PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
SILICON VALLEY BANK, AS ADMINISTRATIVE AGENT	01/02/2018

RECEIVING PARTY DATA

Name:	BARRACUDA NETWORKS, INC.	
Street Address:	3175 WINCHESTER BOULEVARD	
City:	CAMPBELL	
State/Country:	CALIFORNIA	
Postal Code:	95008	

PROPERTY NUMBERS Total: 79

Property Type	Number
Patent Number:	5503561
Patent Number:	5796948
Patent Number:	5999967
Patent Number:	6097697
Patent Number:	6098108
Patent Number:	6266701
Patent Number:	6324582
Patent Number:	6778941
Patent Number:	7010611
Patent Number:	7093287
Patent Number:	7093294
Patent Number:	7103913
Patent Number:	7149222
Patent Number:	7149795
Patent Number:	7254038
Patent Number:	7272155
Patent Number:	7328247
Patent Number:	7519727
Patent Number:	7688815
Patent Number:	7788291

PATENT REEL: 045027 FRAME: 0870

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Property Type	Number
Patent Number:	7836267
Patent Number:	7861300
Patent Number:	7877789
Patent Number:	7898953
Patent Number:	7917756
Patent Number:	8050251
Patent Number:	8069244
Patent Number:	8122493
Patent Number:	8204948
Patent Number:	8219644
Patent Number:	8280895
Patent Number:	8285997
Patent Number:	8360808
Patent Number:	8434140
Patent Number:	8463797
Patent Number:	8555365
Application Number:	11844348
Application Number:	12030339
Application Number:	12037746
Application Number:	12268446
Application Number:	12323379
Application Number:	12409504
Application Number:	12348917
Application Number:	11566013
Application Number:	11367765
Application Number:	12467007
Application Number:	12551169
Application Number:	12167547
Application Number:	13166808
Application Number:	13166807
Application Number:	13246834
Application Number:	12610511
Application Number:	12351812
Application Number:	13225371
Application Number:	13225432
Application Number:	13246386
Application Number:	13152269
Application Number:	12610505

Property Type	Number
Application Number:	13225428
Application Number:	11903605
Application Number:	12128286
Application Number:	12167134
Application Number:	12431757
Application Number:	12497563
Application Number:	12551239
Application Number:	12578008
Application Number:	12685708
Application Number:	12703148
Application Number:	12732189
Application Number:	12784471
Application Number:	12851499
Application Number:	12973727
Application Number:	13153327
Application Number:	13156340
Application Number:	13175812
Application Number:	13183403
Application Number:	13280268
Application Number:	12395437
Application Number:	12511822

CORRESPONDENCE DATA

Fax Number: (415)947-2099

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Address Line 4: SAN FRANCISCO, CALIFORNIA 94105

ATTORNEY DOCKET NUMBER:	31212.038
NAME OF SUBMITTER:	QUILU
SIGNATURE:	/Qui Lu/
DATE SIGNED:	01/08/2018

Total Attachments: 9

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TERMINATION AND RELEASE OF PATENT SECURITY AGREEMENT

This TERMINATION AND RELEASE OF PATENT SECURITY AGREEMENT (this "Termination"), dated as of January 2, 2018, is executed by SILICON VALLEY BANK, as Administrative Agent (the "Administrative Agent"), in favor of BARRACUDA NETWORKS, INC., a Delaware corporation (the "Borrower"). All capitalized terms used in this Termination and not otherwise defined herein, shall have the respective meanings given to such terms in the Security Agreement (defined below).

RECITALS

- Pursuant to that certain Patent Security Agreement, dated as of October 3, 2012 (as amended, the "Security Agreement"), by and between Borrower and Administrative Agent, Borrower granted to Administrative Agent a security interest in the IP Collateral (defined below).
- The Security Agreement was recorded with the Patent Division of the United States Patent and Trademark Office on October 12, 2012 at Reel/Frame 029218/0107 to evidence the security interest granted under the Security Agreement.
- Administrative Agent agrees to execute this Termination in order to evidence the termination and release of its security interest in the IP Collateral specified below.

AGREEMENT

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Administrative Agent hereby agrees as follows:

- Administrative Agent expressly terminates and releases all of Administrative Agent's right, title and interest in, to and under the following (collectively, the "IP Collateral"):
- 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 Schedule A hereto, 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 Schedule A, and all rights to obtain any reissues or extensions of the foregoing, whether now owned or existing or at any time hereafter acquired or arising and wherever located.
- Administrative Agent represents and warrants that it has the full power and authority to execute this Termination.
- Administrative Agent authorizes and requests the patent division of the United States Patent and Trademark Office to record this Termination.

[Signature Page Follows]

IN WITNESS WHEREOF, Administrative Agent has executed and delivered this Termination as of the day and year first above written.

SILICON VALLEY BANK,

as Administrative Agent

Title: Vice President

REEL: 045027 FRAME: 0875

$\underline{\text{SCHEDULE A}}$

Title	Application No.	Filing Date	Patent No.	Issuc Date
WEB APPLICATION SECURITY FILTERING	08159796.5 (EP)	07/07/2008	EP2 144 420	06/22/2011
BELIEF-SCAN FALLACY FINDER COMPUTERIZED FALLACY DETECTION AND DIAGNOSTIC SYSTEM	08198999	02/18/1994	5503561	04/02/1996
OFFENSIVE MESSAGE INTERCEPTOR FOR COMPUTER	08745650	11/12/1996	5796948	08/18/1998
ELECTRONIC MAIL FILTERING BY ELECTRONIC STAMP	08910326	08/17/1997	5999967	12/07/1999
CONGESTION CONTROL	09118400	07/17/1998	6097697	08/01/2000
DISTRIBUTED DIRECTORY FOR ENHANCED NETWORK COMMUNICATION	09016120	01/30/1998	6098108	08/01/2000
APPARATUS AND METHOD FOR IMPROVING THROUGHPUT ON A DATA NETWORK	08886869	07/02/1997	6266701	07/24/2001
ENHANCED NETWORK COMMUNICATION	09176065	10/20/1998	6324582	11/27/2001
MESSAGE AND USER ATTRIBUTES IN A MESSAGE FILTERING METHOD AND SYSTEM	10010789	11/13/2001	6778941	08/17/2004
BANDWIDTH MANAGEMENT SYSTEM WITH MULTIPLE PROCESSING ENGINES	09612635	07/07/2000	7010611	03/97/2006
METHOD AND SYSTEM FOR BUILDING DYNAMIC FIREWALL RULES, BASED ON CONTENT OF DOWNLOADED DOCUMENTS	09687100	10/12/2000	7093287	08/15/2006
SYSTEM AND METHOD FOR DETECTING AND CONTROLLING A DRONE IMPLANTED IN A NETWORK ATTACHED DEVICE SUCH AS A COMPUTER	10002764	10/31/2001	7093294	08/15/2006

Title	Application No.	Filing Date	Patent No.	Issue Date
METHOD AND APPARATUS FOR DETERMINATION OF THE NON- REPLICATIVE BEHAVIOR OF A MALICIOUS PROGRAM	10141896	05/08/2002	7103913	09/05/2006
INTEGRATED ACCESS POINT NETWORK DEVICE	09730513	12/05/2000	7149222	12/12/2006
DISTRIBUTED QUALITY-OF- SERVICE SYSTEM	09955860	09/18/2001	7149795	12/12/2006
LOW PROFILE EXPANSION CARD FOR A SYSTEM	11111319	04/21/2005	7254038	08/07/2007
CENTRAL POLICY MANAGER	09950979	09/12/2001	7272155	09/18/2007
SELF-CONTAINED INSTANT MESSAGING APPLIANCE	10878794	06/28/2004	7328247	02/05/2008
BANDWIDTH MANAGEMENT ALGORITHM	11311866	12/19/2005	7519727	04/14/2009
METHOD AND SYSTEM FOR A MULTI-STAGE INTERCONNECT SWITCH	10920789	08/17/2004	7688815	03/30/2010
WEB ACCELERATOR APPARATUS, SYSTEM, AND METHOD	11861034	09/25/2007	7788291	08/31/2010
OPEN COMPUTER FILES SNAPSHOT.	11847380	08/30/2007	7836267	11/16/2010
METHOD AND APPARATUS FOR DETERMINATION OF THE NON- REPLICATIVE BEHAVIOR OF A MALICIOUS PROGRAM	12141165	06/18/2008	7861300	12/28/2010
E-MAIL STAMPING WITH FROM- HEADER VALIDATION	11743151	05/02/2007	7877789	01/25/2011
DEFICIT AND GROUP ROUND ROBIN SCHEDULING FOR EFFICIENT NETWORK TRAFFIC MANAGEMENT	12466387	05/15/2009	7898953	03/01/2011
E-MAIL STAMPING WITH FROM- HEADER VALIDATION	11421748	06/01/2006	7917756	03/29/2011

Title	Application No.	Filing Date	Patent No.	Issue Date
SECURE REMOTE SUPPORT AUTOMATION PROCESS	11844348	08/23/2007	8838965	09/16/2014
TRACING DOMAINS TO AUTHORITATIVE SERVERS ASSOCIATED WITH SPAM	12030339	02/13/2008	· w	*
FILTERING SECURE NETWORK MESSAGES WITHOUT CRYPTOGRAPHIC PROCESSES METHOD	12037746	02/26/2008	~	·
VERIFICATION OF DNS ACCURACY IN CACHE POISONING	12268446	11/11/2008	7930428	04/19/2011
POLICY-MANAGED DNS SERVER FOR TO CONTROL NETWORK TRAFFIC	12323379	11/25/2008	8447856	05/21/2013
RECALLING SPAM EMAIL OR VIRUSES FROM INBOXES	12409504	03/24/2009	8788597	07/22/2014
APPARATUS FOR TO PROVIDE CONTENT TO AND QUERY A REVERSE DOMAIN NAME SYSTEM SERVER	12348917	01/06/2009	* *	~
E-MAIL STAMPING WITH ACCREDITED ENTITY NAME	11566013	12/01/2006	7917943	03/29/2011
INTEGRATED DATA FLOW PACKET ADMISSION AND TRAFFIC MANAGEMENT APPARATUS	11367765	03/03/2006	7970899	06/28/2011
TUNNELING FOR EFFICIENT NETWORK TRAFFIC MANAGEMENT	12467007	05/15/2009	7974288	07/05/2011
APPARATUS FOR DEFINING A SET OF RULES FOR A PACKET FORWARDING DEVICE	12551169	08/31/2009	7987267	07/26/2011
FACILITATING TRANSMISSION OF EMAIL BY CHECKING EMAIL PARAMETERS WITH A DATABASE OF WELL BEHAVED SENDERS	12167547	07/03/2008	7996475	08/09/2011

Title	Application No.	Filing Date	Patent No.	Issue Date
VPN OPTIMIZATION BY DEFRAGMENTATION AND DEDUPLICATION APPARATUS AND METHOD	12421651	04/10/2009	8050251	11/01/2011
METHOD FOR DEFINING A SET OF RULES FOR A PACKET FORWARDING DEVICE	12551147	08/31/2009	8069244	11/29/2011
FIREWALL BASED ON DOMAIN NAMES	11657863	01/25/2007	8122493	02/21/2012
QUERYING A DATABASE AND RECEIVING REPLIES IN IPV6 FORMAT BY UTILIZING WELL KNOWN PORT 53	12854871	08/11/2010	8204948	06/19/2012
REQUESTING A SERVICE OR TRANSMITTING CONTENT AS A DOMAIN NAME SYSTEM RESOLVER	12167524	07/03/2008	8219644	07/10/2012
MULTI-STREAMED METHOD FOR OPTIMIZING DATA TRANSFER THROUGH PARALLELIZED INTERLACING OF DATA BASED UPON SORTED CHARACTERISTICS TO MINIMIZE LATENCIES INHERENT IN THE SYSTEM	12497564	07/03/2009	\$280895	10/02/2012
BACKUP APPARATUS WITH HIGHER SECURITY AND LOWER NETWORK BANDWIDTH CONSUMPTION	12408644	03/20/2009	8285997	10/09/2012
CIRCUIT BOARD MOUNTED CONNECTOR	13175182	07/01/2011	8360808	01/29/2013
PORT HOPPING AND SEEK YOU PEER TO PEER TRAFFIC CONTROL METHOD AND SYSTEM	12907573	10/19/2010	8434140	04/30/2013
Method for measuring similarity of diverse binary objects comprising bit patterns	12839307	07/20/2010	8463797	06/11/2013
DIRECTORY AUTHENTICATION METHOD FOR POLICY DRIVEN WEB FILTERING	12784497	05/21/2010	8555365	10/08/2013

Title	Application No.	Filing Date	Patent No.	Issue Date
TRANSMISSION APPARATUS FOR VPN OPTIMIZATION BY DEFRAGMENTATION AND DEDUPLICATION AND METHOD	13166808	06/23/2011	8559450	10/15/2013
RECEPTION APPARATUS FOR VPN OPTIMIZATION BY DEFRAGMENTATION AND DEDUPLICATION AND METHOD	13166807	06/23/2011	8571042	10/29/2013
Client -Server Transactional Pre-Archival Apparatus	13246834	09/27/2011	8725704	05/13/2014
DISTRIBUTED FREQUENCY DATA COLLECTION VIA INDICATOR EMBEDDED WITH DNS REQUEST	12610511	11/02/2009	8775604	07/08/2014
CONTROLLING TRANSMISSION OF UNAUTHORIZED UNOBSERVABLE CONTENT IN EMAIL USING POLICY	12351812	01/10/2009	*	~
System and Web Security Agent Method for Certificate Authority Reputation Enforcement	13225371	09/02/2011	40	~
Proxy Apparatus for Certificate Authority Reputation Enforcement in the Middle	13225432	09/03/2011	*	
MORE ELEGANT EXASTORE APPARATUS AND METHOD OF OPERATION	13246386	09/27/2011	8788831	07/22/2014
METHOD FOR DETECTING MALICIOUS JAVASCRIPT	13152269	06/03/2011	8789178	07/22/2014
DISTRIBUTED FREQUENCY DATA COLLECTION VIA DNS NETWORKING	12610505	11/02/2009	8843612	09/23/2014
CONFIGURING A PLURALITY OF DIVERSE DEVICES/SERVICES FROM AN ADAPTIVE CONFIGURATION CONTROL HYPER-SERVER APPARATUS	13225428	09/03/2011	9021017	04/28/2015
Distributed frequency data collection via DNS	11903605	09/24/2007	**************************************	~

Title	Application No.	Filing Date	Patent No.	Issue Date
MULTILEVEL INTENT ANALYSIS METHOD FOR EMAIL FILTRATION	12128286	05/28/2008	~	~
OPERATING A SERVICE ON A NETWORK AS A DOMAIN NAME SYSTEM SERVER	12167134	07/02/2008	<u>`</u>	30
DEMAND SCHEDULED EMAIL VIRUS AFTERBURNER APPARATUS, METHOD, AND SYSTEM	12431757	04/29/2009	-85;	~
Hierarchical skipping method for optimizing data transfer through retrieval and identification of non-redundant components	12497563	07/03/2009	~	-
SHARED SCALABLE SERVER TO CONTROL CONFIDENTAL EVENT TRAFFIC AMONG RECORDATION TERMINALS, ANALYSIS ENGINES, AND A STORAGE FARM COUPLED VIA A PUBLIC NETWORK	12551239	08/31/2009		.~
Shared scalable server to control confidential sensory event traffic among recordation terminals, analysis engines, and a storage farm coupled via a non-proprietary communication channel	12578008	10/13/2009	-	*
SECURE EXTRANET SERVER	12685708	01/12/2010	~	<u>~</u>
WEB APPLICATION SECURITY FILTERING	12703148	02/09/2010	-	*
Detecting and Thwarting Browser-Based Network Intrusion Attacks For Intellectual Property Misappropriation System and Method	12732189	93/26/2010	75	~
Certified URL checking, caching, and categorization service	12784471	05/20/2010	*	
QUERYING A DATABASE AS A DOMAIN NAME SYSTEM RESOLVER	12851499	08/05/2010	-	
CLOUD MESSAGE TRANSFER APPARATUS TO REDUCE NON- DELIVERY REPORTS	12973727	12/20/2010		~

Title	Application No.	Filing Date	Patent No.	Issue Date
FACILITATING TRANSMISSION OF AN EMAIL OF A WELL BEHAVED SENDER BY EXTRACTING EMAIL PARAMETERS AND QUERYING A DATABASE	13153327	06/03/2011	*	-
Parallel Tracing Apparatus For Malicious Websites	13156340	06/09/2011	;÷	*
MULTILEVEL INTENT ANALYSIS APPARATUS & METHOD FOR EMAIL FILTRATION	13175812	07/01/2011	÷	*
System to Embed Enhanced Security / Privacy Functions Into a User Client	13183403	07/14/2011	~	+
Adaptive Concentrating Data Transmission Heap Buffer and Method	13280268	10/24/2011	*	2-
A BANDWIDTH SHAPING CLIENT TO CAPTURE, TRANSFORM, CACHE, AND UPLOAD IMAGES FROM A REMOTE POINT OF RECORDATION TO A NETWORK SERVICE	12395437	02/27/2009	8558888	10/15/2013
INTERNET-BASED CAMERA FOCUSING METHOD AND APPARATUS	12511822	07/29/2009	8194174	06/05/2012

RECORDED: 01/08/2018