503022950 10/17/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3069550

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SUBHASISH CHAKRABORTY	10/15/2014
TERRY HAHN	10/15/2014
HONGYU ZHANG	10/15/2014
SHRUTHI HERALE	10/15/2014

RECEIVING PARTY DATA

Name:	EMC CORPORATION
Street Address:	176 SOUTH STREET
City:	HOPKINTON
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14502798

CORRESPONDENCE DATA

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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: 5102959328
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Correspondent Name: STANIFORD TOMITA LLP

Address Line 1: PO BOX 591838

Address Line 4: SAN FRANCISCO, CALIFORNIA 94159

ATTORNEY DOCKET NUMBER:	EMC-14-0289 (EM1.05U)
NAME OF SUBMITTER:	GEOFFREY T. STANIFORD
SIGNATURE:	/GEOFFREY T. STANIFORD/
DATE SIGNED:	10/17/2014

Total Attachments: 6

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PATENT 503022950 REEL: 033969 FRAME: 0909

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> PATENT REEL: 033969 FRAME: 0910

PATENT/Joint Assignment Attorney Docket No.: EM12.05U EMC Docket No.: EMC-14-0289 Express Mail Mailing Label No.

ASSIGNMENT

WHEREAS, we, Subhasish Chakraborty, Terry Hahn, Hongyu Zhang and Shruthi
Herale have invented an invention comprising and/or embodying certain improvements or
discoveries or both as described in an application for Letters Patent of the United States entitled
CACHE-FREE AND LOCK-FREE HANDLING OF SECURITY INFORMATION FOR MULTIPLE
DISTRIBUTED OBJECTS IN PROTECTION STORAGE SYSTEMS , the specification of which:

	is being executed on even date herewith and is about to be filed in the United States Patent Office;
[X]	was filed on September 30, 2014 as U.S. Application No.14/502,798;
[]	was patented under U.S. Patent Noon

WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein:

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its

PATENT REEL: 033969 FRAME: 0911

Attorney Docket No.: EM1.05U EMC Docket No.: EMC-14-0289

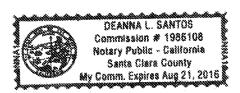
successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

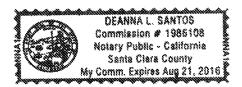
Attorney Docket No.: EM1.05U EMC Docket No.: EMC-14-0289

Date: 10/15/2014	Soldy.
	Inventor's Signature
Print full name of first inventor:	Subhasish Chakraborty
Residence:	430 Selby Lane
	Livermore, CA 94551
Citizenship:	India
Mailing Address:	Same as above
On this	
	Print Name: Dearna L. Santos
	My Commission expires 8/2/29b



Attorney Docket No.: <u>EM1.05U</u> EMC Docket No.: <u>EMC-14-0289</u>

Date: 10/15/2014	Teng Hon Inventor's Signature
Print full name of second inventor:	Terry Hahn
Residence:	1801 Austin Ave.
	Los Altos, CA 94024-6805
Citizenship:	US
Mailing Address:	Same as above
who proved to me on the basis of satisfactor subscribed to the within instrument and ackr in his/har/their authorized capacity(ies), and the person(s), or the entity upon behalf of whether the person is a subscribed to the person in the person in the person in the entity upon behalf of whether its person in the person in t	, 20 14, before me appeared Terry Hahn y evidence to be the person(s) whose name(s) is/are nowledged to me that he/she/they executed the same that by his/her/their signature(s) on the instrument hich the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY ur foregoing paragraph is true and correct.	nder the laws of the State of California that the
WITNESS my hand and official seal.	
	Notary Public Print Name: Deana L. Santos
	Print Name: Dearna L. Santos
	My Commission expires $8/2/206$



Attorney Docket No.: EMI.05U EMC Docket No.: EMC-14-0289

Date: 10/15/2014

Inventor's Signature

Print full name of third inventor:

Hongyu Zhang

Residence:

1358 Lakeshore Circle

San Jose, CA 95131

China

Citizenship:

Mailing Address:

STATE OF COUNTY OF

CA Santa Clara

On this 15 day of 0000, 2014, before me appeared 10ng 4u 2hang who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/sho/they executed the same in his/har/their authorized capacity(ies), and that by his/har/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public

Print Name:

Deama L. Santo

My Commission expires 2/2/296

OEANNA L. SANTOS
Commission # 1986108
Notary Public - California
Santa Clara County
My Comm. Expires Aug 21, 2016

RECORDED: 10/17/2014

Attorney Docket No.: EM1.05U EMC Docket No.: EMC-14-0289

Date: 10 15 2014	44 <u>4</u>
	Inventor's Signature
Print full name of forth inventor:	Shruthi Herale
Residence:	640 Epic Way, #313
	San Jose, CA 95134
Citizenship:	India
Mailing Address:	Same as above
STATE OF COUNTY OF Santa Clara On this 15 day of October, 2014, before me appeared Shruthi Herale who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/arc subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the	
foregoing paragraph is true and correct.	
WITNESS my hand and official seal.	n 7 0 2
	Dearra J. Partes
	Notary Public
	Print Name: Deanna L. Santos
	My Commission expires <u>8/2/20</u> 6
	DEANNA L. SANTOS Commission # 1988108 Notary Public - California Santa Clara County Asy Comm. Expires Aug 21, 2016

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