

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Stephen G. Graham</td> <td>09/27/2013</td> </tr> <tr> <td>Cheuk Lam</td> <td>09/26/2013</td> </tr> </tbody> </table>		Name	Execution Date	Stephen G. Graham	09/27/2013	Cheuk Lam	09/26/2013				
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>EMC Corporation</td> </tr> <tr> <td>Street Address:</td> <td>176 South Street</td> </tr> <tr> <td>City:</td> <td>Hopkinton</td> </tr> <tr> <td>State/Country:</td> <td>MASSACHUSETTS</td> </tr> <tr> <td>Postal Code:</td> <td>01748</td> </tr> </table>		Name:	EMC Corporation	Street Address:	176 South Street	City:	Hopkinton	State/Country:	MASSACHUSETTS	Postal Code:	01748
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PROPERTY NUMBERS Total: 1											
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CORRESPONDENCE DATA											
Fax Number: <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 508-435-1000 Email: Docketing@emc.com Correspondent Name: EMC CORPORATION Address Line 1: 176 SOUTH STREET Address Line 4: HOPKINTON, MASSACHUSETTS 01748											
ATTORNEY DOCKET NUMBER:	EMC-13-0222										
NAME OF SUBMITTER:	Gerald P. Kazanjian										
Signature:	/Gerald P. Kazanjian/										
Date:	09/30/2013										

Total Attachments: 8

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ASSIGNMENT

WHEREAS, we, Stephen G. Graham and Cheuk Lam, 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 APPARATUS FOR USING CONSISTENT-HASHING TO ENSURE PROPER SEQUENCING OF MESSAGE PROCESSING IN A SCALE-OUT ENVIRONMENT (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 parenthesis () 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:

9/27/2013

S. Graham
Inventor's Signature

Print full name of first inventor:

Stephen G. Graham

Residence:

776 Legend Oaks Drive
Chapel Hill, North Carolina 27517

Citizenship:

USA

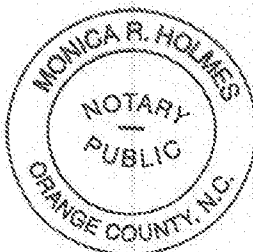
Mailing Address:

Same as above

STATE/Commonwealth of
COUNTY OF

NC
Orange

On this 27th day of Sept, 2013, then personally appeared before me the
above-named Stephen G. Graham known to me through satisfactory evidence of identification
[] employee identification card; [☒] driver's license; [] (other)
Stephen Glen Graham 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.



Monica R. Holmes
Notary Public

Print Name: Monica R. Holmes

My Commission expires 5/30/2015

Date: _____

Inventor's Signature

Print full name of second inventor:

Cheuk Lam

Residence:

2780 Evergreen Street

Yorktown Heights, New York 10598

Citizenship:

USA

Mailing Address:

Same as above

STATE/Commonwealth of _____

COUNTY OF _____

On this _____ day of _____, 20____, then personally appeared before me the above-named Cheuk Lam 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: _____

My Commission expires ____ / ____ / ____

ASSIGNMENT

WHEREAS, we, Stephen G. Graham and Cheuk Lam, 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 APPARATUS FOR USING CONSISTENT-HASHING TO ENSURE PROPER SEQUENCING OF MESSAGE PROCESSING IN A SCALE-OUT ENVIRONMENT (Application), the specification of which:

☒ 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;

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

Date: _____

Inventor's Signature

Print full name of first inventor:

Stephen G. Graham

Residence:

776 Legend Oaks Drive
Chapel Hill, North Carolina 27517

Citizenship:

USA

Mailing Address:

Same as above

STATE/Commonwealth of _____
COUNTY OF _____

On this _____ day of _____, 20____, then personally appeared before me the
above-named **Stephen G. Graham** 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: _____

My Commission expires ____ / ____ / ____

Date: 9/26/2013



Inventor's Signature

Print full name of second inventor:

Cheuk Lam

Residence:

2780 Evergreen Street

Yorktown Heights, New York 10598

Citizenship:

USA

Mailing Address:

Same as above

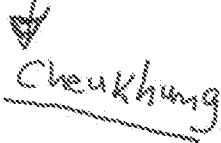
STATE/COMMONWEALTH OF

COUNTY OF

NY
Westchester

On this 26th day of September, 2013, then personally appeared before me the above-named **Cheuk Lam** 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.


Cheuk Lam



Notary Public

Print Name: PARVIZ DAVALLOO

My Commission expires 11/03/2013

PARVIZ DAVALLOO
Notary Public, State of NEW YORK
NO. 01DA5087713
Qualified in Westchester County
Term Expires Nov. 3, 2013