

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>Sergey KORNFELD</td> <td>07/05/2012</td> </tr> <tr> <td>John D. HUSHON Jr.</td> <td>07/08/2012</td> </tr> <tr> <td>Lev KNOPOV</td> <td>07/05/2012</td> </tr> <tr> <td>Igor ACHKINAZI</td> <td>07/05/2012</td> </tr> <tr> <td>Luis O. TORRES</td> <td>07/05/2012</td> </tr> <tr> <td>Adnan SAHIN</td> <td>07/23/2012</td> </tr> <tr> <td>Ahmet KIRAC</td> <td>07/03/2012</td> </tr> <tr> <td>Bryan DUERK</td> <td>07/06/2012</td> </tr> </tbody> </table>		Name	Execution Date	Sergey KORNFELD	07/05/2012	John D. HUSHON Jr.	07/08/2012	Lev KNOPOV	07/05/2012	Igor ACHKINAZI	07/05/2012	Luis O. TORRES	07/05/2012	Adnan SAHIN	07/23/2012	Ahmet KIRAC	07/03/2012	Bryan DUERK	07/06/2012
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Adnan SAHIN	07/23/2012																		
Ahmet KIRAC	07/03/2012																		
Bryan DUERK	07/06/2012																		
RECEIVING PARTY DATA																			
Name:	EMC CORPORATION																		
Street Address:	176 South Street																		
City:	Hopkinton																		
State/Country:	MASSACHUSETTS																		
Postal Code:	01748																		
PROPERTY NUMBERS Total: 1																			
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13538360</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13538360														
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Application Number:	13538360																		
CORRESPONDENCE DATA																			
Fax Number:	5088988602																		
Phone:	(508) 898-8601																		
Email:	Docketing@westboro-ip.com																		
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>																			
Correspondent Name:	Donald W. Muirhead																		
Address Line 1:	Muirhead and Saturnelli, LLC																		
Address Line 2:	200 Friberg Parkway, Suite 1001																		
Address Line 4:	Westborough, MASSACHUSETTS 01581																		

CH \$40.00 13538360

PATENT

ATTORNEY DOCKET NUMBER:	EMS-449US; EMC-12-045
NAME OF SUBMITTER:	Anne E. Saturnelli
<p>Total Attachments: 18</p> <p>source=EMS-449US, Executed Assignment#page1.tif source=EMS-449US, Executed Assignment#page2.tif source=EMS-449US, Executed Assignment#page3.tif source=EMS-449US, Executed Assignment#page4.tif source=EMS-449US, Executed Assignment#page5.tif source=EMS-449US, Executed Assignment#page6.tif source=EMS-449US, Executed Assignment#page7.tif source=EMS-449US, Executed Assignment#page8.tif source=EMS-449US, Executed Assignment#page9.tif source=EMS-449US, Executed Assignment#page10.tif source=EMS-449US, Executed Assignment#page11.tif source=EMS-449US, Executed Assignment#page12.tif source=EMS-449US, Executed Assignment#page13.tif source=EMS-449US, Executed Assignment#page14.tif source=EMS-449US, Executed Assignment#page15.tif source=EMS-449US, Executed Assignment#page16.tif source=EMS-449US, Executed Assignment#page17.tif source=EMS-449US, Executed Assignment#page18.tif</p>	

ASSIGNMENT

WHEREAS, we, Sergey KORNFELD, John D. HUSHON, Jr., Lev KNOPOV, Igor ACHKINAZI, Luis O. TORRES and Adnan SAHIN, Ahmet KIRAC and Bryan DUERK 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 **CLOUD CAPABLE STORAGE SYSTEM WITH HIGH PERORMANCE NOSQL KEY-VALUE PAIR OPERATING ENVIRONMENT**, 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 June 29, 2012 as U.S. Application No. 13/538,360;
- 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 attorneys of Muirhead and Saturnelli, LLC 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: Jul. 5, 2012

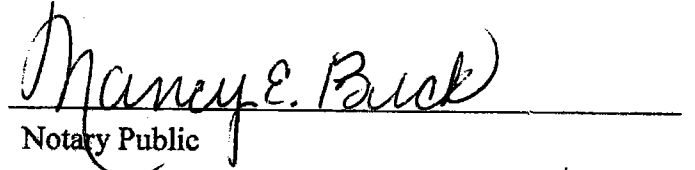


Inventor's Signature

Print full name of first inventor: **Sergey KORNFELD**
Residence: 155 Bishops Fore Dr.
Waltham, MA 02452
Citizenship: U.S.A.
Mailing Address: Same

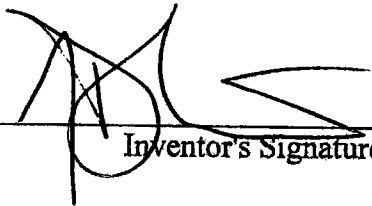
COMMONWEALTH OF MASSACHUSETTS
COUNTY OF Middlesex

On this 5 day of July, 2012, then personally appeared before me the above-named **Sergey KORNFELD** 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: Nancy E. Buck
My Commission expires: August 11, 2017

Date: July 8, 2012



Inventor's Signature

Print full name of second inventor:

John D. HUSHON, Jr.

Residence:

2 Alcott Way

Medfield, MA 02052

Citizenship:

U.S.A.

Mailing Address:

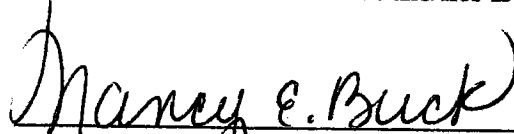
Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF Middlesex

On this 8th day of July, 2012, then personally appeared before me the above-named **John D. HUSHON, Jr.** 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: Nancy E. Buck

My Commission expires: August 11, 2017

Date: 7/5/2012

[Signature]
Inventor's Signature

Print full name of third inventor: **Lev KNOPOV**
Residence: 114 Saint Paul Street
Brookline, MA 02446
Citizenship: U.S.A.
Mailing Address: Same

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF Middlesex


On this 5th day of July, 2012, then personally appeared before me the above-named **Lev KNOPOV** known to me through satisfactory evidence of identification [] employee identification card; [x] 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.

[Signature]
Notary Public

Print Name: Nancy E. Buck

My Commission expires: August 11, 2017

Date: 7.5.2012



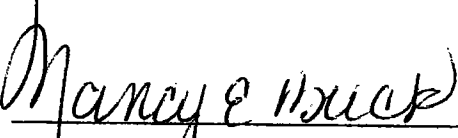
Inventor's Signature

Print full name of fourth inventor: **Igor ACHKINAZI**
Residence: 38 Coolidge Circle
Northborough, MA 01532
Citizenship: U.S.A.
Mailing Address: Same

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF Middlesex

On this 5th day of July, 2012, then personally appeared before me the above-named **Igor ACHKINAZI** 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: Nancy E. Buck
My Commission expires: August 11, 2017

Date: 7/5/2012

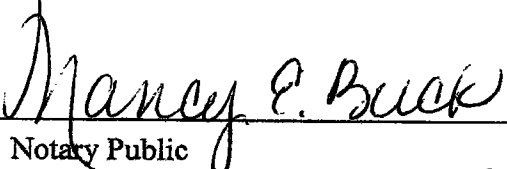

Inventor's Signature

Print full name of fifth inventor: **Luis O. TORRES**
Residence: 45 Ireta Road
Shrewsbury, MA 01545
Citizenship: U.S.A.
Mailing Address: Same

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF Middlesex

On this 5th day of July, 2012, then personally appeared before me the above-named **Luis O. TORRES** 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: Nancy E. Buck

My Commission expires: August 11, 2017

Date: 7/23/12

Adnan Sahin
Inventor's Signature

Print full name of sixth inventor: **Adnan SAHIN**
Residence: 140 Pine Grove Street
Needham, MA 02494
Citizenship: USA
Mailing Address: Same

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF Massachusetts

On this 23 day of July, 2012, then personally appeared before me the above-named **Adnan SAHIN** 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.

Nancy E. Buck
Notary Public
Print Name: Nancy E. Buck
My Commission expires: 8-11-2017

Date: _____

Inventor's Signature

Print full name of seventh inventor: **Ahmet KIRAC**
Residence: 7002 Blvd. East Apt. 11-P
Guttenberg, NJ 07093
Citizenship: USA
Mailing Address: Same

STATE OF NEW JERSEY

COUNTY OF _____

On this ____ day of _____, 2012, then personally appeared before me the above-named **Ahmet KIRAC** 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: 7/6/2012

Bryan Duerk
Inventor's Signature

Print full name of eighth inventor: **Bryan DUERK**
Residence: 4 Dickinson Circle
Shrewsbury, MA 01545
Citizenship: USA
Mailing Address: Same

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF Middlesex

On this 04 day of July, 2012, then personally appeared before me the above-named **Bryan DUERK** 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.

Nancy E. Buck
Notary Public

Print Name: Nancy E. Buck
My Commission expires: August 11, 2017

Attorney Docket No.: EMS-449US
EMC Docket No.: EMC-12-045

ASSIGNMENT

WHEREAS, we, Sergey KORNFELD, John D. HUSHON, Jr., Lev KNOPOV, Igor ACHKINAZI, Luis O. TORRES and Adnan SAHIN, Ahmet KIRAC and Bryan DUERK 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 **CLOUD CAPABLE STORAGE SYSTEM WITH HIGH PERORMANCE NOSQL KEY-VALUE PAIR OPERATING ENVIRONMENT**, the specification of which:

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- was filed on June 29, 2012 as U.S. Application No. 13/538,360;
- 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;

Attorney Docket No.: EMS-449US
EMC Docket No.: EMC-12-045

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 attorneys of Muirhead and Saturnelli, LLC 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: _____

Inventor's Signature

Print full name of first inventor:

Sergey KORNFELD

Residence:

155 Bishops Fore Dr.
Waltham, MA 02452

Citizenship:

U.S.A.

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF _____

On this _____ day of _____, 2012, then personally appeared before me the above-named **Sergey KORNFELD** 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:

Attorney Docket No.: EMS-449US
EMC Docket No.: EMC-12-045

Date: _____

Inventor's Signature

Print full name of second inventor:

John D. HUSHON, Jr.

Residence:

2 Alcott Way

Medfield, MA 02052

Citizenship:

U.S.A.

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF _____

On this _____ day of _____, 2012, then personally appeared before me the above-named **John D. HUSHON, Jr.** 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:

Attorney Docket No.: EMS-449US
EMC Docket No.: EMC-12-045

Date: _____

Inventor's Signature

Print full name of third inventor:

Lev KNOPOV

Residence:

114 Saint Paul Street
Brookline, MA 02446

Citizenship:

U.S.A.

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF _____

On this _____ day of _____, 2012, then personally appeared before me the above-named **Lev KNOPOV** 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:

Attorney Docket No.: EMS-449US
EMC Docket No.: EMC-12-045

Date: _____

Inventor's Signature

Print full name of fourth inventor:

Igor ACHKINAZI

Residence:

38 Coolidge Circle
Northborough, MA 01532

Citizenship:

U.S.A.

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF _____

On this _____ day of _____, 2012, then personally appeared before me the above-named **Igor ACHKINAZI** 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:

Attorney Docket No.: EMS-449US
EMC Docket No.: EMC-12-045

Date: _____

Inventor's Signature

Print full name of fifth inventor:

Luis O. TORRES

Residence:

45 Ireta Road
Shrewsbury, MA 01545

Citizenship:

U.S.A.

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF _____

On this _____ day of _____, 2012, then personally appeared before me the above-named **Luis O. TORRES** 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:

Attorney Docket No.: EMS-449US
EMC Docket No.: EMC-12-045

Date: _____

Inventor's Signature

Print full name of sixth inventor:

Adnan SAHIN

Residence:

140 Pine Grove Street

Needham, MA 02494

Citizenship:

USA

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF _____

On this ____ day of _____, 2012, then personally appeared before me the above-named **Adnan SAHIN** 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:

Attorney Docket No.: EMS-449US
EMC Docket No.: EMC-12-045

Date: 7/3/2012

[Signature]
Inventor's Signature

Print full name of seventh inventor: **Ahmet KIRAC**
Residence: 7002 Blvd. East Apt. 11-P
Guttenberg, NJ 07093
Citizenship: USA
Mailing Address: Same

STATE OF NEW JERSEY
COUNTY OF Hudson

On this 3 day of July, 2012, then personally appeared before me the above-named **Ahmet KIRAC** 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.

Cristiana Menendez
Notary Public

Print Name: CRISTIANA MENENDEZ
My Commission expires: 08-3-16

CRISTIANA MENENDEZ
NOTARY PUBLIC
STATE OF NEW JERSEY
MY COMMISSION EXPIRES AUGUST 3, 2016
I.D.# 2410994

Attorney Docket No.: EMS-449US
EMC Docket No.: EMC-12-045

Date: _____

Inventor's Signature

Print full name of eighth inventor:

Bryan DUERK

Residence:

4 Dickinson Circle

Shrewsbury, MA 01545

Citizenship:

USA

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF _____

On this ____ day of _____, 2012, then personally appeared before me the above-named **Bryan DUERK** 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: