PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4974254

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WENBIN LU	01/30/2018
LEE LI NI	01/31/2018
WILL YOUWEI SUN	01/31/2018
LEO LEI WANG	05/18/2018

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:	15884748

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: paula.hardilek@chamberlainlaw.com

Correspondent Name: PAULA HARDILEK

Address Line 1: 1200 SMITH ST., 14TH FLOOR
Address Line 4: HOUSTON, TEXAS 77002

ATTORNEY DOCKET NUMBER: 170360-019100US

NAME OF SUBMITTER: ALY Z. DOSSA

SIGNATURE: /Aly Z. Dossa/

DATE SIGNED: 05/23/2018

Total Attachments: 8

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PATENT/Joint Assignment EMC Docket No.: 109557.01: 170360-019100US

ASSIGNMENT

WHEREAS, we, Wenbin Lu, Timothy Bruce, Leo Lei Wang, Lee Li Ni and Will Youwei Sun, 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 SYSTEM FOR EFFICIENT DATA REPLICATION IN BIG DATA ENVIRONMENT, the specification of which:

[X]	States Patent Office;	
	was filed on January 31, 2018 as U.S. Application No. 15/884,748;	
[]	was patented under U.S. Patent Noon	

WHEREAS, EMC IP Holding Company (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts 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-Jan - 20	La washin
	Inventor's Signature
Print full name of first inventor:	Wendin LU
Residence:	Shanghai, China
Citizenship:	China
Mailing Address:	c/o EMC IP Holding Company LLC
	176 South Street
	Hopkinton, MA 01748
8. 12. 1	
1 P 1/200 Yas Yang Pu Distard Song M	(name) whose residential address is 1 Road # 212 Ballding # 2 2nd Howr Edition Weat in Ut (name of person signing
the assignment) who is personally kno	Two to me, execute the above assignment.
	(signature of first witness)
Signed at Pell BUC Chira Co	(location of witness signature)
on this day	of 20 (date of signature)
1 Howe I'm Tong Par Head	(name) whose residential address is # 25+ Building #2 2nd floor
was personally present and did see	Weeks Lat (name of person signing
	own to me, execute the above assignment.
HONE XU	(signature of second witness)
Signed at DAL BAL China	(location of witness signature)
on this div	of 20 i.C. (date of signature)

1948 <u>201</u> 1 22	Let L.M.	
	The second of th	
Print full dame of third inventor. Residence	Lee Li Ni Shanghai China	
C STATE OF	Chan	
Mailing Address	Ca EMC IP Holding Company LLC	
	176 South Street	
	Hopkinian, MA-01748	
	(name) whose residential address is	
Sparther 1760 S		
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was personally present and did see	4: 1/2 (earne of person signific	
the assignment) who is personally know	en to me, execute the above assignment.	
X() 2.22	(signature of first witness)	
Signed at <u>Shiphysia (@11167-1</u>	Pls (decation of witness signature)	
entrie dus <u>TAN/S</u>	of 2018 (date of signature)	
1 <u> </u>	(eame) whose residential address is	
Span (19) 1/-11/21/1) distrit	
	$- \frac{L_i^2}{4} = \frac{4}{3}$ (name of person sign)	
en producti producti de la companya	en to the execute the above assignment	
<u> 1</u> 1/01/00	(signature of second withess)	
	Mean of witness signature)	
on this day <u>TAV_2</u>	of 20 🖟 (date of signature)	
V I		

PATENT/Joint Assignment EMC Docket No.: 109557.01; 170360-019100US

Date: 1/3//2018	3~~~ 佬
	Inventor's Signature
Print full name of third inventor:	Will Youwei Sun
Residence:	Shanghai, China
Citizenship:	China
Mailing Address:	c/o EMC IP Holding Company LLC 176 South Street Hopkinton, MA 01748
1	(name) whose residential address is
1701-6658 Dow Are	Burnesby BC Canada
was personally present and did see	the way for the signing (name of person signing
the assignment) who is personally known t	to me, execute the above assignment.
	(signature of first witness)
Signed at Telus Garden	_(location of witness signature)
on this day Jan 3 or	f 2018. (date of signature)
1 传艺浅	_(name) whose residential address is
2705-1068 Homby	street, Vanconver, BC, Canada
was personally present and did see the assignment) who is personally known t	name of person signing to me, execute the above assignment.
(割裝落)	signature of second witness)
Signed at Telus Garden	(location of witness signature)
on this day \ \lambda \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	f 20 / \$\times . (date of signature)

PATENT/Joint Assignment EMC Docket No.: 109557.01: 170360-019100US

ASSIGNMENT

WHEREAS, we, Wenbin Lu, Timothy Bruce, Leo Lei Wang, Lee Li Ni and Will Youwei Sun, 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 SYSTEM FOR EFFICIENT DATA REPLICATION IN BIG DATA ENVIRONMENT, 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 January 31, 2018 as U.S. Application No. 15/884,748;
[]	was patented under U.S. Patent Noon

WHEREAS, EMC IP Holding Company (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts 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: May 18, 2018	Leo Lei WANG	
a	Inventor's Signature	
Print full name of third inventor:	Leo Lei WANG	
Residence:	Shanghai, China	
Citizenship:	China	
Mailing Address:	c/o EMC IP Holding Company LLC	
	176 South Street	
	Hopkinton, MA 01748	
1 Yuan Luo	(name) whose residential address is	
Room 1201, Xin Cun Lane 1388.	Putuo District. Shanghai	
was personally present and did see	Leo Lei WANG (name of person signing	
the assignment) who is personally know	n to me, execute the above assignment.	
Yuan Luo:		
Signed at Songhu Rd. 252, KIC1, 3F.	Sharhau (location of witness signature)	
on this day May 18	of 20 <u>18</u> . (date of signature)	
1 Dustin Map	(name) whose residential address is	
Room 701, Unit 6. Lane 400 Mias Pu Road		
was personally present and did see <u>Leo Lei WANG</u> (name of person signing the assignment) who is personally known to me, execute the above assignment.		
Dustin Mao	_(signature of second witness)	
	3F, Shangh (focation of witness signature)	
on this dayMay 18	of 20 <u>18</u> . (date of signature)	

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