503822161 05/11/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3868810

| SUBMISSION TYPE: | NEW ASSIGNMENT | |
|-----------------------|----------------|--|
| NATURE OF CONVEYANCE: | ASSIGNMENT | |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------------|----------------|
| NAVINDRA YADAV | 05/04/2016 |
| ABHISHEK RANJAN SINGH | 04/14/2016 |
| ANUBHAV GUPTA | 04/14/2016 |
| SHASHIDHAR GANDHAM | 05/03/2016 |
| JACKSON NGOC KI PANG | 04/12/2016 |
| SHIH-CHUN CHANG | 04/15/2016 |
| HAI TRONG VU | 05/04/2016 |

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: | 15152163 |

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.

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| ATTORNEY DOCKET NUMBER: | 525592(999521-US.01) | | |
|-------------------------|----------------------|--|--|
| NAME OF SUBMITTER: | JUAN ROSSI | | |
| SIGNATURE: | /Juan Rossi/ | | |
| DATE SIGNED: | 05/11/2016 | | |

PATENT REEL: 038551 FRAME: 0771

Total Attachments: 10 source=085115_525592_Assign_051116_#page1.tif source=085115_525592_Assign_051116_#page2.tif source=085115_525592_Assign_051116_#page3.tif source=085115_525592_Assign_051116_#page4.tif source=085115_525592_Assign_051116_#page5.tif source=085115_525592_Assign_051116_#page6.tif source=085115_525592_Assign_051116_#page7.tif source=085115_525592_Assign_051116_#page8.tif source=085115_525592_Assign_051116_#page9.tif source=085115_525592_Assign_051116_#page9.tif

PATENT REEL: 038551 FRAME: 0772

ASSIGNMENT (JOINT)

THIS ASSIGNMENT, by Navindra Yadav; Abhishek Ranjan Singh; Anubhav Gupta; Shashidhar Gandham; Jackson Ngoc Ki Pang; Shih-Chun Chang and Hai Trong Vu (hereinaster referred to collectively as the "Assignors"), witnesseth:

WHEREAS, said Assignors have invented certain new and useful improvements in: TECHNOLOGIES FOR ANNOTATING PROCESS AND USER INFORMATION FOR NETWORK FLOWS, set forth in an application for Letters Patent of the United States filed herewith.

WHEREAS, CISCO TECHNOLOGY, INC., a corporation duly organized under and pursuant to the laws of the State of California, and having a principal place of business at 170 West Tasman Drive, San Jose, California 95134 (hereinafter referred to as the "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions and applications for Letters Patent of the United States, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, said Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto said Assignee, its successors, legal representatives and assigns. Assignors' interest in the entire right, title and interest in and to the above-mentioned inventions, application for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, and in and to any and all divisions, continuations, and continuations-in-part of said application, or reissues or 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 said 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 Assignors, had this sale and assignment not been made; and

FOR THE SAME CONSIDERATION, said Assignors hereby covenant and agree to and with said Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, said Assignors are the lawful owners of the entire right, title and interest in and to said invention and the application for Letters Patent above mentioned, and that the same is unencumbered and that said 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, said Assignors hereby covenant and agree to and with said Assignee, its successors, legal representatives and assigns, that said Assignors will, whenever counsel of said Assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with Letters Patent for said inventions in any country, including interference proceedings, is lawful and desirable, or that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue or extension of any Letters Patent, 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 for said inventions, without charge to said Assignee, its successors, legal representatives and assigns, but at the cost and expense of said Assignee, its successors, legal representatives and assigns.

FOR THE SAME CONSIDERATION, said Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto said Assignee, its successors, legal representatives and assigns. Assignors' interest in the entire right, title and interest in all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to Assignee, or may accrue hereafter including, but not limited to, the right to sue for, collect, and retain damages for past infringement of the said Patents and Applications before or after issuance.

Page 1 of 2

| | ssignors have | thus set their hands on the dates below written. |
|---------------------------------------------|---------------|--------------------------------------------------|
| Date: 5/4/2016 | Signature: | |
| | | Navinder Yaday |
| Date: | Signature: | |
| × 8 | | Abhishek Ranjan Singh |
| Date: | Signature: | |
| | | Anubhav Gupta |
| Date: 05/63/2016 | Signature: | CALLILA. |
| - No. 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 | | Shashidhar Gandham |
| | | |
| Date | Signature | |
| | | Jackson Ngoc Ki Pang |
| Date: | Signature | |
| Date 5/4/2016 | × | Shih-Chun Chang |
| Date 2/4/2010 | Signature: | |
| # # # # # # # # # # # # # # # # # # # | | Hai Trong Yu |

ASSIGNMENT (JOINT)

THIS ASSIGNMENT, by Navindra Yadav; Abhishek Ranjan Singh; Anubhav Gupta; Shashidhar Gandham; Jackson Ngoc Ki Pang; Shih-Chun Chang and Hai Trong Vu (hereinafter referred to collectively as the "Assignors"), witnesseth:

WHEREAS, said Assignors have invented certain new and useful improvements in: TECHNOLOGIES FOR ANNOTATING PROCESS AND USER INFORMATION FOR NETWORK FLOWS, set forth in an application for Letters Patent of the United States filed herewith.

WHEREAS, CISCO TECHNOLOGY, INC., a corporation duly organized under and pursuant to the laws of the State of California, and having a principal place of business at 170 West Tasman Drive, San Jose, California 95134 (hereinafter referred to as the "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions and applications for Letters Patent of the United States, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, said Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, and said Assignee, its successors, legal representatives and assigns, Assignors' interest in the entire right, title and interest in and to the above-mentioned inventions, application for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, and in and to any and all divisions, continuations, and continuations-in-part of said application, or reissues or 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 said 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 Assignors, had this sale and assignment not been made; and

FOR THE SAME CONSIDERATION, said Assignors hereby covenant and agree to and with said Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, said Assignors are the lawful owners of the entire right, title and interest in and to said invention and the application for Letters Patent above mentioned, and that the same is unencumbered and that said 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, said Assignors hereby covenant and agree to and with said Assignee, its successors, legal representatives and assigns, that said Assignors will, whenever counsel of said Assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with Letters Patent for said inventions in any country, including interference proceedings, is lawful and desirable, or that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue or extension of any Letters Patent, 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 for said inventions, without charge to said Assignee, its successors, legal representatives and assigns, but at the cost and expense of said Assignee, its successors, legal representatives and assigns.

FOR THE SAME CONSIDERATION, said Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto said Assignee, its successors, legal representatives and assigns, Assignors' interest in the entire right, title and interest in all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to Assignee, or may accrue hereafter including, but not limited to, the right to sue for, collect, and retain damages for past infringement of the said Patents and Applications before or after issuance.

Page 1 of 2

Client Ref. No.: CPOL 999521-US.01

Attorney Docket No. 085115-525592

IN WITNESS WHEREOF, Assignors have thus set their hands on the dates below written.

| Date: | Signature: |
|-----------------|--------------------------------------------------|
| Date: 4-14-2011 | Navindra Yadav Signature: Alphishek Ranjan Singh |
| Date: | Signature: Anubhav Gupta |
| Date | Signature:Shushidhar Gandham |
| Date: | Signature: Jackson Ngoc Ki Pang |
| Date: | Signature:Shih-Chun Chang |
| Date: | Signature: Hai Trong Vu |

ASSIGNMENT (JOINT)

Client Ref. No.: CPOL 999521-US.01

THIS ASSIGNMENT, by Navindra Yadav; Abhishek Ranjan Singh; Anubhav Gupta; Shashidhar Gandham; Jackson Ngoc Ki Pang; Shih-Chun Chang and Hai Trong Vu (hereinafter referred to collectively as the "Assignors"), witnesseth:

WHEREAS, said Assignors have invented certain new and useful improvements in: TECHNOLOGIES FOR ANNOTATING PROCESS AND USER INFORMATION FOR NETWORK FLOWS, set forth in an application for Letters Patent of the United States filed herewith.

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FOR THE SAME CONSIDERATION, said Assignors hereby covenant and agree to and with said Assignce, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, said Assignors are the lawful owners of the entire right, title and interest in and to said invention and the application for Letters Patent above mentioned, and that the same is unencumbered and that said 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, said Assignors hereby covenant and agree to and with said Assignee, its successors, legal representatives and assigns, that said Assignors will, whenever counsel of said Assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with Letters Patent for said inventions in any country, including interference proceedings, is lawful and desirable, or that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue or extension of any Letters Patent, 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 for said inventions, without charge to said Assignee, its successors, legal representatives and assigns, but at the cost and expense of said Assignee, its successors, legal representatives and assigns.

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IN WITNESS WHEREOF, Assignors have thus set their hands on the dates below written.

| Date: | Signature: | |
|-----------------|---------------|-----------------------|
| | and Andrews | Navindra Yadav |
| Date: | _ Signature: | |
| | | Abhishek Ranjan Singh |
| Date: 4/14/2016 | Signature: | AMAZIN — |
| | 174 BH 1 | Anubhav Gupta |
| Date: | _ Signature: | OL VIII CONTRACTOR |
| | en en en | Shashidhar Gandham |
| Date: | _ Signature: | |
| 4 | | Jackson Ngoc Ki Pang |
| Date: | _ Signature: | |
| | | Shih-Chun Chang |
| Date; | _ Signature:_ | |
| | and seed to | Hai Trong Vu |

ASSIGNMENT (JOINT)

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Client Ref. No.: CPOL 999521-US.01

IN WITNESS WHEREOF, Assignors have thus set their hands on the dates below written.

| Date: | Signature | |
|-----------------|----------------------------|--------------------------|
| | 86 48 4 4 1 1 1 2 4 | Navindra Yadav |
| Date: | Signature: | |
| | | Abhishek Ranjan Singh |
| Date: | Signature: | A. 11. C. 2 |
| | | Anubhav Gupta |
| Date: | Signature: | Shashidhar Gandham |
| | | |
| Date: 4/12/2016 | Signature: | Jackson Ngoc Ki Pang |
| | | Aurigon 1. Par I to 1900 |
| Date: | Signature | Shih-Chun Chang |
| | | |
| Date: | Signature: | |
| | | Hai Trong Vu |

ASSIGNMENT (JOINT)

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| Date: | Signature: | |
|-----------------|--------------|-----------------------|
| | | Navindra Yadav |
| Date: | _ Signatore: | |
| | | Abbisbek Ranjan Singb |
| Date: | Signature | |
| | | Anabhas Gupta |
| Date: | _ Signature: | (D) 3 3 38 P1 88 |
| | | Shashidhar Gandham |
| Date: | Signature: | |
| | | Jackson Ngoc Ki Pang |
| Date: 4/15 2016 | Signature | |
| | | Shih-Chun Chang |
| Date: | Signature; | |
| | | Hai Trong Vo |