503408179 07/24/2015

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WENGUANG WANG	06/15/2015
RADU BERINDE	05/03/2015
CHRISTOS KARAMANOLIS	06/02/2015
JORGE GUERRA DELGADO	06/02/2015
SRINATH PREMACHANDRAN	06/02/2015

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:	14724392

CORRESPONDENCE DATA

Fax Number:

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: 650-427-1049

Email: ipadmin@vmware.com

Correspondent Name: VMWARE, INC.
Address Line 1: DARRYL SMITH
Address Line 2: 3401 HILLVIEW AVE.

Address Line 4: PALO ALTO, CALIFORNIA 94304

ATTORNEY DOCKET NUMBER: C525.01

NAME OF SUBMITTER: GEORGE B. F. YEE

SIGNATURE: /George B. F. Yee/

DATE SIGNED: 07/24/2015

Total Attachments: 4

PATENT REEL: 036175 FRAME: 0206

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PATENT REEL: 036175 FRAME: 0207

ASSIGNMENT

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

Wenguang Wang	of	Santa Clara, CA
Radu Berinde	O£	Cambridge, MA
Christos Karamanolis	οf	Los Gatos, CA
Jorge Guerra Delgado -	ΘĹ	Sunnyvale, CA
Srinath Premachandran	of	Fremont, 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,
.X	U.S. Patent Application No.: <u>14/724.392</u> , filed on <u>May 28, 2015</u> ;
.000000	U.S. Provisional Application No.:, filed on;
,,,,,,,,	International Application No.: PCT/, filed on
ind	

ENTITLED: DATA DEDUPLICATION IN A BLOCK-BASED STORAGE SYSTEM

and identified by Attorney Docket Number: C525.01

and naming inventor(s) as follows:

INVENTOR(S):

Wenguang Wang	O£	Santa Claro, CA
Radu Berinde	of	Cambridge, MA
Christos Karamanolis	of:	Los Gatos, CA
Jorge Guerra Delgado	OÎ.	Sunnyväle, CA
Srinath Premachandran	of	Fremont, CA

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

Page 1 of 3

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 lestify.

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.

Executed on	6/15/2015	by	A RESTANDANCE OF THE PARTY OF T	
	Date	•	Wenguang Wang	
Executed on	×	bγ		
~	Date	**	Radu Berinde	

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.

Executed on		by		_
	Date		Wenguang Wang	
Executed on	5/2/2015	by		
	Date	•	Radii Berinde	

ASSIGNMENT	, ,		
Executed on	06/02/2015	, by _	2/w
	Date		Christos Karamanolis
	06/02/2015	, by _	K .
	Date		Jorge Guerra Delgado
Executed on	06/02/2015	, by _	Ing.
	Date /		Srinath Premachandran