PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6734564

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
EXPANSE, LLC	05/17/2021

RECEIVING PARTY DATA

Name:	PALO ALTO NETWORKS, INC.	
Street Address:	3000 TANNERY WAY	
City:	SANTA CLARA	
State/Country:	CALIFORNIA	
Postal Code:	95054	

PROPERTY NUMBERS Total: 32

Property Type	Number
Patent Number:	10666536
Patent Number:	10425430
Patent Number:	10749857
Application Number:	15463963
Patent Number:	10831838
Application Number:	15466735
Patent Number:	10965707
Application Number:	16166906
Application Number:	16166972
Application Number:	16167029
Application Number:	16230589
Application Number:	16579302
Application Number:	16837276
Application Number:	17021722
Application Number:	17037107
Application Number:	17216623
Application Number:	62508298
Application Number:	62586669
Application Number:	62610346
Application Number:	62847266

PATENT REEL: 056379 FRAME: 0222

506687746

Property Type	Number
Application Number:	62911076
Application Number:	62911077
Application Number:	62911078
Application Number:	63015891
PCT Number:	US2018067234
PCT Number:	US2017016399
PCT Number:	US2017065430
PCT Number:	US2017053535
PCT Number:	US2017065427
PCT Number:	US2017065428
PCT Number:	US2018033504
PCT Number:	US2017016401

CORRESPONDENCE DATA

Fax Number: (512)670-8904

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Correspondent Name: GILLIAM IP PLLC (PALO ALTO NETWORKS, INC.)

Address Line 1: 7200 N. MOPAC EXPY.

Address Line 2: SUITE 440

Address Line 4: AUSTIN, TEXAS 78731-2697

ATTORNEY DOCKET NUMBER:	PALO-00751 - PALO-00769
NAME OF SUBMITTER:	JUDITH HUERTA
SIGNATURE: /Judith Huerta/	
DATE SIGNED:	05/28/2021

Total Attachments: 3

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PATENT REEL: 056379 FRAME: 0223

ASSIGNMENT

Expanse, LLC, 1013 Centre Road, Suite 403-B, Wilmington DE 19805 ("Assignor") assigns, transfers, and conveys to Palo Alto Networks, Inc., 3000 Tannery Way, Santa Clara, CA 95054 ("Assignee") all rights, title, and interests Assignor has in and to the patents and patent applications identified in Appendix A. The rights, title, and interests include those to enforcement/infringement actions, to collect royalties, to prosecute existing patent applications worldwide, to pursue additional patent applications worldwide, and to have patents issue to the Assignee.

Assignor requests and authorizes the appropriate officials in any country to issue any and all Patents that may be granted/issued upon any patent application or any additional continuation or divisional application(s) thereof to the Assignee, its successors and assigns.

Assignor grants to Assignee and its agents/representatives permission to insert into this instrument any further identifying information necessary or desirable to facilitate recordation of this Assignment in an intellectual property office of any country or region.

Assignor: Expanse, LLC		
DocuSigned by: Brue Byrd	Date:	2021-05-17
Bruce Byrd, Manager		
Expanse, LLC		
Assignee: Palo Alto Networks, Inc.		
DocuSigned by:		
Brue Byrd	Date:	2021-05-17
Bruce Byrd, Executive Vice President/General Counsel		
Palo Alto Networks, Inc.		

Appendix A

Patent #	Title
N/A	CORRELATION DRIVEN THREAT
	ASSESSMENT AND REMEDIATION
10,965,707	CORRELATION-DRIVEN THREAT
	ASSESSMENT AND REMEDIATION
N/A	CORRELATION-DRIVEN THREAT
	ASSESSMENT AND REMEDIATION
N/A	CORRELATION-DRIVEN THREAT
	ASSESSMENT AND REMEDIATION
N/A	AUTONOMOUS ALERTING SYSTEM FOR
	NETWORK MONITORING BASED ON TECHNICALLY-DEFINED
	CATEGORIZATIONS FOR NETWORK SPACE
	AND NETWORK BOUNDARY CHANGE
N/A	AUTONOMOUS ALERTING BASED ON
	DEFINED CATEGORIZATIONS FOR
	NETWORK SPACE AND NETWORK
	BOUNDARY CHANGES
N/A	AUTONOMOUS ALERTING BASED ON
	DEFINED CATEGORIZATIONS FOR
	NETWORK SPACE AND NETWORK BOUNDARY CHANGES
	BOUNDART CHARGES
N/A	GLOBAL INTERNET SENSOR FUSION
N/A	DISCOVERING INTERNET PROTOCOL (IP)
	ADDRESSES INVOLVED IN FLOWS
	TRAVERSING THE INTERNET
N/A	DETERMINING RISK ASSOCIATED WITH
	INTERNET PROTOCOL (IP) ADDRESSES
	INVOLVED IN INTERNET
27/4	COMMUNICATIONS
N/A	REMOTE DYNAMIC DETECTION OF INTERACTIONS WITH MALWARE DOMAINS
N/A	SECURITY MANAGEMENT PLATFORMS FOR
	ASSESSING THREATS TO AN INTERNAL NETWORK
10.666.526	
10,000,536	NETWORK ASSET DISCOVERY
N/A	NETWORK ASSET DISCOVERY
	N/A 10,965,707 N/A N/A N/A N/A N/A N/A N/A N/

15/136,620	10,425,430	HIERARCHICAL SCANNING OF INTERNET CONNECTED ASSETS
16/579,302	N/A	HIERARCHICAL SCANNING OF INTERNET CONNECTED ASSETS
PCT/US2017/016399	N/A	HIERARCHICAL SCANNING OF INTERNET CONNECTED ASSETS
15/276,632	10,749,857	NETWORK MAPPING USING A FINGERPRINT
PCT/US2017/016401	N/A	NETWORK MAPPING USING A FINGERPRINT
15/342,991	N/A	FINGERPRINT DETERMINATION FOR NETWORK MAPPING
PCT/US2017/053535	N/A	FINGERPRINT DETERMINATION FOR NETWORK MAPPING
15/463,963	N/A	TRIGGERED SCANNING USING PROVIDED CONFIGURATION INFORMATION
PCT/US2017/065427	N/A	TRIGGERED SCANNING USING PROVIDED CONFIGURATION INFORMATION
15/463,990	10,831,838	TRIGGERED SCANNING BASED ON NETWORK AVAILABLE DATA CHANGE
17/021,722	N/A	TRIGGERED SCANNING BASED ON NETWORK AVAILABLE DATA CHANGE
PCT/US2017/065428	N/A	TRIGGERED SCANNING BASED ON NETWORK AVAILABLE DATA CHANGE
15/466,735	N/A	DISTRIBUTED SCANNING
PCT/US2017/065430	N/A	DISTRIBUTED SCANNING
62/911,076	N/A	NETWORK ASSET LIFECYCLE MANAGEMENT
17/037,107	N/A	NETWORK ASSET LIFECYCLE MANAGEMENT
62/911,077	N/A	NETWORK ASSET GOVERNANCE
62/911,078	N/A	SUPPLY CHAIN NETWORK SECURITY
63/015,891	N/A	DYNAMIC REAL TIME GLOBAL PROTECTION OF REMOTE WORKFORCE