

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
YAMING KUANG	08/01/2018
JUN LIU	08/06/2018
XIAO HUA FAN	08/02/2018
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:	16126116
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>	
Phone:	5082936397
Email:	Vicky.S.Markantonis@Dell.com
Correspondent Name:	VICKY MARKANTONIS
Address Line 1:	176 SOUTH STREET
Address Line 4:	HOPKINTON, MASSACHUSETTS 01748
ATTORNEY DOCKET NUMBER:	111344.02
NAME OF SUBMITTER:	VICKY S. MARKANTONIS
SIGNATURE:	/Vicky S. Markantonis/
DATE SIGNED:	09/10/2018
Total Attachments: 5	
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source=111344_02_Assignment#page4.tif	

ASSIGNMENT

WHEREAS, we, Yaming Kuang, Jun Liu, and Xiao Hua Fan, 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 DATA STORAGE** (Application), the specification of which:

☒ [X] 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;

AND, we hereby authorize our attorneys, EMC IP Holding Company LLC, to insert here in parenthesis (_____) 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: 8/1/2018

Yaming Kuang
Inventor's Signature

Print full name of inventor

Yaming Kuang

Residence

Room 403, No.43, #1800 Zhenhua Road

Shanghai, CN 200442

Citizenship

People's Republic of China

Mailing Address

Same as above

I, Minggang Lu (name of first witness), whose residential address is
26-203, 5804, Zhongli Road, Yangpu, Shanghai, PRC
was personally present and did see Yaming Kuang (name of person signing the assignment),
who is personally known to me, execute the above assignment.

Minggang Lu (signature of first witness)
Signed at F3, KIC1, NO.234 Songhu Road, Shanghai, PRC (location of witness signature)
on this day, 8/13, 2018 (date of signature).

I, Danglu Xie (name of second witness), whose residential address is
1659-59-301, Fujin Road, Shanghai, PRC
was personally present and did see Yaming Kuang (name of person signing the assignment),
who is personally known to me, execute the above assignment.

Danglu Xie (signature of second witness)
Signed at F3, KIC1, NO.234, Songhu Road, Shanghai, PRC (location of witness signature)
on this day, 8/6, 2018 (date of signature).

Date: 8/6/2018 Jun Liu
Inventor's Signature

Print full name of inventor Jun Liu
Residence Room 202, Building 6, No558, Xinde
Shanghai, CN
Citizenship People's Republic of China
Mailing Address Same as above

I, Yao Sicong (name of first witness), whose residential address is
5-101, #385, SOUTH LONGSHUI RD. SHANGHAI, PRC
was personally present and did see Jun Liu (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Yao Sicong (signature of first witness)
Signed at F3, KIC1, No.234, Songhu Rd. Shanghai, PRC (location of witness signature)
on this day, 8/6, 2018 (date of signature).

I, Huang Liang (name of second witness), whose residential address is
81-202, Zhenze Road, Shanghai PRC
was personally present and did see Jun Liu (name of person signing the assignment), who is
personally known to me, execute the above assignment.

Huang Liang (signature of second witness)
Signed at F3, KIC1, No.234, Songhu Road, Shanghai PRC (location of witness signature)
on this day, 8/6, 2018 (date of signature).

Date: 8/2/2018

Fan Xiaohua
Inventor's Signature

Print full name of inventor

Xiao Hua Fan

Residence

Room 102, No. 53

Lane 999, ZhengHe Rd. YangPu Dist.

Shanghai, CN 200438

Citizenship

People's Republic of China

Mailing Address

Same as above

I, Zhang Zhen (name of first witness), whose residential address is
Room 1001, No. 8, Lane 1322, Caoyang Rd. Shanghai, PRC
was personally present and did see Xiao Hua Fan (name of person signing the assignment), who
is personally known to me, execute the above assignment.

Zhang Zhen (signature of first witness)
Signed at F3, KIC1, No 234, Songhu Rd, Shanghai PRC (location of witness signature)
on this day, 8/2, 2018 (date of signature).

I, Chen Yunfei (name of second witness), whose residential address is
Room 602, No 2, Dashi Yi Hui, Yida Hubai, PRC
was personally present and did see Xiao Hua Fan (name of person signing the assignment), who
is personally known to me, execute the above assignment.

Chen Yunfei (signature of second witness)
Signed at F3, KIC1, No 234, Songhu Rd, Shanghai PRC (location of witness signature)
on this day, 8/2, 2018 (date of signature).