow rate is calculated by a formula
14 shown there on Line 49 and 50. And suffice it to say
15 the instantaneous flow rate is averaged in in a
16 mathematical way with the previous calculation for
17 instantaneous flow rate to derive a moving average
18 flow rate.

19 So, again, in that case the packets are not
20 being treated the same. The more recent packets are
21 given more weight than earlier packets in the flow.

22 Q. More weight in determining the instantaneous

1 flow rate, you mean; right?

2 A. And the moving average flow rate, yes, both.

3 Q. Understood. Again, those two things are
4 examples -- to be clear, the instantaneous flow rate
5 and the moving average flow rate are examples of the
6 behavioral statistics of the flow; correct?

7 A. Yes.

8 Q. All right. I appreciate that. Maybe my
9 question, my initial question wasn't clear. Thank you
10 for helping us fine tune this. Back to Page 40 of
11 your declaration and the copy of the Figure 3 there.
12 Do you see that?

13 A. Yes.

14 Q. There's a word in that Box 306.

15 A. I see Box 306.

16 Q. Let me actually start through the whole
17 figure.

18 So in 302 there's a step of maintaining
19 behavioral statistics for the flow?

20 A. Correct.

21 Q. All right. And the maintaining of behavioral
22 statistics was what we were just talking about a

1 minute ago in Columns 15 and 16 and Column 7 of the
2 '775 patent, the Pappu reference?

3 A. Yes, I believe that's correct.

4 Q. Thank you. Once -- well, step -- let me
5 start that over with a new paragraph if I may. In the
6 next step, 304, you determined a set of policies. Let
7 me start that again.

8 In the next step, 304 in Pappu is determining
9 a set of policies that the flow's behavioral
10 statistics satisfy. Do you see that?

11 A. I see that step, yes.

12 Q. All right. And then let me ask you this:
13 Can the set of policies for that given flow change
14 over time, or are they static for a given flow in
15 Pappu?

16 I would say yes. At the top of Column 9,
17 "For example," it says, "a particular policy might
18 comprise a set of criteria that a flow satisfies only
19 if (a) the flow's total byte count is greater than a
20 first threshold value."

21 So the policy that a flow satisfies might
22 change over time if, for example, additional bytes are

1 received and exceeds the first threshold value.

2 Q. Is it fair to say -- let me restate that
3 question again.

4 You're inferring from the statement that you
5 just read in Column 9 of Pappu that the policy can
6 change. Is that fair?

7 A. In that one example, yes. There may be
8 others in the Pappu reference, but that was an example
9 of one, yes.

10 Q. Thank you. And so sitting here right now --
11 and feel free to look through the patent or maybe we
12 can take a break or whatever you want.

13 MR. DEVLIN: Actually, you know what? Let's
14 take a little bit of a break. It's been about an
15 hour. I'll get a little more organized in my
16 questions.

17 (A recess was taken from 11:21 a.m.
18 to 11:39 a.m.)

19 BY MR. DEVLIN:

20 Q. Welcome back, Dr. Russ.

21 A. Sorry. Before we begin. That's red. Does
22 it matter? (Indicating)

1 (Conference phone line re-established).

2 MR. DEVLIN: Welcome back, Dr. Russ.

3 THE WITNESS: Thank you.

4 MR. McPHERSON: Tim, let's just put on the
5 record that Ben Johnson is attending the deposition
6 telephonically.

7 MR. DEVLIN: I'm not even sure if we did any
8 identifications for the record.

9 So just for the record, Tim Devlin with
10 Devlin Law Firm on behalf of patent owner, Selective
11 Signals, LLC, and we have Benjamin Johnson,
12 co-counsel, from the Toler Law Group.

13 MR. McPHERSON: I'm Pat McPherson, lead
14 counsel for the petitioners, Duane Morris.

15 BY MR. DEVLIN:

16 Q. All right. With those formalities out of the
17 way, welcome back.

18 A. Thank you.

19 Q. Let me try to shift a little bit the
20 discussion that we were having on policies in Pappu to
21 see if I can get to where I'm going a little faster.
22 Let me ask it this way: Before the break you had

1 mentioned that the policies for a given flow, in your
2 view, in Pappu can change. Fair?

3 A. Yes.

4 Q. Is it fair to say that each packet within a
5 given flow will be treated according to the policies
6 for that flow as those policies exist at that time for
7 that packet? Is that fair?

8 (The witness reviewed the document.)

9 BY MR. DEVLIN:

10 Q. As you're looking, I'll point you to the
11 Step 306 in Figure 3 and related description if that's
12 helpful, but feel free to look at anything you want
13 for your declaration.

14 (The witness reviewed the document.)

15 THE WITNESS: Well, for example, Column 11
16 says that "a policy might be associated with an action
17 that causes a packet to be dropped." Again, this is
18 Column 11, Line 45 and following. "Such an action may
19 be useful for responding to a suspected denial of
20 service attack; all packets associated with a flow
21 that exhibits statistical behavior characteristic of a
22 denial of service attack may be dropped." And so only

1 the packets that exhibit that behavior would be
2 dropped.

3 BY MR. DEVLIN:

4 Q. Thank you. That's a good clarification.

5 They would be dropped in accordance with the
6 policies for that flow; right?

7 A. Well, yes. Another example is a policy might
8 cause a drop priority associated with the packets flow
9 to be increased or decreased. The fact that the drop
10 priority has changed -- I'm sorry. In Column 11,
11 roughly Line 8. The drop priority -- changing a drop
12 priority would cause a certain fraction of packets to
13 be dropped or not dropped. So, again, this is an
14 example of a policy that will result in
15 packet-specific behavior. Some packets will be
16 dropped and others would not be.

17 Q. Thank you for that. And let me just make
18 sure you and I are on the same page. I think I
19 understand you, but I just want to follow up with a
20 few questions.

21 What you're saying, as I understand it, is
22 that the policies for a given flow might cause packets

1 to be treated differently according to the actions for
2 those policies and the packets themselves. So -- let
3 me rephrase that because that was long.

4 The policies for a given flow can cause
5 packets to be treated differently for that flow;
6 right?

7 A. Yes.

8 Q. Is it still correct to say that each packet
9 is subject to the policies for that flow, whatever
10 those policies may be, at that time?

11 A. I don't know. I don't know. I haven't
12 considered the patent in detail with respect to that
13 issue. Certainly there's a packet-specific behavior
14 that could be communicated by a priority. Whether or
15 not policies apply uniformly to every single packet in
16 the flow, I'm not sure.

17 Q. If you look back in your declaration,
18 Page 40. By the way, I'm just pointing you to
19 Figure 3 of Pappu. I happen to have it in your
20 declaration. If you want to look at it in Pappu, feel
21 free.

22 A. I have it here. Thank you.

1 Q. Do you see there's that Step 306? Do you see
2 that?

3 A. Yes.

4 Q. It says, "FOR EACH POLICY THAT THE FLOWS
5 BEHAVIORAL STATISTICS SATISFY, APPLY, RELATIVE TO A
6 PACKET BELONGING TO THE FLOW, ACTIONS THAT ARE
7 ASSOCIATED WITH THAT POLICY." Do you see that?

8 A. I see.

9 Q. Does that mean anything to you in terms of
10 how -- with the issue we've been talking about,
11 whether packets are treated according to the policies
12 for the flow?

13 A. Well, I think at most it discloses that
14 Figure 3, 306 actions are applied to a packet
15 belonging to the flow, and 306 doesn't say one way or
16 the other if that's every single packet or not, but
17 even if one assumes that it did apply to every single
18 packet, that's just one embodiment in Pappu and there
19 may be others.

20 Q. Sitting here right now, are you aware of any
21 embodiment in Pappu in which a given packet of a flow
22 is not treated according to the policies for that flow

1 as they exist at the time?

2 A. Sitting here at the moment, I am not, other
3 than the ones I talked about that result in a
4 packet-specific behavior.

5 Q. To be clear, that was how patents were
6 treated differently according to the policy of the
7 flow; is that right?

8 A. Yes.

9 Q. Let me ask my question again because I'm not
10 talking about how patents might get treated according
11 to the --

12 A. And I apologize, Counsel. I believe you mean
13 to say "packets."

14 Q. Did I say "patents" instead of "packet"?

15 A. You did. I apologize for the interruption.

16 Q. No. No, I appreciate that to make a clear
17 record.

18 So my question is not whether the application
19 of a policy might lead to a different action with
20 respect to two packets within a flow. My question is
21 are you aware of any embodiment in which a given
22 packet of a flow is simply not treated at all

1 according to the policies of the flow?

2 A. Not at the moment.

3 Q. If you turn to Page 41 of your declaration,
4 there's a section that begins "The Peleg Reference."
5 Do you see that?

6 A. Yes.

7 Q. This is an overview of relevant portions of
8 the Peleg reference. Is that fair?

9 A. Yes.

10 Q. If you could turn to Paragraph 87, which is
11 just the next page. We're still in the Peleg
12 reference section; correct?

13 A. Yes.

14 Q. And the first sentence of Paragraph 87 of
15 your declaration says, "Peleg describes a classifier
16 that can use a combination of traffic characteristics
17 to classify a packet or a session." Do you see that?

18 A. Yes.

19 Q. What's a "session" in Peleg?

20 (The witness reviewed the document.)

21 THE WITNESS: It describes, for example,
22 starting at Paragraph 20, the sessions are VOIP

1 sessions and/or multimedia over IP sessions.
2 Moreover, it is to be understood that VOIP is only an
3 example of a streaming application for which the
4 present invention is useful. So it seems to define a
5 session -- well, it gives examples of sessions that
6 are streaming sessions.

7 BY MR. DEVLIN:

8 Q. You would agree that Peleg defines sessions
9 as being uni-directional?

10 A. Well, the thing is Paragraph 65 says that
11 sessions are, by definition, uni-directional and each
12 package belongs to one uni-directional session, but
13 back up in Paragraph 49 it talks about identifying a
14 uni-directional session, a matched session in the
15 opposite direction is sought. The matching is based
16 on reverse source and reverse destination IP
17 addresses.

18 So Peleg at least discloses this notion of a
19 session in a matched session, and I believe it treats
20 the session in matched session -- the word "match"
21 there is important -- as a pair of what it calls
22 uni-directional sessions, and therefore, it at least

1 has some notion of bidirectionality.

2 Q. Let me ask you a few questions about that
3 answer, just follow-up questions. I think we may be
4 on the same page.

5 The two things that are matched according to
6 Paragraph 49, each individually according to Peleg,
7 are sessions; right?

8 A. Right. What -- excuse me. What Peleg
9 identifies as a uni-directional sessions. It then
10 talks about a matched session in the fact that they're
11 matched, I think discloses to one of ordinary skill,
12 that Peleg has a notion of bidirectionality in the
13 form of a session and a matched session in the
14 opposite direction, but each session uni-directional,
15 but they're treated as a coupled pair.

16 Q. With each session in the coupled pair being
17 uni-directional. Do I have that right?

18 A. Yes. There's a uni-directional session, a
19 matched session in the opposite direction, both of
20 which are uni-directional but, of course, are matched.

21 Q. Thank you for that. Could you turn to
22 Page -- sorry. Turn to not "page" but Paragraph 47 in

1 Peleg. Let me know if you're there.

2 A. I see that.

3 Q. It says, "The classifier has to decide when
4 there is a session according to several consecutive
5 packets that matches its rules." Do you see that?

6 A. I do.

7 Q. And "packets" is spelled wrong there, but can
8 we agree that that's supposed to be a normal packet as
9 we've been talking about it?

10 A. Yes.

11 Q. Thank you. What rules are being referenced
12 in that sentence in Paragraph 47 of Peleg?

13 (The witness reviewed the document.)

14 THE WITNESS: Well, back up in Paragraph 26
15 Peleg explains, "In an embodiment of a present
16 invention, a uni-directional session is identified by
17 one or more criterions. It is to be understood that
18 the following criterions may be operated in every
19 possible combination, and dynamically, according to
20 the state of the network and type of data," and then
21 lists seven exemplary criteria.

22 BY MR. DEVLIN:

1 Q. And the seven are identified with subheadings
2 (a) through (g) on that Page 2 of Peleg. Do I have
3 that right?

4 A. Yes.

5 Q. Who would create the rules that would be used
6 in Paragraph 47 of Peleg?

7 MR. McPHERSON: Object to the form of the
8 question.

9 THE WITNESS: I don't recall offhand if Peleg
10 identifies the rules, and I know in Paragraph 26 it
11 says that they "may be operated in every possible
12 combination, and dynamically, according to the state
13 of the network and type of data." So that implies
14 that the rules actually change as the network state
15 changes.

16 BY MR. DEVLIN:

17 Q. Does Peleg identify any types of sessions?

18 (The witness reviewed the document.)

19 THE WITNESS: It talks about VOIP, or video
20 sessions in Paragraph 77, and it talks about
21 peer-to-peer traffic in Paragraph 56, and it talks
22 about -- I believe it talks about voice over IP in

1 several places in the disclosure.

2 BY MR. DEVLIN:

3 Q. Turning back to your description, your
4 description of Peleg, general description, continues
5 through Paragraph 90 on Page 43; is that right?

6 A. Yes.

7 Q. And then begins a detailed invalidity
8 analysis where you're looking at the claims of the
9 '629 patent.

10 A. Yes.

11 Q. When you were looking at both Peleg and
12 Pappu, did you identify differences between those
13 references in the '629 patent?

14 A. I don't understand your question.

15 Q. Well, let's --

16 A. Do you mean differences between Peleg and
17 Pappu or --

18 Q. No. Let me ask it more generally. In
19 forming your obviousness opinions in the case in this
20 matter, did you look to identify differences between
21 the claims of the '629 patent and the various prior
22 art references you were looking at?

1 A. The best way I can answer that is I compared
2 the subject matter of the claims to the prior art
3 references looking for similarities and possibly
4 differences, if there were any to be identified.

5 Q. Did you identify any differences between the
6 prior art that you analyzed and reference in your
7 declaration versus the claims of the '629 patent that
8 you were rendering opinions on?

9 A. I'm not an attorney. So the terminology
10 sometimes I'm not clear on, but certainly I identified
11 that the claims as a whole were obvious over Pappu and
12 Peleg. So I believe the answer is no, I did not
13 identify the differences.

14 Q. If you could turn to Page 45.

15 A. Okay.

16 Q. This is of your declaration. Are you there?

17 A. Yes.

18 Q. And there's a heading "iii." Do you see that
19 in the middle of the page?

20 A. Yes.

21 Q. It reads, "obtaining traffic packet
22 characteristics of said passing packet of respectively

1 unknown session types." Do you see that?

2 A. Yes.

3 Q. And that's one of the claim elements that
4 you're analyzing from Claim 15 of the '629 right?

5 A. Yes.

6 Q. And then beneath that you render an opinion
7 that Pappu discloses this element. Fair?

8 A. Yes.

9 Q. And that's contained in Paragraphs 94 through
10 96 of your declaration; right?

11 A. That's correct.

12 Q. What in Pappu discloses the element of
13 obtaining traffic packet characteristics of said
14 passing packets of respectively unknown session types?

15 A. Well, the first thing to understand is the
16 scope of traffic packet characteristics. The '629
17 patent teaches that they include source and
18 destination addresses, and this is found in both in 6,
19 8 through 17 -- Wait a minute. I'm sorry. Give me
20 just a second.

21 (The witness reviewed the document.)

22 THE WITNESS: Sure. The '629 reference

1 starting at 6, Line 11 says that "Traffic
2 characteristics relate to those parameters." Further
3 down it says, Line 15, "as well as certain header
4 characteristics such as source address and destination
5 address." Further down it explains that there is a
6 packet analyzer which extracts -- I'm sorry, Line 45
7 and following, "which extracts readily available
8 traffic characteristics such as" continuing down,
9 "source or destination addresses or other
10 characteristics of the packets."

11 So I believe the scope of the claims -- the
12 scope of the claim term, "traffic packet
13 characteristics," includes source and destination
14 addresses.

15 And Pappu talks about how -- in one
16 embodiment it mentions 6, 20, "packets are deemed to
17 belong to the same flow if they have the same five
18 tuple in common," and the five tuple includes the
19 source and destination, addresses and port numbers, as
20 well as the transport layer protocol.

21 BY MR. DEVLIN:

22 Q. When you said, "6, 20" in the middle of your

1 answer, you were referring to Column 6, Line 20 of
2 Pappu. Do I have that right?

3 A. Yes.

4 Q. Thank you. I just wanted to make that clear
5 for the record that that's what the numbers were.

6 A. Yes.

7 Q. This five tuple are -- so that's five
8 different pieces of information. Is that a fair
9 characterization of -- what does "tuple" mean?

10 A. "Tuple" is an ordered set of numbers. So,
11 right, it references to five specific pieces of
12 information -- the source address, the source port,
13 the destination address, destination port and an
14 indication of a transport layer protocol --
15 summarizing from the bottom of Column 5 of the '775
16 patent.

17 Q. Are each of those five pieces of information,
18 those five same numbers, are they in the header of the
19 packet or somewhere else?

20 A. They're in the header.

21 Q. Paragraph 95, I think, gets at the text of
22 the '629 patent that, in your view, supports the

1 notion that traffic packet characteristics include
2 these header characteristics such as source address
3 and destination address. Do I have that right?

4 A. To be clear, that's one of the places. 6, 8
5 through 17. The other is Line 6, 45 through 49.

6 Q. And that's an excerpt you're talking about
7 from the '629 patent; right?

8 A. Yes. Those are the pieces of evidence from
9 the '629 patent that I believe support my position.

10 Q. Does Pappu disclose any other traffic packet
11 characteristics?

12 A. Are you talking about traffic packet
13 characteristics in the plain term?

14 Q. Yeah. That's why I paused when I was asking
15 that question right there. Let me go back to the
16 heading "iii" on Page 45 of your declaration. Are you
17 there?

18 A. Yes.

19 Q. And that's the claim element we're talking
20 about right now. Are you with me?

21 A. Yes.

22 Q. So let me ask a better question.

1 Is there anything else in Pappu that would
2 fall within traffic packet characteristics as recited
3 within this Claim Element 3 on Page 45 of your
4 declaration?

5 A. Well, I know that Pappu talks about
6 identifying flows more broadly than merely relying on
7 header information. This is found, for example, in
8 Column 2, Line 40. I apologize. I think I got the
9 wrong reference. So let me turn to Pappu '775,
10 Column 2, Line 41 and following. "In one embodiment
11 of the invention, flows are identified and classified
12 based upon their observed behavior."

13 And I'll note that observed behavior is
14 broader than headers. And, in fact, this behavior is
15 even claimed in Claim 1 of Pappu, which recites in
16 part, "said flow being incapable of being identified
17 by header information alone." So I believe Pappu
18 teaches, in plain, something broader than just using
19 header information, but for the purposes of my
20 analysis here, I felt like it was sufficient to show
21 the header information was in use because that's the
22 scope of the claim language of the claim.

1 Q. Can you identify a flow based on something
2 other, just generally, could one identify a flow based
3 on something other than traffic packet
4 characteristics?

5 A. Are you talking about the claim term?

6 Q. Let's unpack my question a little bit better.

7 So the '629 patent uses this term "traffic
8 packet characteristics"; right?

9 A. Okay.

10 Q. And I think you said before that there's an
11 understanding that a person of ordinary skill in the
12 art of what those traffic packet characteristics would
13 be in light of the specification of the '629 patent.
14 Are you with me?

15 A. Yes.

16 Q. So use that concept of "traffic packet
17 characteristics." All right?

18 A. Okay.

19 Q. Now, using that understanding of traffic
20 packet characteristics and thinking generally about
21 identifying flows of packets within a stream of
22 packets.

1 A. Okay.

2 Q. The question is could you identify a flow of
3 a stream of packets within -- sorry. My question
4 is -- start over.

5 Could you identify a flow of packets within a
6 stream of packets using something other than traffic
7 packet characteristics according to that understanding
8 that you were just talking about of traffic packet
9 characteristics?

10 A. I don't know. I haven't considered that. It
11 would take me time to form an opinion on that. I know
12 that the 69 patent (sic), Column 6 defines traffic
13 characteristics fairly broadly. And so I haven't
14 considered whether or not there would be some other
15 way to classify a session or a flow basically beyond
16 what's found on that list. I don't know. I don't
17 have an opinion on that at the moment.

18 Q. What is your understanding of what the term
19 "flow" means in Pappu? I think we talked about flow
20 types previously. I'm asking you now about flow.

21 A. Pappu explains in Columns 6, Lines 15 through
22 17, "According to one embodiment of the invention, a

1 flow is a set of packets that are related in some
2 manner." That's my understanding of the term "flow"
3 in Pappu.

4 Q. Is it your understanding that Pappu treats --
5 let me restate that.

6 Is it your understanding that when Pappu
7 groups packets in some way, it's grouping them
8 according to flows, or does it group them in some
9 other way also or at the same time or at different
10 times?

11 MR. McPHERSON: Objection to the question.

12 THE WITNESS: I don't understand your
13 question.

14 BY MR. DEVLIN:

15 Q. Let me try it a different way. Bear with me
16 because I'm not an expert in this. I'm certainly not
17 the expert that you are. So, of course, if my
18 questions, you know, are confusing, please continue to
19 point that out. I want to make sure we have a clear
20 record. I think we can agree that one way that Pappu
21 deals with packets is that it groups them into flows.
22 Is that fair?

1 A. I think the way I would say it is the
2 terminology that Pappu uses for grouping packets is
3 grouping them into flows.

4 Q. Thank you. Let me shift gears for a second.

5 Talk about how you prepared for the
6 deposition today. Are you with me?

7 A. Okay.

8 Q. How did you prepare for the deposition? What
9 did you do?

10 A. I viewed materials associated with this IPR,
11 including my report, the petition, and the prior art
12 references.

13 Q. About how much time did you spend reviewing
14 those materials for purposes of preparing for this
15 deposition collectively?

16 A. I would say a few dozen hours.

17 Q. Did you meet with anyone as part of your
18 preparation?

19 A. I met with counsel on Wednesday.

20 Q. Any other days meeting with counsel to
21 prepare for deposition?

22 A. Perhaps phone calls or E-mails, but no --

1 that was the face-to-face meeting.

2 Q. About how many hours total was the
3 preparation meeting, total?

4 A. A few hours. I don't recall the details.

5 Q. Was there anyone else besides counsel?

6 A. Not that I recall.

7 Q. Who were the counsel that you met with?

8 A. Counselor McPherson and an attorney named
9 Patrick Muldoon.

10 REPORTER MARTIN: Named Patrick what?

11 THE WITNESS: Muldoon, M-u-l-d-o-o-n.

12 BY MR. DEVLIN:

13 Q. You had mentioned some phone discussions.
14 Were any of those substantive, or did you just mean
15 like scheduling and administrative stuff?

16 A. I honestly don't recall.

17 Q. Other than counsel did you speak with anyone
18 else to prepare for the deposition?

19 A. No, not that I recall at the moment.

20 Q. Did you look at any documents other than the
21 materials identified in your declaration to prepare
22 for your deposition?

1 A. Yes. I looked at the patent owner
2 preliminary response, the expert declaration, and the
3 decision to institute.

4 Q. Did you make any notes in the time that you
5 were preparing for the deposition?

6 A. I may have. I don't know. If I did, they
7 were not substantive. They did not affect my
8 opinions.

9 Q. Do you know, roughly, how much total
10 compensation you've received so far for your work on
11 this matter?

12 A. No, I don't. I know that the hourly rate
13 that I received net of the agency I work with is \$300
14 per hour, but I don't know what the total is. Again,
15 I've spent a few dozen hours preparing for this
16 deposition today, and before that a few dozen hours,
17 possibly -- well, probably more than that writing the
18 report initially back in February -- or January.

19 Q. Is it possible, in your mind, that you have
20 either received already or billed for compensation
21 that would exceed \$100,000 in this matter?

22 A. No.

1 Q. Looking back over the last, say, five years,
2 roughly what percentage of your income, your total
3 income, would be derived from expert work in
4 litigations as opposed to everything else?

5 A. 30 to 40 percent.

6 MR. DEVLIN: Why don't we take another break.

7 (A recess was taken from 12:25 p.m.
8 to 12:43 p.m.)

9 BY MR. DEVLIN:

10 Q. Welcome back. Just a quick follow-up
11 question or two.

12 In terms of the work that you've done as an
13 expert in patent cases, on a percentage basis just
14 roughly how much of that work has been for patent
15 owners, whether it be an IPR or in litigation?

16 A. I would estimate offhand, about 60 percent on
17 the patent owner side.

18 MR. DEVLIN: That was it. Nothing further.

19 MR. McPHERSON: I have no questions.

20 (Witness excused.)

21 (Deposition concluded at 12:44 p.m.)

22

C E R T I F I C A T E

I do hereby certify that the aforesaid testimony was taken before me, pursuant to notice, at the time and place indicated; that said deponent was by me duly sworn to tell the truth, the whole truth, and nothing but the truth; that the testimony of said deponent was correctly recorded in machine shorthand by me and thereafter transcribed under my supervision with computer-aided transcription; that the deposition is a true and correct record of the testimony given by the witness; and that I am neither of counsel nor kin to any party in said action, nor interested in the outcome thereof.



Nancy J. Martin, RMR, CSR

Dated: November 16, 2018

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF SEPTEMBER 1, 2016. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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