505307845 01/31/2019

PATENT ASSIGNMENT COVER SHEET

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JBMISSION TYPE: NEW ASSIGNMENT		NEW ASSIGNMENT	
ATURE OF CONVEY	ANCE:	ASSIGNMENT	
CONVEYING PARTY	DATA		
		Name	Execution Date
ABHIJIT SEAL	JIT SEAL		11/16/2018
HARSH KUMAR			11/16/2018
MD. BORHAN UDDIN			11/16/2018
SACHIN TIWARI			11/16/2018
RECEIVING PARTY D	ΑΤΑ		
Name:	VMWA	RE, INC.	
Street Address:	3401 H		
City:	PALO	ALTO	
State/Country:	CALIFO	ORNIA	
Postal Code:	94304		
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Property Type	e	Number 16193656	
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For good and valuable consideration, the receipt of which is hereby acknowledged, I. an ASSIGNOR named below,

Abhijit SEAL	of	San Jose, California
Harsh KUMAR	of	San Jose, California
Md. Borhan UDDIN	of	Fremont, California
Sachin TIWARI	of	Mountain View, California

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:

X U.S. Patent Application executed on or about the date of this Assignment,

- ____U.S. Patent Application No.: _____, filed on _____;
- ____ U.S. Provisional Application No.: _____, filed on _____;
- ____ International Application No.: <u>PCT/_____</u>, filed on _____;

and

ENTITLED: COMPONENT AWARE INCREMENTAL BACKUP, RESTORE, AND RECONCILIATION SOLUTION

and identified by Attorney Docket Number: E270

and naming inventors as follows:

INVENTORS:	Abhijit SEAL
	Harsh KUMAR
	Md. Borhan UDDIN
	Sachin TIWARI

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.

Page 1 of 2

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 nominces, 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 nominces, 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.

٦,

Executed on	1/16/2013 Date	, by	Abhijit SEAL
Executed on	レ/16/ 2018 Date	. by _	Harsh KUMAR
Executed on	Date	, by _	Md. Borhan UDDIN
Executed on	11 16 1 8 Date	, by _	Salling

Page 2 of 2

PATENT REEL: 048214 FRAME: 0395

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

Abhijit SEAL	of	San Jose, California
Harsh KUMAR	of	San Jose, California
Md. Borhan UDDIN	of	Fremont, California
Sachin TIWARI	of	Mountain View, California

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:

X U.S. Patent Application executed on or about the date of this Assignment,

- ____U.S. Patent Application No.: _____, filed on _____;
- ____ U.S. Provisional Application No.: ______, filed on _____;
- ____ International Application No.: <u>PCT/_____</u>, filed on _____;

and

ENTITLED: COMPONENT AWARE INCREMENTAL BACKUP, RESTORE, AND RECONCILIATION SOLUTION

and identified by Attorney Docket Number: E270

and naming inventors as follows:

INVENTORS:	Abhijit SEAL
	Harsh KUMAR
	Md. Borhan UDDIN
	Sachin TIWARI

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.

PATENT REEL: 048214 FRAME: 0396

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, logal 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 encombrance 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	Date		Abbijik SEAL
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	Daix		Harsh KUMAR
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	Date		Md. Borhan UDDNN
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RECORDED: 01/31/2019

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