

PATENT ASSIGNMENT

Electronic Version v1.1
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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>Kevin Bowers</td> <td>12/01/2001</td> </tr> <tr> <td>Tamara S. Denning</td> <td>12/15/2011</td> </tr> <tr> <td>Ari Juels</td> <td>12/02/2011</td> </tr> </tbody> </table>		Name	Execution Date	Kevin Bowers	12/01/2001	Tamara S. Denning	12/15/2011	Ari Juels	12/02/2011		
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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											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13249980</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13249980						
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CORRESPONDENCE DATA											
<p>Fax Number: (203)255-6570</p> <p>Phone: 203 255 6560</p> <p>Email: car@rml-law.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Ryan, Mason & Lewis, LLP</p> <p>Address Line 1: 1300 Post Road</p> <p>Address Line 2: Suite 205</p> <p>Address Line 4: Fairfield, CONNECTICUT 06824</p>											
ATTORNEY DOCKET NUMBER:	EMC-10-293										
NAME OF SUBMITTER:	Kevin M. Mason										
Total Attachments: 5											

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RECORDATION FORM COVER SHEET PATENTS ONLY

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Kevin Bowers, Tamara S. Denning, Ari Juels

Additional name(s) of conveying party(ies) attached?

Yes ☐ No ☒**3. Nature of conveyance:**☒ Assignment ☐ Merger☐ Security Agreement ☐ Change of Name☐ OtherExecution Date: December 1, 2011,
December 15, 2011, December 2, 2011**2. Name and address of receiving party(ies)**

Name: EMC Corporation

Internal Address:

Street Address: 176 South Street

City: Hopkinton State: MA ZIP: 01748

Additional name(s) & address(es) attached? ☐ Yes ☒ No**4. Application number(s) or patent number(s):**

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) 13/249,980 Filed September 30, 2011 B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No**5. Name and address of party to whom correspondence concerning document should be mailed:**

Name: Kevin M. Mason

Internal Address: Ryan, Mason & Lewis, LLP

Street Address: 1300 Post Road, Suite 205

City: Fairfield State: CT ZIP: 06824

6. Total number of applications and patents involved: 1**7. Total Fee (37 CFR 3.41)..... \$ 40.00**☐ Enclosed☒ Authorized to be charged to deposit account**8. Deposit account number 50-0762**

DO NOT USE THIS SPACE

9. Statement and signature.*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Kevin M. Mason



December 19, 2011

Reg. No. 36,597

Signature

Date

Total number of pages including cover sheet, attachments, and document: 5

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Box Assignments

Washington, DC 20231

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EMC-10-293

PATENT
REEL: 027410 FRAME: 0865

PATENT/Joint Assignment
Attorney Docket No.: EMC-10-293

ASSIGNMENT

WHEREAS, we, Kevin Bowers, Tamara Denning and Ari Juels, 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 **METHODS AND APPARATUS FOR AUTHENTICATING A USER BASED ON IMPLICIT USER MEMORY**, 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 September 30, 2011 as U.S. Application No. 13/249,980;
- ☐ 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

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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: 12/1/2011

Kevin D. Bowers
Inventor's Signature

Print full name of first inventor: Kevin Bowers
Residence: Melrose, Massachusetts
Citizenship: United States of America
Mailing Address: 249 Tremont Street
Melrose, Massachusetts 02176

STATE/Commonwealth of
COUNTY OF

Massachusetts
Middlesex

On this 1 day of December, 2011, then personally appeared before me the above-named Kevin Bowers 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.

Deanna M. Goodwin
Notary Public

Print Name: Deanna M. Goodwin
My Commission expires 10/24/14



DEANNA M. GOODWIN
Notary Public
Commonwealth of Massachusetts
My Commission Expires
October 24, 2014

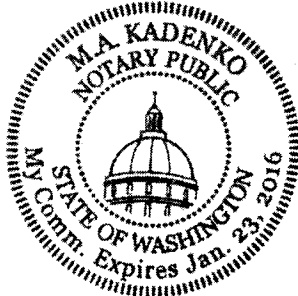
Date: 12/15/11

Tamara S. Denning
Inventor's Signature

Print full name of second inventor: Tamara S. Denning
Residence: Seattle, Washington
Citizenship: United States of America
Mailing Address: 2907 NE 52nd Street #102
Seattle, Washington 98105

STATE/Commonwealth of Washington
COUNTY OF King

On this 15th day of December, 2011, then personally appeared before me the above-named Tamara Denning 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.



M.A. Kadenko

Notary Public

Print Name: M.A. Kadenko

My Commission expires 01/23/16

Date:

2 Dec. 11

Inventor's Signature

Print full name of third inventor:

Ari Jaels

Residence:

Brookline, Massachusetts

Citizenship:

United States of America

Mailing Address:

55 Station Street, Apt. 3B

Brookline, Massachusetts 02445

STATE/Commonwealth of

Massachusetts

COUNTY OF

Worcester

On this 2nd day of December, 20 11, then personally appeared before me the above-named Ari Jaels known to me through satisfactory evidence of identification [] employee identification card; [] driver's license; [X] (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 R. Lovejoy

Notary Public

Print Name:

Nancy R. Lovejoy

My Commission expires

6/29/13

