

<b>PATENT ASSIGNMENT COVER SHEET</b>
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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ZIHANG XIAO	05/23/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	PALO ALTO NETWORKS, INC.
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<b>City:</b>	SANTA CLARA
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95054
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15083070
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<b>ATTORNEY DOCKET NUMBER:</b>	PALOP138
<b>NAME OF SUBMITTER:</b>	MICHAEL J. SCHALLOP
<b>SIGNATURE:</b>	/Michael J. Schallop/
<b>DATE SIGNED:</b>	02/22/2018
<b>Total Attachments: 2</b>	
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source=PALOP138 Executed Assignment#page2.tif	

## ASSIGNMENT OF PATENT APPLICATION

Whereas I/we the undersigned inventor(s) have invented certain new and useful improvements as set forth in the patent application entitled:

### **GENERATING MALWARE SIGNATURES BASED ON DEVELOPER FINGERPRINTS IN DEBUG INFORMATION**

for which I (we) have executed an application for a United States Letters Patent which was filed in the U.S. Patent and Trademark Office on March 28, 2016, and which bears the Application No. 15/083,070 (the "APPLICATION");

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we the undersigned inventor(s) hereby:


- 1) Sell, assign, and transfer to Palo Alto Networks, Inc., a Delaware corporation having a place of business at 4401 Great America Parkway, Santa Clara, CA 95054, (hereinafter referred to as "ASSIGNEE"), the entire worldwide right, title and interest in and to: (a) the APPLICATION; (b) any application to which the APPLICATION claims priority and any application at least in part based upon the APPLICATION; (c) all provisional, utility, divisional, continuation, continuation-in-part, substitute, renewal, reissue, and other applications related thereto which have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) which may be granted on the applications set forth in (a), (b), and (c) above; (e) any and all improvements and inventions disclosed in (a), (b), (c), and (d) above; (f) all rights of priority in the APPLICATION and in any underlying provisional or foreign application, together with all rights to recover damages for infringement of any provisional rights; and (g) all claims for past, present and future infringement of any patent in (d) above, including all rights to sue for and to receive and recover for the ASSIGNEE's own use all past, present, and future lost profits, royalties, and damages of whatever nature recoverable from an infringement of any patent in (d) above.
- 2) Authorize and request the issuance of any and all Patent(s) resulting from said application or any division(s), continuation(s), continuation-in-part(s), substitutes(s), reissue(s), or other application(s) related thereof, which have been or may be filed in the United States or elsewhere in the world, to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said APPLICATION, as well as any derivative applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications. Such acts shall include (a) executing all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to the ASSIGNEE the rights, titles and interests herein conveyed; (b) communicating to the ASSIGNEE all known facts relating to any subject matter disclosed in the APPLICATION or any application or patent related to the APPLICATION; and (c) generally doing all lawful acts that the ASSIGNEE shall consider desirable for securing,

maintaining, and enforcing worldwide patent protection and for vesting in the ASSIGNEE the rights, titles, and interests herein conveyed.

4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the ASSIGNEE, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.

5) Warrant and represent that I/we have the rights, titles, and interests to convey as set forth herein, and have not entered, and will not enter into any assignment, grant, mortgage, license, contract, agreement, or understanding that conflicts with this assignment.

Signed on the date(s) indicated beside my (our) signature(s).

1) Signature:  Date: 05/23/2016  
Typed Name: Zihang Xiao