

IN THE 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 Signals, LLC
Patent Owner.

Case IPR2018-00594

U.S. Patent No. 8,111,629

**PETITIONERS' SUR-REPLY TO PATENT OWNER'S REPLY TO
PETITIONERS' OPPOSITION TO PATENT OWNER'S MOTION TO
AMEND**

Mail Stop "PATENT BOARD"

Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

	Page
I. Introduction.....	1
II. Patent Owner Failed to Meet the Statutory and Regulatory Requirements for Filing a Motion to Amend	1
III. Patent Owner Mischaracterizes Petitioners’ Arguments.....	4
IV. Patent Owner Relies on Arguments Already Rejected	8
V. Patent Owner’s Arguments Regarding Duffield are Misplaced.....	9
A. Duffield Discloses Grouping Packets Using Non-header Information Such as Inter-arrival Period.....	9
B. Motivation to Combine	9
VI. Conclusion	11

Petitioners' Exhibit List

<i>Exhibit #</i>	<i>Description</i>
1001	U.S. Patent No. 8,111,629 (“the ’629 Patent”)
1002	Select portions of prosecution history of the ’629 Patent (“File History”)
1003	Declaration of Petitioners’ Expert Dr. Samuel H. Russ (“Russ”)
1004	U.S. Pat. No. 8,085,775 (“Pappu”)
1005	U.S. Pat. No. 7,660,248 (“Duffield”)
1006	U.S. Pat. Publication No. 20060262789 (“Peleg”)
1007	U.S. Pat. Publication No. 20070076606 (“Olesinski”)
1008	“Toward the Accurate Identification of Network Applications” (“Moore”)
1009	“Automated Traffic Classification and Application Identification Using Machine Learning” (“Zander”)
1010	“Evaluating Machine Learning Methods for Online Game Traffic Identification” (“Williams”)
1011	Supplemental Declaration of Petitioners’ Expert Dr. Samuel H. Russ

I. Introduction

Pursuant to the Board's March 21, 2019 Order (Paper No. 32), Petitioners submit this Sur-reply to Patent Owner's Reply to Petitioners' Opposition to Patent Owner's Motion to Amend (Paper 30; "Reply to MTA").

II. Patent Owner Failed to Meet the Statutory and Regulatory Requirements for Filing a Motion to Amend

Before considering the patentability of any substitute claims, "the Board first must determine whether the motion to amend meets the statutory and regulatory requirements set forth in 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121."

Lectrosonics, Inc. v. Zaxcom, Inc., IPR2018-01129 (PTAB Feb. 25, 2019) (Paper 15)(Precedential). Thus, although Petitioners have the burden of showing that Patent Owner's new claims 25-29 ("Substitute Claims") are not patentable, the Patent Owner must first satisfy the statutory and regulatory requirements to amend any claims. Patent Owner's Reply to its Motion to Amend (Paper 30; "Reply to MTA") makes clear that Patent Owner has still not met its requirements.

The Patent Owner admits that it did not include the '510 Application as an exhibit, but then attempts to justify its omission by arguing that Petitioners and the Board had "access" to the file history as a public record of the Patent and Trademark Office. Reply to MTA 1-2. The issue is not "access," but rather, was the file history made part of the record to satisfy the statutory requirement that

Patent Owner must show that each element of the Substitute Claims are supported in the original disclosure. Belatedly filing the '510 Application with its Reply to MTA instead of with its Motion to Amend (Paper 19: "MTA") prejudices Petitioners, by forcing Petitioners to respond to Patent Owner's support in a sur-reply which is limited to 12 pages instead of in Petitioners' Opposition to Patent Owner's Contingent Motion to Amend ("Petitioners' Opposition") where the page limit is 25 pages.

Additionally, Patent Owner's failure to identify the written description support of the originally filed disclosure for each proposed Substitute Claim in the Motion to Amend, cannot be cured by attaching an appendix to the Reply to MTA. The written description support must be set forth in the motion to amend itself, not in a claim listing included in an appendix. *See Lectrosonics* at 8. Additionally, the single-spaced appendix that Patent Owner attached to its Reply to MTA is also improper as it would cause Patent Owner's Reply to MTA to exceed its 12 page limit if the analysis were properly double-spaced as part of the body of the Reply to MTA and not part of an appendix.¹

¹ Petitioners are concurrently filing a "Petitioners Notice of Improper Arguments and Evidence" regarding the appendix in the Reply to MTA as belatedly filed

Moreover, the appendix, even if accepted by the Board, does not identify adequate support for the Substitute Claims. For example, in its Reply to MTA, the Patent Owner argues that “each of the ‘comparing,’ ‘grouping,’ and ‘obtaining’ steps use ‘more than packet header information.’” Reply to MTA 4. This means that each of the recited steps uses header information and something more than header information. However, the appendix does not identify the support in the original application for these recited three steps using header information and something more than header information.

Specifically, for example, there is no support for the limitation “comparing said obtained packets with each other using respectively obtained traffic packet characteristics,” wherein the traffic packet characteristics include more than header information. In the appendix, the Patent Owner now identifies p. 12, ll. 23-25; p. 7 ll. 5-11; page 9, ll. 22-30 and p. 11, ll. 22-28. Reply to MTA 12. However, none of these passages discloses “comparing said obtained packets with each other” for any information, let alone header information and “more than header information.” The original disclosure is silent with respect to comparing one packet with another packet. Instead these passages disclose “thresholding” of packet length and packet

evidence which was required to be submitted with Patent Owner’s Motion to Amend.

inter-arrival period” and using that as a “basic acceptance criteria” for the packets. p. 11, ll. 22-28. Thus, the original disclosure discloses comparing each obtained packet to a threshold, not with each other, as recited in Substitute Claim 25.

Likewise, there is no support for the limitation “grouping together those packets having similar values of said traffic characteristics into a presumed session” wherein the traffic packet characteristics include more than header information. In the appendix, the Patent Owner identifies p. 11 ll. 29-33; p. 16 ll. 3-7. Reply to MTA 12. However, neither of these passages discloses grouping packets into presumed sessions based on header information and more than header information. Instead, these passages discuss the use of thresholds for packet length, inter-arrival periods, or derivatives thereof, which are referred to as “external packet characteristics” for grouping packets having similar values. Grouping based on header information in addition to the external packet characteristics is not disclosed.

Therefore, Patent Owner has still failed to meet statutory and regulatory requirements in support of its Motion to Amend and should not be permitted to amend any claims.

III. Patent Owner Mischaracterizes Petitioners’ Arguments

Patent Owner argues that the disclosures of Pappu, Peleg, and Duffield in combination do not disclose the limitations of the Substitute Claims. Reply to

MTA 5-6. To the contrary, pages 9-15 of Petitioners' Opposition sets forth the factual basis to support that each of Pappu, Peleg, and Duffield disclose traffic characteristics comprising parameters associated with a traffic packet, the parameters including more than packet header information. Petitioners' Opposition includes pin citations to the references, as well as citations to an expert declaration. Patent Owner fails to rebut Petitioners' cited evidence. Reply to MTA 5-6. Also, Patent Owner's arguments mischaracterize the evidence, fail to provide factual support for any of its arguments, and fail to provide the testimony of its own expert in rebuttal. *Id.*

For one example, Petitioners identified that Claim 1 of Pappu is directed to an embodiment of Pappu where the flow is not identified by header information alone because "said flow being incapable of being identified by header information alone." Petitioners' Opposition 11. This evidence directly undercuts Patent Owner's argument that "*Pappu and Peleg describe using **header-only data** for traffic management. Neither *Pappu* nor *Peleg* disclose wherein the traffic packet characteristics comprise parameters associated with a traffic packet, the parameters including more than packet header information.*" Motion to Amend 6 (emphasis in original).

In the Reply to MTA, the Patent Owner attempts to discount this disclosure of Pappu by arguing that Claim 1 of Pappu is not enabled. Reply to MTA 5-6.

Patent Owner argues that “Petitioners have not pointed to any portion of Pappu that would enable a person of ordinary skill in the art to actually identify a flow that is ‘incapable of being identified by header information alone.’” *Id.* Patent Owner’s argument is based on a faulty legal premise concerning enablement and mischaracterizes Pappu.

Procedurally, Pappu is a prior art patent and presumed to be valid and therefore enabled. *Edmund Optics, Inc. v. Semrock, Inc.* IPR2014-00599 (PTAB Paper 72, p. 21) (citing *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313 (Fed. Cir. 2003)). Thus, it is the Patent Owner, not the Petitioners, who bears the burden of proving non-enablement of Pappu. *Edmund Optics* at 27-29. Also, a reference contains an “enabling disclosure” if the public was in possession of the claimed invention before the date of invention. “Such possession is effected if one of ordinary skill in the art could have combined the publication’s description of the invention with his [or her] own knowledge to make the claimed invention.” *In re Donohue*, 766 F.2d 531 (Fed. Cir. 1985). If the reference teaches every claimed element of the article, secondary evidence, such as other patents or publications, can be cited to show public possession of the method of making and/or using. *In re Donohue*, 766 F.2d at 533. Thus, the Peleg reference and Duffield reference are relevant as to how a POSA would understand the teachings of Pappu.

“[E]ven if a reference discloses an inoperative device, it is prior art for all that it teaches.” *Beckman Instruments v. LKB Produkter AB*, 892 F.2d 1547, 1551, (Fed. Cir. 1989). Therefore, “a non-enabling reference may qualify as prior art for the purpose of determining obviousness.” *Symbol Techs. Inc. v. Opticon Inc.*, 935 F.2d 1569, 1578 (Fed. Cir. 1991).

Substantively, Patent Owner cannot meet its burden regarding non-enablement in view of the evidence identified by Petitioners. Petitioners’ Opposition identifies that Pappu discloses an embodiment that uses more than header information to identify a flow. Specifically, Petitioners’ Opposition identifies that Pappu discloses (1) “[i]n one embodiment of the invention, flows are identified and classified based on their observed behavior” (Petitioners’ Opposition 9 citing PAN-1004 2:41-47) (2) that its methods may be employed “in a manner that takes into account information beyond which is contained in the packets themselves” (Petitioners’ Opposition 11 citing, PAN-1004 8:33-38), and (3) that information that is not contained in the packets includes the statistics identified in FIG. 4. (Petitioners’ Opposition 4). This specific embodiment teaches a POSA that Pappu discloses using observed behavior that is not in the header information or otherwise contained in the packets themselves to identify a flow even where “said flow being incapable of being identified by header information alone” as recited in Claim 1. Petitioners Opposition also sets forth how and why a POSA would

interpret Pappu in view of Peleg and Duffield, and combine the references to group packets in a flow using traffic characteristics other than header information.

Petitioners' Opposition 12-15.

Thus, in view of Petitioners' evidence, which is unrebutted by the Patent Owner, the Patent Owner cannot satisfy its burden of proving non-enablement of Pappu.

IV. Patent Owner Relies on Arguments Already Rejected

Patent Owner's element by element argument for patentability of the Substitute Claims repeats its arguments from its Patent Owner Response ("POR") and PO Sur-reply that a "session" is different than a "flow". However, because the Motion to Amend is contingent upon the Board finding the Challenged Claims unpatentable, the Board will only address the Substitute Claims if the Board has already rejected Patent Owner's session versus flow arguments. Therefore, the Board need not consider again Patent Owner's session versus flow arguments referenced in the Patent Owner's Reply to MTA, and need only address Patent Owner's argument that the grouping limitation is not disclosed by the combination of Pappu, Peleg and Duffield.

V. Patent Owner’s Arguments Regarding Duffield are Misplaced

A. Duffield Discloses Grouping Packets Using Non-header Information Such as Inter-arrival Period

With respect to the grouping limitation, Patent Owner asserts that Duffield cannot be combined with Pappu and Peleg. First, Patent Owner asserts that Duffield assigns incoming packets to a “class” after that class has already been determined based on “developed attributes” to argue that Duffield does not disclose a presumed session. Reply to MTA 9. However, Petitioners are not relying on Duffield for disclosing presumed sessions. Instead, Petitioners are relying on Duffield to show that it was known to group packets using non-header information such as inter-arrival period. Petitioners’ Opposition 23.

B. Motivation to Combine

Next, the Patent Owner asserts that “Petitioners have not identified any reason why one of ordinary skill in the art would seek to combine Pappu and Duffield.” Reply to MTA 9. Petitioners identified Duffield as an alternative basis in response to Patent Owner’s argument that Pappu only “discloses the use of a five-tuple, which is header-only information.” Reply to MTA 5. Moreover, contrary to Patent Owner’s argument, Petitioners provided a detailed explanation for why one of ordinary skill in the art would seek to combine Pappu and Duffield:

It would have been obvious to a POSA, to modify Pappu to group arriving packets using header information and non-header information (such as inter-arrival period) as disclosed in Duffield, because Pappu

recognizes that “by grouping packets into flows, it is possible to aggregate individual packets in a meaningful way to allow the traffic flowing through router 102 to be understood at a higher level.” *PAN 1004* 6:29-3; *PAN-1011* ¶39. Thus, Pappu expressly provides a motivation for a POSA to aggregate/group packets and Duffield discloses the grouping of packets using non-header traffic features such as inter-arrival period. Therefore, a POSA would be motivated to use, among other attributes, inter-arrival period as taught by Duffield in order to group the packets in a meaningful way. *PAN-1011* ¶39. A POSA would also be confident in success of the modification, as both Pappu and Duffield disclose the use of inter-arrival period (*PAN-1004* Fig. 4; *PAN-1005*, 5:15-24) and that packets may be grouped together by common features (*PAN-1004* 13:20-38; *PAN-1005* 6:22-7:41); *PAN-1011* ¶39.

Petitioners’ Opposition 23-24.

Once again, Patent Owner has failed to come forward with any evidence or testimony to rebut the evidence and testimony offered by Petitioners to showing that Substitute Claims are invalid.

VI. Conclusion

For the reasons set forth above, Petitioners request that the Board deny Patent Owner's Motion to Amend.

Respectfully submitted,

DUANE MORRIS LLP

BY: /Patrick D. McPherson/

Patrick D. McPherson

USPTO Reg. No. 46,255

Duane Morris LLP

505 9th Street NW, Suite 1000

Washington, D.C. 20004

Lead Counsel

Dated: April 24, 2019

CERTIFICATION OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e), 42.8(b)(4) and 42.105, the undersigned certifies that on the 24 April 2019, a complete and entire copy of Petitioners' Reply to Patent Owner's Response and all supporting exhibits were served electronically through the PTAB's E2E system on Patent Owner's counsel at:

Benjamin R. Johnson
TOLER LAW GROUP, PC
bjohnson@tlgiplaw.com

Timothy Devlin
DEVLIN LAW FIRM LLC
tdevlin@devlinlawfirm.com

/Patrick D. McPherson/
Patrick D. McPherson, Reg. No. 46,255
505 9th Street, N.W., Suite 1000
Washington, D.C. 20004
P: (202) 776-7800
F: (202) 776-7801
PDMcPherson@duanemorris.com