

**PATENT ASSIGNMENT**

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Xiaoxin CHEN	10/28/2008
Carl A. WALDSPURGER	10/28/2008
Pratap SUBRAHMANYAM	10/28/2008
Tal GARFINKEL	10/30/2008
Dan BONEH	11/04/2008
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	VMware, Inc.
<b>Street Address:</b>	3401 Hillview Avenue
<b>City:</b>	Palo Alto
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94304
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	12261194
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(650)427-4818
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
<b>Phone:</b>	650-427-1056
<b>Email:</b>	ipadmin@vmware.com
<b>Correspondent Name:</b>	VMware, Inc.
<b>Address Line 1:</b>	3401 Hillview Avenue
<b>Address Line 4:</b>	Palo Alto, CALIFORNIA 94304
<b>ATTORNEY DOCKET NUMBER:</b>	A193
<b>NAME OF SUBMITTER:</b>	Rajeev Madnawat

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**PATENT  
 REEL: 022505 FRAME: 0451**

Total Attachments: 4

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**ASSIGNMENT**

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

Xiaoxin CHEN	of	Cupertino, CA
Carl A. WALDSPURGER	of	Palo Alto, CA
Pratap SUBRAHMANYAM	of	Saratoga, CA
Tal GARFINKEL	of	Palo Alto, CA
Dan BONEH	of	Palo Alto, 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,
- U.S. Patent Application executed on \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, or
- U.S. Patent Application No.: \_\_\_\_\_, filed on \_\_\_\_\_;
- U.S. Provisional Application No.: 60/983,797, filed on October 30, 2007 ;
- International Application No.: PCT/\_\_\_\_\_, filed on \_\_\_\_\_;

and

ENTITLED: Cryptographic Multi-Shadowing with Integrity Verification

and identified by Attorney Docket Number A193;

and naming inventor(s) as follows:

INVENTOR(S): Xiaoxin CHEN, Carl A. WALDSPURGER, Pratap SUBRAHMANYAM, Tal GARFINKEL, Dan BONEH

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.

ASSIGNMENT

I authorize and request that the U.S. Patent Application number and filing date corresponding to the U.S. Patent Application identified above be inserted here, if not already shown above, when such Patent Application number and filing date become known:

U.S. Patent Application \_\_\_\_\_, filed \_\_\_\_\_.

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 Oct. 28, 2008, by Xiaoxin CHEN  
Date  
Executed on 28-Oct-08, by Carl A. WALDSPURGER  
Date  
Executed on Oct 28, 2008, by Pratap SUBRAHMANYAM  
Date  
Executed on \_\_\_\_\_, by Tal GARFINKEL  
Date

ASSIGNMENT

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U.S. Patent Application \_\_\_\_\_, filed \_\_\_\_\_.

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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.

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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 Xiaoxin CHEN

Executed on \_\_\_\_\_, by \_\_\_\_\_  
Date Carl A. WALDSPURGER

Executed on \_\_\_\_\_, by \_\_\_\_\_  
Date Pratap SUBRAHMANYAM

Executed on 10/30/08, by \_\_\_\_\_  
Date Tai GARENKEI

ASSIGNMENT

Executed on Nov. 4, 2008 by Dan Boneh  
Date Dan BONEH