

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>Ravi Kishore Yadav Rangapuram</td> <td>02/08/2012</td> </tr> <tr> <td>Sriprasad Bhat Kasargod</td> <td>02/08/2012</td> </tr> </tbody> </table>		Name	Execution Date	Ravi Kishore Yadav Rangapuram	02/08/2012	Sriprasad Bhat Kasargod	02/08/2012				
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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											
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Application Number:	13336894										
CORRESPONDENCE DATA											
Fax Number:	(415)705-6383										
Phone:	4157056377										
Email:	rking@dergnoah.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:	Todd A. Noah										
Address Line 1:	Three Embarcadero Center, Suite 410										
Address Line 4:	San Francisco, CALIFORNIA 94111										
ATTORNEY DOCKET NUMBER:	965-11-087										
NAME OF SUBMITTER:	Todd A. Noah										
Total Attachments: 8 source=Assignments#page1.tif source=Assignments#page2.tif source=Assignments#page3.tif											

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ASSIGNMENT

WHEREAS, We, Ravi Kishore Yadav Rangapuram and Sriprasad Bhat Kasargod 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 METHOD AND SYSTEM FOR EFFICIENT FILE-BASED BACKUPS BY REVERSE MAPPING CHANGED SECTORS/BLOCKS ON AN NTFS VOLUME TO FILES, 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 23, 2011 as U.S. Application No. 13/336,894;
- 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: 8 - Feb - 2012

R. Ravi Kishore
Inventor's Signature

Print full name of first inventor: **Ravi Kishore Yadav Rangapuram**
Residence: #104, Sai krupa Elite, Mahadevpura
Marathahalli outer ring road
Bangalore, Karnataka, 560037, India
Citizenship: India
Mailing Address: Same as above

I Muthuraman Sankaran (name) whose residential address is #1869, south end C'Cross, East End Main Road, Jayanagar 9th block, Bangalore, Karnataka, 560069, India was personally present and did see Ravi Kishore Yadav Rangapuram (name of person signing the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at Bangalore, India (location of witness signature)

on this day 8th Feb of 2012. (date of signature)

I Bharath. S. H (name) whose residential address is #116, 5th B Cross, 17th Main, BSK 1st Stage, 2nd Block Bangalore - 560050 was personally present and did see Ravi Kishore Yadav Rangapuram (name of person signing the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of second witness)

Signed at Bangalore, India (location of witness signature)

on this day 8th Feb of 2012. (date of signature)

Date: _____

Inventor's Signature

Print full name of second inventor: **Sriprasad Bhat Kasargod**
Residence: 14530 NE 35th St., Apt. E302
Bellevue, WA 98007
Citizenship: India
Mailing Address: Same as above

I _____ (name) whose residential address is _____ was personally present and did see _____ (name of person signing the assignment) who is personally known to me, execute the above assignment.

_____ (signature of first witness)

Signed at _____ (location of witness signature)

on this day _____ of 2012. (date of signature)

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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:

Ravi Kishore Yadav Rangapuram

Residence:

#104, Sai krupa Elite, Mahadevapura

Marathahalli outer ring road

Bangalore, Karnataka, 560037, India

Citizenship:

India

Mailing Address:

Same as above

I _____ (name) whose residential address is

_____ (name of person signing the assignment) who is personally known to me, execute the above assignment.

_____ (signature of first witness)

Signed at _____ (location of witness signature)

on this day _____ of 2012. (date of signature)

I _____ (name) whose residential address is

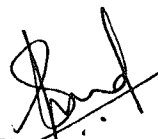
_____ (name of person signing the assignment) who is personally known to me, execute the above assignment.

_____ (signature of second witness)

Signed at _____ (location of witness signature)

on this day _____ of 2012. (date of signature)

Date: 02/08/2012



Inventor's Signature

Print full name of second inventor:

Sriprasad Bhat Kasargod

Residence:

14530 NE 35th St., Apt. E302
Bellevue, WA 98007

Citizenship:

India

Mailing Address:

Same as above

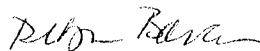
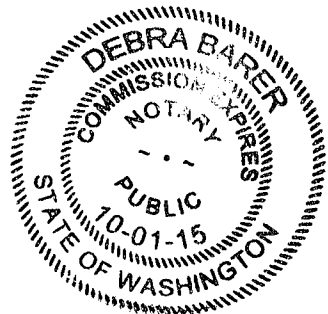
STATE OF Washington

COUNTY OF King

On this 8th day of February, 2012, before me appeared Sriprasad Bhat Kasargod who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) (is) are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of ~~California~~ ^{WA} that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Notary Public

Print Name: Debra Barber

My Commission expires 10/1/15