

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5576344

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MARC-ANDRE BORDELEAU	05/21/2019
RAJA KOMMULA	04/25/2019
JEREMY TIDEMANN	05/16/2019
CONSTANTINE POLYCHRONOPOULOS	06/14/2019
EDWARD CHOH	05/02/2019
OJAS GUPTA	04/29/2019
GEORGIOS OIKONOMOU	04/23/2019
ROBERT KIDD	05/02/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	VMWARE, INC.
<b>Street Address:</b>	3401 HILLVIEW AVE.
<b>City:</b>	PALO ALTO
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94304
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16443810
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Email:</b>	ipadmin@vmware.com, vmware@blackhillsip.com, mail@adelillp.com
<b>Correspondent Name:</b>	VMWARE, INC.
<b>Address Line 1:</b>	3401 HILLVIEW AVE.
<b>Address Line 4:</b>	PALO ALTO, CALIFORNIA 94304
<b>ATTORNEY DOCKET NUMBER:</b>	F076
<b>NAME OF SUBMITTER:</b>	MANI ADELI
<b>SIGNATURE:</b>	/Mani Adeli/
<b>DATE SIGNED:</b>	06/17/2019

**Total Attachments: 24**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

VMware, Inc.

Serial No.: Not Yet Available

Filing Date: Herewith

For: VIRTUAL SERVICE NETWORKS

PATENT APPLICATION

**JOINT INVENTORS TO CORPORATION ASSIGNMENT**

WHEREAS, the undersigned Inventors are the first, true, and joint inventors of certain new and useful inventions in:

**VIRTUAL SERVICE NETWORKS**

and have executed a declaration or oath for an application for a United States patent disclosing and identifying the inventions, said application filed herewith with attorney docket number F076.

WHEREAS, VMware, Inc. (hereinafter termed "Assignee"), a corporation of the State of Delaware, having a place of business at 3401 Hillview Avenue, Palo Alto, CA, 94304, wishes to acquire the entire right, title and interest in and to said application and the inventions disclosed therein, and in and to all embodiments of the inventions, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said Inventions"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "Patents") applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by each of said Inventors to have been received in full from said Assignee:

1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest: (a) in and to said application and said Inventions; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of invention or other governmental grants on said Inventions, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of invention or other governmental grants granted on said Inventions in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include, but not be limited to, prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee: (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Inventions; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said Inventions; and (g) for legal proceedings involving said Inventions and any applications therefore and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives, and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that said Inventors have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

5. Said Inventors hereby jointly and severally consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file, or like document which may be required in any country for any purpose. Furthermore, said Inventors hereby jointly and severally consent that a copy of this assignment shall be proof of the right of said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International convention which may henceforth be substituted for it.

6. Said Inventors hereby covenant with said Assignee, its successors, assigns and legal representatives that the rights and property herein conveyed are free and clear of any encumbrance and that said Inventors have full right to convey the same as herein expressed.

IN WITNESS WHEREOF, said Inventors have executed this instrument on the date of acknowledgement as given below and delivered this instrument to said Assignee.

Date: 2019-05-21

Signature:   
Marc-Andre Bordeleau

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Raja Kommula

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Jeremy Tidemann

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Constantine Polychronopoulos

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Edward Choh

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Ojas Gupta

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Georgios Oikonomou

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Robert Kidd

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In the application of:

VMware, Inc.

Serial No.: Not Yet Available

Filing Date: Herewith

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2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include, but not be limited to, prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee: (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Inventions; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said Inventions; and (g) for legal proceedings involving said Inventions and any applications therefore and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

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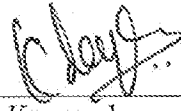
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IN WITNESS WHEREOF, said Inventors have executed this instrument on the date of acknowledgement as given below and delivered this instrument to said Assignee.

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Marc-Andre Bordeleau

Date: 4/25/2019

Signature:  \_\_\_\_\_  
Raja Kommula

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Jeremy Tidemann

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Constantine Polychronopoulos

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Edward Choh

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Ojas Gupta

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Georgios Oikonomou

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Robert Kidd



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

VMware, Inc.

Serial No.: Not Yet Available

Filing Date: Herewith

For: VIRTUAL SERVICE NETWORKS

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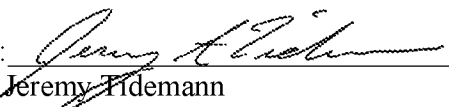
Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Marc-Andre Bordeleau

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Raja Kommula

Date: 5/16/2017

Signature:   
Jeremy Tidemann

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Constantine Polychronopoulos

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Edward Choh

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Ojas Gupta

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
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Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

PATENT APPLICATION

VMware, Inc.

Serial No.: Not Yet Available

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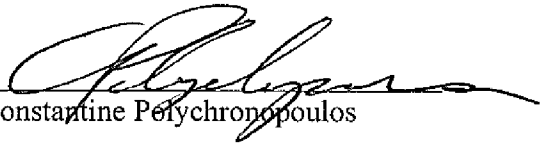
Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Raja Kommula

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Jeremy Tidemann

Date: 6/14/2019

Signature:   
Constantine Pelychronopoulos

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Edward Choh

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Ojas Gupta

Date: \_\_\_\_\_

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Signature: \_\_\_\_\_  
Raja Kommula

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Jeremy Tidemann

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Constantine Polychronopoulos

Date: 5/2/2019

Signature: \_\_\_\_\_  
Edward Choh

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Ojas Gupta

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Georgios Oikonomou

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Robert Kidd

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

VMware, Inc.

Serial No.: Not Yet Available

Filing Date: Herewith

For: VIRTUAL SERVICE NETWORKS

PATENT APPLICATION

**JOINT INVENTORS TO CORPORATION ASSIGNMENT**

WHEREAS, the undersigned Inventors are the first, true, and joint inventors of certain new and useful inventions in:

**VIRTUAL SERVICE NETWORKS**

and have executed a declaration or oath for an application for a United States patent disclosing and identifying the inventions, said application filed herewith with attorney docket number F076.

WHEREAS, VMware, Inc. (hereinafter termed "Assignee"), a corporation of the State of Delaware, having a place of business at 3401 Hillview Avenue, Palo Alto, CA, 94304, wishes to acquire the entire right, title and interest in and to said application and the inventions disclosed therein, and in and to all embodiments of the inventions, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said Inventions"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "Patents") applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by each of said Inventors to have been received in full from said Assignee:

1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest: (a) in and to said application and said Inventions; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of invention or other governmental grants on said Inventions, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of invention or other governmental grants granted on said Inventions in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include, but not be limited to, prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee: (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Inventions; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said Inventions; and (g) for legal proceedings involving said Inventions and any applications therefore and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives, and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that said Inventors have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

5. Said Inventors hereby jointly and severally consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file, or like document which may be required in any country for any purpose. Furthermore, said Inventors hereby jointly and severally consent that a copy of this assignment shall be proof of the right of said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International convention which may henceforth be substituted for it.

6. Said Inventors hereby covenant with said Assignee, its successors, assigns and legal representatives that the rights and property herein conveyed are free and clear of any encumbrance and that said Inventors have full right to convey the same as herein expressed.

IN WITNESS WHEREOF, said Inventors have executed this instrument on the date of acknowledgement as given below and delivered this instrument to said Assignee.

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Marc-Andre Bordeleau

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Raja Kommula

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Jeremy Tidemann

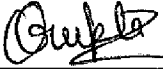
Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Constantine Polychronopoulos

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Edward Choh

Date: 4/29/2019

Signature:   
Ojas Gupta

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Georgios Oikonomou

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Robert Kidd

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

VMware, Inc.

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Signature: \_\_\_\_\_  
Constantine Polychronopoulos

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Signature: \_\_\_\_\_  
Edward Choh

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Ojas Gupta

Date: 2019/04/23

Signature:  \_\_\_\_\_  
Georgios Ekonomou

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Robert Kidd

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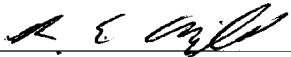
Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Ojas Gupta

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Georgios Oikonomou

Date: 5/21/19

Signature:   
Robert Kidd