PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Aung HTAY	08/26/2013
Mallikarjunappa KORE	08/26/2013
Cheol Woo JUNG	08/26/2013

RECEIVING PARTY DATA

Name:	Ciena Corporation
Street Address:	7035 Ridge Road
City:	Hanover
State/Country:	MARYLAND
Postal Code:	21076

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	14019407	

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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ATTORNEY DOCKET NUMBER:	CN10.2171
NAME OF SUBMITTER:	Margaret Shortlidge
Signature:	/Margaret Shortlidge/
Date:	09/05/2013

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DP \$40.00 1401940

Total Attachments: 4

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> PATENT REEL: 031147 FRAME: 0550

MUNCY, GEISSLER, OLDS & LOWE, PLLC

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

ASSIGNMENT

	Application No.:	Filed:	
Insert Name(s)	***(Given Name FAI	MILY NAME (ALL CAPS))***	
of inventor(s)	WHEREAS, Aung HTAY, Mallikarjuna	opa KORE, and Cheol Woo JUNG	
	(hereinafter designated as the undersigned) has (ha	ve) invented certain new and useful improvements in	
Insert Title of Invention	METHOD AND APPARATUS FOR I	MONETIZING A CARRIER NETWORK	
	for which an application for Letters Patent of the (except in the case of a provisional application).	United States of America has been executed by the un	idersigned
Insert Date of Signing of Application	os		_; and
Insert Name of Assignee	WHEREAS, Ciena Corporation		
Insert Address of Assignee	of <u>7035 Ridge Road, Hanover, MD, US</u>	<u>, 21076</u>	
	its heirs, successors, legal representatives and acquiring the entire right, title and interest in and granted therefor in the United States of America ar	assigns (hereinafter designated as the Assignee) is do to said invention and in and to any Letters Patent(s) that	esirous of at may be
CHECK BOX IF APPROPRIATE	in any foreign countries.		
	acknowledged, the undersigned has (have) sold, as transfer unto said Assignee the full and exclusive territories, dependencies and possessions and the of which may be granted therefor in the United State	d and valuable consideration, the receipt of which signed and transferred, and by these presents does sell, a right to the said invention in the United States of Arentire right, title and interest in and to any and all Lettern of America, its territories, dependencies and possession countries; and to any and all divisions, reissues, con or terms for which the same may be granted.	assign and merica, its s Patent(s) ons, and if

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Muncy, Geissler, Olds & Lowe, PLLC the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date_	8/26/2013	Name of Inventor	- Juny Jian	
			(signature) Aung HTAY	
Date	8/26/2013	Name of Inventor	K. Malikarjunoppa	
war	,	· · · · · · · · · · · · · · · · · · ·	(signature) Mallikarjunappa KORE	
Date		Name of Inventor		
	***************************************		(signature) Cheol Woo JUNG	

MUNCY, GEISSLER, OLDS & LOWE, PLLC

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

ASSIGNMENT

	Application No.: Filed:
Insert Name(s)	***(Given Name FAMILY NAME (ALL CAPS))***
of Inventor(s)	WHEREAS, Aung HTAY, Mallikarjunappa KORE, and Cheol Woo JUNG
	(hereinafter designated as the undersigned) has (have) invented certain new and useful improvements in
Insert Title of Invention	METHOD AND APPARATUS FOR MONETIZING A CARRIER NETWORK
	for which an application for Letters Patent of the United States of America has been executed by the undersigned (except in the case of a provisional application).
Insert Date of Signing of Application	on; and
Insert Name of Assignee	WHEREAS, Ciena Corporation
Insert Address of Assignee	of 7035 Ridge Road, Hanover, MD, US, 21076
	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and
CHECK BOX IF APPROPRIATE	in any foreign countries.
	NOW, THEREFORE, in consideration of good and valuable consideration, the receipt of which is herel acknowledged the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign as

acknowledged, the undersigned has (have) sold, assigned and transferred, and by these presents does sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

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The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) or a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

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In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	•	Name of Inventor	
	,	(signature) Aung HTA	AY
Date _	· · · · · · · · · · · · · · · · · · ·	Name of Inventor(signature) Mallikarj ı	unappa KORE
Date_	8/26/2013	Name of Inventor (signature) Cheol Wo	o JUNG

Page 2 of 2