505251278 12/21/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5298059

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NAGENDRA KUMAR NAINAR	12/12/2018
CARLOS M. PIGNATARO	12/11/2018
FRANK BROCKNERS	12/11/2018
SHWETHA SUBRAY BHANDARI	12/12/2018

RECEIVING PARTY DATA

Name:	CISCO TECHNOLOGY, INC., A CALIFORNIA CORPORATION
Street Address:	170 W. TASMAN DRIVE
City:	SAN JOSE
State/Country:	CALIFORNIA
Postal Code:	95134

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16231197

CORRESPONDENCE DATA

Fax Number: (303)778-0748

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: 303-282-0151

Email: patents@qwestoffice.net
Correspondent Name: KIRK D. WILLIAMS
Address Line 1: PO BOX 39425

Address Line 4: DENVER, COLORADO 80239-0425

ATTORNEY DOCKET NUMBER:	17398
NAME OF SUBMITTER:	KIRK D. WILLIAMS
SIGNATURE:	/Kirk D Willliams/
DATE SIGNED:	12/21/2018

Total Attachments: 5

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.:||...||1. CISCO

Atty. Docket No.: 1014098-US.01 (17398)

ASSIGNMENT

WHEREAS, I/we the undersigned inventor(s) (hereinafter "ASSIGNOR(S)") have invented certain new and useful improvements as set forth in the patent application entitled:

Signaling Among Entities of a Virtualized Packet Processing Apparatus Using In-Band Operations Data Included in Packets Being Processed

which was filed on <u>Z1-DEC-2018</u> as United States Patent Application No. <u>16/231,197</u> (hereinafter the "Application").

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the ASSIGNOR(S):

1) Have assigned, transferred and set over, and by these presents do hereby assign, transfer and set over, unto Cisco Technology, Inc., a California corporation having a place of business at 170 West Tasman Drive, San Jose, California 95134-1706 (hereinafter "ASSIGNEE") and its successors and assigns, each ASSIGNOR's entire right, title, and interest in, to, and under, the Application and any and all improvements disclosed in the Application, as well as any and all other applications that may be based upon, and patent(s) which may be granted upon, the information that is disclosed in the Application, throughout the World, including without prejudice to the generality of the foregoing:

the right to file applications and to obtain patents or like protection (including, e.g., utility models, inventors' certificates, and/or designs) for the improvements in any country throughout the World, including the right to claim priority from any such application; and any and all provisional, non-provisional, divisional, continuing (whether a continuation or a continuation in part), substitute, renewal, reissue, and other applications for Letters Patent which have been or shall be filed in any country on any of the improvements; and in and to all original and reissued patents which have been or shall be filed in any country on any of the improvements;

- 2) Authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, as applicable, to issue the same to ASSIGNEE and its successors and assigns, in accordance with the terms of the instrument;
- 3) Covenant and agree, when requested and at no charge to, but at the expense of, ASSIGNEE and its successors and assigns, to: execute all applications for the improvements (including without limitation any and all provisional, non-provisional, divisional, continuing (whether a continuation or a continuation in part), substitute, renewal, reissue, and other patent applications); execute all rightful oaths, assignments, powers of attorney and other papers; communicate to ASSIGNEE, its successors, assigns, and legal representatives, all facts known to

ASSIGNMENT PAGE 1 of 2

PATENT REEL: 047847 FRAME: 0656 the undersigned relating to the improvements and the history thereof; and perform any acts that ASSIGNEE, its successors, assigns or legal representatives consider reasonably necessary for securing and maintaining proper patent protection for the improvements, for vesting title to the improvements and all patent applications and patents for the improvements, in ASSIGNEE and its successors and assigns, and for enforcing the rights of ASSIGNEE and its successor and assigns, in and to any or all of the improvements and any application(s) or patent(s) therefor;

- 4) Covenant and agree that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed, and will not execute, any agreement in conflict herewith.
- 5) Covenant and agree that the terms, covenants and conditions of this assignment shall inure to the benefit of ASSIGNEE and its successors and assigns, and shall be binding upon me/us and my/our heirs, assigns, and legal representatives.
- 6) Covenant and agree that this assignment and any action, suit, proceeding or claim arising under or relating to this assignment will be governed, interpreted, construed, and enforced in all respects in accordance with the laws of the State of California and by any controlling Federal U.S. law with respect to the subject matter, without reference to its choice of law principles to the contrary.
- 7) Authorize a representative of The Law Office of Kirk D. Williams, 3196 Dayton St., Denver, CO 80238, to insert in the blanks above the filing date and application number of the Application when known.

Signature: Typed Name:	Nagendra Kumar Nainar	Date:	- 81 c1 E
Address:	241 Begen St., Morrisville, NC 27560 US		
Signature:		Date:	- ye davanara
Typed Name:	Carlos M. Pignataro		
Address:	110 Sedgemoor Dr., Cary, NC 27513 US		
Signature:		Date:	
Typed Name:	Frank Brockners		
Address:	Gutenbergstrasse 26, 50823 Köln, DE		
Signature:		Date:	
Typed Name:	Shwetha Subray Bhandari		
Address:	#312 5th B Cross, OMBR Layout; Banasw	adi, Bar	ngalore 560043, IN

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ASSIGNMENT PAGE 2 of 2

Atty. Docket No.: 1014098-US.01 (17398)

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Signature:		Date:		
Typed Name:	Nagendra Kumar Nainar	ļ		
Address:	241 Begen St., Morrisville, NC 27560 US	1		
Signature: Typed Name: Address:	Carlos M. Pignataro 110 Sedgemoor Dr., Cary, NC 27513 US	Date:	Dec. 11, 201	
Signature: Typed Name: Address:	Frank Brockners Gutenbergstrasse 26, 50823 Köln, DE	Date:	I	
Signature: Typed Name: Address:	Shwetha Subray Bhandari #312 5th B Cross, OMBR Layout; Banaswa	Date:	 ngalore 560043, IN	

ASSIGNMENT PAGE 2 of 2

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Atty. Docket No.: 1014098-US.01 (17398)

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Signature:		Date:	
Typed Name:	Nagendra Kumar Nainar		
Address:	241 Begen St., Morrisville, NC 27560 US		
Signature:		Date:	
	Carlos M. Pignataro		
Address:	110 Sedgemoor Dr., Cary, NC 27513 US		•
Signature: Typed Name:	Hrank Brockners	Date:	11-Dec 2018
Address:	Gutenbergstrasse 26, 50823 Köln, DE		
Signature:		Date:	
_	Shwetha Subray Bhandari	isato.	
Address:	#312 5th B Cross OMBR I avout: Rangery	di Dom	

ASSIGNMENT PAGE 2 of 2

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Signature		Date:	
Typed Name:	Nagendra Kumar Namar		
Address.	241 Begen St., Morrisville, NC 27560 US	3	
Signature		Date	
Typed Name.	Carlos M. Pignataro		
Address:	110 Sedgemoor Dr, Cary, NC 27513 US		
Signature:		Date	
Typed Name:	Frank Brockners		
Address	Gutenbergstrasse 26, 50823 Koln, DE		
	Glindharde		22-056-2016
Signature [*]	Shirt	Date.	12-DEC-2018.
Typed Name	Shwetha Subray Bhandari		
Address.	#312 5th B Cross, OMBR Layout, Banasy	vadı, Ba	ngalo1e 560043, IN

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