

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PALO ALTO NETWORKS, INC., FORTINET, INC.,
and WATCHGUARD TECHNOLOGIES, INC.,
Petitioners,

v.

SELECTIVE TECHNOLOGIES, LLC,
Patent Owner.

Case IPR2018-00594
Patent 8,111,629 B2

Record of Oral Hearing
Held May 7, 2019

Before MELISSA A. HAAPALA, *Acting Vice Chief Administrative Patent Judge*; KRISTEN L. DROESCH, and CHRISTOPHER M. KAISER, *Administrative Patent Judges*.

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The above-entitled matter came on for hearing on Tuesday, May 7, 2019, commencing at 1:00 p.m., at the U.S. Patent and Trademark Office, Madison Building, 600 Dulany Street, Alexandria, VA 22314.

PROCEEDINGS

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(Proceedings begin at 1:00 p.m.)

JUDGE DROESCH: Good afternoon, everyone. We're here for an oral hearing for IPR Case IPR2018-00594 involving Patent 8,111,629. I'm Judge Droesch. Joining us by way of our satellite office in Denver are Judge Haapala and Judge Kaiser.

Per the oral hearing order, each side gets 60 minutes. And so Petitioner will begin first. Petitioner may reserve some of its time for rebuttal. No more than 30 minutes. Following Petitioner's initial presentation, Patent Owner may proceed. And Patent Owner may also reserve some time for surreply to respond to Petitioner's rebuttal arguments.

I'm going to running be a clock here. It should flash some lights when you're close to your time being up. And, Counsel for Petitioner, would you please state your name for the record? And whenever you're ready to begin, you may begin.

MR. MCPHERSON: May it please the board. My name is Patrick McPherson from the law firm of Duane Morris. And with me I have Patrick Muldoon from Duane Morris and I also have a client representative from the Petitioner Palo Alto Networks, Ruchika Agrawal.

I'd like to reserve 20 minutes time for rebuttal, please.

JUDGE DROESCH: Okay.

MR. MCPHERSON: May it please the board. I'd like to turn to Slide 2 first of our demonstrative exhibits and provide a quick overview of the grounds in the IPR. This is a single ground petition on 103 over the Pappu Patent, alone or in combination with the Peleg patent application. And that

1 single ground is for all seven challenged claims.

2 With reference to Slide 3, there is a brief overview of the dispute that I
3 want to discuss in my presentation today. The first dispute is dealing with
4 traffic packet characteristics and, specifically, Patent Owner's proposed
5 claim construction for that term. And that's for all challenged claims.

6 The second dispute is with regard to whether the term session versus
7 the term flow has any difference between the use of the term session in the
8 '629 Patent and the Peleg reference and the use of the term of flow in the
9 Pappu reference. And that's for all challenged claims.

10 The third dispute I'd like to discuss is the term said characteristics
11 and, specifically, the antecedent basis provided for the claim term as found
12 in claim 15, which is an independent claim. And this dispute relates to
13 dependent
14 claim 19.

15 And the last dispute is related the substantive claims and, specifically,
16 the amendment of the term traffic packet characteristics to include the Patent
17 Owner's construction for that term.

18 And now, with reference to Slide 5, I'd like to provide a brief
19 overview of the '629 Patent. And at a very high level, Figure 6 describes the
20 technology that is the subject matter of the '629 Patent. And with respect to
21 the first step, if you look at Box 60, it says "Characterize an external."

22 And what this is doing is receiving IP packets and is characterizing
23 them based upon external characteristics.

24 And the '629 Patent describes that "External characteristics are
25 those that do not require the opening of the packet payload."

1 The next step is that you group the packets together based upon those
2 characteristics. The next step, step 64, is to analyze those groups, and
3 analyzing those groups for session characteristics for which you can then
4 classify the type of session. And the last one is to allocate or deny resources
5 based upon the session type for those packets.

6 With respect to Slide 6, independent claim 15 is the only independent
7 claim. It recites six limitations. It's a method of identifying a session type
8 comprising -- the first step is obtaining passing packets of respectively
9 unknown sessions and unknown session types. The next step is obtaining
10 traffic packet characteristics of said passing packets of respectively unknown
11 session types. The third is comparing the set of obtained packets with each
12 other using respectively obtained traffic packet characteristics.

13 The fourth step is grouping together those packets having similar
14 values of said traffic packet characteristics and/or presumed session. The
15 next step is analyzing said group packets of presumed session for session
16 characteristics. And the last step is using said session characteristics to
17 identify a session type of said presumed sessions.

18 So as you can see, claim 15 identifies two different types of
19 characteristics, and it discusses a method of processing those packets on a
20 packet-by-packet basis.

21 With reference to Slide No. 7, I'd like to -- or Slide No. 8, I'd like to
22 talk about the first dispute about traffic packet characteristics. In the
23 Petition, the Petitioner asks for the plain and ordinary meaning of traffic
24 packet characteristics. And we think the '629 Patent describes the plain and
25 ordinary meaning.

1 And there's two quotes we have on Slide 8. The first one is "Traffic
2 characteristics related to those parameters inherent to packets traffic flow as
3 it travel from the source to a destination and includes features such as packet
4 length, inter-arrival period, bandwidth, and statistical and other derivations -
5 -" And I'll discuss what that means in a little bit "-- thereof, as well as
6 certain header characteristics, such as source address and destination
7 address, but excludes payload content because inspection is common in
8 deep-packet inspection packet content inspection techniques."

9 And the other quote that comes from the '629 Patent is "The Packet
10 Analyzer 12 includes a Packet Characteristic Extractor 18, which extracts
11 readily available packet traffic characteristics, such as packet length or inter-
12 arrival period or source or destination addresses or other traffic
13 characteristics of the packets."

14 And this is very similar to -- or it's consistent with the definition of
15 external characteristics, which the '629 talked about, are those
16 characteristics that don't require opening of the payload. So it's
17 characteristics that do not require that. Our expert described in our state-of-
18 the-art section in our Petition that these traffic characteristics were known.

19 And the '629 Patent does not identify any new traffic characteristics or
20 even that it identifies new traffic characteristics. Based upon these
21 definitions and other arguments that were made, the Board properly found
22 that traffic packet characteristics did not need construction and relied on the
23 plain and ordinary meaning.

24 On the other hand, the Patent Owner asserted that "Based upon the use
25 of the 'as well as' language --" in the first quote "-- that traffic packet
26 characteristics require more than packet header information." And the hope

1 was that “as well as” language. The Board rejected that argument in the
2 Institution Decision, and the Patent Owner has presented no new arguments
3 in response to the Board’s rejection of the claim construction.

4 Are there any questions with respect to the first dispute regarding
5 traffic packet characteristics?

6 JUDGE DROESCH: None from me.

7 MR. MCPHERSON: Okay. With respect to Slide 9, I’ll move on to
8 the next dispute. And this is session versus flow -- versus flow. Both the
9 ’629 Patent and Peleg use session and Pappu uses the word flow.

10 And with respect to Slide 10, the first thing I want to talk about is how
11 the term session characteristics is used in the ’629 Patent. Now, on Slide 10,
12 we have a description there that says “In an embodiment, the session
13 analyzer is configured to use at least one member of the group consisting of
14 -- it lists “-- packet length, inter-arrival period, the variants of inter-arrival
15 period, a statistical derivative obtained from multi-records of packet length.”

16 I want to further discuss that with respect to the next slide. It also lists
17 variants of length and a statistical derivative obtained from multi-records of
18 inter-arrival period. And if we look at the next slide, the ’629 Patent
19 describes that session characteristics include average statistics. And
20 specifically, we have a quote on Slide 11 that says ‘Packet length and inter-
21 arrival period --” we’ll just call it dT “-- and their derivatives may be
22 accumulated by statistical accumulator 34 to create a statistical vector of
23 session behavioral information.”

24 “The derivatives may be statistical parameters, such as average dT --”
25 which is inter-arrival period “—and average length and various variants.”
26 I’m sorry. And this slide is important because the Patent Owner has made

1 the argument that session characteristics are packet-specific data. And they
2 have one argument trying to distinguish how flows are different. It tries to
3 distinguish Pappu's use of aggregate packet data as one example of how
4 Pappu is different than what's being disclosed in the '629 Patent. And both
5 the '629 and Pappu discuss using packet-specific data, as well as aggregate
6 data for aggregate packets.

7 And if we look at Slide 12 --

8 JUDGE DROESCH: I have a question about Slide 12.

9 Was this argument made in the Petition that traffic characteristics and
10 session characteristics could mean the same thing?

11 MR. MCPHERSON: It was identified in our Reply in regard to the
12 Patent Owner's argument that session and flow are two different things. So
13 we addressed this for the first time in our Petitioner's Reply at Pages 5 and
14 6.

15 JUDGE DROESCH: Okay. I guess I'm confused because I thought in
16 the Petition that traffic packet characteristics were mapped to Pappu's
17 description of header data and including like a five-tuple. Whereas, I guess,
18 the session characteristics were mapped to Pappu's disclosure of
19 behavioral statistics; is that correct?

20 MR. MCPHERSON: That's correct.

21 JUDGE DROESCH: Okay.

22 MR. MCPHERSON: So in our Petition, the embodiment that we used
23 for Pappu was the embodiment which discloses the uses of the header
24 information, the five-tuple, as the traffic characteristics. We think the
25 disclosure of Pappu is broader than that. But in our Petition, we met our
26 burden by showing it right on the header information.

1 In our Reply -- when the Patent Owner made arguments regarding
2 differences between session and flow, in our Reply, we raised the issue that
3 the '629 Patent describes that the same characteristics that could be used for
4 traffic characteristics can be used for session characteristics. Does
5 that answer your question, Your Honor?

6 JUDGE DROESCH: I think so.

7 MR. MCPHERSON: And the first quote there is "The traffic
8 characteristics may also be used to identify the session type, so that
9 appropriate resources can be made available or not for the session or other
10 provisioning and control actions may be applied to the session."

11 And the second quote there is "The session analyzer may use the
12 packet's traffic characteristics, such as packet length and/or inter-arrival
13 period to indicate the session type." And once again, the '629 is not
14 identifying any new characteristics that had not already been identified as
15 shown as our state-of-the-art section, as shown in the Pappu reference and
16 the Peleg reference.

17 Now, this also previews -- we're going to talk about claim 19 in a little
18 bit. But claim 19 talks about -- recites said characteristics. And there's a
19 question of whether that said characteristics is referring to packet
20 characteristics -- traffic packet characteristics or session characteristics. So
21 I'll come back to that.

22 Now, if we now look at Pappu, Pappu teaches -- the teaching of Pappu
23 really parallels the teaching of the '629 Patent. And we have three different
24 points that we want to make. One is -- the first point is a point from Pappu.
25 "In one embodiment of the invention, flows are identified and classified
26 based upon their observed behavior. Because flow is identified and

1 classified based upon their observed behavior and because they're behavior
2 cannot be hidden, the traffic type that a flow represents can be estimated
3 with relatively high accuracy, even if the contents of the packet that
4 represent traffic type are dissimilar.”

5 And we think this disclosure really parallels the '629's disclosure of
6 using external characteristics, right? That don't require the opening of the
7 payload.

8 And next, Pappu explains that “By grouping packets into flows, it is
9 possible to aggregate individual packets in a meaningful way to allow the
10 traffic flowing through the Router 102 to be understood at a higher level.”

11 And we think this is an important teaching of Pappu because it talks about
12 why you want to take packets and look at them individually, but then group
13 them together when you classify them.

14 And the last point there is “In operation, Pappu creates a flow block
15 for each previously identified flow. And that flow block is a data structure
16 containing behavioral statistics of the flow.” And if you look at that flow
17 block, it includes both header information and it includes more of that
18 header information as well.

19 And if we look at Slide 14 now, the '629 Patent and Pappu have
20 parallel teachings regarding the grouping of packets. In the '629 Patent it
21 says “Packet identification or groupings are terms used to refer to an
22 identification of packets that belong together to a session type in the
23 common session.” And it explains “It is desirable to identify packets as
24 belonging to a session or to a group, to group the succession of IP packets,
25 and also to identify a particular

1 application or type that the session belongs to in order to apply provision,
2 quality of service, and control actions to the session or the stream.”

3 And if we look at that teaching and compare it to Pappu, Pappu says
4 “According to one embodiment of the invention, a flow is a set of packets
5 that are related in some way -- “ sorry “-- in some manner.” And then it goes
6 on to say “Because flows are identified and classified based upon their
7 observed behavior and because the behavior cannot be hidden, the traffic
8 type that a flow represents can be estimated with relatively high accuracy,
9 even if the contents of the packets that represent the traffic type are
10 dissimilar.”

11 And the next parallel teaching that we've identified is the '629 Patent
12 and Pappu teach a common goal. And the common goal is to group packets
13 into common traffic types to make better use of resources. And the '629
14 Patent explains that. It says “The traffic characteristics may also be used
15 to identify the session type, so the appropriate resources can be made
16 available or not for the session. But other provision and control actions may
17 be applied to the session.”

18 And the parallel teaching --

19 JUDGE HAAPALA: I'm sorry. I'm going to interrupt you for a
20 minute. It seems to me that there's a fundamental issue with, perhaps, a
21 claim construction dispute on what session means. Did you offer a
22 construction for session in your briefing?

23 MR. MCPHERSON: Judge Haapala, we did not because we think
24 that the term session and flow are related to the exact same concept, that
25 they both talk about grouping packets together that are related, and the
26 disclosure of each talks about on a packet-by-packet basis what you look at

1 to group those packets together. And because they describe and claim the
2 exact same examples, they relate to the same concept; and thus, there's no
3 construction needed for that.

4 JUDGE HAAPALA: Okay. Thank you. If -- do you have -- if we
5 were to ask you for a construction today, would you have one that you would
6 propose?

7 MR. MCPHERSON: I would say that the definition of session and
8 flow is the same. It's packets that are related to each other. That --

9 JUDGE HAAPALA: Thank you.

10 MR. MCPHERSON: And that would apply to either flow or session.

11 And then I was talking about the teaching of Pappu with respect to the
12 common goal. Pappu says "To make the best use of our available resources
13 and to best control the traffic that passes through the Router 102, Router 102
14 would benefit from the ability to identify different types of traffic and to
15 take specific appropriate actions relative to those types of traffic." So the
16 common goal of both the '619 Patent and Pappu are the same.

17 And the third we'd like to make regarding the parallel teachings is that
18 they both teach the same examples. The '629 Patent describes examples of
19 VoIP and video streaming. And Pappu describes the same examples of VoIP
20 and video streaming. Now, although the Patent Owner lists a characteristic
21 to show differences, the identified characteristics of the session, which they
22 say a flow doesn't have, none of those arguments are factually supported.
23 And I'll show that on the next slide.

24 And none of those distinctions that Patent Owner is trying to make are
25 meaningful to the claim limitations because the claim limitations are
26 described on a packet-level by packet-level basis. As our expert pointed out

1 just for one example, video streaming is clearly unidirectional. It's a one
2 direction flow of packets. We presented that in our Petition. It's never been
3 responded to by the Patent Owner's expert.

4 Peleg provides some support and says specifically "As known in the
5 art, sessions by definition are unidirectional." In response to that, their
6 expert just says, Oh, that's described by flow. That's not a helpful
7 explanation that the expert provides.

8 JUDGE DROESCH: Where in your Petition is this? I'm just trying to
9 make sure I can reference this later.

10 MR. MCPHERSON: Peleg is actually referenced in the Patent
11 Owner's response that -- the quote that Peleg is growing sessions as being
12 unidirectional.

13 JUDGE DROESCH: Okay.

14 MR. MCPHERSON: It's in Paragraph 65 of Peleg.

15 JUDGE DROESCH: Okay.

16 MR. MCPHERSON: The next two slides are excerpts from their
17 expert testimony. And from reviewing these two slides, it's clear that the --
18 their expert did not provide the underlying facts. And I think the rules and
19 regulations of the PTAB are clear that expert testimony that does not
20 disclose the underlying facts is entitled to little, if any, weight. And that's in
21 37 CFR 4265(a).

22 Now, the Patent Owner relies on these paragraphs. And we'll see in
23 their demonstrative, they rely on the same paragraphs as support for their
24 distinction being made. But none of these arguments being made supply any
25 factual support.

1 And they say things like “Packet sessions are not obvious to group
2 together. Packet flows are trivially grouped by layer 3, 4, and header
3 information.” None of that is supported by any facts.

4 If we look at the next slide, it just continues on, and some of these are
5 the exact same paragraphs that are cited by the Patent Owner in their
6 demonstratives to try to argue that a session is different than a flow.

7 So we believe our Petition sets forward the basis for how Pappu
8 discloses grouping into sessions. And the alternative we provided and the
9 argument of to the extent the Patent Owner serves Pappu does not disclose
10 grouping packets into a presumed session. It would have been obvious in
11 view of Peleg. And we've highlighted three of the quotes there from Peleg
12 that support that.

13 Peleg says “The present invention relates to packet classification, and
14 more particularly, to methods and corresponding devices for packet
15 classification featuring pattern recognition and not content recognition or
16 port matching.” And likewise, it goes on to say “To one of ordinary skill in
17 the art, there is thus a need and would be highly desirable to have a method
18 and corresponding device for classifying sessions based upon the packet
19 and/or characteristics of traffic rather than the traffic contents.”

20 Now, that's a parallel teaching to what the '629 talks about when they
21 talk about using external characteristics. And then Peleg goes on to provide
22 specific examples. “In accordance with their present invention and
23 exemplary classifier, it classifies the packets based upon their length and/or
24 their time intervals between successful packets belonging to the same
25 session.”

1 And it provides further examples of IP address, port type, quality of
2 service throughput -- throughput per second. And it discloses that every
3 possible combination of those can be used. Are there any questions with
4 respect to the session versus flow argument?

5 JUDGE DROESCH: I don't have any. It looks like there are no
6 (indiscernible).

7 MR. MCPHERSON: The next dispute I'd like to move on to is claim
8 19. And specifically, with respect to Slide 21, the Board found that the
9 Petitioner did not meet his burden with respect to claim 19. You know, I
10 want to run through our analysis of claim 19 found in the Petition and
11 demonstrate how the Petition does provide support for the invalidity of claim
12 19.

13 I put it there -- claim 15 first, and I went through it before. And I
14 color coded the traffic packet characteristics, so they can be distinguished
15 from the session characteristics. And the fourth limitation there, it's recited
16 that "Said traffic packet characteristics." So the grouping is based upon said
17 traffic packet characteristics.

18 And then the last limitation there, it's said "Session characteristics are
19 recited." And if you look at claim 19, claim 19 just recites in the wherein
20 clause, "The method of claim 15; wherein, said characteristics comprise at
21 least one member of the group consisting of packet length, inter-arrival
22 period, and average bandwidth."

23 Now, both of the said traffic packet characteristics and the said session
24 characteristics can provide antecedent basis for said characteristics in claim
25 19. And so along with said characteristics and claim 19, it refers back to

1 either the said traffic packet characteristics or said session characteristics
2 within claim 19 are satisfied.

3 And if we look at the next slide, the next slide is an overview of the
4 analysis we did of our Petition for claim 15. And under claim 15, we said
5 the traffic packet characteristics we've relied on the embodiment that has the
6 five-tuple, it was the header information disclosed in Pappu that we said
7 were the traffic packet characteristics.

8 When it came to session characteristics, we said it was the behavioral
9 characteristics of the flow, including quote "Averaging the individual packet
10 characteristics, including the inter-packet gap." In our Petition, we included
11 a quote, and that quote from Pappu is "An average inter-packet gap."

12 And it explains how that's derived. "It's derived by averaging the
13 amount of time that passes between the arrivals of packets that belong to the
14 same flow." That's the inter-arrival period that's discussed in the '629
15 Patent.

16 And if you look at claim 19 in our Petition, the analysis for claim 19,
17 if we look at Slide 23 for claim 19, we said "The said characteristics is
18 behavior statistics including the average inter-arrival period as discussed
19 with reference to claim 15." So again, our analysis for claim 19, we're
20 relying on our previous recitation of the said session characteristics to satisfy
21 the limitation of said characteristics in claim 19. We think that's proper and
22 it satisfies antecedent basis to do that.

23 And in this we also point out that we also called -- the Pappu reference
24 also calls the inter-arrival time gap. It uses that word interchangeably with
25 the average inter-packet gap. And it describes that as that's the time gap
26 between the two most recently arrived packets. So we think we have -- in

1 our Petition, we have fully supported how claim 19 is found based upon
2 Pappu.

3 Are there any questions with respect to claim 19?

4 JUDGE DROESCH: None from me.

5 JUDGE HAAPALA: I don't have any questions, thank you.

6 MR. MCPHERSON: And the last dispute we'd like to discuss is the
7 Motion to Amend. And if we look at Slide 25, Slide 25 is substitute claim
8 25. It's a rewriting of dependent claim 17 and independent 15. And it adds
9 the limitations that are underlined there. And the underlined portion is
10 "wherein the traffic packet characteristics comprise the parameters
11 associated with the traffic packet, the parameters including more than packet
12 header information."

13 That language is basically what has been the Patent Owner's argument
14 for claim construction of the unamended claims throughout. Now, that
15 change of that language -- adding that language, that serves the purpose of
16 not just adding a new limitation there. But because it's redefining the packet
17 traffic characteristics, and the Patent Owner confirmed this, it changed each
18 of the obtaining, comparing, and grouping limitations because each of those
19 limitations rely on the term traffic packet characteristics.

20 JUDGE DROESCH: I have a question for you though. As far as like
21 the grouping limitation, does that require that you have to group the packets
22 together based on all of the traffic packet characteristics or could it be done
23 based on just perhaps the header information?

24 MR. MCPHERSON: It's -- I think -- well, we kind of posed that
25 question in our Opposition to amend. The Patent Owner came back and said
26 that that definition changed each one of those grouping limitations. So to

1 the extent that the language now reads that it's header information, and more
2 than header information, I think it should be read as some portion of header
3 information and some portion of other information.

4 JUDGE DROESCH: Okay.

5 JUDGE HAAPALA: So I understand -- I'm going to ask you again. I
6 understand you said that Patent Owner says it applies to all of the
7 limitations, what is your position?

8 MR. MCPHERSON: It's unclear the way this was amended whether
9 it does or does not, and that's why we identified that as one of the issues --
10 one of the 112 issues. It's unclear when you go through and you change a
11 "wherein" clause as to whether it applies to each one of those limitations and
12 whether I only have to obtain it, and if I satisfy obtaining it.

13 Because traffic characteristics is still traffic characteristics. And if
14 they want to try to restrict that, it's unclear whether their redefining the term
15 traffic packet characteristics or if I just have to obtain traffic packet
16 characteristics that include header -- and the word header.

17 And we've raised that 112 issue. And so we still think it's unclear.
18 But we assume, for our purposes, in response to what they said, and we
19 addressed it. So we have a 112 issue with respect to their Motion to Amend.
20 But then, nevertheless, we went through and analyzed it, as if it changed
21 each of the limitations.

22 JUDGE DROESCH: But couldn't we --

23 JUDGE HAAPALA: And I do understand that you've raised a 112
24 issue, but, to me, it seems less of a 112 issue, as opposed to a broadest
25 reasonable interpretation what the claim requires. I --

26 JUDGE DROESCH: Right. Like couldn't we --

1 JUDGE HAAPALA: And I'll ask your colleague about this too, but --
2 yeah.

3 JUDGE DROESCH: Yeah. Couldn't we just assume that it doesn't
4 require it because it's not explicitly stated that it -- like the grouping
5 limitation does not explicitly require that the information, besides the header
6 information, is used?

7 MR. MCPHERSON: Yes, Your Honor, you could. I mean, and that
8 would be a broader interpretation of that. I agree with that.

9 And if we look now to Slide 26, we've identified several procedural
10 defects in the Patent Owner's Motion to Amend. And in the Board's Order
11 of November 2nd, it's Paper 18 in this proceeding, the Board identified the
12 Western Digital case as setting forth the standards for motions to amend.
13 That case, subsequently, has -- which the information has been replaced by
14 Lectrosonics, which includes the same language. And that's the precedential
15 case, Lectrosonics Inc. versus Zaxcom.

16 And we identified several different areas which we believe were
17 procedural defects. And the Patent Owner failed to comply with 37 CFR
18 42121. The first of those was the original application is referenced but was
19 not included in the Motion to Amend. And under 37 CFR 42.63, we believe
20 that all evidence needs to be in the form of exhibits.

21 The next two, the Patent Owner identified written support only for the
22 newly added limitation, only for the "wherein" clause and only for claim 25.
23 And I think that's improper under the Western Digital and Lectrosonics case.
24 And then the last reason here is there was no written description support for
25 providing each -- for each of the obtaining --

1 JUDGE HAAPALA: Why do you think it's -- I don't -- why do you
2 think it's improper to only provide the support for the newly added
3 limitation? In fact, that could be quite common that we see that.

4 MR. MCPHERSON: There are cases that say -- in Lectrosonics -- that
5 say you need to have support for all the limitations. In this case, in
6 particular, because you do have a "wherein" clause. It goes back to the
7 discussion we just had. Only identifying where the "wherein" clause has
8 support is not sufficient if it's actually changing the obtaining, the
9 comparing, and the grouping limitations.

10 And so this --

11 JUDGE HAAPALA: If we were to opine that it's -- I understand what
12 your position is. But if we're to find that it's not changing those other
13 limitations, that it's just -- it is -- the obtaining has to include parameters that
14 are both header and nonheader information. If the broadest, reasonable
15 interpretation of the claim doesn't require that those other limitations use
16 every parameter obtained, then it seems to me that it's not necessary for
17 Patent Owner to provide written description support for the rest of the
18 limitations.

19 MR. MCPHERSON: I would agree with you in that case, Your
20 Honor. But they didn't provide support for the obtaining stuff either. So I
21 understand your point. I think that's accurate, but they --

22 JUDGE DROESCH: Are you saying that there is -- I mean, is it
23 missing? Is there not a description of obtaining the traffic packet
24 characteristics that include more than just the header information?

25 MR. MCPHERSON: They didn't identify that in their papers.

26 JUDGE DROESCH: All right.

1 MR. MCPHERSON: And then further down on Slide 26, the Patent
2 Owner tried to remedy the defects that we pointed out. And even in their
3 Reply to the Motion to Amend -- Petitioner's Sur-reply to the Motion to
4 Amend, they submitted an appendix showing where the support is. And
5 appendixes aren't allowed. They're supposed to be in the briefing in-
6 chief.

7 Now, also in its Sur-reply to Motion to Amend, they tried to remedy
8 the defects -- the patent owner tried to. And the Patent Owner fails to
9 provide written support that each of the obtaining, comparing, and grouping
10 limitations that require more than header information are described in the
11 original disclosure. And this is the steps of obtaining, comparing, and
12 grouping, even as it relates to the original claim limitation.

13 And the other argument they made -- that Patent Owner made, but
14 they failed to carry the burden, is that Patent Owner fails to provide that
15 Pappu is not enabled.

16 JUDGE HAAPALA: Is it Patent Owner's burden to prove
17 that the claim's enabled?

18 MR. MCPHERSON: It's Patent Owner's burden to prove that a
19 reference is not enabled. So this is for a reference to --

20 JUDGE HAAPALA: I disagree with that, honestly, because it's --
21 your Petitioner has a burden to show a motion to amend shouldn't be
22 granted. And generally, references are presumed enabling, so I don't think
23 it's Patent Owner's burden.

24 MR. MCPHERSON: Okay. Your Honor --

25 JUDGE HAAPALA: I would be interested in hearing why you think
26 it's Patent Owner's burden.

1 MR. MCPHERSON: Your Honor, I think we cited the case law that
2 supports that it is the Patent Owner's burden to prove that a reference is not
3 enabling when it's used. I think that's in our briefing. I can get that for you
4 in a second.

5 JUDGE HAAPALA: Okay. Thank you.

6 MR. MCPHERSON: With respect to the support that was identified,
7 we think that is not sufficient. And if you look at Slide 28 -- excuse me. If
8 you look at Slide 28, these are the only two passages that were identified by
9 the Patent Owner for support of the grouping limitation. And neither of
10 these two passages identify using packet header information and more than
11 packet header information to group. It just talks about grouping generically
12 based upon traffic characteristics.

13 And if we go to Slide 29, notwithstanding the defects, the Petitioner
14 set forward in its Opposition to the Motion to Amend how substitute claim
15 25 is not patentable over Pappu. And we identified the support that's in
16 Pappu. "And in one embodiment of the invention, flows are identified and
17 classified based upon their observed behavior." That sentence is not limited
18 to just header information.

19 "Because flows are identified and classified based upon the observed
20 behavior and because the behavior cannot be hidden, the traffic pipe that a
21 flow represents can be estimated with relatively high accuracy, even if the
22 contents of the packets that represent the traffic type are dissimilar."

23 We then identified claim 1 in Pappu. And claim 1 in Pappu talks
24 about "A machine-implemented method for the identification handling of a
25 single-application flow. The flow comprising a plurality of information
26 packets and the method comprising a series of steps, including said flow

1 being incapable of being identified by header information alone.” I think
2 that's an expressed disclosure that Pappu was broader than just identifying a
3 group of packets based upon packet header information.

4 And then the third quote from Pappu was “Routers which employ the
5 techniques described herein may classify and handle packets in a manner
6 that takes into account information beyond that which is contained in the
7 packet themselves. Some kinds of traffic cannot be identified only on the
8 basis of information contained in the packets set forth in traffic.”

9 And that's a disclosure of using inherent behavior characteristics, not
10 information, that's contained in the packet, including the header.

11 Now, I think the next slide shows information that's not contained in
12 the header. And this is Pappu's disclosure of information that's not
13 contained in the header. And that comes from Figure 4. This is on Slide 30.
14 Okay. It talks -- it calls these behavioral statistics. And these are the type of
15 statistics that can be used. And importantly, Pappu teaches the importance
16 of grouping in the quote that we have there.

17 Pappu says “By grouping packets into flows, it is possible to
18 aggregate individual packets in a meaningful way to allow the traffic
19 flowing through Router 102 to be understood at a higher level.” And we
20 think this is a teaching that would motivate someone, a person of skill in the
21 art, to also use traffic characteristics, other than header information, to group
22 the packets because of the value and importance of grouping packets and
23 what that provides.

24 And we believe that this teaching of Pappu is central to the motivation
25 to modify Pappu by itself, to modify Pappu with Peleg, or to modify Pappu
26 with Duffield. And so on Slide 31, we set forward our alternative argument

1 that substitute claim 25 is not patentable over the combination of Pappu and
2 Peleg. And we describe that from our Petition. “Peleg describes a classifier
3 that uses a combination of traffic characteristics to classify a packet or
4 session, including IP address and time interval between packets.”

5 Peleg has a specific reference that any combination of those can be
6 used. It goes on to say “The classifier has to decide when there is a session
7 according to several consecutive packets that matches its rules. The
8 classifier may identify that it is not the same session according to a few
9 consecutive packets and their time, i.e., the classifier has to be able to know
10 when there's a streaming session and when the streaming session ends.”

11 So in our Opposition to the Motion to Amend, we continue that “There
12 would be -- there is motivation to teach the -- a motivation to combine the
13 teaching of Peleg, which says it's highly desirable to classify sessions based
14 upon traffic characteristics in combination with the teaching of Pappu
15 regarding the importance of grouping.”

16 And as a second alternative, we have that substitute claim 25 is not
17 patentable over the combination of Pappu, Peleg, and Duffield. And
18 Duffield discloses “Assigning packets to the preselected classes based upon
19 traffic features, including the five-tuple, packet header information, and
20 including features that are more than packet header information, such as
21 inter-arrival times.”

22 And we set forward the motivation to combine the teaching of
23 Duffield of grouping into classes of service based upon easily derivable
24 traffic attributes and Pappu's teaching of the importance of grouping. Are
25 there any questions with respect to the Motion to Amend?

26 JUDGE DROESCH: No, I'm good.

1 JUDGE HAAPALA: Nothing further from me. Thank you.

2 MR. MCPHERSON: Thank you, Your Honors.

3 JUDGE DROESCH: And let me -- the yellow light means you have
4 40 seconds left.

5 MR. MCPHERSON: Okay. Thank you, Your Honor.

6 JUDGE DROESCH: Sir, I'll give you a few minutes to get set up.

7 MR. JOHNSON: It shouldn't take too long.

8 JUDGE DROESCH: All right.

9 Are you ready to begin?

10 MR. JOHNSON: Yes.

11 JUDGE DROESCH: Okay. Thanks.

12 MR. JOHNSON: Good afternoon, Your Honor. Ben Johnson for
13 Patent Owner. I have with me my colleague, Patrick Delaney. He'll be
14 speaking shortly. We will reserve some time for surrebuttal, probably, let's
15 call it 20 minutes as well.

16 JUDGE DROESCH: Okay.

17 MR. JOHNSON: I want to start with a statement that Petitioner made
18 with regard to the '629 Patent. Specifically, they commented that external
19 packet characteristics are defined as things that come from not opening the
20 packet payload. I may have missed it, but I don't recall if that's actually
21 stated in the '629 Patent. I just wanted to address that briefly.

22 I want to start first with this fundamental disagreement over what is
23 the distinction between a session versus a flow. Petitioner argues that there
24 is no difference, that they're the same thing, that they're fundamentally the

1 same. This stands in opposition to lots of technical documentation out there
2 that's in the record that points to the differences between these two things, as
3 well as the testimony of our expert.

4 I have on Slide 8 -- beginning on Slide 8. Some of our expert's
5 testimony regarding what it means to be a session. Petitioner has said that
6 we've provided no facts to support these. Dr. Nakibly provided extensive --
7 his extensive technical background to show that he is one of ordinary skill in
8 the art and he is simply trying to define a term as it would have been
9 understood by one of ordinary skill in the art.

10 He mentions that "A session is a set of packets that belong to a layer 7
11 media exchange between two entities. Packet sessions may belong to
12 multiple flows. A packet's flow may belong to multiple sessions. Flows
13 have layer 3 or 4 semantics, whereas, sessions have layer 7 semantics.
14 Flow-based management treats all packets in a flow the same."

15 JUDGE DROESCH: Are any of these statements supported by
16 evidence, other than the declaration testimony?

17 MR. JOHNSON: No, Your Honor. Just the statements made by the
18 expert.

19 JUDGE DROESCH: Okay. Thank you.

20 MR. JOHNSON: Certainly. There is -- there are statements in the
21 '629 Patent that describe applying the session management at higher levels.
22 And specifically, it talks about managing IP sessions and then abstracting
23 that management to higher levels.

24 These distinctions between sessions and flows are important. A flow
25 is just a point-to-point communication link for data packets. That's it.
26 That's all it takes care of.

1 It says these packets are going from point A to point B.

2 We -- it can go on this route that has already been defined based on
3 various characteristics, depending on what the management is trying to do.

4 But it cannot, for example, decide what to do if there's a firewall in
5 the way. It -- if the naming conventions on the data traffic change between
6 Point A and Point B, if, when it gets from Point to Point B, the route changes
7 and it has to take a different route back from Point B to Point B, it's simply
8 not structured to be able to manage those types of decisions. If the quality of
9 service changes halfway from point A to point B, it's not equipped to handle
10 those changes as well. That's what session management is for.

11 You looked like you had a question.

12 JUDGE DROESCH: I do. I'm just trying to see where this distinction
13 is in the Specification, you know, that would underly our claim construction
14 for session.

15 MR. JOHNSON: Understood. I think that the distinction begins with
16 the fact that every statement of packet management made in the '629 Patent
17 talks about sessions. Session is a word that is understood by one of ordinary
18 skill in the art. Petitioner's attempts to equate that with flow are just a
19 misrepresentation of what those words mean in the art.

20 This is the difference between managing a freeway and managing a
21 single lane of traffic. This is the distinction between managing a convoy of
22 cars and busses and trains and a single car going from here to the store. The
23 problems inherently are different.

24 JUDGE HAAPALA: Counsel, even if we were to agree with you --
25 and I think we -- in the Institution Decision. But Petitioner points to Peleg
26 for managing sessions. And, you know, I don't want to interrupt your

1 argument on the distinction between sessions and flows, but I would like to
2 hear more about why you think that's not taught by the combination,
3 including Peleg.

4 MR. JOHNSON: Certainly, Your Honor. I think there's two primary
5 responses. One, Peleg uses the word session, but what it describes is a
6 unidirectional flow. It uses the word, but in the context of what it's talking
7 about, it uses the words unidirectional -- I believe it's unidirectional flow of
8 packets. It's simply not actually talking about sessions as that word is
9 understood.

10 JUDGE DROESCH: But that, wouldn't that be -- wouldn't Peleg's
11 disclosure be evidence that sessions is actually much broader than what
12 you're proposing?

13 MR. JOHNSON: It is -- it could be understood to be some evidence
14 of that, Your Honor. But I think, given our expert's testimony --

15 JUDGE DROESCH: Well, your expert's testimony isn't supported by
16 any sort of factual basis, is it?

17 MR. JOHNSON: It's supported by his years of experience and
18 education as one of ordinary skill in the art.

19 There's no evidence that the inventor of Peleg is likewise qualified.

20 JUDGE KAISER: Do your briefs point out what level of education
21 and amount of experience a person of ordinary skill in the art has? And if
22 so, how does Dr. Nakibly compare to that?

23 MR. JOHNSON: I would have to double-check Nakibly's declaration
24 to see if he defines level of ordinary skill in the art. I don't recall. And I'm
25 not certain and not sure how I would know whether the inventor of Peleg
26 would meet that definition or not.

1 JUDGE KAISER: I guess my question is, you know, if an expert
2 comes in and, sort of, (indiscernible) says, This term means X to a person of
3 ordinary skill in the art, it -- that could come from two perspectives, right? It
4 could come from the expert being a person of ordinary skill in the art, and
5 just knowing that's how I use it, so that's how people in -- of ordinary skill
6 in the art use it.

7 And the other perspective would be an expert who is really an expert,
8 not a person of extraordinary skill in the art, who has gone to look at -- you
9 know, and not just his own understanding, but what people who work in this
10 field really say. And we've got some objective evidence in the form of
11 Peleg using session in a way that's different from the way Dr. Nakibly uses it
12 that suggests that session doesn't really mean a narrow thing.

13 And we've got Dr. Nakibly saying, essentially, this is how I use it.
14 And if he's not a person of ordinary skill in the art, I'm not sure how that
15 helps us.

16 MR. JOHNSON: I am certain that Dr. Nakibly is a person of ordinary
17 skill in the art, Your Honor. I would just have to double-check the
18 declaration to see if that is actually defined or not. I can do that for our
19 reserve time if you'd like?

20 JUDGE KAISER: Yeah. I'm not suggesting that he is less than a
21 person of ordinary skill in the art. To be fair, I -- you know, I'm just -- I'm
22 curious at the fact that he has a PhD and something in the teens of years of
23 experience, if I remember right, might mean that he knows a little bit more
24 about this than a person of ordinary skill in the art does.

1 And therefore, without him pointing to something that says, well, this
2 is how people of ordinary skill in the art use the term, his own use of the
3 term might not be consistent with that.

4 MR. JOHNSON: Understood, Your Honor. I believe that on this
5 record, his testimony however is the best evidence we have of what one of
6 ordinary skill in the art would understand the term to mean.

7 JUDGE KAISER: Okay.

8 MR. JOHNSON: Additionally -- and going back to, I believe, your
9 question, Judge Droesch, about Peleg. In the Petition, Petitioners only use
10 Peleg for, I believe, one limitation. They do not argue that it is needed to
11 address all of these session-based flows in Pappu. So that would be
12 my other response.

13 All right. We want to move, next, to another distinction between the
14 '629 Patent and the teachings of Pappu.

15 All right. And just to answer your question, since my colleague found
16 the information, Your Honor, in Dr. Nakibly's declaration, he does define the
17 level of one of ordinary skill in the art in Paragraphs 26 and 27 of Exhibit
18 2001. And it appears that he adopts the definition as provided by
19 Petitioner's expert.

20 So on Slide 15 of Patent Owner's demonstratives, there is a
21 highlighted section of Independent claim 15. Claim 15 includes two
22 separate limitations. "Grouping together packets having similar values of
23 traffic packet characteristics into a presumed session. And then analyzing
24 the grouped packets of the presumed session for session characteristics.

25 The '629 Patent recites those two separate things.

1 Pappu discloses a single step. It has already identified certain levels
2 in what it calls its behavioral statistics that are already associated with a
3 known flow type. It has these different policies that it is prepared to apply to
4 grouped packets. It does not, as the '629 Patent requires, group the packets
5 and then analyze those packets for session characteristics. The session
6 characteristics are already identified prior to the grouping.

7 I want to go back to the distinction between session versus flow for
8 just a moment. Judge Haapala, I believe you asked Petitioner what their
9 proposed construction of session would be were they to offer one. And the
10 definition that they offered "Packets that are related to each other," that
11 definition is so broad as to -- it's to have no meaning.

12 Packets that originate from the same source and go to lots of different
13 destinations are related in some manner; they're related by a source or
14 packets that come from a thousand different sources and arrive at the same
15 destination. Those are related by the destination. But under -- even under
16 the disclosure of Pappu's flows, that's not a flow. That's not what Pappu
17 talks about managing, even within the context of that particular reference.

18 Before we get to the next portion, specifically, regarding claim 19, I
19 want to talk for just a minute about what Pappu actually does disclose.
20 Pappu has a couple of broad statements in the background about how it
21 might be broadened, about things it might apply to. The only thing Pappu
22 ever discusses in any sort of enabling detail is using the five-tuple. The only
23 thing -- the only detail within the disclosure of Pappu is using these five
24 pieces of header-only information to group and analyze packets. That's it.

25 There is a statement in -- gentlemen, I'm forgetting. Is it claim 1 that
26 says "Wherein, the flow cannot be identified simply based on header

1 information"? Patent Owner's position is that that is simply not enabled
2 within Pappu. There's nothing in that disclosure that would enable
3 one of ordinary skill in the art to be able to group packets in a flow based on
4 anything more than five-tuple, because that's all it talks about.

5 And as we mentioned --

6 JUDGE KAISER: How much enablement -- I'm sorry to
7 interrupt you.

8 MR. JOHNSON: Not at all.

9 JUDGE KAISER: How much enablement is required for an
10 obviousness ground?

11 MR. JOHNSON: I think when it's being used as the primary
12 reference to show all of -- essentially, all of the limitations of the -- in the
13 claim, I don't know that the enablement requirement changes.

14 JUDGE KAISER: I mean, isn't the reference -- you know, can we
15 rely on the reference for everything it teaches?

16 MR. JOHNSON: Certainly. But all it teaches is using header-only
17 information.

18 JUDGE KAISER: Well, what about claim 1? I mean, that teaches
19 something and something other than header information. I mean, it may not
20 be enough for an anticipation ground.

21 MR. JOHNSON: Petitioners are arguing that the one -- that that
22 statement in claim 1 should be used to modify all of the other teachings
23 throughout Pappu. It is unclear --

24 JUDGE HAAPALA: I think they're -- Counselor, I'm going to
25 interrupt you. Because I think Petitioner's primary argument is that it is

1 sufficient just to use the header information; is that correct? And I know that
2 there's a claim construction issue --

3 JUDGE KAISER: Yeah.

4 JUDGE HAAPALA: -- around traffic packet characteristics.

5 So the primary -- and this is when we instituted our -- the preliminary
6 record is not a final construction, but we did say that it was sufficient to use
7 just the header information. So the secondary argument is only if we agree
8 to different construction on the final; is that right?

9 MR. JOHNSON: That's correct.

10 JUDGE HAAPALA: Thank you.

11 MR. JOHNSON: And it -- as I'll get to later, it would also be
12 applicable however to the motion to amend --

13 JUDGE HAAPALA: Okay.

14 MR. JOHNSON: -- in that -- in that context as well.

15 With regard to claim 19, the Petitioner makes these three arguments.
16 That --

17 JUDGE DROESCH: If you're on a specific slide, could
18 you let us know what slide?

19 MR. JOHNSON: I'm sorry. Absolutely.

20 JUDGE DROESCH: Thank you.

21 MR. JOHNSON: Absolutely, Your Honor. I skipped way
22 ahead to Slide No. 29.

23 JUDGE DROESCH: Thank you.

24 MR. JOHNSON: The first argument the Petitioner makes is that
25 Pappu's -- sorry. These references have such similar names, I have to pause
26 for a minute to make sure I'm talking about the right one.

1 The – Pappu’s inter-packet gap is the same as the inter-arrival period
2 that’s recited in claim 19. The response to that briefly is that inter-packet
3 gap is – it’s just not an inter-arrival period. One is calculated by seeing a
4 time difference and one is a packet -- a specific packet characteristic. And
5 this flows into the fact that Pappu only talks about an average inter-packet
6 gap.

7 And specifically, what Pappu talks about is calculating an
8 instantaneous flow rate. It looks at -- two packets go by and it says there
9 was some time between those two packets. And then the third packet goes
10 by and it says well, there was a time between two packets, and I’ll average
11 those two numbers together. And then the next packet goes back, it rolls that
12 average. And it just keeps rolling that average as each packet goes by.

13 There’s no disclosure of actually saying this packet has a packet-
14 specific inter-arrival period. In fact, what Petitioner points to is Figure 4 of
15 Pappu. And Figure 4 of Pappu just talks about an average inter-packet gap.
16 That’s not what claim 19 recites.

17 JUDGE DROESCH: What is your position on the characteristics of
18 claim 15 that are being modified by claim 19?

19 MR. JOHNSON: Our --

20 JUDGE DROESCH: I think -- but honestly, I will tell you that
21 Petitioner makes a good point, that it’s not clear which characteristics are
22 being modified. It could be either one.

23 MR. JOHNSON: I think in the context of the ’629 Patent as a whole,
24 it is reasonably clear that it’s talking about session characteristics. And the
25 reason for that is when -- within the specification of the ’629 Patent, when it

1 discusses those three examples, packet length, inter-arrival period, and
2 average bandwidth, it's doing so within the context of analyzing a session.

3 JUDGE DROESCH: So you would agree with Petitioner on this point
4 then because also -- they also -- the position they said was it is modifying the
5 session characteristics. And I think in our institution decision, we made it a
6 different preliminary finding. So I want to make sure that you're both
7 agreeing that it's the session characteristics that we're talking about in Claim
8 19.

9 MR. JOHNSON: Yes.

10 JUDGE DROESCH: Thank you.

11 MR. JOHNSON: I'm going to turn it over to my colleague, Mr.
12 Delaney, for a few minutes to discuss the claim construction issue.

13 MR. DELANEY: May it please the board. I'm Patrick Delaney. My
14 (indiscernible) was just filed this past week. So I'm new backup counsel.

15 I just wanted to return to the Institution Decision, the construction that
16 was given to traffic packet characteristics. In the analysis that was provided
17 in this Institution Decision, there was a determination that in the derogatory -
18 - in part of the '629 Specification that defines what is in the packet header
19 information. The construction that the Board found pointed to destination
20 only as being derogatory and kept out of the claim construction, as
21 opposed to all header information.

22 And what I wanted to point out is, is that the -- in that -- although there
23 is a part of the specification that does point to destination addresses as being
24 packet header information, in arriving to the construction that the Board
25 reached, it included packet length. And to arrive at that construction, it
26 looked to some intrinsic evidence, some -- a statement of Dr. Nakibly saying

1 that packet length is not included in packet header information. And the
2 Board analyzed that intrinsic evidence.

3 What I wanted to point out was -- is that if you look at packet length
4 that is used -- as it is used throughout the Specification, it is referred to as an
5 external characteristic. It is not a header characteristic. And I just -- and I --
6 and so in reducing packet header information in that claim construction to
7 just destination addresses as a -- as was done in the Institution Decision, the
8 Board basically included packet length as header information and put a
9 burden on the Patent Owner in that there's no actual disclosure of packet
10 length being extracted as header information explicitly anywhere in that
11 Specification of the '629 Patent.

12 And as there's no inherent disclosure, there's -- or there's -- you know,
13 the -- although there's a discussion of Dr. Nakibly's testimony on that packet
14 length is not ordinarily part of header information, what I wanted to point
15 out with -- is, is that the Board not address the intrinsic information in the
16 Specification that shows the packet length being used as an external
17 extracted characteristics of the packets in the sessions.

18 JUDGE DROESCH: So I think your position is, in the context of the
19 '629 Patent --

20 MR. DELANEY: Uh-huh.

21 JUDGE DROESCH: -- that the packet length is not a characteristic of
22 a header. But I think that we do have evidence that shows in other contexts,
23 the packet header is a traffic characteristic that's included in -- can be
24 included in a header. I would be interested if you could point out exactly
25 where in the description of the '629 Patent it requires that the packet header
26 not be -- sorry, excuse me -- the packet length not be included in the header.

1 MR. DELANEY: Well, we may -- for instance, I'm looking at
2 column 4. It lists a lot of characteristics of the (indiscernible) session
3 analyzer is configured to use. And it lists packet length next to inter-arrival
4 period. Now, inter-arrival period cannot be part of the header information.
5 It is purely an external characteristic. And it goes through a long list that has
6 variants of inter-arrival period and packet length.

7 But it's clearly referring to packet length in that part of the
8 specification as an external characteristic, as opposed to something that's
9 being extracted from the header.

10 So all I wanted to emphasize here is that the intrinsic evidence here
11 points to the use of packet length as an external characteristic only. There's
12 no explicit disclosure of packet length being extracted from header
13 information in the '629 specification.

14 JUDGE DROESCH: Okay. I agree with you there, but I have not
15 seen any explicit disclosure here that says the packet header has to -- the
16 packet length has to be something not in the header. I understand it's
17 grouped with other characteristics that are not included in the header, but I
18 don't see any specific description that says the packet lane is taken from
19 something other than the header.

20 So there -- it -- with -- in the absence of an explicit disclosure in this
21 Specification, and explicit limiting disclosure in this specification, I think
22 it's proper for us to look at the intrinsic evidence on this point.

23 MR. DELANEY: I understand, Your Honor. Thank you very much
24 for pointing that out. There is not an explicit disclosure saying that packet
25 length, but I would say, Your Honor, that it is implied in that packet length
26 and inter-arrival period are listed next to each other, and then throughout the

1 rest of that list, it's different variants of inter-arrival period and packet
2 length. You have variants of inter-arrival period and variants of inter-arrival
3 period and variants of length and covariants.

4 So in that -- in the way it is used in the Specification, it is linked
5 implicitly as an external characteristic. That's all I want --

6 JUDGE KAISER: It's linked if -- it's linked implicitly as an external
7 characteristic in an embodiment, right?

8 MR. DELANEY: Well, and that's how -- and -- but that's how it's
9 used consistently throughout the specification.

10 JUDGE KAISER: Is there any place where it's listed like it -- in --
11 like you're pointing to in column 4. It shows up in several lists, but I believe
12 all of them are prefaced by "an embodiment" or "in some embodiments" or
13 "in one embodiment" or "an embodiment." Is there any place where it says,
14 you know, the invention takes note of the following characteristics? And
15 then does this sort of implicit linking packet length to inter-arrival period
16 and so on?

17 MR. DELANEY: No. No. I'm just saying when you look at the
18 Specifications in its totality and how it's being used, although it is referred
19 to as several different embodiments, yes. It's referred to as embodiments in
20 different places.

21 JUDGE KAISER: Okay.

22 JUDGE DROESCH: I had a follow-up question. These arguments
23 about packet length, where is this in the briefing? Is this in the Patent
24 Owner Response?

25 MR. DELANEY: Oh.

26 (Off the record discussion.)

1 MR. DELANEY: I didn't draw this directly from the briefing, Your
2 Honor.

3 JUDGE DROESCH: Okay.

4 MR. DELANEY: That's all I have.

5 JUDGE DROESCH: Okay.

6 MR. JOHNSON: Your Honor, I -- if it'll please the Board, I'd like to
7 go back to claim 19 for a moment because I believe that I misspoke.

8 You asked me directly, Judge Haapala, whether I agree that these said
9 characteristics applies only to the session characteristics from claim 15. And
10 I said that it did. I wanted to just confirm with prior statements we've made
11 to make sure that I was clear on this. I believe our position is that claim 19
12 when it says said characteristics -- let me see if I have a good copy of claim
13 19 on here.

14 I don't. That's why I put it. It could apply to either traffic packet
15 characteristics or session characteristics as those are used in claim 15. Our
16 counter to Petitioner's argument is that that is consistent with the language of
17 the claim. It is not rendered claim 19 indefinitely because --

18 JUDGE HAAPALA: Of course, we don't reach indefiniteness issues.

19 MR. JOHNSON: Yeah.

20 JUDGE HAAPALA: And I know that wasn't raised in the briefing.
21 So that wasn't the reason why -- for my question.

22 It was to -- because we found in the Institution Decision that it was for
23 the traffic characteristics, I wanted to see if you agree that it could be either
24 one, then I think if we find that Petitioner shows that session characteristic
25 includes this information. There isn't a dispute on the session
26 characteristic. And I wanted to clarify that point. Which you did, I think?

1 MR. JOHNSON: That's correct, yes. Thank you, Your Honor.

2 JUDGE HAAPALA: Thank you.

3 MR. JOHNSON: We will reserve the remainder of our time for
4 surrebuttal with the comment that all of our direct responses to Petitioner's
5 statements regarding our support and the motions to amend and whether --
6 and to what extent we complied with the regulations are all in the briefing.

7 JUDGE HAAPALA: Before you leave, I do have a question --

8 MR. JOHNSON: Certainly.

9 JUDGE HAAPALA: -- on your Motion to Amend.

10 MR. JOHNSON: Certainly.

11 JUDGE HAAPALA: Okay. Where are we right now?

12 MR. JOHNSON: I had it on Slide 41 is the amended claim, Your
13 Honor.

14 JUDGE HAAPALA: Okay. Thank you.

15 So you added this "wherein" clause. And what I'm curious about is if
16 you -- if it's your position on whether or not the "wherein" clause applies to
17 all of the limitations or if there's an interpretation where it could just be that
18 the traffic pattern characteristics that are obtained include all header or non-
19 header information.

20 MR. JOHNSON: (No verbal response.)

21 JUDGE HAAPALA: I think I'm asking what your position is on
22 what's being modified by the "wherein" clause.

23 What are the limitations that are being modified?

24 MR. JOHNSON: Our position is that the "wherein" clause is intended
25 to clarify the definition of what is meant by traffic packet characteristics.
26 Those traffic packet characteristics are actively obtained in the obtaining

1 step and referenced in other steps. To the extent that any of the subsequent
2 steps would require reliance on the traffic packet characteristics themselves,
3 then the definition would apply to those steps as well.

4 So for instance, grouping -- the grouping stuff -- grouping together
5 those packets having similar values and similar traffic packet characteristics.
6 That's going to be grouping those packets based on similar values of
7 whatever traffic packet characteristics were obtained in the obtaining step.

8 JUDGE DROESCH: It doesn't require all of the traffic packet
9 characteristics? Meaning, does it require the header information and the
10 other characteristics or can it just be the header characteristics? The header
11 information?

12 Because it doesn't further narrow it to require all the characteristics
13 that are cited in the definition of traffic packet characteristics.

14 MR. JOHNSON: Our position, I believe, would be that whatever
15 traffic packet characteristics are obtained as part of the obtaining steps, so
16 you may obtain lots of characteristics, other than the specific traffic packet
17 characteristics that are later used.

18 JUDGE DROESCH: Okay.

19 MR. JOHNSON: But whatever traffic packet characteristics meet that
20 definition and are obtained, those are then later used in the grouping set.

21 JUDGE DROESCH: Okay. It sounded like you said two
22 different things in that one sentence.

23 MR. JOHNSON: Well, I'm trying -- I'm not trying to skirt the
24 question. I am trying to answer it. I just -- without being able to draw
25 boxes, I want to make sure we're drawing the same boxes.

26 JUDGE DROESCH: Okay.

1 MR. JOHNSON: It may be that in this method of session
2 management, you get lots and lots of information. Some of it may be header
3 information. Some of it may be non-header information.

4 JUDGE DROESCH: Okay.

5 MR. JOHNSON: But claim 25 has said the traffic packet
6 characteristics that we're using -- that we're obtaining according to this
7 claim are more than header information. So we're going to draw that circle
8 around that more than header information.

9 JUDGE DROESCH: Okay.

10 MR. JOHNSON: Whatever we've drawn that circle around, that's
11 what we're going to use to do the grouping step as well.

12 JUDGE DROESCH: But is that required actually by the claim
13 language? That goes back to my point about, like, does it require all of the
14 traffic packet characteristics that were obtained or could it just be a subset to
15 be used in the grouping and comparing steps?

16 MR. JOHNSON: (No verbal response.)

17 JUDGE KAISER: In other words, to give you maybe a hypothetical
18 that makes this slightly more concrete. Let's say we obtain destination
19 address and, I don't know, something that's not in the header -- inter-arrival
20 --

21 JUDGE HAAPALA: Inter-arrival.

22 JUDGE KAISER: -- period, yeah, for all the different packets that are
23 passing, right? So we get two things. One is in the header and one is not.
24 And then later on, the way that we group the packets is we group them only
25 by the ones having similar or probably the same destination addresses,
26 ignoring that we collected or obtained and then maybe even compared. On

1 the basis of two characteristics, we end up grouping them only on a single
2 characteristic which is one that is in the header. Why doesn't that fall within
3 grouping together those packets having similar values of said traffic packet
4 characteristics?

5 MR. JOHNSON: I see the question. I -- maybe I can answer it this
6 way. I would understand the amendment to this claim to apply to the
7 grouping step in that whatever is being used to group would require more
8 than header information.

9 JUDGE HAAPALA: And can you point to specific language in the
10 claim that -- where that would be required?

11 MR. JOHNSON: That is how I read and understand how the
12 obtaining and grouping limitations work together. In your example, if I am
13 obtaining destination port and inter-arrival period. And that's what I'm
14 saying. These are the traffic packet characteristics that I'm obtaining. When
15 I read "grouping those packets having similar values of said traffic packet
16 characteristics," I would need that grouping to be based on destination port
17 and inter-arrival period.

18 That is -- I know --

19 JUDGE KAISER: I guess I wonder why -- I mean, that -- like the
20 grouping limitation there in claim 25 could say "grouping together those
21 packets having similar values of all the traffic packet characteristics." But it
22 doesn't. It just says "said traffic packet characteristics." And it seems like --

23 MR. JOHNSON: It could, Your Honor. But it could also use an
24 entirely different word if it didn't mean all, as it was previously defined. It
25 could say "grouping together those packets having similar values of a subset
26 of said traffic packet characteristics."

1 JUDGE DROESCH: Right. So in the absence of --

2 JUDGE KAISER: And that's fair. I guess I'm just --

3 JUDGE DROESCH: In the absence of more language, shouldn't we
4 assume that it could cover both cases where it's a subset or all of them?

5 MR. JOHNSON: To me, the most reasonable reading of this says the
6 obtaining step says -- it defines the traffic packet characteristics that I'm
7 obtaining. And when the said traffic --

8 JUDGE KAISER: Uh-huh.

9 MR. JOHNSON: -- packet characteristics is referred to later, that's
10 what it's talking about. That's -- that is the antecedent basis that it's
11 referring to.

12 JUDGE KAISER: Oh. And that's --

13 JUDGE HAAPALA: Yeah.

14 JUDGE KAISER: That's perfectly fair, but we're required to give the
15 claim its broadest reasonable interpretation, not its most reasonable one.
16 And why isn't -- you know, the fact that that could cover either the whole of
17 all the obtained characteristics or some subset of them broader than, that
18 could only cover the whole group.

19 MR. JOHNSON: I -- well, in my mind, what does --

20 JUDGE KAISER: Or is it -- or am I just being totally unreasonable?

21 MR. JOHNSON: Well, hey. In my mind, that is an unreasonable
22 reading because I -- to -- I think what this is saying is obtaining a set of
23 characteristics and then grouping based on the set of the characteristics. And
24 --

1 JUDGE HAAPALA: Then let me ask you another question. If you
2 obtain all these characteristics -- you know, say you obtain a set of nine
3 characteristics --

4 MR. JOHNSON: Uh-huh.

5 JUDGE HAAPALA: -- in that step, your position then would require
6 to use all nine of those every time for the grouping step.

7 MR. JOHNSON: Well, and this --

8 JUDGE HAAPALA: Is that -- we -- has that -- is that the reading of
9 the prior claim -- is that your reading of the claim? That every characteristic
10 you obtain has to be used in a grouping?

11 MR. JOHNSON: Yes. And maybe this is --

12 JUDGE HAAPALA: Just -- earlier you said that we could obtain a lot
13 of information.

14 MR. JOHNSON: Maybe this is the disconnect. Because I think this
15 is going back to my response to Judge Droesch earlier. You can obtain nine
16 characteristics, but if you're only using two of them, then that's the set
17 you've defined in the claim language.

18 JUDGE HAAPALA: Okay. So you're defining your step based on
19 what you're using in the grouping, not in what you're obtaining. So that's --
20 that, to me, seems to indicate that you're selectively choosing which claim --
21 which of the obtained characteristics you're using in the grouping step.

22 And if that's true, then it could just be a subset.

23 MR. JOHNSON: It's just --

24 JUDGE HAAPALA: You're either required to use all of them every
25 time or you can select your subset.

1 MR. JOHNSON: I think you are -- I read this as being you are
2 required to use all of them every time, but it's a question of where do you
3 draw the box around all of them?

4 JUDGE HAAPALA: Whichever ones you obtained. If you have the
5 information and you obtained --

6 MR. JOHNSON: Well, you can --

7 JUDGE HAAPALA: -- the information, that's the stuff that you
8 obtained.

9 MR. JOHNSON: Yes. But you can -- an implementation of this can
10 obtain a lot of different information that's not covered by the claim language.
11 The claim language just says obtaining traffic packet characteristics. What
12 of that obtained information am I defining as traffic packet characteristics?

13 JUDGE HAAPALA: Thank you. I understand your
14 position. Thank you.

15 MR. JOHNSON: Oh, right on time.

16 MR. MCPHERSON: I just want to cover a few points, Your Honors.
17 And, Judge Kaiser, your example was a very good one. I want to continue
18 with this because the last 15 minutes of this discussion showed why we
19 raised the 112 issue that you can read the claim this way or you can read the
20 claim this way. It can be a subset or it can be all. And I think that
21 demonstrates that there is a 112 issue.

22 I neglected to say before and my counsel reminded me that if we
23 covered the scenarios where the claim is invalid under 112 -- the claim
24 amendment is invalid under 112. We also covered the situation where it's
25 the subset. We talk about it just being a subset on Pages 8 and 10 of --

1 JUDGE DROESCH: But if it -- if a claim is subject to two
2 interpretations based on the breadth. But breadth is not indefinite. Is it
3 indefiniteness?

4 MR. MCPHERSON: It depends upon the scope.

5 JUDGE DROESCH: Okay.

6 MR. MCPHERSON: Right? So if the scope of the claim is changing
7 and it's -- you can't -- reasonable minds can disagree as to what the scope of
8 that claim is, that it's not described with reasonable certainty. And that's
9 what the problem is here.

10 JUDGE DROESCH: Well, one could say that the scope requires a
11 subset of the characteristics or all of the characteristics or somewhere --
12 anything more than one and less than -- up to all of the characteristics. Is
13 that indefinite?

14 MR. MCPHERSON: Yes, Your Honor. If -- the interpretation, if it's
15 just as reasonable to have a scope of A or a scope of B, then that is what an
16 indefinite is. You don't know what the scope is.

17 JUDGE DROESCH: But we have, like, a scope from A to Z, from,
18 like, at least one characteristic to -- up to all of the characteristics.

19 MR. MCPHERSON: Well -- and that's why Petitioner gave an
20 example of -- on Pages 8 through 10 of our Opposition, we actually give the
21 example of it can be done to subset. And then after Page 10, we talked about
22 it going to all the limitations. So we covered those areas.

23 JUDGE DROESCH: Okay.

24 MR. MCPHERSON: But I just want to make sure the Board
25 understands we did do a 112. We think there is a 112 issue. And if the

1 Board doesn't find a 112 issue, we think it can read on a subset under what is
2 reasonable. And if it's not the subset, it can read on all. So we do have that
3 covered in our Opposition to the Motion to Amend.

4 JUDGE DROESCH: Okay.

5 MR. MCPHERSON: I just wanted to make that point.

6 The Patent Owner talked about external -- and the external
7 characteristics and where does the Patent say it does not require the opening
8 of the packet payload. And I have that in the Patent here.

9 If you look in the '629 Patent, on column 7, it begins around Page --
10 I'm sorry. It begins around line, it looks like, 43. And it says "The present
11 embodiments identified and distinguished between different media sessions
12 with IP network traffic using certain packet-related elements or
13 characteristics. Primarily, but not exclusively, packet length and/or packet
14 inter-arrival period. In practice, the methodology may not use those
15 characteristics directly, but may make use of a range of statistical perimeters
16 which are derivatives thereof."

17 It goes on to say "The elements are external elements that do not
18 require opening of the packet payload."

19 And also, Judge Haapala, in response to your question regarding
20 enablement, I guess there's two points there. One in our Sur-reply. It's our
21 Sur-reply to Patent Owner's Reply to Petitioner's Opposition to Patent
22 Owner's Motion to Amend. On page 5, we identify -- page 5 and going
23 into page 6, we identify the law, as we understand it, in the first full
24 paragraph there. "Procedurally, Pappu is a prior art patent and presumed to
25 be valid, and therefore, enabled."

1 And we cite the Edmund Optiks Incorporated versus Semrock IPR
2 2014-00599. It's PTAB page 72 -- paper 72, page 21. And that's citing a
3 Federal Circuit case. I do understand there may be a difference of opinions
4 when -- with regard to a patent application. But for patents, as references,
5 they're presumed to be valid; they're presumed to be enabled. And the
6 Patent Owner who is -- anyone who is attacking the enablement of a patent
7 has the burden of showing that the patent is not enabled.

8 JUDGE HAAPALA: And I think my issue was more -- I don't
9 disagree with what you said there. And I didn't very clearly state my
10 question. I think it's more of an issue of burden of production versus burden
11 of proof. So that was what I was trying to get at. But in any case, and to
12 make sure that you understood that you ultimately have the burden on the
13 Motion to Amend.

14 MR. MCPHERSON: Like --

15 JUDGE HAAPALA: And I also think that you -- also, to Judge
16 Kaiser's point, you did cite also that prior art can be used for -- you know,
17 regardless of whether it is enabled, the disclosure can be used in
18 obviousness. There's other case law along those lines too. And I think you
19 said that that is in your Sur-reply as well, correct?

20 MR. MCPHERSON: That was the next quote I was going to read into
21 the record, but to the extent that you acknowledge that, then I have no more
22 comments. Thank you, Your Honors.

23 JUDGE HAAPALA: Can you address one other thing too? Patent
24 Owner made some arguments about claim 19, that the inter-packet gap is not
25 an inter-arrival period, and just differences between what Pappu discloses
26 and what is required by the claim. And I know you went through that a little

1 bit in your initial presentation. Can you just address -- go back and address
2 those arguments one more time for me? That would be helpful to just nail
3 those points down?

4 MR. MCPHERSON: Yes. So I think if we look at claim -- if we look
5 at our slide -- claim -- Slide 22. On Slide 22, under the analysis for claim
6 15, under session characteristics. "We've relied on the behavioral
7 characteristics of the flow, including averaging the individual packet
8 characteristics, including inter-packet gap."

9 And that quote beneath there is from the -- from Pappu. And it says --
10 and it described an average inter-packet gap. And that's derived by
11 averaging the amounts of time that passes between the arrivals of packets
12 that belong to the same flow. So that is physically determining the inter-
13 arrival period for each successive set of packets, net averaging. So that's a
14 disclosure of the inter-arrival time that's recited in -- specifically recited in
15 claim 19.

16 And then as further evidence of that --

17 JUDGE HAAPALA: So I think that is the dispute then, whether
18 average -- whether it can be an average inter-arrival period? Let me just
19 make sure I said that right.

20 Whether an inter-arrival period is sufficient? Is that the dispute then?

21 MR. MCPHERSON: No, Your Honor. I believe in order to get to the
22 average, Pappu gets the inter-arrival period. So it's actually calculating the
23 inter-arrival period.

24 JUDGE HAAPALA: Okay. No. I -- thank you. I understand. Thank
25 you.

26 MR. MCPHERSON: Okay. Any further questions?

1 JUDGE DROESCH: None from me. It looks like none --

2 JUDGE HAAPALA: None from me. Thank you.

3 JUDGE DROESCH: -- from the other judges.

4 MR. JOHNSON: Just a couple of quick comments, Your Honors.

5 When Petitioner states more than once that their understanding of claim 19

6 would -- might lead to reasonable uncertainty as to the scope of claim 19.

7 As I believe we had pointed out in our briefing "A reasonable uncertainty is
8 not the standard for indefiniteness."

9 The other thing I wanted to address with respect to the external
10 elements that Petitioner pointed to in the '629 Patent, the statement "The
11 elements are external elements that do not require opening of the packet
12 payload."

13 The rest of that statement says that "There is no dependency on packet
14 elements that can be altered, hidden, or encrypted by the application." This
15 is made as part -- in the context as the '629 Patent's distinguishing over the
16 prior art of deep packet and complete packet inspection. It's just -- it is
17 simply saying you don't have to open the packet in order to do this. This
18 doesn't say anything about header-only, more than header, what it is, what it
19 isn't. The only thing it says it isn't something that requires cracking open
20 the packet to look inside.

21 That's all for Patent Owner, Your Honors. Thank you.

22 JUDGE DROESCH: Okay. All right. Thank you. It looks like we
23 are adjourned.

24 (Proceedings concluded at 2:33 p.m.)

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