507073156 01/13/2022

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7119992

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIAO-CHUAN SHIH	12/17/2021
HIMANSHU PANDEY	12/13/2021
JOY GHOSH	12/19/2021
NATALIE SCHLECHTER	12/13/2021

RECEIVING PARTY DATA

Name:	VMWARE, INC.
Street Address:	3401 HILLVIEW AVENUE
City:	PALO ALTO
State/Country:	CALIFORNIA
Postal Code:	94304

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	17574896	

CORRESPONDENCE DATA

Fax Number: (650)427-5001

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: 6504275000

Email: ipadmin@vmware.com, vmware@blackhillsip.com

JINTO ANTONY **Correspondent Name:**

3401 HILLVIEW AVENUE Address Line 1:

Address Line 4: PALO ALTO, CALIFORNIA 94304

ATTORNEY DOCKET NUMBER:	H663 (500108-1830)
NAME OF SUBMITTER:	DANIEL C. OSBORNE
SIGNATURE:	/Daniel C. Osborne/
DATE SIGNED:	01/13/2022

Total Attachments: 4

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WHEREAS, Chiao-Chuan Shih ("Inventor"), having a residence in San Jose, CA, has invented or contributed to the inventions described in the following listed patent application(s) that has/have been or will be filed in the patent office(s) of the following identified country(ies):

Title	Country	Patent App. No.	Filling Date
CLOUD SERVICE FRAMEWORK			

WHEREAS, for the purposes of this Assignment, "Patent Application" means, individually and collectively, any and all (a) patent application(s) listed above, (b) patent application(s) filed anywhere in the world that claim the benefit of priority, whose benefit of priority is claimed, or share a claim of priority with, such application(s), including any foreign counterpart, continuation, continuation-in-part, divisional, reissue, reexamination or substitute application thereof, and (c) inventions described in, and patents issuing from, any patent application(s) described in clauses "(a)" or "(b)" of this paragraph; and "including" means "including, by way of example and not limitation"; and

WHEREAS, VMware, Inc., ("Assignee"), having a place of business at 3401 Hillview Avenue, Palo Alto, CA, 34304, wishes to obtain all of Inventor's rights in the Patent Application;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Inventor confirms that, to the extent it has not already assigned all right, title and interest in the Patent Application to Assignee, Inventor hereby assigns and agrees as follows.

Inventor agrees to assign and hereby does assign the entire right, title and interest in the Patent Application to Assignee, including all rights and privileges and all forms of protection that may be granted anywhere in the world arising out of the filing, publication or grant of the Patent Application, including the right to seek and collect past damages. Inventor authorizes Assignee (or Assignee's designated successor(s) or assign(s) of the Patent Application) to make application for and obtain such protection in its own name and maintain such protection anywhere in the world, and to invoke and claim for any application for patent or other form of protection for the Patent Application, without further authorization from Inventor, including any right to claim the benefit of priority provided by any treaty, convention or agreement. Inventor requests that all patents issuing from the Patent Application be issued to Assignee or its successors or assigns.

Inventor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Assignee to apply for patent or other form of protection for the Patent Application (including inventions described therein) and to claim the benefit of the right to priority.

Inventor shall, without charge to Assignee but at its expense with respect to Inventor's reasonable out-of-pocket costs (to which Assignee must consent in advance), sign and take all rightful oaths, and do all acts that Assignee deems necessary or may reasonably request, in connection with the Patent Application or other forms of protection of the inventions described therein, and for the defense and protection thereof if challenged in a court of law or equity. Unless prohibited by law, Inventor agrees not to challenge the validity or patent eligibility of any claim currently or later appearing in the Patent Application.

Inventor authorizes Assignee or its agents to insert above, on Inventor's behalf, the filing date and/or application number of the identified application(s) if not known or listed above as of the date of execution of this document. Inventor further authorizes Assignee to confirm its acceptance of this Assignment by adding Assignee's name and authorized signature below.

This Assignment, including any questions relating to its validity, shall be governed by federal laws of the United States and the state laws of Delaware, as applicable, without regard to a jurisdiction's conflicts of law rules.

IN WITNESS WHEREOF, this agreement is executed and agreed to by Inventor, being signed by Inventor on the date below.

Signatu	ire: Usao-Usan Slih
	Chiao-Chuan Shih
Date: _	12/17/2021

H663 (500108-1830)

WHEREAS, Himanshu Pandey ("Inventor"), having a residence in San Jose, CA, has invented or contributed to the inventions described in the following listed patent application(s) that has/have been or will be filed in the patent office(s) of the following identified country(ies):

Title	Country	Patent App. No.	Filling Date
CLOUD SERVICE FRAMEWORK			

WHEREAS, for the purposes of this Assignment, "Patent Application" means, individually and collectively, any and all (a) patent application(s) listed above, (b) patent application(s) filed anywhere in the world that claim the benefit of priority, whose benefit of priority is claimed, or share a claim of priority with, such application(s), including any foreign counterpart, continuation, continuation-in-part, divisional, reissue, reexamination or substitute application thereof, and (c) inventions described in, and patents issuing from, any patent application(s) described in clauses "(a)" or "(b)" of this paragraph; and "including" means "including, by way of example and not limitation"; and

WHEREAS, VMware, Inc., ("Assignee"), having a place of business at 3401 Hillview Avenue, Palo Alto, CA, 34304, wishes to obtain all of Inventor's rights in the Patent Application;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Inventor confirms that, to the extent it has not already assigned all right, title and interest in the Patent Application to Assignee, Inventor hereby assigns and agrees as follows.

Inventor agrees to assign and hereby does assign the entire right, title and interest in the Patent Application to Assignee, including all rights and privileges and all forms of protection that may be granted anywhere in the world arising out of the filing, publication or grant of the Patent Application, including the right to seek and collect past damages. Inventor authorizes Assignee (or Assignee's designated successor(s) or assign(s) of the Patent Application) to make application for and obtain such protection in its own name and maintain such protection anywhere in the world, and to invoke and claim for any application for patent or other form of protection for the Patent Application, without further authorization from Inventor, including any right to claim the benefit of priority provided by any treaty, convention or agreement. Inventor requests that all patents issuing from the Patent Application be issued to Assignee or its successors or assigns.

Inventor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Assignee to apply for patent or other form of protection for the Patent Application (including inventions described therein) and to claim the benefit of the right to priority.

Inventor shall, without charge to Assignee but at its expense with respect to Inventor's reasonable out-of-pocket costs (to which Assignee must consent in advance), sign and take all rightful oaths, and do all acts that Assignee deems necessary or may reasonably request, in connection with the Patent Application or other forms of protection of the inventions described therein, and for the defense and protection thereof if challenged in a court of law or equity. Unless prohibited by law, Inventor agrees not to challenge the validity or patent eligibility of any claim currently or later appearing in the Patent Application.

Inventor authorizes Assignee or its agents to insert above, on Inventor's behalf, the filing date and/or application number of the identified application(s) if not known or listed above as of the date of execution of this document. Inventor further authorizes Assignee to confirm its acceptance of this Assignment by adding Assignee's name and authorized signature below.

This Assignment, including any questions relating to its validity, shall be governed by federal laws of the United States and the state laws of Delaware, as applicable, without regard to a jurisdiction's conflicts of law rules.

IN WITNESS WHEREOF, this agreement is executed and agreed to by Inventor, being signed by Inventor on the date below.

Signatu	ire: HMAASHU PAMPEU
Name:	Himanshu Pandey
Date: _	12/13/2021

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H663 (500108-1830)

WHEREAS, Joy Ghosh ("Inventor"), having a residence in Fremont, CA, has invented or contributed to the inventions described in the following listed patent application(s) that has/have been or will be filed in the patent office(s) of the following identified country(ies):

Title	Country	Patent App. No.	Filling Date
CLOUD SERVICE FRAMEWORK			

WHEREAS, for the purposes of this Assignment, "Patent Application" means, individually and collectively, any and all (a) patent application(s) listed above, (b) patent application(s) filed anywhere in the world that claim the benefit of priority, whose benefit of priority is claimed, or share a claim of priority with, such application(s), including any foreign counterpart, continuation, continuation-in-part, divisional, reissue, reexamination or substitute application thereof, and (c) inventions described in, and patents issuing from, any patent application(s) described in clauses "(a)" or "(b)" of this paragraph; and "including" means "including, by way of example and not limitation"; and

WHEREAS, VMware, Inc., ("Assignee"), having a place of business at 3401 Hillview Avenue, Palo Alto, CA, 34304, wishes to obtain all of Inventor's rights in the Patent Application;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Inventor confirms that, to the extent it has not already assigned all right, title and interest in the Patent Application to Assignee, Inventor hereby assigns and agrees as follows.

Inventor agrees to assign and hereby does assign the entire right, title and interest in the Patent Application to Assignee, including all rights and privileges and all forms of protection that may be granted anywhere in the world arising out of the filing, publication or grant of the Patent Application, including the right to seek and collect past damages. Inventor authorizes Assignee (or Assignee's designated successor(s) or assign(s) of the Patent Application) to make application for and obtain such protection in its own name and maintain such protection anywhere in the world, and to invoke and claim for any application for patent or other form of protection for the Patent Application, without further authorization from Inventor, including any right to claim the benefit of priority provided by any treaty, convention or agreement. Inventor requests that all patents issuing from the Patent Application be issued to Assignee or its successors or assigns.

Inventor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Assignee to apply for patent or other form of protection for the Patent Application (including inventions described therein) and to claim the benefit of the right to priority.

Inventor shall, without charge to Assignee but at its expense with respect to Inventor's reasonable out-of-pocket costs (to which Assignee must consent in advance), sign and take all rightful oaths, and do all acts that Assignee deems necessary or may reasonably request, in connection with the Patent Application or other forms of protection of the inventions described therein, and for the defense and protection thereof if challenged in a court of law or equity. Unless prohibited by law, Inventor agrees not to challenge the validity or patent eligibility of any claim currently or later appearing in the Patent Application.

Inventor authorizes Assignee or its agents to insert above, on Inventor's behalf, the filing date and/or application number of the identified application(s) if not known or listed above as of the date of execution of this document. Inventor further authorizes Assignee to confirm its acceptance of this Assignment by adding Assignee's name and authorized signature below.

This Assignment, including any questions relating to its validity, shall be governed by federal laws of the United States and the state laws of Delaware, as applicable, without regard to a jurisdiction's conflicts of law rules.

IN WITNESS WHEREOF, this agreement is executed and agreed to by Inventor, being signed by Inventor on the date below.

Signati	ure: In Gusti	
Name:	Joy Ghosh	
Date:	12/19/2021	

H663 (500108-1830)

WHEREAS, Natalie Schlechter ("Inventor"), having a residence in Portland, OR, has invented or contributed to the inventions described in the following listed patent application(s) that has/have been or will be filed in the patent office(s) of the following identified country(ies):

Title	Country	Patent App. No.	Filling Date
CLOUD SERVICE FRAMEWORK			

WHEREAS, for the purposes of this Assignment, "Patent Application" means, individually and collectively, any and all (a) patent application(s) listed above, (b) patent application(s) filed anywhere in the world that claim the benefit of priority, whose benefit of priority is claimed, or share a claim of priority with, such application(s), including any foreign counterpart, continuation, continuation-in-part, divisional, reissue, reexamination or substitute application thereof, and (c) inventions described in, and patents issuing from, any patent application(s) described in clauses "(a)" or "(b)" of this paragraph; and "including" means "including, by way of example and not limitation"; and

WHEREAS, VMware, Inc., ("Assignee"), having a place of business at 3401 Hillview Avenue, Palo Alto, CA, 34304, wishes to obtain all of Inventor's rights in the Patent Application;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Inventor confirms that, to the extent it has not already assigned all right, title and interest in the Patent Application to Assignee, Inventor hereby assigns and agrees as follows.

Inventor agrees to assign and hereby does assign the entire right, title and interest in the Patent Application to Assignee, including all rights and privileges and all forms of protection that may be granted anywhere in the world arising out of the filing, publication or grant of the Patent Application, including the right to seek and collect past damages. Inventor authorizes Assignee (or Assignee's designated successor(s) or assign(s) of the Patent Application) to make application for and obtain such protection in its own name and maintain such protection anywhere in the world, and to invoke and claim for any application for patent or other form of protection for the Patent Application, without further authorization from Inventor, including any right to claim the benefit of priority provided by any treaty, convention or agreement. Inventor requests that all patents issuing from the Patent Application be issued to Assignee or its successors or assigns.

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Inventor shall, without charge to Assignee but at its expense with respect to Inventor's reasonable out-of-pocket costs (to which Assignee must consent in advance), sign and take all rightful oaths, and do all acts that Assignee deems necessary or may reasonably request, in connection with the Patent Application or other forms of protection of the inventions described therein, and for the defense and protection thereof if challenged in a court of law or equity. Unless prohibited by law, Inventor agrees not to challenge the validity or patent eligibility of any claim currently or later appearing in the Patent Application.

Inventor authorizes Assignee or its agents to insert above, on Inventor's behalf, the filing date and/or application number of the identified application(s) if not known or listed above as of the date of execution of this document. Inventor further authorizes Assignee to confirm its acceptance of this Assignment by adding Assignee's name and authorized signature below.

This Assignment, including any questions relating to its validity, shall be governed by federal laws of the United States and the state laws of Delaware, as applicable, without regard to a jurisdiction's conflicts of law rules.

IN WITNESS WHEREOF, this agreement is executed and agreed to by Inventor, being signed by Inventor on the date below.

Signatur	e: Notalie Schlediter
	Natalie Schlechter
Date:	12/13/2021

RECORDED: 01/13/2022

H663 (500108-1830)