504517775 08/24/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1

EPAS ID: PAT4564480 Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DINESH RANJIT	08/21/2017
JIM FRENCH	08/23/2017
NAGI SWAMINATHAN	08/21/2017

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15685237

CORRESPONDENCE DATA

Fax Number: (415)248-2101

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: 415-248-2100

Email: CiscoMail@polsinelli.com

CISCO TECHNOLOGY, INC. C/O POLSINELLI PC **Correspondent Name:**

Address Line 1: 1000 LOUISIANA STREET Address Line 2: FIFTY-THIRD FLOOR Address Line 4: HOUSTON, TEXAS 77002

ATTORNEY DOCKET NUMBER:	565379 (1006521-US.01)
NAME OF SUBMITTER:	BENJAMIN B. MATTHEW
SIGNATURE:	/Benjamin B. Matthew/
DATE SIGNED:	08/24/2017

Total Attachments: 4

source=085115-565379_1006521-US.01_Assignment#page1.tif source=085115-565379_1006521-US.01_Assignment#page2.tif source=085115-565379 1006521-US.01 Assignment#page3.tif

source=085115-565379_1006521-US.01_Assignment#page4.tif



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:

VIRTUAL NETWORK FUNCTION MONITORING IN A NETWORK FUNCTION VIRTUALIZATION DEPLOYMENT

⊠which is being filed herewith					
□which was filed ona	ıs U.S.	Patent	Application	No.	
(hereinafter the "Application").					

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

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 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 Polsinelli LLP, Three Embarcadero Center, Suite 2400, San Francisco, CA 94111, to insert in the blanks above the filing date and application number of the Application when known.

Signature: Typed Name: Address:	Dínesh Ranjit 175 Baypointe Pkwy, Apt #336 San Jose, CA 95134	Date:	3/21/2017
Signature: Typed Name: Address:	Jim French 3008 Royal Forrest Drive Raleigh, NC 27614	Date:	
Signature: Typed Name: Address:	Nagl Swammathan 286 Arroz Pl. Fremont, CA 94536	Date;	8/21/2017



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:

VIRTUAL NETWORK FUNCTION MONITORING IN A NETWORK FUNCTION VIRTUALIZATION DEPLOYMENT

⊠which is being filed herewith		
☐which was filed on	_as U.S. Patent Application No.	
(hereinafter the "Application")).	

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

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 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 Polsinelli LLP, Three Embarcadero Center, Suite 2400, San Francisco, CA 94111, to insert in the blanks above the filing date and application number of the Application when known.

Signature:		Date:
Typed Name: Address:	Dinesh Ranjit 175 Baypointe Pkwy, Apt #336 San Jose, CA 95134	
Signature: Typed Name: Address:	Jim French 3008 Royal Forrest Drive Raleigh, NC 27614	Date: 8/23/2017
Signature: Typed Name: Address:	Nagi Swaminathan 286 Arroz Pl. Fremont, CA 94536	Date:

PATENT REEL: 043385 FRAME: 0295

RECORDED: 08/24/2017