06-10-	·2008
To the Director of the U.S. Potent and	D. L. N FMC 1911/C2
To the Director of the U.S. Patent and	i documents or the new address(es) below.
1. Name of conveying party(ies)/Executio 103507	ess of receiving party(ies):
(a) Rong YU (b) Roderick M. KLINGER	Name: EMC Corporation Internal Address:
Execution Date(s): (a) 05/16/2008 (b) 05/16/2008 Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No	Street Address: 176 South Street Hopkinton, Massachusetts 01748
3. Nature of conveyance: Assignment	Country: United States of America
☐ Government Interest Assignment ☐ Executive Order 9424, Confirmatory License ☐ Other:	Additional name(s) & address(es) attached? ☐ Yes ☒ No
4. Application or patent number(s): A. Patent Application No.(s) 12/079,919	B. Patent No.(s) ached? Yes No
Additional numbers att	ached? Yes No
Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1
Name: Muirhead and Saturnelli, LLC	7. Total fee (37 CFR 1.21(h) & 3.41)
Internal Address:	
Street Address: 200 Friberg Parkway Suite 1001	☐ None required (government interest not affecting title)
City: Westborough	8. Payment Information
State: Massachusetts Zip: 01581	a. Credit Card Last 4 Numbers Expiration Date
Fax Number: 508-898-8602	b. Deposit Account Number <u>05-0889</u> Authorized User Name <u>Anne E. Saturnelli</u>
9. Signature:	06/09/2008 DBYRNE 00000086 050889 1207991 01 FC:8021 (40(0) 04(5)
Anne E. Saturnelli, Reg. No. 41,290 Name of Person Signing Significant Signi	gnature Date
	r sheet, attachments, and documents: 7
Documents to be recorded (including cover shee	t) should be faxed to (703) 306-5995, or mailed to:

Director of the U.S. Patent and Trademark Office P.O. Box 1450, Alexandria, VA 22313-1450

PATENT REEL: 021080 FRAME: 0065

ASSIGNMENT

WHEREAS, we, Rong YU, Orit LEVIN-MICHAEL, Roderick M. KLINGER, Yechiel YOCHAI, and John W. LEFFERTS, 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 DETERMINING AN AMOUNT OF DATA TO PREFETCH, the specification of which:

[]	is being executed on even date herewith and is about to be filed in the United States Patent Office;	
[X]	was filed on <u>March 28, 2008</u> as U.S. Application No. <u>12/079,919</u> ;	
[]	was patented under U.S. Patent Noon	

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,

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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:	Rong YU
Residence:	32 Charles River Drive Franklin, MA 02038
Citizenship:	CHINA (People's Republic)
Mailing Address:	Same
STATE OF <u>MASSACHUSET</u> TS COUNTY OF <u>MIDDLESEX</u>	

On this /6 day of MA/, 2008, 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) PERSONALLY TOWER 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.

Notary Public

Print Name:

My Commission expires:

SANDRA A. KULAGA Notary Public Commonwealth of Massachusetta My Commission Expires March 27, 2008

Date:	
	Inventor's Signature
Print full name of second inventor:	Orit LEVIN-MICHAEL
Residence:	154 Tapestry
	Irvine, CA 92603
Citizenship:	USA and ISRAEL
Mailing Address:	Same
Orit LEVIN-MICHAEL known to me employee identification card; [_] driver	
Orit LEVIN-MICHAEL known to me employee identification card; [] driver to be the person whose name acknowledged that he/she executed the s	through satisfactory evidence of identification []
contained.	
	Notary Public
	Print Name:

My Commission expires:

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF MIDDLESEX

On this /6 day of // , 2008, then personally appeared before me the above-named Roderick M. KLINGER known to me through satisfactory evidence of identification [X] 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:

SANDRA A. KULAGA Notary Public commonwealth of Massachusetts My Commission Explase March 27, 2006

Date:	
	Inventor's Signature
Print full name of third inventor:	Yechiel YOCHAI
Residence:	4 Lladnar Drive
	Lincoln, RI 02865
Citizenship:	ISRAEL
Mailing Address:	Same
Yechiel YOCHAI known to me throug identification card; [] driver's license to be the person whose name is	B, then personally appeared before me the above-named the satisfactory evidence of identification [] employee to the jet [] (other) subscribed to the foregoing Assignment and same as his/her free act and deed for the purposes therein
	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
John W. LEFFERTS known to me thr	s, then personally appeared before me the above-named rough satisfactory evidence of identification []
to be the person whose name is	er's license; [] (other) subscribed to the foregoing Assignment and same as his/her free act and deed for the purposes therein
	Notary Public
	Print Name:

My Commission expires:

-6-

RECORDED: 06/09/2008

PATENT REEL: 021080 FRAME: 0071