

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
LU LEI	12/07/2018
AO SUN	12/07/2018
GARY JIALEI WU	12/07/2018
YU TENG	12/07/2018
WESLEY WEI SUN	12/07/2018
CHUN XI KENNY CHEN	12/07/2018
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:	16236264
CORRESPONDENCE DATA	
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NAME OF SUBMITTER:	THOMAS E. WATSON
SIGNATURE:	/Thomas E. Watson/
DATE SIGNED:	12/28/2018

Total Attachments: 8

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ASSIGNMENT

WHEREAS, we, Lu Lei, Ao Sun, Gary Jialei Wu, Yu Teng, Wesley Wei Sun, Chun Xi Kenny Chen 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, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR MANAGING STORAGE SYSTEM, 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 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.

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

Date: 2018.12.07

Lu Lei
Inventor's Signature

Print full name of first inventor: **Lu Lei**
Residence: Shanghai, China
Citizenship: China
Mailing Address: EMC Corporation, 2F., Building #2, KIC Plaza,
No. 252 Songhu Road
Shanghai, China 200433

I Chenyu Ding (name) whose residential address is Room 301, Block 11, 1500 Yuchang R.D., Shanghai, China
was personally present and did see Lu Lei (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day 12-07 of 20 18: (date of signature)

I Wayne Gao (name) whose residential address is No. 252 Songhu R.D. Shanghai, China
was personally present and did see Lu Lei (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Wayne Gao (signature of second witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day 12.07 of 20 18: (date of signature)

Date: 2018.12.7

Ao Sun
Inventor's Signature

Print full name of second inventor: **Ao Sun**
Residence: Shanghai, China
Citizenship: China
Mailing Address: KIC 2, 252 Songhu Road, Yangpu
Shanghai, China 200433

I Chenyu Ding (name) whose residential address is Room 201, Block 11, 1500 Xu Chang R.D. Shanghai, China
was personally present and did see Ao Sun (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day 12.07 of 2018. (date of signature)

I Wayne Gao (name) whose residential address is No. 252 Songhu R.D. Shanghai, China
was personally present and did see Ao Sun (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Wayne Gao (signature of second witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day [2.7] of 2018. (date of signature)

Date: 2018.12.7

Gary Jialei Wu
Inventor's Signature

Print full name of second inventor: **Gary Jialei Wu**
Residence: Shanghai, China
Citizenship: China
Mailing Address: Room 501, Building 49, Lane 68, Xin
Shanghai, China 200442

I Chenxu Ding (name) whose residential address is Room 301, Block 11, 1500 Xuchang R.D. Shanghai, China.
was personally present and did see Gary Jialei Wu (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day 12.07 of 2018. (date of signature)

I Wayne Gao (name) whose residential address is No. 252 Songhu R.D. Shanghai, China
was personally present and did see Gary Jialei Wu (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Wayne Gao (signature of second witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day 12.7 of 2018. (date of signature)

Date: 2018-12-7

Yu Teng
Inventor's Signature

Print full name of second inventor: **Yu Teng**
Residence: Shanghai, China
Citizenship: China
Mailing Address: Road Yindu No.3151-58 Room 403
Shanghai, China 201108

I Chenyu Ding (name) whose residential address is Room 301, Block 11, 1500 Xuchang R.D. Shanghai, China
was personally present and did see Yu Teng (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day 12.07 of 2018. (date of signature)

I Wayne Gao (name) whose residential address is No. 252 Songhu R.D. Shanghai China
was personally present and did see Yu Teng (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Wayne Gao (signature of second witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day 12.7 of 2018. (date of signature)

Date: 2018.12.07

Wesley Wei Sun
Inventor's Signature

Print full name of second inventor: **Wesley Wei Sun**
Residence: Shanghai, China
Citizenship: China
Mailing Address: Room 401, No. 125, Lane 399, Middle Chu
Shanghai, China 201210

I Chenyu Ding (name) whose residential address is Room 301, Block 11, 1500 Xuchang R.D. Shanghai, China
was personally present and did see Wesley Wei Sun (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day 12.07 of 2018. (date of signature)

I Wayne Gao (name) whose residential address is No. 252 Songhu R.D. Shanghai, China
was personally present and did see Wesley Wei Sun (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Wayne Gao (signature of second witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day ~~2018~~ (2, 07) of 2018. (date of signature)

Date: 2018-12-7

Chun xi Kenny Chen
Inventor's Signature

Print full name of second inventor: **Chun Xi Kenny Chen**
Residence: Shanghai, China
Citizenship: China
Mailing Address: Rm 501 No. 13 Lane 1488, Changning
Shanghai, China 200051

I Chen yu Ding (name) whose residential address is
Room 301 Block 11-1500 Xuchang R.D. Shanghai China
was personally present and did see Chun xi Kenny Chen (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at No. 252 Songhu R.D. (location of witness signature)

on this day 12.07 of 2018. (date of signature)

I Wayne Gao (name) whose residential address is
No. 252 Songhu R.D. Shanghai China
was personally present and did see Chun Xi Kenny Chen (name of person signing
the assignment) who is personally known to me, execute the above assignment.

Wayne Gao (signature of second witness)

Signed at No. 252 Song hu R.D (location of witness signature)

on this day 12-7 of 2018. (date of signature)