

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM479103

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
LES RESEAUX ACCEDIAN INC. / ACCEDIAN NETWORKS INC.		06/22/2018	Corporation: QUEBEC
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	SILICON VALLEY BANK		
<b>Street Address:</b>	3003 Tasman Drive, HF 150		
<b>City:</b>	Santa Clara		
<b>State/Country:</b>	CALIFORNIA		
<b>Postal Code:</b>	95054		
<b>Entity Type:</b>	Corporation: CALIFORNIA		
<b>PROPERTY NUMBERS Total: 7</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	5174456	ACCEDIAN	
<b>Registration Number:</b>	4554742	R-FLO	
<b>Registration Number:</b>	3993834	ACCEDIAN	
<b>Registration Number:</b>	4412184	PERFORMANT	
<b>Registration Number:</b>	4506483	NANONID	
<b>Registration Number:</b>	3666076	METRONID	
<b>Registration Number:</b>	3666075	ETHERNID	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>	8004947512		
<i>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.</i>			
<b>Phone:</b>	202-370-4756		
<b>Email:</b>	ipteam@cogencyglobal.com		
<b>Correspondent Name:</b>	Jay daSilva		
<b>Address Line 1:</b>	1025 Vermont Ave NW, Suite 1130		
<b>Address Line 2:</b>	COGENCY GLOBAL INC.		
<b>Address Line 4:</b>	Washington, D.C. 20005		
<b>ATTORNEY DOCKET NUMBER:</b>	F177734 TM		

OP \$190.00 5174456

<b>NAME OF SUBMITTER:</b>	Andrew Nash
<b>SIGNATURE:</b>	/Andrew Nash/
<b>DATE SIGNED:</b>	06/22/2018
<b>Total Attachments: 12</b> source=H.2 - Closing Copy - IP Security Agreement - Accedian#page1.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page2.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page3.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page4.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page5.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page6.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page7.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page8.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page9.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page10.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page11.tif source=H.2 - Closing Copy - IP Security Agreement - Accedian#page12.tif	

## INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (“Agreement”) is entered into as of June 22, 2018, by and between (i) **SILICON VALLEY BANK** (“Bank”) and (ii) **LES RESEAUX ACCEDIAN INC. / ACCEDIAN NETWORKS INC.** (“Grantor”).

### RECITALS

A. Bank has agreed to make certain advances of money and to extend certain financial accommodations (the “Loans”) to Grantor in the amounts and manner set forth in that certain Loan and Security Agreement by and between Bank and Grantor dated as of March 11, 2014 (as amended, and as the same may be further amended, modified or supplemented from time to time, the “Loan Agreement”; capitalized terms used herein are used as defined in the Loan Agreement). Bank is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Bank a security interest in its Intellectual Property constituting Collateral (collectively, the “Intellectual Property Collateral”) to secure the obligations of Grantor to Bank.

B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Bank a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of the Obligations, Grantor hereby represents, warrants, covenants and agrees as follows:

### AGREEMENT

1. Grant of Security Interest. To secure the Obligations, Grantor grants and pledges to Bank a security interest in all of Grantor's right, title and interest in, to and under the Intellectual Property Collateral, including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto (collectively, the “Copyrights”);

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights that may be available to Grantor now or hereafter existing, created, acquired or held;

(d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and

continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(e) Any trademark and service mark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "Mask Works");

(g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(i) All amendments, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

2. Recordation. Grantor authorizes the Canadian Intellectual Property Office, the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials to record and register this Agreement upon request by Bank.

3. Loan Documents. This Agreement has been entered into pursuant to and in conjunction with the Loan Agreement, which is hereby incorporated by reference. The provisions of the Loan Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of Bank with respect to the Intellectual Property Collateral are as provided by the Loan Agreement and related documents, and nothing in this Agreement shall be deemed to limit such rights and remedies.

4. Execution in Counterparts. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or in electronic (i.e., "pdf" or "tif" format) shall be effective as delivery of a manually executed counterpart of this Agreement.

5. Successors and Assigns. This Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.

6. Governing Law. This Agreement and any claim, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Agreement and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the laws of the United States and the State of New York, without giving effect to any choice or conflict of law provision or rule (whether of the State of New York or any other jurisdiction). Notwithstanding the foregoing, this Agreement shall be governed by the laws of the Province of Quebec and the laws of Canada applicable therein, to the extent that the hypothecation granted hereunder is governed by such laws pursuant to the laws of the Province of Quebec (including the conflict of laws provisions thereof).

7. Language. The parties acknowledge that they have required that this Agreement and all related documents be prepared in English./Les parties reconnaissent avoir exigé que la présente convention et tous les documents connexes soient rédigés en anglais.

[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

**GRANTOR:**

**LES RESEAUX ACCEDIAN INC./  
ACCEDIAN NETWORKS INC.**

By:   
Name: Martin Lebeau  
Title: Chief Financial Officer

**BANK:**

**SILICON VALLEY BANK**

By: \_\_\_\_\_  
Name:  
Title:

[Signature Page to Intellectual Property Security Agreement]

**TRADEMARK  
REEL: 006362 FRAME: 0527**

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

**GRANTOR:**

**LES RESEAUX ACCEDIAN INC./  
ACCEDIAN NETWORKS INC.**

By: \_\_\_\_\_  
Name:  
Title:

**BANK:**

**SILICON VALLEY BANK**

By: *Christopher Feary*  
Name: *Christopher Feary*  
Title: *Director*

EXHIBIT A

Copyrights

None.



EXHIBIT B

Patents

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
TCP performance predictor	9,979,663	June 8, 2015
Multi-hop reflector sessions	9,960,982	July 24, 2012
Providing efficient routing of an operations, administration and maintenance (OAM) frame received at a port of an ethernet switch	9,954,983	March 21, 2017
Methods of detecting and assigning IP addresses to devices with ARP requests	9,935,917	June 10, 2016
System and method for intelligent timer services	9,910,703	May 17, 2016
Hybrid thermal management of electronic device	9,888,609	October 18, 2016
Systems and methods of discovering and controlling devices without explicit addressing	9,887,883	October 19, 2016.
Simplified synchronized Ethernet implementation	9,887,794	February 13, 2017
Methods of using beacon messages to discover devices across subnets	9,860,207	October 8, 2016
System and method for out-of-line real-time in-service performance measurement	9,819,553	February 18, 2016
Method for devices in a network to participate in an end-to-end measurement of latency	9,762,469	June 10, 2015
Single queue link aggregation	9,755,955	February 18, 2015
System for testing Ethernet paths and links without impacting non-test traffic	9,742,579	July 30, 2014
Method, a computer program product, and a carrier for indicating one-way latency in a data network	9,736,049	November 2, 2016
Adaptive centralized collection of performance management data using a metamodel	9,736,044	October 15, 2015
Programmable small form-factor pluggable module	9,735,874	July 18, 2012
System for establishing and maintaining a clock reference indicating one-way latency in a data network	9,722,718	July 19, 2016
Transparent auto-negotiation of Ethernet	9,699,033	October 6, 2016
Service OAM virtualization	9,692,712	December 23, 2014

Preemptive packet transmission	9,660,927	April 22, 2015
System and method for loopback and network loop detection and analysis	9,660,896	March 18, 2015
System and methods of installing and operating devices without explicit network addresses	9,641,484	April 18, 2016
Providing efficient routing of an operations, administration and maintenance (OAM) frame received at a port of an ethernet switch	9,641,458	February 19, 2015
Simplified synchronized Ethernet implementation	9,608,751	March 18, 2015
Layer-3 performance monitoring sectionalization	9,577,913	March 1, 2016
Method, a computer program product, and a carrier for indicating one-way latency in a data network	9,544,210	March 1, 2016
Multicasting of event notifications using extended socket for inter-process communication	9,524,197	September 6, 2012
Modified ethernet preamble for inter line card communications in a modular communication chassis	9,509,810	November 19, 2015
Hybrid thermal management of electronic device	9,504,183	November 20, 2014
Systems and methods of discovering and controlling devices without explicit addressing	9,503,328	February 16, 2016
Methods of using beacon messages to discover devices across subnets	9,491,137	July 1, 2015
Transparent auto-negotiation of ethernet	9,491,053	April 28, 2015
Automatic setup of reflector instances	9,419,883	September 17, 2015
System for establishing and maintaining a clock reference indicating one-way latency in a data network	9,419,780	August 4, 2015
Power over ethernet management devices and connection between ethernet devices	9,413,555	April 17, 2014
Automatic discovery and enforcement of service level agreement settings	9,407,515	November 15, 2014
Methods of detecting and assigning IP addresses to devices with ARP requests	9,391,948	December 15, 2015
System and method for intelligent timer services	9,367,352	April 21, 2015
System and methods of installing and operating devices without explicit network addresses	9,344,400	September 9, 2014
Layer-3 performance monitoring sectionalization	9,306,830	March 15, 2013
System and method for out-of-line real-time in-service performance measurement	9,300,565	April 17, 2014

Method, a computer program product, and a carrier for indicating one-way latency in a data network	9,300,556	June 22, 2015
Systems and methods of discovering and controlling devices without explicit addressing	9,294,358	May 1, 2014
Systems and methods of detecting and assigning IP addresses to devices with ARP requests	9,246,871	January 27, 2015
Modified ethernet preamble for inter line card communications in a modular communication chassis	9,225,634	September 15, 2014
Adaptive centralized collection of performance management data using a metamodel	9,191,286	August 9, 2012
Automatic setup of reflector instances	9,166,900	November 24, 2014
System for establishing and maintaining a clock reference indicating one-way latency in a data network	9,130,703	June 16, 2014
Systems and methods of using beacon messages to discover devices across subnets	9,106,706	July 18, 2012
Method, a computer program product, and a carrier for indicating one-way latency in a data network	9,094,427	December 19, 2014
Method for devices in a network to participate in an end-to-end measurement of latency	9,088,492	August 5, 2014
System and method for intelligent timer services	9,032,408	September 7, 2012
Systems and methods of detecting and assigning IP addresses to devices with ARP requests	8,982,730	August 7, 2014
Method, a computer program product, and a carrier for indicating one-way latency in a data network	8,948,210	March 3, 2014
Automatic setup of Reflector Instances	8,923,132	February 20, 2014
Automatic discovery and enforcement of service level agreement settings	8,917,596	September 7, 2012
Power over ethernet management devices and connection between ethernet devices	8,873,370	May 9, 2012
Modified Ethernet preamble for inter line card communications in a modular communication chassis	8,867,545	September 25, 2012
Systems and methods of installing and operating devices without explicit network addresses	8,862,702	July 18, 2012
Systems and methods of detecting and assigning IP addresses to devices with ARP requests	8,830,869	July 18, 2012
Method for devices in a network to participate in an end-to-	8,830,860	July 5, 2012

end measurement of latency

System for testing ethernet paths and links without impacting non-test traffic	8,824,312	November 10, 2011
System for establishing and maintaining a clock reference indicating one-way latency in a data network	8,792,380	August 24, 2012
Systems and methods of discovering and controlling devices without explicit addressing	8,751,615	July 18, 2012
Automatic setup of reflector instances	8,711,708	July 24, 2012
Method, a computer program product, and a carrier for indicating one-way latency in a data network	8,705,577	June 12, 2012
Power over ethernet management devices and connection between ethernet devices	8,705,341	December 8, 2010
System for testing ethernet paths and links without impacting non-test traffic	8,139,494	September 12, 2008
Power over ethernet management devices and connection between ethernet devices	7,873,057	April 25, 2006

EXHIBIT C

Trademarks

<u>Description</u>	<u>Serial/ Registration Number</u>	<u>Application/ Registration Date</u>
Name: ACCEDIAN Type: Word Mark	1767035	February 9, 2016
Name: Accedian Networks Type: Word Mark	TMA923717	December 16, 2015
Name: ACCEDIAN Type: Word Mark	TMA864354	November 5, 2013
Name: ACCEDIAN Type: Word Mark	5174456	April 4, 2017
Name: R-FLO Type: Word Mark	4554742	June 24, 2014
Name: ACCEDIAN Type: Word Mark	3993834	July 12, 2011
Name: PERFORMANT Type: Word Mark	4412184	October 1, 2013
Name: NANONID Type: Word Mark	4506483	April 1, 2014
Name: METRONID Type: Word Mark	3666076	August 11, 2009
Name: ETHERNID Type: Word Mark	3666075	August 11, 2009

EXHIBIT D

Mask Works

None.