

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PHILIPPE ARMANGAU	03/31/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	EMC CORPORATION
<b>Street Address:</b>	176 SOUTH STREET
<b>City:</b>	HOPKINTON
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01748
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14674956
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(508)293-7189
<i>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.</i>	
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<b>Email:</b>	Docketing@emc.com
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<b>Address Line 4:</b>	HOPKINTON, MASSACHUSETTS 01748
<b>ATTORNEY DOCKET NUMBER:</b>	EMC-14-0780
<b>NAME OF SUBMITTER:</b>	DEEPIKA BHAYANA
<b>SIGNATURE:</b>	/Deepika Bhayana/
<b>DATE SIGNED:</b>	03/31/2015
<b>Total Attachments: 6</b>	
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ASSIGNMENT

WHEREAS, we, Philippe Armangau, Junping Zhao, Fenghao Zhang and Gang Xie, 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 MANAGING DELETION OF REPLICAS OF FILES (Application), the specification of which:

is being executed on even date herewith and is about to be filed in the United States Patent Office;

was filed on \_\_\_\_\_ as U.S. Application No. \_\_\_\_\_;

was patented under U.S. Patent No. \_\_\_\_\_ on \_\_\_\_\_.

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 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;

AND, we hereby authorize our attorneys, EMC Corporation, to insert here in parenthesis (\_\_\_\_\_) the application number and filing date of said Application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

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

Date: 3/31/15

*Philippe Armangau*  
Inventor's Signature

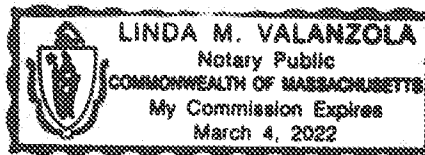
Print full name of inventor: **Philippe Armangau**  
Residence: 51 Seminole Road  
Acton, MA 01720  
Citizenship: US  
Mailing Address: Same as above

STATE/Commonwealth of Massachusetts  
COUNTY OF Middlesex

On this 31 day of March, 2015, then personally appeared before me the above-named Philippe Armangau 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.

*Linda M. Valanzola*  
Notary Public

Print Name: Linda M. Valanzola  
My Commission expires 3/4/2022



Date: \_\_\_\_\_  
Inventor's Signature

Print full name of inventor Junping Zhao

Residence Level 18, Block D

No. 1, ZhongGuanCun East Road, Haidian

Citizenship Beijing CN 100084

Mailing Address Same as above

I, \_\_\_\_\_ (name of first witness), whose residential address is \_\_\_\_\_

was personally present and did see \_\_\_\_\_ (name of person signing the assignment), who is personally known to me, execute the above assignment.

\_\_\_\_\_ (signature of first witness)

Signed at \_\_\_\_\_ (location of witness signature)

on this day, \_\_\_\_\_, 20\_\_\_\_ (date of signature).

I, \_\_\_\_\_ (name of second witness), whose residential address is \_\_\_\_\_

was personally present and did see \_\_\_\_\_ (name of person signing the assignment), who is personally known to me, execute the above assignment.

\_\_\_\_\_ (signature of second witness)

Signed at \_\_\_\_\_ (location of witness signature)

on this day, \_\_\_\_\_, 20\_\_\_\_ (date of signature).

Date: \_\_\_\_\_  
Inventor's Signature

Print full name of inventor Fenghao Zhang

Residence Room 23, 2 Group

Tanhua Village, W

Citizenship Chongqing CN

Mailing Address Same as above

I, \_\_\_\_\_ (name of first witness), whose residential address is \_\_\_\_\_

was personally present and did see \_\_\_\_\_ (name of person signing the assignment), who is personally known to me, execute the above assignment.

\_\_\_\_\_ (signature of first witness)

Signed at \_\_\_\_\_ (location of witness signature)

on this day, \_\_\_\_\_, 20\_\_\_\_ (date of signature).

I, \_\_\_\_\_ (name of second witness), whose residential address is \_\_\_\_\_

was personally present and did see \_\_\_\_\_ (name of person signing the assignment), who is personally known to me, execute the above assignment.

\_\_\_\_\_ (signature of second witness)

Signed at \_\_\_\_\_ (location of witness signature)

on this day, \_\_\_\_\_, 20\_\_\_\_ (date of signature).

Date: \_\_\_\_\_

Inventor's Signature

Print full name of inventor Gang Xie  
Residence Room 402, No. 16 Building  
Zhichunli, Haidian  
Citizenship Beijing CN 100080  
Mailing Address Same as above

I, \_\_\_\_\_ (name of first witness), whose residential address is \_\_\_\_\_  
was personally present and did see \_\_\_\_\_ (name of  
person signing the assignment), who is personally known to me, execute the above assignment.

\_\_\_\_\_ (signature of first witness)  
Signed at \_\_\_\_\_ (location of witness signature)  
on this day, \_\_\_\_\_, 20\_\_\_\_ (date of signature).

I, \_\_\_\_\_ (name of second witness), whose residential address is \_\_\_\_\_  
was personally present and did see \_\_\_\_\_ (name of  
person signing the assignment), who is personally known to me, execute the above assignment.

\_\_\_\_\_ (signature of second witness)  
Signed at \_\_\_\_\_ (location of witness signature)  
on this day, \_\_\_\_\_, 20\_\_\_\_ (date of signature).