PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1

Stylesheet Version v1.2

EPAS ID: PAT6480010

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	PATENT SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
CROWDSTRIKE HOLDINGS, INC.	01/04/2021
CROWDSTRIKE, INC.	01/04/2021

RECEIVING PARTY DATA

Name:	SILICON VALLEY BANK, AS ADMINISTRATIVE AGENT
Street Address:	3003 TASMAN DRIVE, HF 150
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 93

Property Type	Number
Patent Number:	9043903
Patent Number:	9292881
Patent Number:	9256730
Patent Number:	10409980
Patent Number:	10713356
Patent Number:	9158914
Patent Number:	9477835
Patent Number:	10356047
Patent Number:	9571453
Patent Number:	10289405
Patent Number:	9798882
Patent Number:	9621515
Patent Number:	9858626
Patent Number:	10339316
Patent Number:	10025922
Patent Number:	10331881
Patent Number:	10243972
Patent Number:	10216934
Patent Number:	10191789

Property Type	Number
Patent Number:	10685111
Patent Number:	10002250
Patent Number:	10430585
Patent Number:	10826934
Patent Number:	10832168
Patent Number:	10015199
Patent Number:	10387228
Patent Number:	9904784
Patent Number:	10803172
Patent Number:	10635806
Patent Number:	10659432
Patent Number:	10726128
Patent Number:	10664262
Patent Number:	10740459
Patent Number:	10762202
Patent Number:	10831712
Patent Number:	10853491
Patent Number:	10482246
Patent Number:	10546127
Patent Number:	10395030
Patent Number:	10154049
Application Number:	15063086
Application Number:	15624193
Application Number:	15721508
Application Number:	15857896
Application Number:	15858497
Application Number:	15873670
Application Number:	15909372
Application Number:	15909442
Application Number:	15979903
Application Number:	16110927
Application Number:	16168588
Application Number:	16192251
Application Number:	16224678
Application Number:	16237468
Application Number:	16244050
Application Number:	16248551
Application Number:	16248315

Property Type	Number
Application Number:	16268334
Application Number:	16281277
Application Number:	16283599
Application Number:	16289344
Application Number:	16367561
Application Number:	16367616
Application Number:	16408180
Application Number:	16411850
Application Number:	16507194
Application Number:	16512158
Application Number:	16752374
Application Number:	62978069
Application Number:	16849411
Application Number:	16849450
Application Number:	16849496
Application Number:	16849543
Application Number:	16849579
Application Number:	16855585
Application Number:	16877265
Application Number:	16885169
Application Number:	16885174
Application Number:	16944033
Application Number:	16944052
Application Number:	16943949
Application Number:	16943755
Application Number:	17008038
Application Number:	17019166
Application Number:	17060355
Application Number:	17062237
Application Number:	17083675
Application Number:	17083684
Application Number:	17087194
Application Number:	17091700
Application Number:	17095884
Application Number:	16210734
Application Number:	16795140

CORRESPONDENCE DATA

Fax Number:	
Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.	
Phone:	800-494-5225
Email:	ipteam@cogencyglobal.com
Correspondent Name:	STEWART WALSH
Address Line 1:	1025 VERMONT AVE NW, SUITE 1130
Address Line 2:	COGENCY GLOBAL INC.
Address Line 4:	WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	1311760 PAT
NAME OF SUBMITTER:	SARAH MACKIN
SIGNATURE:	/Sarah Mackin/
DATE SIGNED:	01/05/2021

Total Attachments: 8
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<u>**PATENT SECURITY AGREEMENT**</u>

This **PATENT SECURITY AGREEMENT** (this "*Agreement*"), dated as of January 4, 2021 is made by and between **CROWDSTRIKE HOLDINGS, INC.**, a Delaware corporation ("Holdings"), **CROWDSTRIKE, INC.**, a Delaware corporation ("CrowdStrike") and together with Holdings, individually or collectively as the context requires, jointly and severally, the "Grantor"), and **SILICON VALLEY BANK** (the "Assignee"), as Administrative Agent, pursuant to (i) that certain Amended and Restated Guarantee and Collateral Agreement, dated as of the date hereof (as amended, amended and restated, supplemented, restructured or otherwise modified, renewed or replaced from time to time, the "Guarantee and Collateral Agreement"), among the Assignee, the Grantor and certain other parties, and (ii) that certain Amended and Restated Credit Agreement, dated as of the date hereof (as amended, amended and restated, supplemented, restructured or otherwise modified, renewed or replaced from time to time, the "Credit Agreement"), among the Grantor, the Assignee, certain other parties and certain Lenders party thereto.

Capitalized terms not otherwise defined herein have the respective meanings ascribed to them in the Guarantee and Collateral Agreement or the Credit Agreement, as applicable.

WHEREAS, pursuant to the Guarantee and Collateral Agreement, the Grantor has granted in favor of the Assignee a security interest in certain Collateral, including the federally registered or applied for Patents set forth on <u>Schedule A</u> hereto as of the date hereof.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Grantor and the Assignee hereby agree as follows:

1. <u>Grant of Security Interest</u>

(a)   Subject to the terms and conditions of the Guarantee and Collateral Agreement, to evidence further the security interest granted by the Grantor to the Assignee pursuant to the Guarantee and Collateral Agreement, the Grantor hereby grants to the Assignee a security interest in all of the Grantor's right, title and interest in, to and under the Patents, whether now owned or existing or at any time hereafter acquired or arising and wherever located, as collateral security for the prompt and complete payment and performance when due (whether at the stated maturity, by acceleration or otherwise) of the Grantor's Obligations. For the purposes of this Agreement, "Patents" means (i) all letters patent of the United States, any other country or any political subdivision thereof, all reissues and extensions thereof and all goodwill associated therewith, including, without limitation, any of the foregoing referred to on <u>Schedule A</u> hereto, (ii) all applications for letters patent of the United States or any other country and all divisions, continuations and continuations-in-part thereof, including, without limitation, any of the foregoing referred to on <u>Schedule A</u> hereto, and (iii) all rights to obtain any reissues or extensions of the foregoing.

(b)   <u>Schedule A</u> hereto contains a true and accurate list of all of the Grantor's United States registrations and applications for registration for the Patents existing as of the date hereof.

(c)   The security interest granted hereby is granted concurrently and in conjunction with the security interest granted to the Assignee under the Guarantee and Collateral Agreement. In the event that any of the provisions of this Agreement are in conflict with the Guarantee and Collateral Agreement, the provisions of the Guarantee and Collateral Agreement shall govern.

2.   Modifications

This Agreement or any provision hereof may not be waived, amended, supplemented or otherwise modified except in accordance with Section 10.1 of the Credit Agreement. Notwithstanding the foregoing, the Grantor authorizes the Assignee to modify this Agreement without obtaining the Grantor's signature to such modification, only to the extent that such modification constitutes an amendment of Schedule A hereto, i.e. to add any right, title or interest in any Patents owned or subsequently acquired by the Grantor or to delete any reference to any right, title or interest in any Patents in which the Grantor no longer has or claims any right, title or interest. The Grantor additionally agrees to execute any additional agreement or amendment hereto as may be reasonably required by the Assignee from time to time, to subject any such owned or subsequently acquired right, title or interest in any Patent to the security interests and perfection created or contemplated hereby or by the Guarantee and Collateral Agreement.

3.   Applicable Law

THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

4.   Recordation

Grantor hereby authorizes and requests that the United States Patent and Trademark Office record this Agreement.

5.   Counterparts

This Agreement may be executed by one or more of the parties to this Agreement on any number of separate counterparts (including by telecopy or electronic transmission), and all of said counterparts taken together shall be deemed to constitute one and the same instrument.

[Signature page follows.]

ny-2042807

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed and delivered as of the date first above written.
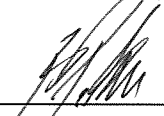
ASSIGNEE:

SILICON VALLEY BANK

By: _Victorie Regan_
Name: _Victoria Regan_
Title: _Managing Director_
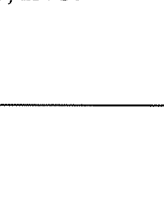
GRANTORS:

CROWDSTRIKE HOLDINGS, INC.

By: _____

Name: Burt Podbere

Title: Chief Financial Office

CROWDSTRIKE, INC.

By: _____

Name: Burt Podbere

Title: Chief Financial Officer and Director

Schedule A - Patents and Patent Applications

Issued Patents and Pending Patent Applications

Loan Party	Jurisdiction	App. Serial No.	Patent Number	Date Filed	Date Issued	Title
CrowdStrike, Inc.	US	13/492,672	9,043,903	06/08/12	05/26/15	Kernel-Level Security Agent
CrowdStrike, Inc.	US	13/538,439	9,292,881	06/29/12	03/22/16	Social Sharing of Security Information in a Group
CrowdStrike, Inc.	US	13/607,155	9,256,730	09/07/12	02/09/16	Threat Detection for Return Oriented Programming
CrowdStrike, Inc.	US	13/728,746	10,409,980	12/27/12	09/10/19	Real-Time Representation of Security-Relevant System State
CrowdStrike, Inc.	US	13/784,720	10,713,356	03/04/13	07/14/20	Deception-Based Responses to Security Attacks
CrowdStrike, Inc.	US	13/866,968	9,158,914	04/19/13	10/13/15	Executable Component Injection Utilizing Hotpatch Mechanisms
CrowdStrike, Inc.	US	14/048,920	9,477,835	10/08/13	10/25/16	Event Model for Correlating System Component States
CrowdStrike, Inc.	US	14/098,246	10,356,047	12/05/13	07/16/19	RPC CALL INTERCEPTION
CrowdStrike, Inc.	US	14/140,323	9,571,453	12/24/13	02/14/17	Kernel-Level Security Agent
CrowdStrike, Inc.	US	14/220,362	10,289,405	03/20/14	05/14/19	Integrity Assurance and Rebootless Updating During Runtime
CrowdStrike, Inc.	US	14/297,974	9,798,882	06/06/14	10/24/17	Real-Time Model of States of Monitored Devices
CrowdStrike, Inc.	US	14/709,779	9,621,515	05/12/15	04/11/17	Kernel-Level Security Agent
CrowdStrike, Inc.	US	14/792,177	9,858,626	07/06/15	01/02/18	Social Sharing of Security Information in a Group
CrowdStrike, Inc.	US	14/810,840	10,339,316	07/28/15	07/02/19	Integrity Assurance Through Early Loading in the Boot Phase
CrowdStrike, Inc.	US	14/818,527	10,025,922	08/05/15	07/17/18	User-Mode Component Injection and Atomic Hooking
CrowdStrike, Inc.	US	15/063,086	N/A	03/07/16	N/A	Hypervisor-Based Interception of Memory Accesses
CrowdStrike, Inc.	US	15/077,526	10,331,881	03/22/16	06/25/19	User-Mode Component Injection Techniques
CrowdStrike, Inc.	US	15/096,027	10,243,972	04/11/16	03/26/19	Correlation-Based Detection of Exploit Activity
CrowdStrike, Inc.	US	15/213,004	10,216,934	07/18/16	02/26/19	INFERENTIAL EXPLOIT ATTEMPT DETECTION
CrowdStrike, Inc.	US	15/240,860	10,191,789	08/18/16	01/29/19	Tracing System Operations Across Remote Procedure Linkages to Identify Request Originators
CrowdStrike, Inc.	US	15/339,844	10,685,111	10/31/16	06/16/20	FILE-MODIFYING MALWARE DETECTION
CrowdStrike, Inc.	US	15/393,797	10,002,250	12/29/16	06/19/18	SECURITY AGENT
CrowdStrike, Inc.	US	15/400,561	10,430,585	01/06/17	10/01/19	Binary Search of Byte Sequences Using Inverted Indices
CrowdStrike, Inc.	US	15/402,503	10,826,934	01/10/17	11/03/20	VALIDATION-BASED DETERMINATION OF COMPUTATIONAL MODELS

CrowdStrike, Inc.	US	15/402,524	10,832,168	01/10/17	11/10/20	COMPUTATIONAL MODELING AND CLASSIFICATION OF DATA STREAMS
CrowdStrike, Inc.	US	15/433,535	10,015,199	02/15/17	07/03/18	PROCESSING SECURITY-RELEVANT EVENTS USING TAGGED TREES
CrowdStrike, Inc.	US	15/438,553	10,387,228	02/21/17	08/20/19	SYMMETRIC BRIDGE COMPONENT FOR COMMUNICATIONS BETWEEN KERNEL MODE AND USER MODE
CrowdStrike, Inc.	US	15/483,153	9,904,784	04/10/17	02/27/18	Kernel-Level Security Agent
CrowdStrike, Inc.	US	15/585,156	10,803,172	05/02/17	10/13/20	Malicious/Benign Computational Behavior Detection Using Canonic Patterns of Behavior
CrowdStrike, Inc.	US	15/586,907	10,635,806	05/04/17	04/28/20	LEAST RECENTLY USED (LRU)-BASED EVENT SUPPRESSION
CrowdStrike, Inc.	US	15/624,193	N/A	06/15/17	N/A	Information Retrieval Using Automata
CrowdStrike, Inc.	US	15/643,291	10,659,432	07/06/17	05/19/20	NETWORK CONTAINMENT OF COMPROMISED MACHINES
CrowdStrike, Inc.	US	15/657,379	10,726,128	07/24/17	07/28/20	MALWARE DETECTION USING LOCAL COMPUTATIONAL MODELS
CrowdStrike, Inc.	US	15/690,182	10,664,262	08/29/17	05/26/20	BINARY SUPPRESSION AND MODIFICATION FOR SOFTWARE UPGRADES
CrowdStrike, Inc.	US	15/721,508	N/A	09/29/17	N/A	USING INDIRECTION TO FACILITATE SOFTWARE UPGRADES
CrowdStrike, Inc.	US	15/857,007	10,740,459	12/28/17	08/11/20	Kernel- and User-Level Cooperative Security Processing
CrowdStrike, Inc.	US	15/857,896	N/A	12/29/17	N/A	MALWARE DETECTION IN EVENT LOOPS
CrowdStrike, Inc.	US	15/858,497	N/A	12/29/17	N/A	APPLICATIONS OF A BINARY SEARCH ENGINE BASED ON AN INVERTED INDEX OF BYTE SEQUENCES
CrowdStrike, Inc.	US	15/873,670	N/A	01/17/18	N/A	SECURITY COMPONENT FOR DEVICES ON AN ENUMERATED BUS
CrowdStrike, Inc.	US	15/909,372	N/A	03/01/18	N/A	CLASSIFICATION OF SOURCE DATA BY NEURAL NETWORK PROCESSING
CrowdStrike, Inc.	US	15/909,442	N/A	03/01/18	N/A	CLASSIFICATION OF SOURCE DATA BY NEURAL NETWORK PROCESSING
CrowdStrike, Inc.	US	15/951,025	10,762,202	04/11/18	09/01/20	SECURELY AND EFFICIENTLY PROVIDING USER NOTIFICATIONS ABOUT SECURITY ACTIONS
CrowdStrike, Inc.	US	15/979,903	N/A	05/15/18	N/A	DATA-GRAPH INFORMATION RETRIEVAL USING AUTOMATA
CrowdStrike, Inc.	US	15/993,515	10,831,712	05/30/18	11/10/20	IDENTIFYING AND CORRELATING PHYSICAL DEVICES ACROSS DISCONNECTED DEVICE STACKS
CrowdStrike, Inc.	US	16/007,507	10,853,491	06/13/18	12/01/20	Security Agent
CrowdStrike, Inc.	US	16/110,927	N/A	08/23/18	N/A	CARDINALITY-BASED ACTIVITY PATTERN DETECTION

CrowdStrike, Inc.	US	16/168,588	N/A	10/23/18	N/A	IDENTIFICATION PROCESS FOR SUSPICIOUS ACTIVITY PATTERNS BASED ON ANCESTRY RELATIONSHIP
CrowdStrike, Inc.	US	16/192,251	N/A	11/16/18	N/A	COMPUTER-SECURITY EVENT SECURITY-VIOLATION DETECTION
CrowdStrike, Inc.	US	16/224,678	N/A	12/18/18	N/A	DETECTING SCRIPT-BASED MALWARE
CrowdStrike, Inc.	US	16/237,468	N/A	12/31/18	N/A	BYTE N-GRAM EMBEDDING MODEL
CrowdStrike, Inc.	US	16/244,050	N/A	01/09/19	N/A	INFERENTIAL EXPLOIT ATTEMPT DETECTION
CrowdStrike, Inc.	US	16/248,551	N/A	01/15/19	N/A	Device Driver Non-Volatile Backing-Store Installation
CrowdStrike, Inc.	US	16/248,315	N/A	01/15/19	N/A	Verified Inter-Module Communications Interface
CrowdStrike, Inc.	US	16/252,359	10,482,246	01/18/19	11/19/19	Binary Search of Byte Sequences Using Inverted Indices
CrowdStrike, Inc.	US	16/252,388	10,546,127	01/18/19	01/28/20	Binary Search of Byte Sequences Using Inverted Indices
CrowdStrike, Inc.	US	16/252,428	10,395,030	01/18/19	08/27/19	Binary Search of Byte Sequences Using Inverted Indices
CrowdStrike, Inc.	US	16/268,334	N/A	02/05/19	N/A	CROSS-MACHINE DETECTION TECHNIQUES
CrowdStrike, Inc.	US	16/281,277	N/A	02/21/19	N/A	COMPUTER-SECURITY EVENT ANALYSIS
CrowdStrike, Inc.	US	16/283,599	N/A	02/22/19	N/A	ANOMALY-BASED MALICIOUS-BEHAVIOR DETECTION
CrowdStrike, Inc.	US	16/289,344	N/A	02/28/19	N/A	CONTAINER APPLICATION FOR ANDROID-BASED DEVICES
CrowdStrike, Inc.	US	16/367,561	N/A	03/28/19	N/A	Computer-Security Event Clustering and Violation Detection
CrowdStrike, Inc.	US	16/367,616	N/A	03/28/19	N/A	Computer-Security Violation Detection using Coordinate Vectors
CrowdStrike, Inc.	US	16/408,180	N/A	05/09/19	N/A	Integrity Assurance and Rebootless Updating During Runtime
CrowdStrike, Inc.	US	16/411,850	N/A	05/14/19	N/A	APPLICATIONS OF MACHINE LEARNING MODELS TO A BINARY SEARCH ENGINE BASED ON AN INVERTED INDEX OF BYTE SEQUENCES
CrowdStrike, Inc.	US	16/507,194	N/A	07/10/19	N/A	Detecting Security-Violation-Associated Event Data
CrowdStrike, Inc.	US	16/512,158	N/A	07/15/19	N/A	RPC CALL INTERCEPTION
CrowdStrike, Inc.	US	16/752,374	N/A	01/24/20	N/A	Binary Search of Byte Sequences Using Inverted Indices
CrowdStrike, Inc.	US	62/978,069	N/A	02/18/20	N/A	EMBEDDING NETWORKS TO EXTRACT MALWARE FAMILY INFORMATION
CrowdStrike, Inc.	US	16/849,411	N/A	04/15/20	N/A	DISTRIBUTED DIGITAL SECURITY SYSTEM
CrowdStrike, Inc.	US	16/849,450	N/A	04/15/20	N/A	DISTRIBUTED DIGITAL SECURITY SYSTEM
CrowdStrike, Inc.	US	16/849,496	N/A	04/15/20	N/A	DISTRIBUTED DIGITAL SECURITY SYSTEM
CrowdStrike, Inc.	US	16/849,543	N/A	04/15/20	N/A	DISTRIBUTED DIGITAL SECURITY SYSTEM
CrowdStrike, Inc.	US	16/849,579	N/A	04/15/20	N/A	DISTRIBUTED DIGITAL SECURITY SYSTEM

CrowdStrike, Inc.	US	16/855,585	N/A	04/22/20	N/A	FIRMWARE RETRIEVAL AND ANALYSIS
CrowdStrike, Inc.	US	16/877,265	N/A	05/18/20	N/A	NETWORK CONTAINMENT OF COMPROMISED MACHINES
CrowdStrike, Inc.	US	16/885,169	N/A	05/27/20	N/A	Deception-Based Responses to Security Attacks
CrowdStrike, Inc.	US	16/885,174	N/A	05/27/20	N/A	Deception-Based Responses to Security Attacks
CrowdStrike, Inc.	US	16/944,033	N/A	07/30/20	N/A	MAPPING UNBOUNDED INCIDENT SCORES TO A FIXED RANGE
CrowdStrike, Inc.	US	16/944,052	N/A	07/30/20	N/A	ADVANCE INCIDENT SCORING
CrowdStrike, Inc.	US	16/943,949	N/A	07/30/20	N/A	MALICIOUS INCIDENT VISUALIZATION
CrowdStrike, Inc.	US	16/943,755	N/A	07/30/20	N/A	VISUALIZATION AND CONTROL OF REMOTELY MONITORED HOSTS
CrowdStrike, Inc.	US	17/008,038	N/A	08/31/20	N/A	SECURELY AND EFFICIENTLY PROVIDING USER NOTIFICATIONS ABOUT SECURITY ACTIONS
CrowdStrike, Inc.	US	17/019,166	N/A	09/11/20	N/A	PARAMETRIC BEHAVIORAL PATTERN DEFINITION
CrowdStrike, Inc.	US	17/060,355	N/A	10/01/20	N/A	Hypervisor-Based Interception of Memory and Register Accesses
CrowdStrike, Inc.	US	17/062,237	N/A	10/02/20	N/A	HYPERVISOR-BASED REDIRECTION OF SYSTEM CALLS AND INTERRUPT-BASED TASK OFFLOADING
CrowdStrike, Inc.	US	17/083,675	N/A	10/29/20	N/A	VALIDATION-BASED DETERMINATION OF COMPUTATIONAL MODELS
CrowdStrike, Inc.	US	17/083,684	N/A	10/29/20	N/A	COMPUTATIONAL MODELING AND CLASSIFICATION OF DATA STREAMS
CrowdStrike, Inc.	US	17/087,194	N/A	11/02/20	N/A	VALIDATION-BASED DETERMINATION OF COMPUTATIONAL MODELS
CrowdStrike, Inc.	US	17/091,700	N/A	11/06/20	N/A	IDENTIFYING AND CORRELATING PHYSICAL DEVICES ACROSS DISCONNECTED DEVICE STACKS
CrowdStrike, Inc.	US	17/095,884	N/A	11/12/20	N/A	ZERO-TOUCH SECURITY SENSOR UPDATES
CrowdStrike, Inc.	US	15/151001	10154049	5/10/2016	12/11/2018	System and method for providing an in-line sniffer mode network based identity centric firewall
CrowdStrike, Inc.	US	16/210734	N/A	12/05/2018	N/A	SYSTEM AND METHOD FOR PROVIDING AN IN-LINE AND SNIFFER MODE NETWORK BASED IDENTITY CENTRIC FIREWALL
CrowdStrike, Inc.	US	16/795140	N/A	2/19/2020	N/A	NETWORK-BASED NT LAN MANAGER (NTLM) RELAY ATTACK DETECTION AND PREVENTION

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PATENT