

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT2676570

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>ANOOP GHANWANI</td> <td>12/20/2013</td> </tr> <tr> <td>KRISHNAMURTHY SUBRAMANIAN</td> <td>12/18/2013</td> </tr> <tr> <td>PATHANGI JANARDHANAN</td> <td>12/20/2013</td> </tr> <tr> <td>SHIVAKUMAR SUNDARAM</td> <td>12/20/2013</td> </tr> <tr> <td>MOHNISH ANUMALA</td> <td>12/18/2013</td> </tr> </tbody> </table>		Name	Execution Date	ANOOP GHANWANI	12/20/2013	KRISHNAMURTHY SUBRAMANIAN	12/18/2013	PATHANGI JANARDHANAN	12/20/2013	SHIVAKUMAR SUNDARAM	12/20/2013	MOHNISH ANUMALA	12/18/2013
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RECEIVING PARTY DATA													
Name:	DELL PRODUCTS, L. P.												
Street Address:	ONE DELL WAY												
City:	ROUND ROCK												
State/Country:	TEXAS												
Postal Code:	78682												
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>14142402</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14142402								
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Application Number:	14142402												
CORRESPONDENCE DATA													
Fax Number:	(650)856-0542												
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Email:	nmiller@northweber.com												
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>													
Correspondent Name:	NORTH WEBER & BAUGH LLP												
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Address Line 4:	PALO ALTO, CALIFORNIA 94303												
ATTORNEY DOCKET NUMBER:	20110-1811												
NAME OF SUBMITTER:	NITA MILLER												

Signature:	/Nita Miller/
Date:	01/10/2014
Total Attachments: 7 source=1811_Asmt#page1.tif source=1811_Asmt#page2.tif source=1811_Asmt#page3.tif source=1811_Asmt#page4.tif source=1811_Asmt#page5.tif source=1811_Asmt#page6.tif source=1811_Asmt#page7.tif	

# ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the individual(s) named below (hereinafter "INVENTOR" whether singular or plural) has sold, assigned, transferred, and set over, and hereby sells, assigns, transfers and sets over, to DELL PRODUCTS L.P., a corporation of the State of Delaware, having a place of business at One Dell Way, Round Rock, TX 78682 ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

1. The full and exclusive worldwide right, title, and interest in and to all inventions and improvements ("SUBJECT MATTER") that are disclosed in the U.S. patent application, entitled "**Routing in Spine-Leaf Networking Systems**" ("APPLICATION"),

which is a provisional application

bearing Application No. \_\_\_\_\_ and filed \_\_\_\_\_;

to be filed herewith;

which is a non-provisional application

bearing Application No. 14/142,402, and filed December 27, 2013;

to be filed herewith;

having an oath or declaration executed on the same date as this Assignment;

having an oath or declaration executed on a different date than this Assignment.

2. The entire worldwide right, title, and interest in and to the APPLICATION and all applications claiming priority to the APPLICATION or having related SUBJECT MATTER to the APPLICATION, including all such design, utility, divisional, continuation, substitute, renewal, reissue, international, or other related applications and all rights of priority in the APPLICATION, together with all rights to recover damages for infringement.

INVENTOR hereby authorizes and requests the Commissioner of the U.S. Patent and Trademark Office, and Patent Office Officials in all foreign countries, to issue to the ASSIGNEE any and all patents which may be granted from the APPLICATION.

INVENTOR will, without further consideration, communicate to the ASSIGNEE any facts known to the INVENTOR regarding the SUBJECT MATTER, testify in any legal proceeding, sign all lawful papers, execute all oaths, assignments, powers of attorney, applications and any other paper desired by ASSIGNEE to obtain, perfect, or secure to ASSIGNEE any and all of the

**Title:** Routing in Spine-Leaf Networking Systems  
**Inventor(s):** Ghanwani et al.  
**Filing Date:** December 27, 2013  
**Appln. No.:** 14/142,402  
**Docket No.:** 20110-1811 (102191)

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rights, titles and interests herein conveyed, and to maintain, enforce, and defend these rights, titles and interests in the United States and all foreign countries. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE herein.

INVENTOR represents that the INVENTOR, at the time of the execution of this Assignment, is the sole and lawful owner of the entire rights, titles and interests in and to the SUBJECT MATTER as set forth in the APPLICATION, and that the SUBJECT MATTER is unencumbered, and that the INVENTOR has good and full right and lawful authority to sell and convey the SUBJECT MATTER in the manner herein set forth.

INVENTOR covenants with ASSIGNEE that the INVENTOR has not made and will not hereafter make any assignment, grant, mortgage, license or other agreement affecting the rights, titles, and interests herein conveyed.

INVENTOR agrees to, and hereby acknowledges, that the ASSIGNEE may apply for and receive patents related to the APPLICATION or SUBJECT MATTER.

INVENTOR grants the attorney of record for the APPLICATION the power to insert on this Assignment any further identification, including the application number and filing date, which may be necessary or desirable to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment. Five inventor/assignor signature blocks are located on the following pages.

**Title:** Routing in Spine-Leaf Networking Systems  
**Inventor(s):** Ghanwani et al.  
**Filing Date:** December 27, 2013  
**Appl. No.:** 14/142,402  
**Docket No.:** 20110-1811 (102191)

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INVENTOR Name: Anoop Ghanwani

INVENTOR Address: 227 Coppervale Circle

Rocklin, CA 95765

Date of Signature: 12/20/13

  
[INVENTOR Signature]

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Witnessed by: \_\_\_\_\_  
Print Name

Signature: \_\_\_\_\_

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State of \_\_\_\_\_ )  
County of \_\_\_\_\_ )

On \_\_\_\_\_, before me \_\_\_\_\_ personally appeared  
[Date] [Name and Title of Officer]

\_\_\_\_\_, who proved to me on the basis of satisfactory evidence to be the  
[INVENTOR]  
person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of \_\_\_\_\_ that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_ (Seal)

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Inventor(s): Ghanwani et al.  
Filing Date: December 27, 2013  
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INVENTOR Name: Krishnamurthy Subramanian

INVENTOR Address: 19187 Harleigh Dr.

Saratoga, CA 95070-5142

Date of Signature: 12/16/2013



[INVENTOR Signature]

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Witnessed by: Alvin Ray Bergquist  
Print Name

Signature: Alvin Ray Bergquist

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State of \_\_\_\_\_ )

County of \_\_\_\_\_ )

On \_\_\_\_\_, before me \_\_\_\_\_ personally appeared  
[Date] [Name and Title of Officer]

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INVENTOR Name: Pathangi Janardhanan  
INVENTOR Address: R93, 3rd Main Rd., Annaganar  
Chennai, TN, 600 040, India  
Date of Signature: 20 - DEC - 2013

P. N. Janardhanan  
[INVENTOR Signature]

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Witnessed by: AVINASH NATARAJAN  
Print Name

Signature: 

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State of \_\_\_\_\_ )  
County of \_\_\_\_\_ )

On \_\_\_\_\_, before me \_\_\_\_\_ personally appeared  
[Date] [Name and Title of Officer]

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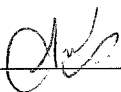
INVENTOR Name: Shivakumar Sundaram  
INVENTOR Address: 8, Balaji Nagar 5th St.  
Nanganallur, Chennai 600061, India  
Date of Signature: 20-Dec-2013



[INVENTOR Signature]

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Witnessed by: AVINASH NATARAJAN  
Print Name

Signature: 

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State of \_\_\_\_\_ )  
County of \_\_\_\_\_ )

On \_\_\_\_\_, before me \_\_\_\_\_ personally appeared  
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INVENTOR Name: Mohnish Anumala  
INVENTOR Address: 1048 Colony Hills Ln.  
Cupertino, CA 95014  
Date of Signature: 12/19/2013



[INVENTOR Signature]

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Witnessed by: RAJA JAYAKUMAR  
Print Name

Signature: 

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State of \_\_\_\_\_ )  
County of \_\_\_\_\_ )

On \_\_\_\_\_, before me \_\_\_\_\_ personally appeared  
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