

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4764519

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
GENG HAN	12/20/2017
CHANGYU FENG	12/20/2017
XINLEI XU	12/20/2017
YOUSHENG LIU	12/20/2017
JIAN GAO	12/20/2017
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:	15846319
CORRESPONDENCE DATA	
Fax Number:	
<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>	
Email:	Holly_Vigliatura@dell.com
Correspondent Name:	EMC IP HOLDING COMPANY LLC
Address Line 1:	176 SOUTH STREET
Address Line 4:	HOPKINTON, MASSACHUSETTS 01748
ATTORNEY DOCKET NUMBER:	EMC-16-0874.02
NAME OF SUBMITTER:	HOLLY VIGLIATURA
SIGNATURE:	/Holly Vigliatura/
DATE SIGNED:	01/08/2018
Total Attachments: 7	
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ASSIGNMENT

WHEREAS, we, Xinlei Xu, Jian Gao, Yousheng Liu, Changyu Feng and Geng Han 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 STORAGE SYSTEM** (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 December 19, 2017 as U.S. Application No. 15/846,319;
- ☐ was patented under U.S. Patent No. _____ on _____.

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 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 (15/846,319 filed December 19, 2017) 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: 2017.12.20

Geng Han
Inventor's Signature

Print full name of inventor

Geng Han

Residence

12-5-501,xinlongcheng,changping

Beijing, China 100010

Citizenship

China

Mailing Address

Same as above

I, Zhao Zhenhua (name of first witness), whose residential address is
No.1, Zhongguancun Dong Road, Level 07, 08019, Block D, SP Tower, Beijing, China.
was personally present and did see **Geng Han** (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Zhao Zhenhua (signature of first witness)
Signed at No.1, Zhongguancun Dong Road Level 07, 08019, Block D, SP Tower, Beijing, China (location of witness signature)
on this day, Dec. 20, 2017 (date of signature).
ZZH

I, Ruiyong Jia (name of second witness), whose residential address is
F1, Block D No.1 Zhongguancun East Rd, Haidian Dist, Beijing, China
was personally present and did see **Geng Han** (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Ruiyong Jia (signature of second witness)
Signed at the same as above (location of witness signature)
on this day, 12/20, 2017 (date of signature).
JRJ

Date: 2017.12.20
Feng Changyu
Inventor's Signature

Print full name of inventor **Changyu Feng**
Residence **RM 702, Unit 1, 4th Building,
ShiZhong Road, HouShaYu Town
Beijing, China 100084**
Citizenship **China**
Mailing Address **Same as above**

I, Zhao Zhenhua (name of first witness), whose residential address is
No. 1 Zhongguancun Dong Road, Level 07, 08D19, Block D, SP Tower, Beijing, China
was personally present and did see **Changyu Feng** (name of person signing the assignment),
who is personally known to me, execute the above assignment.

Zhao Zhenhua (signature of first witness)
Signed at No. 1 Zhongguancun Dong Road, Level 07, 08D19, Block D, SP Tower, Beijing, China (location of witness signature)
on this day, Dec 20, 2018 (date of signature).
ZZH

I, Rui-jong Jia (name of second witness), whose residential address is
F7, Block D, No. 1 Zhongguancun East Rd, Hai Dian Dist, Beijing, China
was personally present and did see **Changyu Feng** (name of person signing the assignment),
who is personally known to me, execute the above assignment.

Rui-jong Jia (signature of second witness)
Signed at the same as above (location of witness signature)
on this day, 12/20, 2018 (date of signature).
JKY

Date: 2017.12.20

Xinlei Xu.

Inventor's Signature

Print full name of inventor

Xinlei Xu

Residence

6-6-602,tiantongyuan Zhong Yuan

Beijing, China 100010

Citizenship

China

Mailing Address

Same as above

I, Zhao Zhenhua (name of first witness), whose residential address is
No 1, Zhongguancun Dong Road, Level 07, 08 & 19, Block D, SP Tower, Beijing, China
was personally present and did see **Xinlei Xu** (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Zhao Zhenhua (signature of first witness)
Signed at No 1, Zhongguancun Dong Road, Level 07, 08 & 19, Block D, SP Tower, Beijing, China (location of witness signature)
on this day, Dec. 20, 2017 (date of signature).

ZZH

I, Ruiyong Jin (name of second witness), whose residential address is
F1, Block D, No.1 Zhongguancun East Rd, Haidian Dist, Beijing, China
was personally present and did see **Xinlei Xu** (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Ruiyong Jin (signature of second witness)
Signed at the same as above (location of witness signature)
on this day, 12/20, 2017 (date of signature).

JKY

Date: 2017/12/20

Lin Yousheng

Inventor's Signature

Print full name of inventor

Yousheng Liu

Residence

Qiangyuan Road, Daxing Dist
Beijing, China 102600

Citizenship

China

Mailing Address

Same as above

I, Zhao Zhenhua (name of first witness), whose residential address is
No. 1 Zhongguancun Dong Road Level 07, Bldg 19, Block D, SP Tower, Beijing, China
was personally present and did see **Yousheng Liu** (name of person signing the assignment), who
is personally known to me, execute the above assignment.

Zhao Zhenhua (signature of first witness)
Signed at No. 1 Zhongguancun Dong Road Level 07, Bldg 19, Block D, SP Tower, Beijing, China (location of witness signature)
on this day, Dec 20, 2018 (date of signature).
ZZH

I, Ruiyong Jia (name of second witness), whose residential address is
H. Block D, No. 1 Zhongguancun East Rd, Haidian Dist, Beijing, China
was personally present and did see **Yousheng Liu** (name of person signing the assignment), who
is personally known to me, execute the above assignment.

Ruiyong Jia (signature of second witness)
Signed at the same as above (location of witness signature)
on this day, 12/20, 2018 (date of signature).
JRJ

Date:

2017.12.20

Inventor's Signature

Print full name of inventor

Jian Gao

Residence

8/F, Block D, Tsinghua Science Park NO.1 Zhongguancun
Beijing, China 200433

Citizenship

China

Mailing Address

Same as above

I, Zhao Zhenhua (name of first witness), whose residential address is
No.1 Zhongguancun Dong Road Level 07, 08, 19, Block D, SP Tower, Beijing, China
was personally present and did see **Jian Gao** (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Zhao Zhenhua (signature of first witness)
Signed at No.1, Zhongguancun Dong Road, Level 07, 08, 19, Block D, SP Tower Beijing, China (location of witness signature)
on this day, Dec 20, 2018 (date of signature).
ZZH

I, Ruiyong Jia (name of second witness), whose residential address is
F1, Block D, No.1 Zhongguancun East Rd, Haidian Dist Beijing, China
was personally present and did see **Jian Gao** (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Ruiyong (signature of second witness)
Signed at the same as above (location of witness signature)
on this day, 12/20, 2018 (date of signature).
JR