

02-21-2008



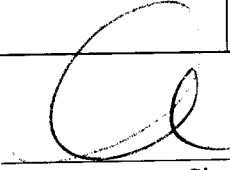
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SET

Docket No.: EMS-182US1

2-20-08

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

<p>1. Name of conveying party(ies)/Execution Date(s):</p> <p>(a) <b>Dan AHARONI</b></p> <p>Execution Date(s): (a) 02/11/2008</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>2. Name and address of receiving party(ies):</p> <p>Name: <b>EMC Corporation</b></p> <p>Internal Address:</p> <p>Street Address: <b>176 South Street Hopkinton, Massachusetts 01748</b></p> <p>Country: <b>United States of America</b></p> <p>Additional name(s) &amp; address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>3. Nature of conveyance:</p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger</p> <p><input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name</p> <p><input type="checkbox"/> Government Interest Assignment</p> <p><input type="checkbox"/> Executive Order 9424, Confirmatory License</p> <p><input type="checkbox"/> Other: _____</p>	<p>4. Application or patent number(s): <input type="checkbox"/> This document is being filed together with a new application</p> <p>A. Patent Application No.(s) 12/004,300</p> <p>B. Patent No.(s)</p> <p>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>5. Name and address to whom correspondence concerning document should be mailed:</p> <p>Name: <b>Muirhead and Saturnelli, LLC</b></p> <p>Internal Address:</p> <p>Street Address: <b>200 Friberg Parkway Suite 1001</b></p> <p>City: <b>Westborough</b></p> <p>State: <b>Massachusetts</b> Zip: <b>01581</b></p> <p>Fax Number: <b>508-898-8602</b></p>	<p>6. Total number of applications and patents involved: 1</p> <p>7. Total fee (37 CFR 1.21(h) &amp; 3.41).....\$ <b>40.00</b></p> <p><input type="checkbox"/> Authorized to be charged by credit card</p> <p><input checked="" type="checkbox"/> Authorized to be charged to deposit account</p> <p><input type="checkbox"/> Enclosed</p> <p><input type="checkbox"/> None required (government interest not affecting title)</p> <p>8. Payment Information</p> <p>a. Credit Card Last 4 Numbers _____</p> <p>Expiration Date _____</p> <p>b. Deposit Account Number <u>05-0889</u></p> <p>Authorized User Name <u>Anne E. Saturnelli</u></p>
<p>9. Signature: </p> <p><u>Anne E. Saturnelli, Reg. No. 41,290</u> <u>February 15, 2008</u></p> <p>Name of Person Signing Signature Date</p> <p>Total number of pages including cover sheet, attachments, and documents: 11</p>	

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Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:  
Mail Stop Assignment Recordation Services  
Director of the U.S. Patent and Trademark Office  
P.O. Box 1450, Alexandria, VA 22313-1450

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## ASSIGNMENT

**WHEREAS**, we, **Rong YU, Orit LEVIN-MICHAEL, John W. LEFFERTS, Pei-Ching HWANG, Peng YIN, Yechiel YOCHAI, Dan AHARONI, Qun FAN, and Stephen R. IVES**, 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 **TECHNIQUES FOR DATA PREFETCHING**, 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 December 20, 2007 as U.S. Application No. 12/004,300 ;
- 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.

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:	<b>Rong YU</b>
Residence:	32 Charles River Drive Franklin, MA 02038
Citizenship:	CHINA (People's Republic)
Mailing Address:	Same

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2007, then personally appeared before me the above-named **Rong YU** 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: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of second inventor:

**Orit LEVIN-MICHAEL**

Residence:

37 Salisbury Road  
Newton, MA 02458

Citizenship:

USA and ISRAEL

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2007, then personally appeared before me the above-named **Orit LEVIN-MICHAEL** 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: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of third inventor:

**John W. LEFFERTS**

Residence:

59 Dodge Hill Road  
Sutton, MA 01590

Citizenship:

USA

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2007, then personally appeared before me the above-named **John W. LEFFERTS** 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: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of fourth inventor:

**Pei-Ching HWANG**

Residence:

34 Camelot Drive  
Shrewsbury, MA 01545

Citizenship:

U.S.A.

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2007, then personally appeared before me the above-named **Pei-Cheng HWANG** 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: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of fifth inventor:	<b>Peng YIN</b>
Residence:	12 Blackstone Lane South Grafton, MA 01545
Citizenship:	China (People's Republic)
Mailing Address:	Same

COMMONWEALTH OF MASSACHUSETTS  
COUNTY OF \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2007, then personally appeared before me the above-named **Peng YIN** 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: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of sixth inventor:

**Yechiel YOCHAI**

Residence:

4 Lladnar Drive  
Lincoln, RI 02865

Citizenship:

ISRAEL

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2007, then personally appeared before me the above-named **Yechiel YOCHAI** 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: Feb 11<sup>th</sup> 2008

[Signature]  
Inventor's Signature

Print full name of sixth inventor:

**Dan AHARONI**

Residence:

35 Vernon Street  
Newton, MA 02458

Citizenship:

ISRAEL

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS  
COUNTY OF MIDDLESEX

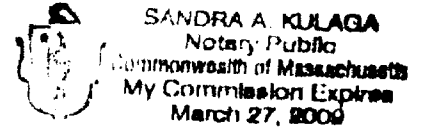
On this 11 day of FEBRUARY 2008, then personally appeared before me the above-named **Dan AHARONI** known to me through satisfactory evidence of identification [] employee identification card; [] driver's license; [] (other) PERSONALLY KNOWN TO ME to be the person whose name is subscribed to the foregoing 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:

My Commission expires:



Date: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of sixth inventor:

**Qun FAN**

Residence:

211 Howard Street  
Northborough, MA 01532

Citizenship:

CHINA (People's Republic)

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2007, then personally appeared before me the above-named **Qun FAN** 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: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of sixth inventor:

**Steven R. IVES**

Residence:

26 Shrewsbury Street  
West Boylston, MA 01583

Citizenship:

U.S.A.

Mailing Address:

Same

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF \_\_\_\_\_

On this \_\_\_\_ day of \_\_\_\_\_, 2007, then personally appeared before me the above-named **Steven R. IVES** 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: