

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM310708

<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>
Ciena Corporation		07/15/2014	CORPORATION: DELAWARE
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	Deutsche Bank AG New York Branch		
<b>Street Address:</b>	60 Wall Street		
<b>City:</b>	New York		
<b>State/Country:</b>	NEW YORK		
<b>Postal Code:</b>	10005		
<b>Entity Type:</b>	Banking Corporation: GERMANY		
<b>PROPERTY NUMBERS Total: 16</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	2070330	CIENA	
<b>Registration Number:</b>	2610130	COREDIRECTOR	
<b>Registration Number:</b>	3080638	ON-CENTER	
<b>Registration Number:</b>	3505281	FLEXSELECT	
<b>Registration Number:</b>	2911314	CORESTREAM	
<b>Registration Number:</b>	3026860	CIENA	
<b>Registration Number:</b>	4522190	OPTERA	
<b>Registration Number:</b>	4251724	CARRIER ETHERNET CERTIFIED ASSOCIATE	
<b>Registration Number:</b>	4251726	CARRIER ETHERNET CERTIFIED PROFESSIONAL	
<b>Registration Number:</b>	4251725	CARRIER ETHERNET CERTIFIED CONSULTANT	
<b>Registration Number:</b>	4259388	CARRIER ETHERNET CERTIFIED EXPERT	
<b>Registration Number:</b>	4225115	FASTMESH	
<b>Registration Number:</b>	4515295	OPN	
<b>Serial Number:</b>	86057222	THE MUX	
<b>Serial Number:</b>	86057246	PACKETWAVE	
<b>Serial Number:</b>	86300161	AGILITY	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>	6502138158		
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent</i>			
<b>TRADEMARK</b>			

CH \$415.00 2070330

*using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**Phone:** 6502130300  
**Email:** iprecordations@whitecase.com  
**Correspondent Name:** White & Case LLP / Christina Ishihara  
**Address Line 1:** 3000 El Camino Real, Bldg 5, 9th Floor  
**Address Line 4:** Palo Alto, CALIFORNIA 94306

<b>ATTORNEY DOCKET NUMBER:</b>	1111779-5947
<b>NAME OF SUBMITTER:</b>	Christina Ishihara
<b>SIGNATURE:</b>	/CHRISTINA ISHIHARA/
<b>DATE SIGNED:</b>	07/15/2014

**Total Attachments: 6**

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## TRADEMARK SECURITY AGREEMENT

### (Trademarks, Trademark Registrations, Trademark Applications and Trademark Licenses)

WHEREAS, Ciena Corporation, a Delaware corporation (herein referred to as the “**Assignor**”) owns, or in the case of licenses is a party to, the Trademark Collateral (as defined below);

WHEREAS, Ciena Corporation, a Delaware corporation (the “**Company**”), Ciena Communications, Inc. a Delaware corporation (together with the Company and each other Wholly-Owned Domestic Subsidiary of the Company that becomes a U.S. Borrower pursuant to the terms of the Credit Agreement, collectively, the “**U.S. Borrowers**”), Ciena Canada, Inc., a corporation incorporated in Canada (together with each other Wholly-Owned Canadian Subsidiary of the Company that becomes a Canadian Borrower pursuant to the terms of the Credit Agreement, collectively, the “**Canadian Borrowers**”; and the Canadian Borrowers, together with the U.S. Borrowers, collectively, the “**Borrowers**”), the lenders from time to time party thereto and Deutsche Bank AG New York Branch, as administrative agent, are parties to that certain ABL Credit Agreement, dated as of August 13, 2012 (as amended from time to time, the “**Credit Agreement**”);

WHEREAS, pursuant to an Amended and Restated Security Agreement, dated as of August 13, 2012 and amended and restated as of July 15, 2014 (as further amended and/or supplemented from time to time, the “**Security Agreement**”), among the Borrowers, the other Assignors party thereto and Deutsche Bank AG New York Branch as collateral agent for the Secured Creditors referred to therein (in such capacity, together with its successors in such capacity, the “**Grantee**”), and certain other Security Documents (including this Copyright Security Agreement) the Assignor has secured certain of its obligations (the “**Secured Obligations**”) by granting to the Grantee for the benefit of such Secured Creditors a continuing security interest in personal property of the Assignor, including all right, title and interest of the Assignor in, to and under the Trademark Collateral (as defined below); and

WHEREAS, terms defined in the Security Agreement (or whose definitions are incorporated by reference in the recitals thereto) and not otherwise defined herein have, as used herein, the respective meanings provided for therein;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Assignor grants to the Grantee, to secure the Secured Obligations, a continuing security interest in all of the Assignor’s right, title and interest in, to and under the following (all of the following items or types of property being herein collectively referred to as the “**Trademark Collateral**”), whether now owned or existing or hereafter acquired or arising, but subject to Section 1.1(b) of the Security Agreement:

- (i) each Trademark (as defined in the Security Agreement) owned by the Assignor, including, without limitation, each Trademark registration and application

referred to in Schedule 1 hereto and all of the goodwill of the business connected with the use of, or symbolized by each Trademark;

(i) each License (as defined in the Security Agreement), related to any Trademark (each, a “**Trademark License**”) to which the Assignor is a party, including, without limitation, each Trademark License identified in Schedule 1 hereto and all of the goodwill of the business connected with the use of, or symbolized by each Trademark licensed pursuant thereto; and

(ii) all proceeds of and revenues from the foregoing, including, without limitation, all proceeds of and revenues from any claim by the Assignor against third parties for past, present or future unfair competition with, or violation of intellectual property rights in connection with or injury to, or infringement or dilution of any Trademark owned by the Assignor (including, without limitation, any Trademark identified in Schedule 1 hereto), and all rights and benefits of the Assignor under any Trademark License (including, without limitation, any Trademark License identified in Schedule 1 hereto), or for injury to the goodwill associated with any of the foregoing;

provided that no security interest shall be granted in any United States intent-to-use Trademark applications to the extent that, and solely during the period in which, the grant of a security interest therein would impair the validity or enforceability of such intent-to-use Trademark applications under applicable federal law.

The Assignor irrevocably constitutes and appoints the Grantee and any officer or agent thereof, with full power of substitution, as its true and lawful attorney-in-fact with full power and authority in the name of the Assignor or in the Grantee’s name, from time to time, in the Grantee’s discretion, so long as any Event of Default shall have occurred and be continuing, to take with respect to the Trademark Collateral any and all appropriate action which the Assignor might take with respect to the Trademark Collateral and to execute any and all documents and instruments which may be necessary or desirable to carry out the terms of this Trademark Security Agreement and to accomplish the purposes hereof.

Except to the extent permitted in the Security Agreement or the Credit Agreement, the Assignor agrees not to sell, license, exchange, assign or otherwise transfer or dispose of, or grant any rights with respect to, or mortgage or otherwise encumber, any of the Trademark Collateral.

The foregoing security interest is granted in conjunction with the security interests granted by the Assignor to the Grantee pursuant to the Security Agreement. The Assignor acknowledges and affirms that the rights and remedies of the Grantee with respect to the security interest in the Trademark Collateral granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

This Trademark Security Agreement shall be construed in accordance with and governed by the laws of the State of New York.

IN WITNESS WHEREOF, the Grantor has caused this Trademark Security Agreement to be duly executed by its officer thereunto duly authorized as of the date first listed above.

GRANTOR:

CIENA CORPORATION

By: Elizabeth A. Dolce

Name: Elizabeth A. Dolce


Title: Vice President and Treasurer

*[Signature Page to Trademark Security Agreement]*

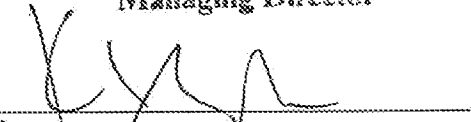
**TRADEMARK**  
**REEL: 005322 FRAME: 0862**

Acknowledged:

DEUTSCHE BANK AG NEW YORK  
BRANCH, as Collateral Agent

By: 

Name: Anca Trifan  
Title: Managing Director

By: 

Name: Kirk L. Tashjian  
Title: Vice President

*[Signature Page to Trademark Security Agreement]*

**TRADEMARK**  
**REEL: 005322 FRAME: 0863**

**Schedule 1  
to Trademark  
Security Agreement**

[Attached]

TM No.	App. No.	Date Filed	Date Issued	Status	TM	Country
	86/057,222	9/5/2013		Pending	THE MUX	US
	86/057,246	9/5/2013		Pending	PACKETWAVE	US
	86/300,161	6/4/2014		Pending	AGILITY	US
2,070,330	74/641,237	3/2/1995	6/10/1997	Registered	CIENA	US
2,610,130	75/703,302	5/12/1999	8/20/2002	Registered	COREDIRECTOR	US
3,080,638	78/428,393	3/30/2000	4/11/2006	Registered	ON-CENTER	US
3,505,281	78/628,837	5/12/2005	9/23/2008	Registered	FLEXSELECT	US
2,911,314	75/720,971	6/3/1999	12/14/2004	Registered	CORESTREAM	US
3,026,860	78/394,001	3/31/2004	12/13/2005	Registered	CIENA	US
4,522,190	85/041,546	5/18/2010	4/29/2014	Registered	OPTERA	US
4,251,724	85/332,002	5/27/2011	11/27/2012	Registered	CARRIER ETHERNET CERTIFIED ASSOCIATE	US
4,251,726	85/332,076	5/27/2011	11/27/2012	Registered	CARRIER ETHERNET CERTIFIED PROFESSIONAL	US
4,251,725	85/332,069	5/27/2011	11/27/2012	Registered	CARRIER ETHERNET CERTIFIED CONSULTANT	US
4,259,388	85/332,066	5/27/2011	12/11/2012	Registered	CARRIER ETHERNET CERTIFIED EXPERT	US
4,225,115	85/550,476	2/23/2012	10/16/2012	Registered	FASTMESH	US
4,515,295	85/634,200	5/24/2012	4/15/2014	Registered	OPN	US