

3/30/06

04-07-2006

DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

RECORD/PA



103213905

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

1. Name of conveying party(ies)
David Haase
Somnath A. Gulve

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)
Name: EMC Corporation
Internal Address: _____

Street Address: 176 South Street

City: Hopkinton
State: MA
Country: USA Zip: 01748

Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance/Execution Date(s):
Execution Date(s) 03/29/2006
 Assignment Merger
 Security Agreement Change of Name
 Joint Research Agreement
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

4. Application or patent number(s):
A. Patent Application No.(s)

Additional numbers attached? Yes No

This document is being filed together with a new application.
B. Patent No.(s)

5. Name and address to whom correspondence concerning document should be mailed:
Name: Gregory A. Hunt, Jenkins, Wilson, Taylor & Hunt, P.A.
Internal Address: _____

Street Address: Suite 1200 University Tower
3100 Tower Boulevard

City: Durham
State: NC Zip: 27707

Phone Number: 001-(919) 493-8000
Fax Number: 001-(919) 419-0383
Email Address: ghunt@jwth.com

6. Total number of applications and patents involved: 1
7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00
 Authorized to be charged by credit card
 Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information
a. Credit Card Last 4 Numbers _____
Expiration Date _____
b. Deposit Account Number 50-0426
Authorized User Name _____

9. Signature:
Gregory A. Hunt
Signature
Name of Person Signing

3-30-06
Date
Total number of pages including cover sheet, attachments, and documents: 9

Documents to be recorded (including cover sheet) should be faxed to (571) 273-01407, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

113374 U.S. PTO
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04/06/2006 11/393638 500426 113374

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01 FCR 8021

**ATTACHMENT FOR RECORDATION FORM COVER SHEET
PATENTS ONLY (Form PTO-1595)**

1. Name of conveying party(ies):

Saurabh M. Pathak

Michael D. Haynes

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

Yes No

2. Name and address of receiving party(ies)

Name: _____

Internal Address: _____

Street Address: _____

City: _____ State: _____ ZIP: _____

Name and address of receiving party(ies)

Name: _____

Internal Address: _____

Street Address: _____

City: _____ State: _____ ZIP: _____

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: 03/30/06

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached?

Yes No

ASSIGNMENT

WHEREAS, we, David Haase, Somnath A. Gulve, Saurabh M. Pathak, and Michael D. Haynes 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, SYSTEMS, AND COMPUTER PROGRAM PRODUCTS FOR POSTPONING BITMAP TRANSFERS AND ELIMINATING CONFIGURATION INFORMATION TRANSFERS DURING TRESPASS OPERATIONS IN A DISK ARRAY ENVIRONMENT**, 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 _____ as U.S. Application No. _____;

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;

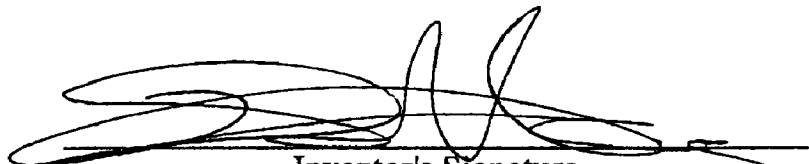
AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts

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: 3/29/06


Inventor's Signature

Print full name of first inventor:

David Haase

Residence:

USA

Citizenship:

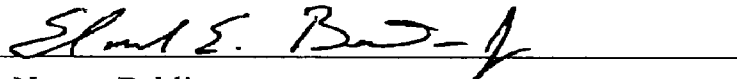
USA

Mailing Address:

904 Cedar Point Court
Fuquay Varina, North Carolina 27526

STATE/Commonwealth of North Carolina
COUNTY OF Durham

Then personally appeared before me the above-named David Haase and acknowledged that he executed the foregoing instrument as his free act and deed this 29 day of March, 2006.


Notary Public

Print Name: Edward E. Benton Jr

My Commission expires 2 / 1 / 2011

Date: 3/29/06

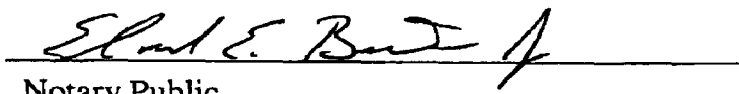


Inventor's Signature

Print full name of second inventor: **Somnath A. Gulve**
Residence: USA
Citizenship: India
Mailing Address: 2224 Glengate Circle
Morrisville, North Carolina 27560

STATE/Commonwealth of North Carolina
COUNTY OF Durham

Then personally appeared before me the above-named Somnath A. Gulve and acknowledged that he executed the foregoing instrument as his free act and deed this 29 day of March, 2006.



Notary Public
Print Name: Edward E. Benton Jr
My Commission expires 2/1/2011

Date: 3/29/06

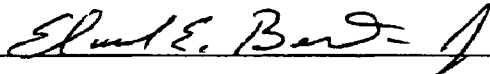


Inventor's Signature

Print full name of second inventor: **Saurabh M. Pathak**
Residence: USA
Citizenship: India
Mailing Address: 1501 Mason Farm Road, Apt 115
Chapel Hill, North Carolina 27514

STATE/Commonwealth of North Carolina
COUNTY OF Durham

Then personally appeared before me the above-named Saurabh M. Pathak and acknowledged that he executed the foregoing instrument as his free act and deed this 29 day of March, 2006.

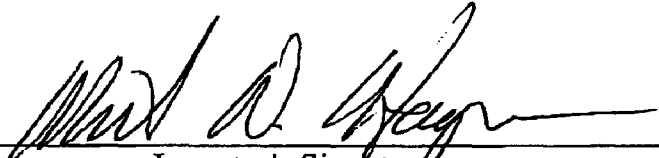


Notary Public

Print Name: Edward E. Benton Jr

My Commission expires 2/1/2011

Date: 3/29/06

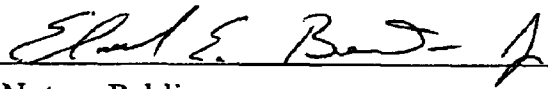


Inventor's Signature

Print full name of second inventor: **Michael D. Haynes**
Residence: USA
Citizenship: USA
Mailing Address: 8513 Wood Lawn Drive
Raleigh, North Carolina 27613

STATE/Commonwealth of North Carolina
COUNTY OF Durham

Then personally appeared before me the above-named Michael D. Haynes and acknowledged that he executed the foregoing instrument as his free act and deed this 29 day of March, 2006.



Notary Public

Print Name: Edward E. Benton Jr

My Commission expires 2/1/2011