

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	SHUO LV	08/22/2018
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:	16050591
CORRESPONDENCE DATA		
Fax Number:	(508)366-4688	
<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>		
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ATTORNEY DOCKET NUMBER:	1003-549.001	
NAME OF SUBMITTER:	DAVID E. HUANG, ESQ.	
SIGNATURE:	/David E. Huang, Reg. No. 39,229/	
DATE SIGNED:	01/09/2019	
Total Attachments: 3		
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ASSIGNMENT

WHEREAS, I, Shuo Lv, as the original inventor or an original joint inventor 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

**EMPLOYING MULTIPLE QUEUEING STRUCTURES WITHIN A USERSPACE
STORAGE DRIVER TO INCREASE SPEED**

which is further identified by Attorney Docket Number 1003-549.001;

WHEREAS, EMC IP Holding Company LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the state of Delaware and having a usual place of business at 176 South Street, Hopkinton, MA, 01748, USA, desires to acquire an interest therein in accordance with agreements duly entered into with me;

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, I 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 me had this assignment and sale not been made; I 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. I 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, I hereby further agree for myself and my 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, I 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 I hereby authorize the attorneys at Bainwood Huang & Associates LLC to insert here in parentheses

(16/050,591 , filed 7/31/2018)

the application number and filing date of said application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

Date: 8.22.2018

Shuo Lv

Inventor's Signature

Legal name of inventor:

Shuo Lv

Residence:

5-1-902, Laizhengjiayuan Qinghexiao
Haidian District
Beijing,
China (People's Republic)

Mailing Address:

Same as Above

Citizenship:

CN

I, Fousheng Lou (name) whose residential address is
7F Block D Tsinghua Science Park Haidian District Beijing
was personally present and did see Shuo Lv (name of person signing the assignment)
who is personally known to me, execute the above assignment.

Fousheng Lou (signature of first witness)
Signed at 7F Block D Tsinghua Science Park Haidian District Beijing (location of witness signature)
on this day 8.22 of 20 18 (date of signature)

I, Leon Zhang (name) whose residential address is
7F Block D Tsinghua Science Park Haidian District Beijing
was personally present and did see Shuo Lv (name of person signing the assignment)
who is personally known to me, execute the above assignment.

Leon Zhang (signature of second witness)
Signed at 7F Block D Tsinghua Science Park (location of witness signature)
on this day 8.22 of 20 18 (date of signature)