PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4805788

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SOUMYA BASU	12/08/2017
ALIN TOMESCU	10/11/2017
DAHLIA MALKHI	10/13/2017
MICHAEL REITER	10/19/2017
ADRIAN SEREDINSCHI	10/11/2017
ITTAI ABRAHAM	12/28/2017
GUY GOLAN GUETA	10/16/2017

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15729568

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:	D840
NAME OF SUBMITTER:	ANDREW J. LEE
SIGNATURE:	/Andrew J. Lee/
DATE SIGNED:	02/01/2018

504759060 PATENT REEL: 044803 FRAME: 0177

Total Attachments: 8 source=D840-ASSIGNMENT#page1.tif source=D840-ASSIGNMENT#page2.tif source=D840-ASSIGNMENT#page3.tif source=D840-ASSIGNMENT#page4.tif source=D840-ASSIGNMENT#page5.tif source=D840-ASSIGNMENT#page6.tif source=D840-ASSIGNMENT#page7.tif source=D840-ASSIGNMENT#page8.tif

PATENT REEL: 044803 FRAME: 0178

<u>ASSIGNMENT</u>

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

Soumya Basu	of	Ithaca, NY, United States
Alin Tomescu	of	Cambridge, MA, United States
Dahlia Malkhi	of	Palo Alto, CA, United States
Michael Reiter	of	Palo Alto, CA, United States
Adrian Seredinschi	of	Lausanne, Switzerland
Ittai Abraham	of	Tel Aviv, Israel
Guy Golan Gueta	of	Holon, Israel

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.: 15/729,568, filed on November 1, 2017;	
U.S. Provisional Application No.:, filed on;	
International Application No.: PCT/, filed on	;
and	

ENTITLED: BYZANTINE FAULT TOLERANCE WITH VERIFIABLE SECRET SHARING AT CONSTANT OVERHEAD

and identified by Attorney Docket Number: **D840**

and naming inventor(s) as follows:

INVENTOR(S):

Soumya Basu	of	Ithaca, NY, United States
Alin Tomescu	of	Cambridge, MA, United States
Dahlia Malkhi	of	Palo Alto, CA, United States
Michael Reiter	of	Palo Alto, CA, United States
Adrian Seredinschi	of	Lausanne, Switzerland
Ittai Abraham	of	Tel Aviv, Israel
Guy Golan Gueta	of	Holon, Israel

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 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.

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ACCIONALIA I	50 °
Executed on LO/M/20N7 Date	, by Alin Tomescu
Executed on	, by Dahlia Malkhi
Executed on	, by Michael Reiter
Executed on	, byAdrian Seredinschi
Executed on	, by Ittai Abraham
Evenuted on	» bv

Guy Golan Gueta

Date

Executed on _		, by	Alin Tomescu
	Date		Alin Tomescu
Executed on _	10-13-2017 Date	, by ₋	Dahlia Malkhi
Executed on _	Date	, by ₋	Michael Reiter
Executed on _	Date	, by .	Adrian Seredinschi
Executed on _	Date	_, by _	Ittai Abraham
Executed on _	Date	_, by _	Guy Golan Gueta

Executed on _		, by	
	Date		Alin Tomescu
Executed on _		, by	
	Date		Dahlia Malkhi
Executed on _	Остовоп 19, 2017 Date	, by	nih-
	Date		Michael Reiter
Executed on _		, by	
	Date		Adrian Seredinschi
Executed on _		, by	
	Date		Ittai Abraham
Executed on _		, by	
7	Date		Guy Golan Gueta

PATENT REEL: 044803 FRAME: 0183

Executed on		. by	
	Date		Alin Tomescu
Executed on		, bv	
	Date	······································	Dahlia Malkhi
Executed on		, by	Michael Reiter
	Date		Michael Reiter
Executed on	<u>ΔετοδεΩ 11,2017</u> Date	, by	Alikadoredi
	17416		Adrian Serodinschi
Executed on		, by	Ittai Ahraham
	Date		Ittai Abraham
Executed on _		, by	
	Date	•	Guy Golan Gueta

Executed on _		, by	
	Date	·	Alin Tomescu
Executed on _	Date	by	Dahlia Malkhi
			YAGMENES TO KUSENPEST
Executed on _	Date	, by _	Michael Reiter
Executed on _	Date	, by _	Adrian Seredinschi
Executed on _	12/28/297 Date	, by _	MESHLI
	Pate / /		Ittai Abraham '
Executed on _			Cay Color Cuoto

Executed on		, by	
	Date		Alin Tomescu
Executed on	Date	_, by _	Dahlia Malkhi
Executed on	Date	, by _	Michael Reiter
Executed on	Date	, by _	Adrian Seredinschi
Executed on	Date	_, by _.	Ittai Abraham
Executed on	10-16-2012 Date	, by _	Guy Golan Gueta