

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Anurag Prakash</td> <td>03/13/2012</td> </tr> <tr> <td>Mohit Chhillar</td> <td>03/13/2012</td> </tr> <tr> <td>Marian Trnkus</td> <td>01/31/2012</td> </tr> <tr> <td>Waseem Reyaz Khan</td> <td>03/13/2012</td> </tr> </tbody> </table>		Name	Execution Date	Anurag Prakash	03/13/2012	Mohit Chhillar	03/13/2012	Marian Trnkus	01/31/2012	Waseem Reyaz Khan	03/13/2012
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Anurag Prakash	03/13/2012										
Mohit Chhillar	03/13/2012										
Marian Trnkus	01/31/2012										
Waseem Reyaz Khan	03/13/2012										
RECEIVING PARTY DATA											
Name:	Ciena Corporation										
Street Address:	1201 Winterson Road										
City:	Linthicum										
State/Country:	MARYLAND										
Postal Code:	21090										
PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13420717</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13420717						
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Application Number:	13420717										
CORRESPONDENCE DATA											
Fax Number:	(704)366-9744										
Phone:	704-790-3600										
Email:	bbrown@worldpatents.com										
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>											
Correspondent Name:	Clements Bernard PLLC										
Address Line 1:	1901 Roxborough Road										
Address Line 2:	Suite 250										
Address Line 4:	Charlotte, NORTH CAROLINA 28211										
ATTORNEY DOCKET NUMBER:	10.2084										
NAME OF SUBMITTER:	Christopher L. Bernard										

OP \$40.00 13420717

Total Attachments: 4

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ASSIGNMENT

WHEREAS, Anurag Prakash, Mohit Chhillar, Marian Trnkus, and Waseem Reyaz Khan (hereinafter referred to as "ASSIGNORS") have invented certain new and useful improvements in an invention entitled:

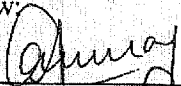
PATH COMPUTATION SYSTEMS AND METHODS IN OPTICAL NETWORKS
for which U.S. Patent Application No. 13/420,717 was filed on 3-15-2012.

WHEREAS, CIENA CORPORATION, 1201 Winterson Road, Linthicum, Maryland 21090 USA (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title, and interest in and to said invention, and in and to said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, in accordance with obligations entered into pursuant to an Employment Agreement or other agreement and/or for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNORS hereby sell, transfer and assign to said ASSIGNEE, and to ASSIGNEE'S successors and assigns, ASSIGNORS' entire right, title, and interest in and to said invention and improvements invented and originated by ASSIGNORS in the United States and its territorial possessions and in any and all foreign countries and to all Letters Patent or similar legal protections in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any application claiming priority to/from the application, or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension, or reissue thereof or any legal equivalent thereof in a foreign country for the full term(s) for which the same may be granted; and authorize and request the Commissioner for Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereof, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention, said application, and said Letters Patent and legal equivalents thereof in foreign countries as may be known and accessible to ASSIGNORS and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments, or affidavits required to apply for, obtain, maintain, issue, and/or enforce said invention, said application, and said Letters Patent and legal equivalents thereof in foreign countries which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, we have hereunto set hand and signed on the date indicated below:



Anurag Prakash

Date: 13-MAR-2012

Mohit Chhillar

Date: _____

Marian Trnkus

Date: _____

Waseem Reyaz Khan

Date: _____

ASSIGNMENT

WHEREAS, **Anurag Prakash, Mohit Chhillar, Marian Trnkus, and Waseem Reyaz Khan** (hereinafter referred to as "ASSIGNORS") have invented certain new and useful improvements in an invention entitled:

PATH COMPUTATION SYSTEMS AND METHODS IN OPTICAL NETWORKS

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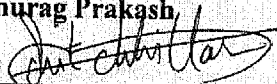
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IN WITNESS WHEREOF, we have hereunto set hand and signed on the date indicated below:

Anurag Prakash



Mohit Chhillar

Marian Trnkus

Waseem Reyaz Khan

Date: _____

Date: 13/03/2012

Date: _____

Date: _____

ASSIGNMENT

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Anurag Prakash

Date: _____

Mohit Chhillar

Date: _____

Marian Trnkus

Marian Trnkus

Date: 1/31/2012

Waseem Reyaz Khan

Date: _____

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Date: _____



Waseem Reyaz Khan

Date: 13/03/2012