

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PAVAN KUMAR	07/27/2015
PRABU THAYALAN	07/20/2015
SHIVALINGAYYA CHIKKAMATH	07/27/2015
MYTHILIKANTH RAMAN	07/27/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	BROCADE COMMUNICATIONS SYSTEMS, INC.
<b>Street Address:</b>	130 HOLGER WAY
<b>City:</b>	SAN JOSE
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95134
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14830035
<b>CORRESPONDENCE DATA</b>	
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<b>Phone:</b>	530-759-1667
<b>Email:</b>	syadmin@parklegal.com
<b>Correspondent Name:</b>	SHUN YAO
<b>Address Line 1:</b>	PARK, VAUGHAN, FLEMING & DOWLER LLP
<b>Address Line 2:</b>	2800 FIFTH STREET, SUITE 110
<b>Address Line 4:</b>	DAVIS, CALIFORNIA 95618
<b>ATTORNEY DOCKET NUMBER:</b>	BRCD-3318.1.US.NP
<b>NAME OF SUBMITTER:</b>	SHUN YAO, REG NO. 59242
<b>SIGNATURE:</b>	/Shun Yao/
<b>DATE SIGNED:</b>	09/08/2015
<b>Total Attachments: 2</b>	
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source=BRCD-3318.1.US.NP Signed Assignment#page2.tif	

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to BROCADE COMMUNICATIONS SYSTEMS, INC., a Delaware corporation, having a place of business at 130 Holger Way, San Jose, California 95134 ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the application for United States Letters Patent entitled: DISTRIBUTED BIDIRECTIONAL FORWARDING DETECTION PROTOCOL (D-BFD) FOR CLUSTER OF INTERCONNECTED SWITCHES ("APPLICATION"), which was filed on 19 August 2015, now bearing U.S. Serial Number 14830035 and for which a Declaration was executed by INVENTOR on 27 July 2015; and the entire worldwide right, title, and interest in and to (a) the APPLICATION, including any right of priority; (b) all applications that have been or will be filed on the SUBJECT MATTER and any and all certificates of invention or other governmental grants granted in the United States or any other country in the world on an invention disclosed and described in the above-referenced application including without limitation, any provisional, non-provisional, divisional, continuation, continuation-in-part, design, industrial design, substitution, or application for other rights based in whole or in part on the above-referenced patent application; and (c) patents which may be granted on the applications set forth in (a) and (b) above.

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles, and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

INVENTOR represents that INVENTOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the INVENTOR has made or will make hereafter no assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

INVENTOR hereby authorizes and requests Park, Vaughan, Fleming & Dowler LLP, 2820 Fifth Street, Davis, CA 95618, James E. Parsons, or Brandon Hsieh to insert herein above the application number and filing date and/or execution date of said application when known.

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.

Executed on July 27, 2015, Pavan Kumar /  
Pavan Kumar

Executed on July 20, 2015, Prabu /  
Prabu Thayalan

Executed on July 27, 2015, Shivalingayya Chikkamath /  
Shivalingayya Chikkamath

Executed on July 27, 2015, Mythilikanth Raman /  
Mythilikanth Raman