PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JIAN GAO	04/09/2014
PETER PUHOV	04/01/2014
ZHIPENG HU	04/09/2014
WEI HE	04/09/2014
SHAY HAREL	04/01/2014

RECEIVING PARTY DATA

Name:	EMC CORPORATION
Street Address:	176 SOUTH STREET
City:	HOPKINTON
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14230425

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via

US Mail.

Email: docketing@emc.com

Correspondent Name: EMC CORPORATION OFFICE OF GENERAL COUN

Address Line 1: 176 SOUTH STREET

Address Line 4: HOPKINTON, MASSACHUSETTS 01748

ATTORNEY DOCKET NUMBER:	EMC-13-0634
NAME OF SUBMITTER:	JOHN T HURLEY
SIGNATURE:	/John T. Hurley/
DATE SIGNED:	04/09/2014

Total Attachments: 7

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PATENT 502759551 REEL: 032632 FRAME: 0637

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PATENT REEL: 032632 FRAME: 0638

PATENT/Joint Assignment EMC Docket No.: EMC-13-0634

ASSIGNMENT

WHEREAS, we, Jian Gao, Peter Puhov, Zhipeng Hu, Wei He and Shay Harel, 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 SYSTEM DRIVE INTEGRITY 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;
[X]	was filed on <u>March 31, 2014</u> as U.S. Application No. <u>14/230,425</u> ;
[]	was patented under U.S. Patent Noon

WHEREAS, EMC Corporation (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,

PATENT REEL: 032632 FRAME: 0639 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:

PATENT/Joint Assignment EMC Docket No.: EMC-13-0634

Date: 4/9/2014	Jian Gao
	Inventor's Signature
Print full name of first inventor:	Jian Gao
Residence:	Building 16# 601, RongFeng 2008, Guan An Men Wai Rd, Xicheng District, Beijing China 100000
Citizenship:	China
Mailing Address:	Same as above
was personally present and did see <u>Jian Gao</u> personally known to me, execute the above as	
Signed at TSP 7 Floor, Hoon this day, 4/9,	(signature of first witness) A D'aubei j'ay (location of witness signature) 2014 (date of signature).
	re of first witness), whose residential address is
	(name of person signing the assignment), who is
personally known to me, execute the above as	signment.
Xin(ai Xu	(signature of second witness) No Beight (location of witness signature) 2014 (date of signature).
Signed at TSP 7 Hour, Har Dia	(location of witness signature)
on this day,,	2014 (date of signature).

PATENT/Joint Assignment EMC Docket No.: EMC-13-0634

Date: 04/01/2014	
	Inventor's Signature
Print full name of second inventor:	Peter Puhov
Residence:	521 Grafton Street, Shrewsbury, MA 01545
Citizenship:	United States of America
Mailing Address:	Same as above
On this	ough satisfactory evidence of identification 's license; [] (other) the foregoing Assignment and acknowledged that and deed for the purposes therein contained.
	Luth S. Kelley
	Notary Public
	Print Name: LineTto S. Kelley
	My Commission expires 07/43/2018
	LINETTE S. KELLEY Flotary Public COMMONWEALTH OF MASSACHUSETTS My Commission Expires July 13, 2018

PATENT/Joint Assignment EMC Docket No.: EMC-13-0634

Date: 4/9/2014	Zhipery Hy Inventor's Signature	
, ,	Inventor's Signature	
Print full name of third inventor:	Zhipeng Hu	
Residence:	TusPark, Zhonggauncum Dong Road, Beijing China 100084	
Citizenship:	China	
Mailing Address:	Same as above	
I, You im, Wu (name of first witness), whose residential address is Hu Fang lu 22 th Building, Xi Cheng, Beijing was personally present and did see Zhipeng Hu (name of person signing the assignment), who		
was personally present and did see Zhipeng H	<u>Iu</u> (name of person signing the assignment), who	
is personally known to me, execute the above		
Signed at TSP 7 Floor, Hai Dian, Beiji (Matter). (signature of first witness) And the signature of first witness) (signature of first witness) (signature of first witness) (signature of first witness)		
I, Knu (nam	e of first witness), whose residential address is	
I, <u>Xin Lu Xu</u> (name of first witness), whose residential address is Zhong Yuan 6-6-602 Tran long Yuan Be jung		
was personally present and did see Zhipeng Hu (name of person signing the assignment), who		
is personally known to me, execute the above	assignment.	
Signed at	(signature of second witness) (location of witness signature) 2014 (date of signature).	

Date: 04/09/2014	Wei He	
	Inventor's Signature	
Print full name of fourth inventor:	Wei He	
Residence:	166-1-2-1206, Niusha Rd., East 2 nd Ring Rd, Chengdu, China 610000	
Citizenship:	China	
Mailing Address:	Same as above	
was personally present and did see Wei'He personally known to me, execute the above	name of first witness), whose residential address is \[\forall \cap \cap \forall \forall \cap \cap \forall \	
I,		
MALL XM	(signature of second witness)	
Signed at $\frac{75p}{7}$ $\frac{7p(00r)}{100}$	(signature of second witness) (location of witness signature) , 2014 (date of signature).	
on this day, 4/5	, 2014 (date of signature).	

-6-

Date: 4////4	4	
	Inventor's Signature	
Print full name of fifth inventor:	Shay Harel	
Residence:	127 O'Malley Road, Marlborough, MA 01752	
Citizenship:	Israel	
Mailing Address:	Same as above	
STATE/COMMONWEALTH OF Mossachusetts COUNTY OF Middlesex On this day of April , 2014, then personally appeared before me the above-named Shay Harel, known to me through satisfactory evidence of identification [X] employee identification card; [] driver's license; [] (other) to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.		
	Notary Public S. Kelley	
	· · · · · · · · · · · · · · · · · · ·	
	Print Name: Linette S. Kelley	
	My Commission expires <u>67//3</u> /20/8	
	LISETTE S. KELLEY Votary Public My Commission Expires July 13, 2018	