PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YIDONG WANG	07/13/2009
NEIL F. SCHUTZMAN	07/14/2009
RUSSELL R. LAPORTE	07/13/2009
GREGORY W. LAZAR	07/13/2009
DEENE A. DAFOE	07/13/2009
FENG ZHOU	07/13/2009

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:	12495473

CORRESPONDENCE DATA

(781)515-5450 Fax Number:

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Correspondent Name: EMC CORPORATION OFFICE OF THE GENERAL CO

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Address Line 4: HOPKINTON, MASSACHUSETTS 01748

ATTORNEY DOCKET NUMBER:	EMC-08-435
NAME OF SUBMITTER:	Jason A. Reyes

PATENT 500983457 **REEL: 023344 FRAME: 0452**

Total Attachments: 8 source=EMC-08-435Assignment#page1.tif source=EMC-08-435Assignment#page2.tif source=EMC-08-435Assignment#page3.tif source=EMC-08-435Assignment#page4.tif source=EMC-08-435Assignment#page5.tif source=EMC-08-435Assignment#page6.tif source=EMC-08-435Assignment#page7.tif source=EMC-08-435Assignment#page8.tif

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ASSIGNMENT

WHEREAS, we, Yidong Wang, Neil F. Schutzman, Russell R. Laporte, Gregory W. Lazar, Deene A. Dafoe, and Feng Zhou 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 MAPPING DATA STORAGE AND VIRTUAL MACHINES (Application), 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 June 30, 2009 as U.S. Application No. 12/495,473;
[]	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 successors, assigns and legal representatives, but at its or their expense and charges, including

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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;

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

Date: 7/13/2009	1 DA	
	Inventor's Signature	
Print full name of first inventor:	Yidong Wang	
Residence:	33 Howarth Drive, Upton, MA 01568	
Citizenship:	China – People's Republic	
Mailing Address:	33 Howarth Drive, Upton, MA 01568	
STATE/COMMONWEALTH OF Massachustles COUNTY OF States II. On this 13th day of July , 2009, then personally appeared before me the above-named Yidong Wang known to me through satisfactory evidence of identification [] employee identification card; [] driver's license; [] (other)		
t	to be the person whose name is subscribed to the	
foregoing Assignment and acknowledged the deed for the purposes therein contained.	nat he/she executed the same as his/her free act and	
	Janus J. Sanister	
	Notary Public	
	Print Name: Nancy J. Fornster	
	My Commission expires 0/150/20/5	

Date: 7/14/09	Ma Tong	
	Inventor Signature	
Print full name of second inventor:	Neil F. Schutzman	
Residence:	155 Bracken Drive, Marlborough, MA 01752	
Citizenship:	USA	
Mailing Address:	155 Bracken Drive, Marlborough, MA 01752	
On this /// day of, 2009, then personally appeared before me the above-named Neil F. Schutzman known to me through satisfactory evidence of identification [_] employee identification card; [_] driver's license; [_] (other)		
	to be the person whose name is subscribed to the nat he/she executed the same as his/her free act and	
	Notary Public Print Name: Nancy J. Forrister	
	Notary Public	
	Print Name: Nancy J. torrister	
	My Commission expires 01/50/2015	

Date: 7/13/2009	Rusself R. Laporty
	Inventor's Signature
Print full name of third inventor:	Russell R. Laporte
Residence:	4 Blueberry Lane, Webster, MA 01570
Citizenship:	USA
Mailing Address:	4 Blueberry Lane, Webster, MA 01570
On this 13 day of July above-named Russell R. Laporte known to employee identification card; the driver of the day of the	_, 2009, then personally appeared before me the o me through satisfactory evidence of identification
	to be the person whose name is subscribed to the
foregoing Assignment and acknowledged t deed for the purposes therein contained.	hat he/she executed the same as his/her free act and
	Vlancy Or Lawreter
	Notary Public
	Print Name: Nancy J. Forristor
	My Commission expires 6/130 13015

Gregory W. Lazar Print full name of fourth inventor: 10 Rockdale Hill Circle, Upton, MA 01568 Residence: **USA** Citizenship: Mailing Address: 10 Rockdale Hill Circle, Upton, MA 01568 STATE/COMMONWEALTH OF MANACYUOLTS
COUNTY OF MACCALE **COUNTY OF** On this 13th day of July _____, 2009, then personally appeared before me the above-named Gregory W. Lazar known to me through satisfactory evidence of identification [__demployee identification card; [___driver's license; [__] (other) _____ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained. My Commission expires 6/ 130 130

Date: 7/13/2009	Leon Take
	Inventor's Signature
Print full name of fourth inventor:	Deene A. Dafoe
Residence:	2 Vega Drive, Shrewsbury, MA 01545
Citizenship:	USA (aneda
Mailing Address:	2 Vega Drive, Shrewsbury, MA 01545
On this	2009, then personally appeared before me the through satisfactory evidence of identification [
employee identification card; [_] driver's lie	be the person whose name is subscribed to the
	at he/she executed the same as his/her free act and
	Dancy Janester
	Notary Public
	Print Name: Nancy J. Forrister
	My Commission expires <u>Ol 130 1 2015</u>

Date: $\frac{-7/(3/09)}{}$	my	
	Inventor's Signature	
Print full name of fourth inventor:	Feng Zhou	
Residence:	1640 Worcester Road, #518D, Framingham, MA	
	01702	
Citizenship:	China	
Mailing Address:	1640 Worcester Road, #518D, Framingham, MA	
	01702	
	s achus etts	
On this day of, 2009, then personally appeared before me the above-named Feng Zhou known to me through satisfactory evidence of identification [] employee identification card; [] driver's license; [] (other) to be the person whose name is subscribed to the		
foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.		
	Notary Rublic Print Name: Nancy - Famster My Commission expires 0/130/2015	
	Notary Rublic	
	Print Name: Nancy - Forister	
	My Commission expires <u>1/30/30/5</u>	

RECORDED: 10/08/2009