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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SNIGDHO CHANDRA BARDALAI	12/09/2014
RAJAN RAO	12/09/2014
CHARLES ANDREW PALMER MOORWOOD	08/11/2014

RECEIVING PARTY DATA

Name:	INFINERA CORPORATION	
Street Address:	169 JAVA DRIVE	
City:	SUNNYVALE	
State/Country:	te/Country: CALIFORNIA	
Postal Code:	94089	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13849138

CORRESPONDENCE DATA

Fax Number: (571)432-0808

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.

Phone: 5714320800

Email: neways@harrityllp.com HARRITY & HARRITY LLP **Correspondent Name:** Address Line 1: 11350 RANDOM HILLS ROAD

Address Line 2: SUITE 600

Address Line 4: FAIRFAX, VIRGINIA 22030

ATTORNEY DOCKET NUMBER:	P431
NAME OF SUBMITTER:	JOHN E. HARRITY
SIGNATURE:	/John E. Harrity, Reg. No. 43,367/
DATE SIGNED:	01/05/2015

Total Attachments: 4

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ASSIGNMENT (Joint) Worldwide Rights

THIS ASSIGNMENT, by <u>Snigdho Chandra BARDALAI</u>; <u>Rajan RAO</u> and <u>Charles Andrew Palmer MOORWOOD</u> residing at 3732 Firpointe Street, Contra Costa, San Ramon, California 94582; 5433 Ontario CMN, <u>Fremont, California 94555</u> and <u>1041 Lanark Court, Sunnyyale, California 94087</u> (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in <u>BACKWARD-RECURSIVE PATH COMPUTATION USING RSVP-TE</u> set forth in an application for Letters Patent of the United States,

(1)	which is a provisional application (a) filed herewith; or (b) bearing Application No.	, and filed on	; or
(2)	which is a non-provisional application (a) bearing Application No. 13/84 (b) filed herewith; and	19,138, and filed on <u>March 2</u>	2, 2013; or

We hereby authorize Applicants' representative to fill in the preceding information relating to the filing date and/or serial number, as appropriate.

WHEREAS, Infinera Corporation, a corporation of the state of Delaware, having its principal place of business at 169 Java Drive, Sunnyvale, California 94089 (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications and applications for Letters Patent of the United States or other countries claiming priority to said application or from which said application claims priority, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, be it known that for good and valuable consideration, the receipt of which is hereby acknowledged, the Assigner has sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, any previously or subsequently filed provisional applications, and in and to any and all applications claiming priority to said applications, including divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Sugdho Ch. Bardalan		
Snigdho Chandra BARDALAI	Witness Name	
Date: 12/9/2014	Witness Signature	
Rajan RÃO Date: 12/9/2014	Witness Name	
Date: 12/9/2014	Witness Signature	
Charles Andrew Palmer Moorwood	Win on Man	
Charles Andrew Pauner Woorwood	Witness Name	
Date:		
'	Witness Signature	

ASSIGNMENT (Joint) Worldwide Rights

THIS ASSIGNMENT, by Snigdho Chandra BARDALAI; Rajan RAO and Charles Andrew Palmer MOORWOOD residing at 3732 Firpointe Street, Contra Costa, San Ramon, California 94582; 5433 Ontario CMN, Fremont, California 94555 and 1041 Lanark Court, Sunnyvale, California 94087 (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in <u>BACKWARD-RECURSIVE PATH COMPUTATION USING RSVP-TE</u> set forth in an application for Letters Patent of the United States,

(1)	which is a provisional application (a) filed herewith; or (b) bearing Application No	, and filed on	; or
(2)	which is a non-provisional application (a) bearing Application No. 13/849 (b) filed herewith; and	0,138, and filed on March 22, 2013; or	ľ.

We hereby authorize Applicants' representative to fill in the preceding information relating to the filing date and/or serial number, as appropriate.

WHEREAS, Infinera Corporation, a corporation of the state of Delaware, having its principal place of business at 169 Java Drive, Sunnyvale, California 94089 (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications and applications for Letters Patent of the United States or other countries claiming priority to said application or from which said application claims priority, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, be it known that for good and valuable consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, any proviously or subsequently filed provisional applications, and in and to any and all applications claiming priority to said applications, including divisions, continuations, and continuations-in-part of said applications, and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made:

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assigners will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Snigdho Chandra BARDALAI	Witness Name
Date:	Witness Signature
Rajan RAO	Witness Name
Dafe:	Witness Signature
216 Morno	Paul Freeman
Charles Andrew Palmer Moorwood	Witness Name
Date: 8 / 11 / 141	Paul Aneman
	Witness Signature

- 2 -