PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DON NEWELL	01/11/2019
ATANU PANDA	07/17/2018
MALLIKA KAMAT	06/22/2016
ROHAN SEN	06/22/2016
SUDIPTO MUKHOPADHYAY	07/28/2016

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:	15187480

CORRESPONDENCE DATA

Fax Number: (312)580-9696

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: 3125801020

Email: ljohnson@hfzlaw.com, VMware@blackhillsip.com,

ipadmin@vmware.com

Correspondent Name: HANLEY, FLIGHT & ZIMMERMAN, LLC

Address Line 1: 150 S. WACKER DRIVE CHICAGO, ILLINOIS 60606

ATTORNEY DOCKET NUMBER:	C150.07.02
NAME OF SUBMITTER:	MICHAEL W. ZIMMERMAN
SIGNATURE:	/ Michael W. Zimmerman/
DATE SIGNED:	02/27/2019

Total Attachments: 6

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PATENT REEL: 048455 FRAME: 0592



PATENT REEL: 048455 FRAME: 0593

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I, an ASSIGNOR named below,

Don Newell	of	Cupertino, CA
Atanu Panda	of	San Jose, CA
Mallika Kamat	of	Mountain View, CA
Rohan Sen	of	Bangalore, India
Sudipto Mukhopadhyay	of	Pleasanton, CA

hereby sell, assign, transfer and set over to

ASSIGNEE: VMware, Inc., a Delaware corporation, having a principal place of business at 3401 Hillview Avenue, Palo Alto, California 94304, U.S.A. (VMware), its successors, assigns and legal representatives,

my entire right, title and interest throughout the world, including all rights to claim priority, in and to the invention(s) disclosed in:

U.S. Patent Application executed	on or about the	date of this	Assignment,
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<u>X</u> U.S. Patent Application No.: <u>15/187,480</u>, filed on <u>June 20, 2016</u>;

___ U.S. Provisional Application No.: _____, filed on _____;

X International Application executed on or about the date of this Assignment,

X Indian Provisional Application No.: 3344/CHE/2015, filed on June 30, 2015

and

ENTITLED: METHODS AND APPARATUS FOR SOFTWARE LIFECYCLE MANAGEMENT OF A VIRTUAL COMPUTING ENVIRONMENT

and identified by Attorney Docket Number: C150.07.02

and naming inventor(s) as follows:

INVENTOR(S): Don Newell

Atanu Panda Mallika Kamat Rohan Sen

Sudipto Mukhopadhyay

ASSIGNMENT C150.07.02

including without limitation, my entire right, title and interest in and to any and all United States and foreign applications (including any and all provisional, international, regional and foreign national applications) for said invention(s), including divisionals, continuations, continuations-in-part, renewals, substitutes and extensions thereof, and in and to any and all patents of every country or region that may be granted or have been granted for said invention(s), including any reissues and reexaminations thereof—the foreign applications including, without limitation, all applications for patents, utility models and designs which may hereafter be filed for the invention(s) in any country or countries foreign to the United States, and all forms of industrial property protection, including, without limitation, patents, utility models, inventor's certificates and designs which may be granted for the invention(s) in any country or countries foreign to the United States and all extensions, renewals and reissues thereof.

I authorize ASSIGNEE to apply for patents of foreign countries for said invention(s); to claim all rights of priority without further authorization from me, which priority rights include rights derived from any United States application (provisional or otherwise) under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and to own in its own name all applications, all patents and inventor's certificates in all countries based on the invention(s).

I agree to execute any and all documents requested by ASSIGNEE, its successors, assigns, legal representatives, or nominees, at their reasonable expense, in connection with filing and prosecution of any and all United States and foreign applications (including international, regional, and foreign national applications), enforcement of all patents, and maintenance of all rights in the invention(s), patents, inventor's certificates and applications for patents or inventor's certificates based on any of the invention(s); and generally to do everything possible to aid ASSIGNEE, its successors, assigns, legal representatives, and nominees, at their request and reasonable expense, in obtaining, enforcing, and maintaining patents and inventor's certificates for said invention(s) in all countries. In particular, I agree to provide to ASSIGNEE, its successors, assigns, legal representatives, or nominees, at their request and at their reasonable expense, all information known to or ascertainable by me and all documents and other materials and objects pertaining to the invention(s) that are in the possession of or accessible to me; and further, at any trial, hearing, deposition or other legal proceeding where I am called as a witness by ASSIGNEE, its successors, assigns, legal representatives, or nominee, I agree to testify to all facts pertaining to the invention(s) for which I am competent to testify.

I hereby covenant that I have full right to convey the entire interest that is being assigned by this Assignment, and that no assignment, sale, license, agreement, or encumbrance has been or will be made or entered into that would conflict with this Assignment.

I 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, to issue any U.S. Letters Patent or any other patent or property right that may be granted for said invention(s) to ASSIGNEE, its successors or assigns.

 ASSIGNMENT C150.07.02

patents of every country or region that may be granted or have been granted for said invention(s), including any reissues and reexaminations thereof—the foreign applications including, without limitation, all applications for patents, utility models and designs which may hereafter be filed for the invention(s) in any country or countries foreign to the United States, and all forms of industrial property protection, including, without limitation, patents, utility models, inventor's certificates and designs which may be granted for the invention(s) in any country or countries foreign to the United States and all extensions, renewals and reissues thereof.

I authorize ASSIGNEE to apply for patents of foreign countries for said invention(s); to claim all rights of priority without further authorization from me, which priority rights include rights derived from any United States application (provisional or otherwise) under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and to own in its own name all applications, all patents and inventor's certificates in all countries based on the invention(s).

I agree to execute any and all documents requested by ASSIGNEE, its successors, assigns, legal representatives, or nominees, at their reasonable expense, in connection with filing and prosecution of any and all United States and foreign applications (including international, regional, and foreign national applications), enforcement of all patents, and maintenance of all rights in the invention(s), patents, inventor's certificates and applications for patents or inventor's certificates based on any of the invention(s); and generally to do everything possible to aid ASSIGNEE, its successors, assigns, legal representatives, and nominees, at their request and reasonable expense, in obtaining, enforcing, and maintaining patents and inventor's certificates for said invention(s) in all countries. In particular, I agree to provide to ASSIGNEE, its successors, assigns, legal representatives, or nominees, at their request and at their reasonable expense, all information known to or ascertainable by me and all documents and other materials and objects penaining to the invention(s) that are in the possession of or accessible to me; and further, at any trial, hearing, deposition or other legal proceeding where I am called as a witness by ASSIGNEE, its successors, assigns, legal representatives, or nominee, I agree to testify to all facts pertaining to the invention(s) for which I am competent to testify.

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Executed on	, by
Date	Don Newell
Executed on 07/19/40/	8 by <u>Htanu Panda</u> Atanu Panda

ASSIGNMEN'	r		C150,07.0)2
Executed on	6/20/2016	by	Memer	
	Date	M	Mallika Kamat	
Executed on .	Date	by	Pohan San	

ASSIGNMENT		C150.07.02
Executed on _	, by	
	Date Mallika Kamat	
Executed on _	22hd June 2016, by Robert Sen	<u>anlei</u>

ASSIGNMENT C150.07.02

any country or countries foreign to the United States and all extensions, renewals and reissues thereof.

I authorize ASSIGNEE to apply for patents of foreign countries for said invention(s); to claim all rights of priority without further authorization from me, which priority rights include rights derived from any United States application (provisional or otherwise) under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and to own in its own name all applications, all patents and inventor's certificates in all countries based on the invention(s).

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Executed on 07/28/2016, by Chys Mkylly my

Date

Sudipto Mukhopadhyay

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RECORDED: 02/27/2019