501853867 03/15/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
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

Property Type	Number
Application Number:	13420717

CORRESPONDENCE DATA

Fax Number: (704)366-9744 704-790-3600 Phone:

Email: bbrown@worldpatents.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Clements Bernard PLLC Correspondent Name: 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

PATENT

REEL: 027867 FRAME: 0190

Total Attachments: 4

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PATENT REEL: 027867 FRAME: 0191

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.

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ASSIGNMENT

	볼 이 아픈 사람이 얼마나 되는데 다
WHEREAS, Anurag Prakash, Mohit Chhillar, Khan (hereinafter referred to as "ASSIGNORS") ha improvements in an invention entitled: PATH COMPUTATION SYSTEMS AND METH for which U.S. Patent Application No. WHEREAS, CIENA CORPORATION, 1201 21090 USA (hereinafter referred to as "ASSIGNEE") is title, and interest in and to said invention, and in and to that may issue thereon;	Marian Trnkus, and Waseem Reyaz ave invented certain new and useful ODS IN OPTICAL NETWORKS was filed on Winterson Road, Linthicum, Maryland s desirous of acquiring the entire right, said application and any Letters Patent
NOW, THEREFORE, in accordance with oblication Employment Agreement or other agreement and/or for other receipt and sufficiency of which is hereby acknowled and assign to said ASSIGNEE, and to ASSIGNEE'S sentire right, title, and interest in and to said invention and 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 protection possessions and in any and all foreign countries said application or any application claiming priority to/froe division, continuation-in-part, reexamination, renewal, suffainted; and authorize and request the Commissioner for official of any foreign country whose duty it is to issue issue same for this invention to ASSIGNEE, its lawful such ASSIGNORS further covenant that ASSIGNEE promptly with all pertinent facts and documents relating the said Letters Patent and legal equivalents thereof in foreaccessible to ASSIGNORS and will testify as to the same thereto and will promptly execute and deliver to ASSIGNAL all papers, instruments, or affidavits required to apply for, said invention, said application, and said Letters Patent and countries which may be necessary or desirable to carry out IN WITNESS WHEREOF, we have hereunto set below:	other good and valuable consideration, ged, ASSIGNORS hereby sell, transfer successors and assigns, ASSIGNORS' improvements invented and originated possessions and in any and all foreign elections in the United States and its es to be obtained for said invention by om the application, or any continuation, ostitute, extension, or reissue thereof or full term(s) for which the same may be a Patents of the United States and any patents or legal equivalents thereof, to dessors and assigns. will, upon its request, be provided to said invention, said application, and deign countries as may be known and in any interference or litigation related IEE or its legal representative any and obtain, maintain, issue, and/or enforce and legal equivalents thereof in foreign the nurroses thereof
Anurag Prakash//	
aut chimitar)	Date: 13/03/2012
Mohit Chhillar	
Marian Trnkus	_ Date:
	Date:
Waseem Reyaz Khan	Zalk

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Attorney Docket No.: 10.2084 PATENT

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. was filed on 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: Mohit Chhillar Date:

> PATENT REEL: 027867 FRAME: 0194

Waseem Reyaz Khan

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<u>ASSIGNME</u>	NT
WHEREAS, Anurag Prakash, Mohit Chhill: Khan (hereinafter referred to as "ASSIGNORS") improvements in an invention entitled: PATH COMPUTATION SYSTEMS AND MET for which U.S. Patent Application No. WHEREAS, CIENA CORPORATION, 120	have invented certain new and usefu THODS IN OPTICAL NETWORKS was filed on
21090 USA (hereinafter referred to as "ASSIGNEE" title, and interest in and to said invention, and in and that may issue thereon;) is desirous of acquiring the entire right
NOW, THEREFORE, in accordance with a Employment Agreement or other agreement and/or for the receipt and sufficiency of which is hereby acknown and assign to said ASSIGNEE, and to ASSIGNEE entire right, title, and interest in and to said invention a by ASSIGNORS in the United States and its territoric countries and to all Letters Patent or similar legal territorial possessions and in any and all foreign countries and application or any application claiming priority to division, continuation-in-part, reexamination, renewal, any legal equivalent thereof in a foreign country for the	or other good and valuable consideration, ledged, ASSIGNORS hereby sell, transfer S successors and assigns, ASSIGNORS and improvements invented and originated all possessions and in any and all foreign protections in the United States and its atries to be obtained for said invention by from the application, or any continuation, substitute, extension, or reissue thereof or
official of any foreign country whose duty it is to issist issue same for this invention to ASSIGNEE, its lawful ASSIGNORS further covenant that ASSIGN promptly with all pertinent facts and documents relating said Letters Patent and legal equivalents thereof in accessible to ASSIGNORS and will testify as to the said thereto and will promptly execute and deliver to ASSI papers, instruments, or affidavits required to apply its said invention, said application, and said Letters Paten	for Patents of the United States and any use patents or legal equivalents thereof, to successors and assigns. EE will, upon its request, be provided by the provided and to said invention, said application, and foreign countries as may be known and me in any interference or litigation related GNEE or its legal representative any and legal equivalents thereof in foreign than degal equivalents thereof in foreign
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