## 504155673 12/28/2016

## PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
ALEX MINGHUI ZHANG	12/26/2016
BRIAN TIANFANG XIONG	12/26/2016
YUANYANG WU	12/26/2016
YIFENG LU	12/26/2016
SHERRY HONGRU XU	12/26/2016

#### **RECEIVING PARTY DATA**

Name:	EMC IP HOLDING COMPANY LLC
Street Address:	176 SOUTH STREET
City:	HOPKINTON
State/Country:	MASSACHUSETTS
Postal Code:	01748

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15389775

### **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.

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ATTORNEY DOCKET NUMBER:	EMC-15-0843(CN1)US
NAME OF SUBMITTER:	AMANDA BERNIER
SIGNATURE:	/Amanda Bernier/
DATE SIGNED:	12/28/2016

**Total Attachments: 7** 

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PATENT REEL: 040778 FRAME: 0936

#### ASSIGNMENT

WHEREAS, we, Alex Minghui Zhang, Brian Tianfang Xiong, Yuanyang Wu, Yifeng Lu and Sherry Hongru Xu 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 METHOD AND DEVICE FOR RECOVERING DATA REPLICATION BETWEEN STORAGE DEVICES (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 December 23, 2016 as U.S. Application No. 15/389,775;	
[]	was patented under U.S. Patent Noon	

WHEREAS, EMC IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of Delaware 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,

PATENT REEL: 040778 FRAME: 0937 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 IP HOLDING COMPANY LLC, to insert here in parenthesis (15/389,775 filed December 23, 2016) 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: 2016. 12. 26	Alex Minghul Zhang Inventor's Signature
Print full name of inventor	Alex Minghui Zhang
Residence	Room 602, No. 19, 567 Nong, Heze Road
	Pudong
	200129 Shanghai, CN
Citizenship	CN
Mailing Address	Same as above
	ne of first witness), whose residential address is  ye, East Guoshm Rd., Yangpu, Shanghai
was personally present and did see Alex Mins	
assignment), who is personally known to me,	execute the above assignment.
Lune Kuang Signed at 3F, Building 1, No. 234 Songh on this day, Dec. 26	(Signature of first witness)  n kd., Yarppn, (location of witness signature)  20
	ne of second witness), whose residential address is ughai. P.R.C.
was personally present and did see Alex Min	ghui Zhang (name of person signing the
assignment), who is personally known to me,	execute the above assignment.
Signed at 3F. Building 1 10.2 on this day, 2016. 12.26	(Signature of second witness)  34. <u>Jenyhurkol</u> (location of witness signature)  , 20/6 (date of signature).

Date: 2016 (12/26	Brian Tionfung Xi'ar f
	Inventor's \$1gnature ()
Print full name of inventor	Brian Tianfang Xiong
Residence	3-6A, No. 977, Hong Qiao Road
	Shanghai Changning District
	200051 Shanghai, CN
Citizenship	CN
Mailing Address	Same as above
I. Luna Kuang	(name of first witness), whose residential address is
Room 601. No 45. Huaniha Foursh	Village, East Guodhun Rd., Yangpu, Shanghai
	Tianfang Xiong (name of person signing the
assignment), who is personally known to	
Luna Kuang	(Signature of first witness)
Signed at 3F, Building   No. 234 S	Sharehai longhu kd., Yangpu, (location of witness signature)
on this day, Dec. 26	(Signature of first witness)  Sharphai  Songhu Rd., Yangpu, (location of witness signature) , 20 16 (date of signature).
I, Henry Wang	(name of second witness), whose residential address is
_ Carbao Rd. 1508 Shangh	ui P.R.C.
was personally present and did see Brian	Tianfang Xiong (name of person signing the
assignment), who is personally known to	me, execute the above assignment.
Hanry Warre	(Signature of second witness)
Signed at 3F. Building!	(Signature of second witness)  Mo. 239. Sought (location of witness signature)  , 20_/6 (date of signature).
on this day, 2016 12 26	, 20_/6 (date of signature).

Date: 12/26/2016.	Juanyay Wu.  Inventor's Signature
Print full name of inventor	Yuanyang Wu
Residence	Room 1502, Building 18, 866 Guangling Si Road
	Hongkou District
	200434 Shanghai, CN
Citizenship	CN
Mailing Address	Same as above
was personally present and did see Yuar is personally known to me, execute the a Shag Qiu Signed at Floor 2, #252 Songhu R	(Signature of first witness)
on this day,	, 20 16 (date of signature).
was personally present and did see Yuan is personally known to me, execute the	(name of second witness), whose residential address is

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Date: 216.12.26	lifting Lu
	Inventor's Signature
Print full name of inventor	Yifeng Lu
Residence	Huanghua Road 577#, 8-602 Minhang District
	201103 Shanghai, CN
Citizenship	CN
Mailing Address	Same as above
Room 601, No. 45, Huansha Fou	_(name of first witness), whose residential address is  reh Village, Fast Gueshur Rd., Yangpu, Shanghai  ng Lu (name of person signing the assignment), who is  ove assignment.
Luna Kuang Signed at 3F, Building 1, No. 23 on this day, Dec. 26	(Signature of first witness)  4 Sorghu kd., Yangpu, (location of witness signature) , 20 16 (date of signature).
I, Henry Wang  Caobao Rd. 1508. Shen	_(name of second witness), whose residential address is
was personally present and did see Yife	ng Lu (name of person signing the assignment), who is
personally known to me, execute the ab	ove assignment.
Signed at 27. Building! On this day, 2016.12.26.	(Signature of second witness)  Mo. 234. Sough Re (location of witness signature)  , 20 16 (date of signature).

Date: 12/26/2016	Xu Hongru
Duto.	Inventor's Signature
Print full name of inventor	Sherry Hongru Xu
Residence	Room 401, Unit 24, No. 410 Shangpu Road
	Pudong New District
	200124 Shanghai, CN
Citizenship	CN
Mailing Address	Same as above
I, Xw Hui	(name of first witness), whose residential address is
was nersonally present and did see Sh	erry Hongru Xu (name of person signing the assignment),
who is personally known to me, execu	
The is personally line will to me, encour	
Xu Hui	(Signature of first witness)  24, Shang han (location of witness signature)  , 20 16 (date of signature).
Signed at Sonzhu Road #	24. Shang has (location of witness signature)
on this day, 12/26	, 20 1/2 (date of signature).
I, <u>Li Menylin</u> Hexia Road #Ht. Sha	(name of second witness), whose residential address is
was personally present and did see Sh	erry Hongru Xu (name of person signing the assignment),
who is personally known to me, execu	ite the above assignment.
Li Momfin Signed at Sowhu Road #2 on this day, 12/26	(signature of second witness)  (location of witness signature)  , 20 0 (date of signature).

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