# 502749843 04/02/2014

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2796439

SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT			
CONVEYING PARTY D	ΑΤΑ				
		Name	Execution Date		
YATHIRAJ B. UDUPI			03/24/2014		
DEBOJYOTI DUTTA			03/24/2014		
MADHAV V. MARATHE			03/20/2014		
RAGHUNATH O. NAMB	IAR		03/30/2014		
RECEIVING PARTY DA	ТА				
Name:	CISCO T	ECHNOLOGY, INC.			
Street Address:	170 WES	170 WEST TASMAN DRIVE			
City:	SAN JOS	SAN JOSE			
State/Country:	CALIFOF	CALIFORNIA			
Postal Code:	95134				
PROPERTY NUMBERS Total: 1 Property Type		Nu una la cu			
Property Lyne		Number			
Application Number:	14	Number 4242131			
	14				
Application Number: CORRESPONDENCE D Fax Number:	ATA (4	4242131			
Application Number: CORRESPONDENCE D Fax Number:	ATA (4	4242131	uccessful, it will be sent via		
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>US Mail.</i> Phone:	ATA (4 e sent to t 4	4242131 415)814-6165 t <b>he e-mail address first; if that is uns</b> 158146161			
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>US Mail.</i> Phone: Email:	ATA (4 e sent to t 4 Ji	4242131 15)814-6165 t <b>he e-mail address first; if that is uns</b> 158146161 ESSICA.NODA@NOVAKDRUCE.COM			
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be US Mail.</i> Phone: Email: Correspondent Name:	ATA (4 e sent to t 4 JE N	4242131 415)814-6165 t <b>he e-mail address first; if that is uns</b> 158146161 ESSICA.NODA@NOVAKDRUCE.COM OVAK DRUCE CONNOLLY BOVE + Q			
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>US Mail.</i> Phone: Email:	ATA (4 e sent to t 4 JE N 55	4242131 15)814-6165 t <b>he e-mail address first; if that is uns</b> 158146161 ESSICA.NODA@NOVAKDRUCE.COM			
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>US Mail.</i> Phone: Email: Correspondent Name: Address Line 1:	ATA (4 e sent to t 4 JE N 55 34	4242131 (15)814-6165 ( <i>he e-mail address first; if that is uns</i> 158146161 ESSICA.NODA@NOVAKDRUCE.COM OVAK DRUCE CONNOLLY BOVE + Q 55 MISSION STREET			
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>US Mail.</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA (4 e sent to t JE N 5! 34 S.	4242131 4242131 #15)814-6165 # <b>he e-mail address first; if that is uns</b> 158146161 ESSICA.NODA@NOVAKDRUCE.COM OVAK DRUCE CONNOLLY BOVE + Q 55 MISSION STREET 4TH FLOOR			
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>US Mail.</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET NU	ATA (4 e sent to t JE N 5! 34 S.	4242131 (15)814-6165 ( <i>he e-mail address first; if that is uns</i> 158146161 ESSICA.NODA@NOVAKDRUCE.COM OVAK DRUCE CONNOLLY BOVE + Q 55 MISSION STREET 4TH FLOOR AN FRANCISCO, CALIFORNIA 94105	UIGG LLP		
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>US Mail.</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET NUNAME OF SUBMITTER:	ATA (4 e sent to t JE N 5! 34 S.	4242131 4242131 415)814-6165 the e-mail address first; if that is unsulated 158146161 ESSICA.NODA@NOVAKDRUCE.COM OVAK DRUCE CONNOLLY BOVE + Q 55 MISSION STREET 4TH FLOOR AN FRANCISCO, CALIFORNIA 94105 20732.0271.NPUS00_991321	UIGG LLP		
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>US Mail.</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	ATA (4 e sent to t JE N 5! 34 S.	4242131 4242131 415)814-6165 the e-mail address first; if that is unsults 158146161 ESSICA.NODA@NOVAKDRUCE.COM OVAK DRUCE CONNOLLY BOVE + Q 55 MISSION STREET 4TH FLOOR AN FRANCISCO, CALIFORNIA 94105 20732.0271.NPUS00_991321 JEFFREY H. KAMENETSKY, REG	UIGG LLP		
Application Number: CORRESPONDENCE D Fax Number: Correspondence will b US Mail. Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET NUNAME OF SUBMITTER: SIGNATURE: DATE SIGNED: Total Attachments: 8	ATA (4 e sent to t 4 JE N 5! 34 S JMBER:	4242131 415)814-6165 the e-mail address first; if that is unsulated 158146161 ESSICA.NODA@NOVAKDRUCE.COM OVAK DRUCE CONNOLLY BOVE + Q 55 MISSION STREET 4TH FLOOR AN FRANCISCO, CALIFORNIA 94105 20732.0271.NPUS00_991321 JEFFREY H. KAMENETSKY, REG /Jeffrey H. Kamenetsky/ 04/02/2014	UIGG LLP		
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>US Mail.</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET NUNAME OF SUBMITTER: SIGNATURE: DATE SIGNED:	ATA (4 e sent to t 4 JE N 55 34 S JMBER:	4242131 4242131 415)814-6165 the e-mail address first; if that is unsulated by the series of the	UIGG LLP		

THIS ASSIGNMENT, by Yathiraj B. Udupi; Debojyoti Dutta; Madhav V. Marathe; and Raghunath O. Nambiar; (hereinafter referred to collectively as the "Assignors"), witnesseth:

WHEREAS, said Assignors have invented certain new and useful improvements in: **OPTIMIZING PLACEMENT OF VIRTUAL MACHINES**, 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, but at

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.

	-	547 ·	e thus set their hands on the dates below written.
Date:	3 24 2014	Signature:_	Yathiraj B. Udupi
Date:		Signature:_	Debojyoti Dutta
Date:		Signature:	Madhav V. Marathe
Date:		Signature:	Raghunath O. Nambiar

THIS ASSIGNMENT, by Yathiraj B. Udupi; Debojyoti Dutta; Madhav V. Marathe; and Raghunath O. Nambiar; (hereinafter referred to collectively as the "Assignors"), witnesseth:

WHEREAS, said Assignors have invented certain new and useful improvements in: **OPTIMIZING PLACEMENT OF VIRTUAL MACHINES**, 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, but at

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

## PATENT REEL: 032580 FRAME: 0521

Client Ref. 991321

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

Date:		Signature:	_
Date:	03/24/2014	Yathiraj B. Udupi Signature: 03/24/2014 Debøjyoti Dutta	1
Date:		Signature: Madhav V. Marathe	-
Date:		Signature: Raghunath O. Nambiar	-

Page 2 of 2

PATENT REEL: 032580 FRAME: 0522

# THIS ASSIGNMENT, by Yathiraj B. Udupi; Debojyoti Dutta; Madhav V. Marathe; and Raghunath O. Nambiar; (hereinafter referred to collectively as the "Assignors"), witnesseth:

WHEREAS, said Assignors have invented certain new and useful improvements in: **OPTIMIZING PLACEMENT OF VIRTUAL MACHINES**, 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.

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

Date:	Signature: Yathiraj B. Udupi
Date:	Signature: Debojyoti Dutta
Date: 3/20/2014	Signature: Madhow V. Morethe. Madhav V. Marathe
Date:	Signature: Raghunath O. Nambiar

THIS ASSIGNMENT, by Yathiraj B. Udupi; Debojyoti Dutta; Madhav V. Marathe; and Raghunath O. Nambiar; (hereinafter referred to collectively as the "Assignors"), witnesseth:

WHEREAS, said Assignors have invented certain new and useful improvements in: OPTIMIZING PLACEMENT OF VIRTUAL MACHINES, 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

### PATENT REEL: 032580 FRAME: 0525

Client Ref. 991321

Attorney Docket No. 20732.0271.NPUS00

Signature: Date: Yathiraj B. Udupi Signature: Date: Bebøjyoti Dutta Signature: Date: Madhar V. Marathe Date: 3/30/2014 Signature:

Raghunath O-Nambiar

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

Page 2 of 2

## PATENT REEL: 032580 FRAME: 0526

**RECORDED: 04/02/2014**