

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JIAN GAO	08/24/2017
WEIHUA LI	08/24/2017
GENG HAN	08/24/2017
XINLEI XU	08/24/2017
JIBING DONG	08/24/2017

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:	16590443

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.

Email: kevin_henry2@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-17-0094.02
NAME OF SUBMITTER:	KEVIN HENRY
SIGNATURE:	/Kevin Henry/
DATE SIGNED:	02/10/2022

Total Attachments: 7

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ASSIGNMENT

WHEREAS, we, **Jian Gao, Ilya Usvyatsky, Weihua Li, Geng Han, 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 **MANAGING MAPPED RAID EXTENTS IN DATA STORAGE SYSTEMS (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 August 4, 2017 as U.S. Application No. 15/669882;
- 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,

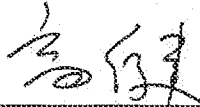
reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

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 (Application No. 16/590,443, Filed October 02, 2019) 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: 2017.8.24



Inventor's Signature

Print full name of inventor **Jian Gao**
Residence **8/F, Block D, Tsinghua Science Park
NO.1 Zhongguancun East Road
Beijing, China 100084**
Citizenship **People's Republic of China**
Mailing Address **Same as above**

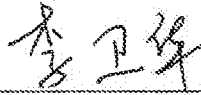
I, Lei Sun (name of first witness), whose residential address is 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see Jian Gao (name of person signing the assignment), who is personally known to me, execute the above assignment.

Lei Sun (signature of first witness)
Signed at 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C. (location of witness signature)
on this day, 8/24, 2017 (date of signature).

I, Shaojin Gong (name of second witness), whose residential address is 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see Jian Gao (name of person signing the assignment), who is personally known to me, execute the above assignment.

Shaojin Gong (signature of second witness)
Signed at 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing (location of witness signature)
on this day, 8.24, 2017 (date of signature).

Date: 2017.8.24



Inventor's Signature

Print full name of inventor

Weihua Li

Residence

FangshuiYuan 32-2-602,
Meijian, Hexi,
Tianjin China 300000

Citizenship

People's Republic of China

Mailing Address

Same as above

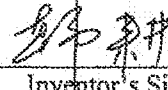
I, Lei Sun (name of first witness), whose residential address is
71F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see Weihua Li (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Lei Sun (signature of first witness)
Signed at 71F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C. (location of witness signature)
on this day, 8/24, 2017 (date of signature).

I, Shaojin Gong (name of second witness), whose residential address is
71F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see Weihua Li (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Shaojin Gong (signature of second witness)
Signed at 71F, Block D, Tsinghua Science Park, Haidian District, Beijing (location of witness signature)
on this day, 8.24, 2017 (date of signature).

Date: 2017.08.24



Inventor's Signature

Print full name of inventor **Geng Han**
Residence 12-5-501, Xinlongcheng, Changping
Beijing, China 10010
Citizenship People's Republic of China
Mailing Address Same as above

I, Lei Sun (name of first witness), whose residential address is
7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see **Geng Han** (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Lei Sun (signature of first witness)
Signed at 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C. (location of witness signature)
on this day, 8/24, 2017 (date of signature).

I, Shaoqin Gong (name of second witness), whose residential address is
7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see **Geng Han** (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Shaoqin Gong (signature of second witness)
Signed at 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing (location of witness signature)
on this day, 8.24, 2017 (date of signature).

Date: 2017.8.24 Xinlei Xu
Inventor's Signature

Print full name of inventor Xinlei Xu
6-6-602, Tiantongyuan Zhong Yuan
Beijing, China 100010
Citizenship People's Republic of China
Mailing Address Same as above

I, Lei Sun (name of first witness), whose residential address is
7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see Xinlei Xu (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Lei Sun (signature of first witness)
Signed at 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C. (location of witness signature)
on this day, 8.1.24, 2017 (date of signature).

I, Shangjin Gong (name of second witness), whose residential address is
7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see Xinlei Xu (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Shangjin Gong (signature of second witness)
Signed at 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing (location of witness signature)
on this day, 8.24, 2017 (date of signature).

Date: 2017. 8. 24.

Jibing Dong
Inventor's Signature

Print full name of inventor

Jibing Dong

Residence

7/F, Block D, Tsinghua Science

Beijing, China

Citizenship

People's Republic of China

Mailing Address

Same as above

I, Lei Sun (name of first witness), whose residential address is
7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see Jibing Dong (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Lei Sun (signature of first witness)
Signed at 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C. (location of witness signature)
on this day, 8/24, 2017 (date of signature).

I, Shaojin Gong (name of second witness), whose residential address is
7/F, Block D, Tsinghua Science Park, Haidian District, Beijing, P.R.C.
was personally present and did see Jibing Dong (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Shaojin Gong (signature of second witness)
Signed at 7/F, Block D, Tsinghua Science Park, Haidian District, Beijing (location of witness signature)
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