503160160 01/30/2015 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PARTY D	ΑΤΑ		
		Name	Execution Date
FREDERICK DOUGLIS			01/29/2015
CHENG LI			01/29/2015
PHILIP SHILANE			01/29/2015
GRANT WALLACE			01/29/2015
RECEIVING PARTY DA	ТА		
		DRPORATION	
Street Address:	176 SO	JTH STREET	
City:	HOPKINTON		
State/Country:	MASSA	CHUSETTS	
Postal Code:	01748		
PROPERTY NUMBERS	Total: 1	Number	
Property Type		Number	
		Number 4609902	
Property Type	ATA	4609902	
Property Type Application Number: CORRESPONDENCE D Fax Number:	ATA (4609902 408)720-8383	
Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i>	ATA (e sent to	4609902	
Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i>	ATA (e sent to provided	4609902 408)720-8383 <i>the e-mail address first; if that is unsu</i>	
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Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be using a fax number, if µ</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	ATA e sent to provided	4609902 408)720-8383 <i>the e-mail address first; if that is unsu</i> <i>if that is unsuccessful, it will be sent</i> 408)720-8300 Katie_Nelson@bstz.com FAM Q. TRAN 279 OAKMEAD PARKWAY BLAKELY SOKOLOFF TAYLOR ZAFMAI	<i>via US Mail.</i> N LLP
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Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA (e sent to provided (}	4609902 408)720-8383 <i>the e-mail address first; if that is unsu</i> <i>if that is unsuccessful, it will be sent</i> 408)720-8300 Katie_Nelson@bstz.com TAM Q. TRAN 279 OAKMEAD PARKWAY BLAKELY SOKOLOFF TAYLOR ZAFMAI SUNNYVALE, CALIFORNIA 94085-4040	<i>via US Mail.</i> N LLP
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ASSIGNMENT

WHEREAS, we, <u>Frederick Douglis</u>, <u>Cheng Li</u>, <u>Philip Shilane</u>, and <u>Grant Wallace</u>, 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 <u>METHODS</u> <u>TO SELECT SEGMENTS OF AN EVICTED CACHE UNIT FOR REINSERTION INTO</u> <u>THE CACHE</u> (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 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, 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 Corporation, to insert here in parentheses (<u>14/609,902 filed January 30, 2015</u>) 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:

PATENT/Joint Assignment Attorney Docket No.: 6368P141F2 EMC Docket No.: EMC-15-0015

Date: Jan 29 2015

Inventor's Signa

Print full name of inventor: Residence:

Frederick Douglis 152 Smoke Rise Road Basking Ridge, New Jersey 07920 United States of America Same as above

Citizenship: Mailing Address:

STATE/COMMONWEALTH OF

On this 29 day of <u>JANUA</u>, 2015 then personally appeared before me the above-named <u>Frederick Douglis</u> known to me through satisfactory evidence of identification [] employee identification card; [] (friver'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.

And Cia

Notary Public

Print Name: JQ SUDAS. S. Nifly.

My Commission expires 2/1/2019

JESUDAS S. NITLA NOTARY PUBLIC OF NEW JERSEY My Commission Expires August 11, 2019

Date:

29- Jan - 2015

hug

Inventor's Signature

Print full name of inventor: Residence: Cheng Li

333 Crowells Road Highland Park, New Jersey 08904 China Same as above

Mailing Address:

Citizenship:

COUNTY OF Middle Sex

- 4 -

Notary Public Print Name: Kasen Vetter

My Commission expires 31 181 2019

F.	
	KAREN ANN VETTER
	Commission # 2443818
8	Notary Public, State of New Jersey
	My Commission Expires
	March 18, 2019
3	

Jon 29 2015 Date:

Inventor's Signature

Print full name of inventor: Residence:

Citizenship: Mailing Address: Philip Shilane 559 Aspen Woods Drive Yardley, Pennsylvania 19067 United States of America Same as above

STATE/COMMONWEALTH OF COUNTY OF

On this 29 day of <u>January</u>, 2015, then personally appeared before me the above-named <u>Philip Shilane</u> known to me through satisfactory evidence of identification [] employee identification card; [] other'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.

Marca,

Notary Public

14-14 Prin Name: Jesudas My Commission expires 2/11/20/9

NOTARY PUBLIC OF NEW JERGEY My Commission Explana August 11, 2010

PATENT REEL: 034869 FRAME: 0849

Date:

Citizenship:

Mailing Address:

Inventor's Signature

Print full name of inventor: Residence:

12912015

Grant Wallace 405 Oak Street Pennington, New Jersey 08534 United States of America Same as above

STATE/COMMONWEALTH OF COUNTY OF

On this 29 day of JAMUAR 4...., 2015, then personally appeared before me the above-named Grant Wallace known to me through satisfactory evidence of identification [_] 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

Print Name: Jesu d My Commission expires $\mathbb{Z}/\mathcal{U}/\mathcal{QO}/\mathcal{O}$

JESUDAS S. NITLA NOTARY PUBLIC OF NEW JERSEY My Commission Expline August 11, 2016