504876592 04/19/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4923332

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WAYNE WEIHUA LI	04/09/2018
JIAN GAO	04/09/2018
HONGPO GAO	04/09/2018
JAMIN KANG	04/09/2018
XINLEI XU	04/09/2018

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:	15954929

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: 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-17-0020.02	
NAME OF SUBMITTER:	HOLLY VIGLIATURA	
SIGNATURE:	/Holly Vigliatura/	
DATE SIGNED:	04/19/2018	

Total Attachments: 8

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PATENT 504876592 REEL: 045588 FRAME: 0627



PATENT REEL: 045588 FRAME: 0628

PATENT/Joint Assignment Docket No.: EMC-17-0020.02

ASSIGNMENT

WHEREAS, we, Wayne Weihua Li, Jian Gao, Hongpo Gao, Jamin Kang, Xinlei Xu, and Tao Xu, 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 DEVICE FOR MANAGING DISK POOL (Application), the specification of which:

[]	is being executed on even date herewith and is about to be filed in the United States Patent Office;	
[X]	was filed on April 17, 2018 as U.S. Application No. 15/954929;	
[]	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,

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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 (15/954929 filed April 17, 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.

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

Date: 2018 · 4. 9	Waye Weihra Li Inventor's Signature
	Inventor's Signature
Print full name of inventor	Wayne Weihua Li
	8/F Tsinghua Science Park
	No.1 Zhongguancun East Road
Residence	Beijing, China 100084
Citizenship	China (People's Republic)
Mailing Address	Same as above
I, <u>Chun Ma</u>	(name of first witness), whose residential address is ence Park, Haidan, Beijing
	Wayne Weihua Li (name of person signing the assignment),
who is personally known to me, exe	cute the above assignment.
c l	
When Ma	(signature of first witness) Ma Science Ponk, Handrag (location of witness signature) , 2018 (date of signature).
Signed at 17, Block D. Ismyh	ua Science Ponk, Handrag. (location of witness signature)
on this day, $\frac{\varphi/\rho}{}$, 2018 (date of signature).
_	
I, <u>Ping Ge</u>	(name of second witness), whose residential address is
7F, Block D, Tsinghua Sci	ience Park, Haidian, Beijing
was personally present and did see	Wayne Weihua Li (name of person signing the assignment),
who is personally known to me, exe	ecute the above assignment.
Ping Ge	(signature of second witness)
Signed at <u>7F, Block D, Tsinghua S</u>	(signature of second witness) science Park, Haidian, Beijing location of witness signature)
on this day. 4/9	, 2018 (date of signature).

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7.16). u	3 <2 \$
Date: 2018, 4, 4	
(Inventor's-Signature
Print full name of inventor	Jian Gao
	8/F Tsinghua Science Park
	No.1 Zhongguancun East Road
Residence	Beijing, China 100084
Citizenship	China (People's Republic)
Mailing Address	Same as above
I, 77 Hacks Chun Ma	(name of first witness), whose residential address is
77, Block D, Temshua Sii	ence Park Haidian, Beijing
	an Gao (name of person signing the assignment), who is
personally known to me, execute the	above assignment.
Chun Ma	(signature of first witness) (a Saleno Vark, Haidian Rei) (Socation of witness signature) , 2018 (date of signature).
Signed at 77 Block D, Tanyha	a Siene Vark Haidian Reilijocation of witness signature)
on this day, 4/f	, 2018 (date of signature).
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I, Ping Ge	(name of second witness), whose residential address is
7F, Block D, Tsinghma Scie	
	an Gao (name of person signing the assignment), who is
personally known to me, execute the	
	_
Ping Ge	(signature of second witness) <u>cience Park, Haidiam, Beijing</u> (location of witness signature), 2018 (date of signature).
Signed at <u>TF, Block D, Tsinghua S</u>	cience Park, Haidian, Beijing (location of witness signature)
on this day,419	, 2018 (date of signature).

Date: 2018.4.9	Hongpo Gao Inventor's Signature
• •	Inventor's Signature
Print full name of inventor	Hongpo Gao
Residence	5-301 Building 1, Longyue Street No 10
	Changping District,
	Beijing, China 100084
Citizenship	China (People's Republic)
Mailing Address	Same as above
I, Chun Ma	(name of first witness), whose residential address is Park Handian Beijing
77. Block D. Tringhua Science	Park, Handian, Beijing
was personally present and did see I	Iongpo Gao (name of person signing the assignment), who
is personally known to me, execute the above assignment.	
<u>Chrin Ma</u>	(signature of first witness)
Signed at 77 13/och 1) Tempua S	riena Park, Haidian Beijing (location of witness signature)
on this day, \(\frac{\psi}{f} \)	(signature of first witness) <u>rieng Park, Haidian Beijing</u> (location of witness signature)
,	
I, Ping Ge	(name of second witness), whose residential address is
	Science Park, Haidian, Beijing
-	Hongpo Gao (name of person signing the assignment), who
is personally known to me, execute	
•	
Ping Ge	(signature of second witness)
Signed at 7F, Block D, Tsinglma	(signature of second witness) Science Park, Haidian, Beij (Scation of witness signature)
on this day. 4-19	

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Date: 2018.4.3	Xin (e) Xu
,	Xin (n Xin Inventor's Signature
Print full name of inventor	Xinlei Xu
Residence	6-6-602, Tiantongyuan Zhong Yuan
	Beijing, China 100010
Citizenship	China (People's Republic)
Mailing Address	Same as above
I, Chun Ma	(name of first witness), whose residential address is
77, Block D. Temphua Science Po	wk, Haidian, Beijony
was personally present and did see Xinle	i Xu (name of person signing the assignment), who is
personally known to me, execute the abo	ve assignment.
Signed at 77, Block on this day, 4/9	(signature of first witness) Powh, Haidian, Beijim (location of witness signature), 2018 (date of signature).
I, <u>Ping</u> Ge	_(name of second witness), whose residential address is
7F, Block D, Tsinghua Science	e Park, Haidian, Beijing
was personally present and did see Xinle	ei Xu (name of person signing the assignment), who is
personally known to me, execute the abo	eve assignment.
Ping Ge	(signature of second witness)
Signed at 7F, Block D, Tsinghua Science	2 Park, Haidian, Beijing (location of witness signature)
on this day 4/19	

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Date: 4/9/2018	Inventor's Signature
Print full name of inventor	Tao Xu
Residence	Room 2303, Unit 1, Building 6
	No.8 Zhongtancun Street, Dongxiaokou
	Beijing, China 102218
Citizenship	China (People's Republic)
Mailing Address	Same as above
I, <u>Chun Ma</u> (nar 77, Block D, Teiny hucy Science Park	me of first witness), whose residential address is
was personally present and did see Tao Xu (1	name of person signing the assignment), who is
personally known to me, execute the above as	•
Signed at 77, Bloch D. Temphua Scient on this day, 4/P	(signature of first witness) A fash Hardian (location of witness signature) , 2018 (date of signature).
I, <u>Ping Ge</u> (nar 17F, Block D, Tsinghua Science	me of second witness), whose residential address is
<u> </u>	name of person signing the assignment), who is
personally known to me, execute the above a	
. •	(signature of second witness)
3	ark, Haidian, Beijing (location of witness signature)
on this day,419	, 2018 (date of signature).