

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

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>Kranthi K. Pachipala</td> <td>02/15/2007</td> </tr> <tr> <td>Srikanthan Raghunathan</td> <td>02/15/2007</td> </tr> <tr> <td>Arati Pradhan</td> <td>02/15/2007</td> </tr> <tr> <td>John Thomas</td> <td>02/15/2007</td> </tr> <tr> <td>Michael H. Walther</td> <td>02/15/2007</td> </tr> </tbody> </table>		Name	Execution Date	Kranthi K. Pachipala	02/15/2007	Srikanthan Raghunathan	02/15/2007	Arati Pradhan	02/15/2007	John Thomas	02/15/2007	Michael H. Walther	02/15/2007
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Kranthi K. Pachipala	02/15/2007												
Srikanthan Raghunathan	02/15/2007												
Arati Pradhan	02/15/2007												
John Thomas	02/15/2007												
Michael H. Walther	02/15/2007												
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>13899231</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13899231								
Property Type	Number												
Application Number:	13899231												
CORRESPONDENCE DATA													
Fax Number:	4089732595												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	408-973-2585												
Email:	mgreen@ip-patent.com												
Correspondent Name:	VAN PELT, YI & JAMES LLP AND EMC CORPORA												
Address Line 1:	10050 N. FOOTHILL BLVD.												
Address Line 2:	SUITE 200												
Address Line 4:	CUPERTINO, CALIFORNIA 95014												
ATTORNEY DOCKET NUMBER:	EMCCP180C2												
NAME OF SUBMITTER:	Jia-Ning Qu												

CH \$40.00 13899231

Signature:	/Jia-Ning Qu/
Date:	08/20/2013
Total Attachments: 6 source=EMCCP180C2 Executed Assignment#page1.tif source=EMCCP180C2 Executed Assignment#page2.tif source=EMCCP180C2 Executed Assignment#page3.tif source=EMCCP180C2 Executed Assignment#page4.tif source=EMCCP180C2 Executed Assignment#page5.tif source=EMCCP180C2 Executed Assignment#page6.tif	

## ASSIGNMENT OF PATENT APPLICATION

Whereas I/we the undersigned inventor(s) have invented certain new and useful improvements as set forth in the patent application entitled:

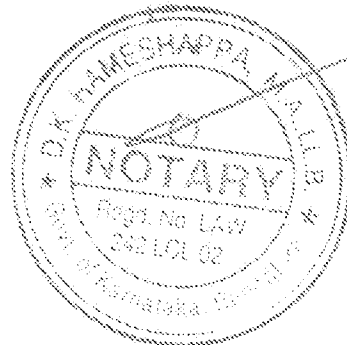
### SYNCHRONIZING RESOURCE TYPE AND PROPERTY STRUCTURES

for which I (we) have executed an application for a United States Letters Patent which was filed in the U.S. Patent and Trademark Office on December 21, 2006, and which bears the Application No. 11/644,076, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known;

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We the undersigned inventor(s) hereby:

- 1) Sell(s), assign(s) and transfer(s) to 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, the entire right title and interest in any and all improvements and inventions disclosed in, application(s) (including foreign applications) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application and/or in any provisional application to which the above referenced application claims priority.
- 2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.
- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.
- 5) Warrant and represent that I/we have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

Signed on the date(s) indicated beside my (our) signature(s).



18 FEB 2007

Date: Feb 15<sup>th</sup> 2007

P. Kranthi K. Pachipala  
Inventor's Signature

Print full name of first inventor: **Kranthi K. Pachipala**  
Residence: **Bangalore, India**  
Citizenship: **India**  
Mailing Address: **6801 Koll Center Parkway  
Pleasanton, CA 94566**

STATE/Commonwealth of \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

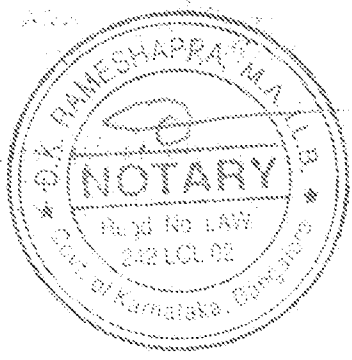
Then personally appeared before me the above-named Inventor's Signature and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this \_\_\_\_\_ day of 15 FEB 2007, 2007.

D.K. Rameshappa  
**D.K. RAMESHAPPA, M.A., LL.B.**  
*Advocate & Notary*

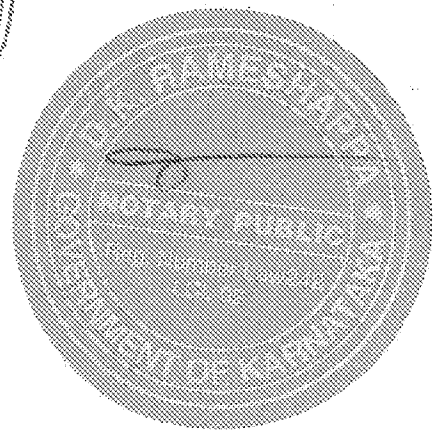
Notary Public **No. 23, 12th Main, 4th Block East,  
Jayenagar, BANGALORE-560 011.**

Print Name: \_\_\_\_\_

My Commission expires Term Expires on 28-12-2007  
**No. LAW 242 LCL 02  
D.K. RAMESHAPPA  
NOTARY PUBLIC**



15 FEB 2007



Date: Feb 15<sup>th</sup> 2007

[Signature]  
Inventor's Signature

Print full name of second inventor:  
Residence:  
Citizenship:  
Mailing Address:

**Srikanthan Raghunathan**  
Bangalore, India  
India  
6801 Koll Center Parkway  
Pleasanton, CA 94566

STATE/Commonwealth of \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

Then personally appeared before me the above-named Inventor's Signature and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 15 FEB 2007 day of \_\_\_\_\_, 2007.

SWORN TO BEFORE ME

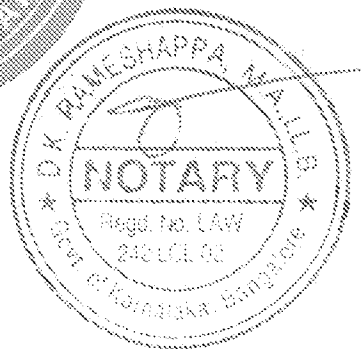
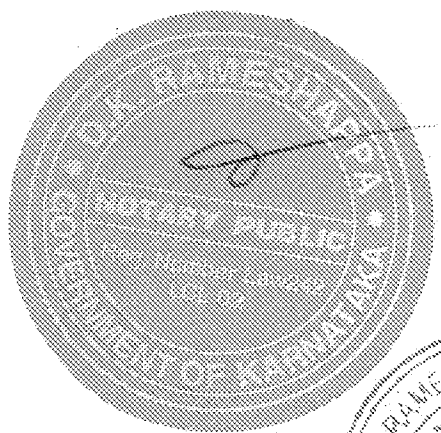
[Signature]

Notary Public **D.K. RAMESHAPPA, M.A., LL.B**  
*Advocate & Notary*

Print Name: No. 23, 12th Main, 4th Block East,  
Jaynagar, BANGALORE-560 011

My Commission expires 23-12-2007

No. LAW 242 LCL 02  
**D.K. RAMESHAPPA**  
NOTARY PUBLIC



15 FEB 2007

Date: Feb 15<sup>th</sup> 2007

Arati Pradhan  
Inventor's Signature

Print full name of third inventor: **Arati Pradhan**  
Residence: Bangalore, India  
Citizenship: India  
Mailing Address: 6801 Koll Center Parkway  
Pleasanton, CA 94566

STATE/Commonwealth of \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

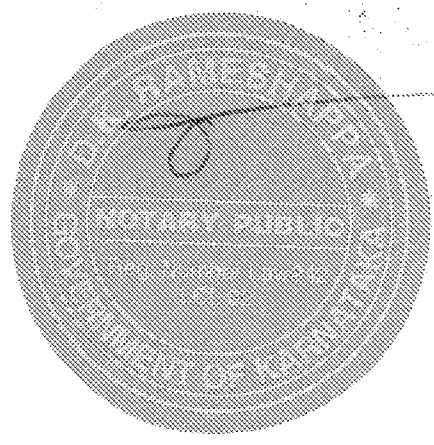
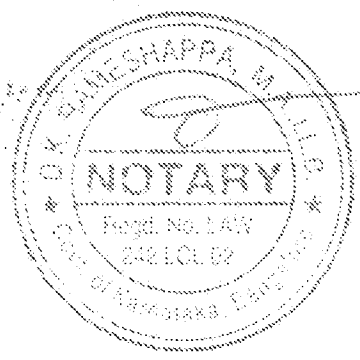
Then personally appeared before me the above-named Inventor's Signature and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 15 FEB 2007 day of \_\_\_\_\_, 2007.

D.K. Rameshappa  
D.K. RAMESHAPPA, M.A., LL.M.  
Advocate & Notary

Notary Public No. 23, 12th Main, 4th Block East,  
Jayanagar, BANGALORE-560 011.

Print Name: \_\_\_\_\_

My Commission expires 23-12-2007  
No. LAW 242 LCL 02  
D.K. RAMESHAPPA  
NOTARY PUBLIC



15 FEB 2007

Date: Feb 15<sup>th</sup> 2007

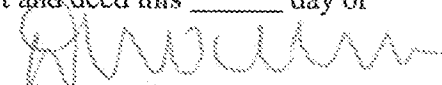
  
Inventor's Signature

Print full name of fourth inventor: **John Thomas**  
Residence: Bangalore, India  
Citizenship: India  
Mailing Address: 6801 Koll Center Parkway  
Pleasanton, CA 94566

STATE/Commonwealth of \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

Then personally appeared before me the above-named Inventor's Signature and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

*[Faint handwritten notes and stamps on the left side of the page]*

  
**D.K. RAMESHAPPA, M.A., LL.B.**  
*Advocate & Notary*

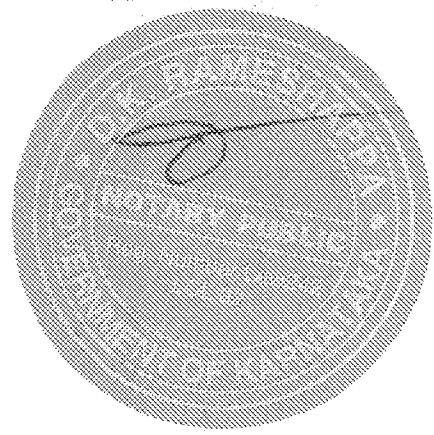
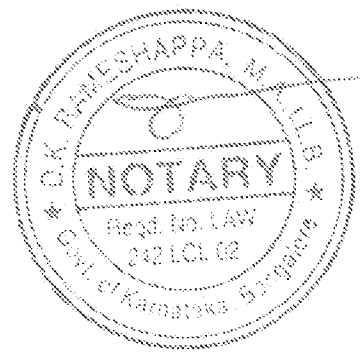
Notary Public No. 23, 12th Main, 4th Block East,  
Jayanagar, BANGALORE-560 011

Print Name: \_\_\_\_\_

My Commission expires 23-12-2007

No. LAW-242 LCL 02  
**D.K. RAMESHAPPA**  
NOTARY PUBLIC

15 FEB 2007



Date: 2/15/07

Michael Walther  
Inventor's Signature

Print full name of fifth inventor:

**Michael H. Walther**

Residence:

Pleasanton, CA

Citizenship:

Germany

Mailing Address:

6801 Koll Center Parkway  
Pleasanton, CA 94566

STATE/Commonwealth of  
COUNTY OF

CA  
Alameda

Then personally appeared before me the above-named Inventor's Signature and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 15 day of February, 2007.

Deanna L. Santos  
Notary Public

Print Name: Deanna L. Santos

My Commission expires 8/21/08

