# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4200641

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
RUIYONG JIA	12/23/2016
JIAN GAO	12/23/2016
LIFENG YANG	12/23/2016
XINLEI XU	12/23/2016
JIBING DONG	12/23/2016

### **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:	15386166

### **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.

**Phone:** 5082936774

**Email:** amanda.bernier@emc.com

Correspondent Name: AMANDA BERNIER, PARALEGAL

Address Line 1: 176 SOUTH STREET

Address Line 4: HOPKINTON, MASSACHUSETTS 01748

ATTORNEY DOCKET NUMBER:	EMC-15-0910(CN1)US	
NAME OF SUBMITTER:	AMANDA BERNIER	
SIGNATURE:	/Amanda Bernier/	
DATE SIGNED:	12/26/2016	

**Total Attachments: 7** 

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PATENT REEL: 040765 FRAME: 0872

PATENT/Joint Assignment EMC Docket No.: EMC-15-0910(CN1)US

### ASSIGNMENT

WHEREAS, we, Ruiyong Jia, Jian Gao, Lifeng Yang, Xinlei Xu and Jibing Dong 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 APPARATUS FOR MANAGING DATA ACCESS (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 21, 2016 as U.S. Application No. 15/386,166;
[]	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, reissue, divisional or continuation applications and preliminary or other statements and the

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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 (15/386,166 filed December 21, 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:

-2-

Date: 2016.12.23	Ruijons Jia Inventor's Signature	
	Inventor's Signature	
Print full name of inventor	Ruiyong, Jia	
Residence	Room 403, Unit 1, Building 27, 105 West, 3 <sup>rd</sup> Ring	
	North Road, Haidian District	
	100010 Beijing, CN	
Citizenship	CN	
Mailing Address	Same as above	
· Vincol so 1:		
I, Kionschang Li (nam 7/F, Block D, Tsinghua science	e of first witness), whose residential address is on 13eijns Me	
was personally present and did see Ruiyong, J	ia (name of person signing the assignment), who is	
personally known to me, execute the above ass		
Xiongelens Li	signature of first witness)  Lian, Beijies pre (location of witness signature)	
Signed at 7/F, 13 lock D, Tsighua Scit	location of witness signature)	
on this day, 18/83 , 20/6 (date of signature).		
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( , / ,		
I, Liu Youshem (nam	e of second witness), whose residential address is	
717. Block D. Tsinghua Screwe Park. Hardran Dist Berjany		
was personally present and did see <u>Ruiyong</u> . Jia (name of person signing the assignment), who is		
personally known to me, execute the above assignment.		
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Liu Youshen (	signature of second witness)	
Signed at Try hua Screw Park	(location of witness signature)	
on this day,12.23	signature of second witness)(location of witness signature) 20 / 6 (date of signature).	

Date: 2016/12/2)	Jian Clav Inventor's Signature	
,	Inventor's Signature	
Print full name of inventor	Jian Gao	
Residence	7th Floor, Building #D, Tsinghua Science Park	
	Zhongguancun Dong Road 1#, Haidian District	
	100084 Beijing, CN	
Citizenship	CN	
Mailing Address	Same as above	
I xions chers Li (nam	e of first witness), whose residential address is	
7/F Block D. Tsinghua Science	Parp, Hai Dian, 13 eijing pre	
	name of person signing the assignment), who is	
personally known to me, execute the above as		
<b>,</b>		
Kionschers Li	(signature of first witness)	
Signed at 7/F, 13/02 D. This has Swience Post, How Clocation of Witness signature) on this day, 17/33, 30/6 (date of signature).		
on this day 17171	20 / 6 (date of signature)	
on and day,	20 10 (date of Signature).	
1/ = 4.0ha A		
7, L(A /OUS/(M) (nam	L. L. D. D. T. T.	
I, Liu Youshen (name of second witness), whose residential address is  7/F Block D. Tryphua Screwe Park Hardran Pret Berjring  was personally present and did see Jian Gao (name of person signing the assignment), who is		
personally known to me, execute the above as	ssignment.	
15 V. 1		
Liu Tousnem	(signature of second witness)	
Signed at Isamhun Sorene Park	(signature of second witness)  (location of witness signature)  20 / (date of signature).	
on this day, $12.23$	20 / (J. (date of signature).	

PATENT/Joint Assignment EMC Docket No.: EMC-15-0910(CN1)US

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Inventor's Signature  Print full name of inventor  Residence  10-3-50A, Xingfu-jiayuan, Dongchen District 100062 Beijing, CN  Citizenship  CN  Mailing Address  Same as above  I, Yiergeley Li (name of first witness), whose residential address is  7/F, Bloch D, Tsinghua Science Port, Hailian, Beijing Plec  was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.  Xiergeley Li (signature of first witness)  Signed at 7/F, Mech D, Tsinghua Science Port, Hailian Dist Pering  on this day, 1973 , 2016 (date of signature).  I, Liu Youshum . (name of second witness), whose residential address is  7F Block D Tsinghua Science Park . Haidian Dist Pering  was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.  [ (a) Joushum (signature of second witness)  Signed at (signature of second witness)  Signed at (signature of second witness)  Signed at (signature) (date of signature).	Date: W (6, 12.2)	Cofens Your
Residence  10-3-50A, Xingfu-jiayuan, Dongchen District 100062 Beijing, CN  Citizenship  CN  Mailing Address  Same as above  I, Kingclen Li (name of first witness), whose residential address is  7/F, Block D, Tengtha Science Park, Hailian, Beijing Park  was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.  Xingclen Li (signature of first witness)  Signed at 7/F, flat 0, Tengtha Science Park, Hailian Park Beijing Park  (location of witness signature)  on this day, 1973 (date of signature).  I, Liu Youshun (name of second witness), whose residential address is  7F. Block D. Tengthan Science Park Haidian Dist Peijing was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.		Inventor's Signature
Citizenship  CN  Mailing Address  Same as above  I,	Print full name of inventor	Lifeng Yang
Citizenship  CN  Mailing Address  Same as above  I,	Residence	10-3-50A, Xingfu-jiayuan, Dongchen District
I,		100062 Beijing, CN
I, Yorgchenz Li (name of first witness), whose residential address is 7/F, Block D, Tsinghua Science Port, Hosling, Beijing Plac was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.  **Xingcheng Li** (signature of first witness) Signed at 7/F, flech D, Tsinghua Science Port, Howl Lar Beijing Production of witness signature) on this day, 1973  1, Liu Youshum . (name of second witness), whose residential address is 7 F. Block D. Tsinghua Science Park. Haidian Dist Jeijing was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.	Citizenship	CN
was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.    Xieng Leng Li	Mailing Address	Same as above
was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.    Xieng Leng Li		
was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.    Xieng Leng Li	I, <u>Kiongchenz Li</u> (nar 7/F Block D. Tsinghua Science	ne of first witness), whose residential address is . Pork, HciDian, Beithe Pb-<
I, Liu Youshum. (name of second witness), whose residential address is TE. Black D. Tsinghua Science Park. Haidian Dist Peijing.  was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.	was personally present and did see Lifeng Ya	ing (name of person signing the assignment), who is
I, Liu Youshum. (name of second witness), whose residential address is TE. Black D. Tsinghua Science Park. Haidian Dist Peijing.  was personally present and did see Lifeng Yang (name of person signing the assignment), who is personally known to me, execute the above assignment.	Kingcheng Li Signed at 7/F, Block D. Tsinghua Science	(signature of first witness)  Parp, Haillian, Beijing PPC (location of witness signature)
was personally present and did see <u>Lifeng Yang</u> (name of person signing the assignment), who is personally known to me, execute the above assignment.	on this day, 1773	, 20 <u>16</u> (date of signature).
was personally present and did see <u>Lifeng Yang</u> (name of person signing the assignment), who is personally known to me, execute the above assignment.		
was personally present and did see <u>Lifeng Yang</u> (name of person signing the assignment), who is personally known to me, execute the above assignment.	1, <u>Liu Youshem</u> . (nar 7F. BLock D. Torruhua Scrience	ne of second witness), whose residential address is fark. Haidian Dict Rejijna
personally known to me, execute the above assignment.		
Signed at (signature of second witness)  On this day, (signature of second witness)  (location of witness signature)  on this day, (date of signature).		
on this day, $17.2$ $3.2$ $3.2$ $3.2$ $3.2$ $3.2$ $3.2$ $3.2$ $3.2$ (date of signature).	Lia Youshang Signed at Tormshua Soromo	(signature of second witness)  Park (location of witness signature)
	on this day, $[7. 2]$	, 20/6 (date of signature).

Date: 12.23. 20/6	Χι'h (θι' ΥΜ Inventor's Signature	
, , , , ,	Inventor's Signature	
Print full name of inventor	Xinlei Xu	
Residence	6-6-602, Zhongyuan, Tiantongyuan, Changping	
	100010 Beijing, CN	
Citizenship	CN	
Mailing Address	Same as above	
I, Vingcherg Li (nam	e of first witness), whose residential address is	
1/F, 13lock D, Teighna Science Pa	ne of first witness), whose residential address is  A, Hailian, Beijing PPC	
	(name of person signing the assignment), who is	
personally known to me, execute the above as	signment.	
0		
Xiongcheng Li	(signature of first witness)	
Signed at 7/F, Block D, Tringhua Science Port, Hai Dian Beiling PRe (location of witness signature) on this day, 12/32, 20/6 (date of signature).		
on this day,,	20/6 (date of signature).	
1 11 .		
I, Liu Youshing. (nam	ne of second witness), whose residential address is	
71F Block D. Timbur Screne Po	ne of second witness), whose residential address is ark Hardian Dist. Beijing	
	(name of person signing the assignment), who is	
personally known to me, execute the above as	signment.	
1- 11 1		
Lau Tousham	(signature of second witness)	
Signed at Isingham Sovens Page	(location of witness signature)	
on this day,	(signature of second witness)  (location of witness signature)  20 / L (date of signature).	

Date: 2016-12-23	Jibre Dong
	In√entor's Signature
Print full name of inventor	Jibing Dong
Residence	7/F, Block D, Tsinghua Science Park
	100084 Beijing, CN
Citizenship	CN
Mailing Address	Same as above
I, Xion Schers Li (nam	e of first witness), whose residential address is
1/F, Block P, Tringhun Science	e of first witness), whose residential address is Perk, Hcilian, Beijins PRC
	g (name of person signing the assignment), who is
personally known to me, execute the above ass	signment.
Xions chens Li	(signature of first witness)  No. 18 (location of witness signature)  20 16 (date of signature).
Signed at 7/F, 19/02/D. Tsiashua Scie	ne Park, Haillian Seyris Pro- (location of witness signature)
on this day, 12/23,	20 16 (date of signature).
·	
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I, Leu Yousheng (nam	e of second witness), whose residential address is
7F. Block D. Tojughua Science	per of second witness), whose residential address is Purh Handian Drst, Benjing
was personally present and did see <u>Jibing Don</u>	g (name of person signing the assignment), who is
personally known to me, execute the above ass	signment.
Lin Youshew.	signature of second witness)
Signed at Tsinnhau Science	(location of witness signature)
on this day, $12 \cdot 2$ ,	(signature of second witness)    Jank

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