Form PTO-1595 (Rev. 06/04)

09-27-2005

EMC-02-119CIP1

RECOF 103089261 To the Director of the U.S. Patents and Trademarks Office: Please record the attached documents or the new address(es) below. 1. Name of conveying party(ies)/Execution Date(s): Name and address of receiving party(ies): Fernando Oliveira, Bradford B. Glade, Jeffrey A. Brown, Name: EMC Corporation Peter J. McCann, David Harvey, James A. Wentworth, III, Walter M. Caritj, Matthew Waxman, Lee W. VanTine Internal Address: Execution Date: June 23, 2004, June 25, 2004, July 22, 2004, July 23, 2004 Additional name(s) of conveying party(ies) attached? [] Yes [X] No Street Address: 176 South Street 3. Nature of Conveyance: [X] Assignment [] Merger City: Hopkinton [] Security Agreement [] Change of Name Massachusetts State: [] Government Interest Assignment [] Executive Order 9424, Confirmation License USA Country: [X] Other: Corrected Recordation Form Cover Zip: 01748 Sheet to correct the spelling of Fernando Oliveira's Additional name(s) and address(es) attached? [] Yes [X] No name. The original Assignment was recorded on August 11, 2004 at Reel/Frame 015672/0390. 4. Application or patent number(s): This document is being filed together with a new application. A. Patent Application No.(s) 10/810,988 B. Patent No.(s) Additional numbers attached? [] Yes [X] No Name and address of party to whom 6. Total number of applications and patents involved: correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41): \$ 40.00 [] Authorized to be charge by credit card Name: Robert Kevin Perkins [X] Authorized to be charged to deposit account Internal Address: EMC Corporation [] Enclosed Office of the General Counsel [] None required (government interest not affecting title) 8. Payment Information Street Address: 176 South Street a. Credit Card Last 4 Numbers City: Hopkinton State: MA Zip: 01748 Expiration Date Phone Number: (508) 293-6985 b. Deposit account number 05-0889 Fax Number: (508) 293-7189 Authorized User Name Robert Kevin Perkins Perkins_RKevin@emc.com Email Address: 9. Signature: Signature Date Robert Kevin Perkins, Reg. No. 36.634. Total number of pages including cover Name of Person Signing sheet, attachments, and documents: []

PATENT

REEL: 017210 FRAME: 0838

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	Please record the attached documents or the new address(es) be
1. Name of conveying party(ies)/Execution Date(s): Fernando Olivera, Bradford B. Glade, Jeffrey A. Brown, Peter J. McCann, David Harvey, James A. Wentworth, III, Walter M. Caritj, Matthew Waxman, Lee W. VanTine	2. Name and address of receiving party(ies): Name: EMC Corporation O 1 P E Internal Address: g All 1 1 200
Execution Date: June 23, 2004, June 25, 2004, July 22, 2004, July 23, 2004 Additional name(s) of conveying party(ies) attached? [] Yes [X] No 3. Nature of Conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name	Street Address: 176 South Street City: Hopkinton State: Massachusetts
[] Government Interest Assignment	Country: USA Zip: 01748
[] Executive Order 9424, Confirmation License	Σip. 01746
[] Other	Additional name(s) and address(es) attached? [] Yes [X] No
A. Patent Application No.(s) 10/810,988 Additional numbers at 5. Name and address of party to whom	This document is being filed together with a new application. B. Patent No.(s) tached? [] Yes [X] No 6. Total number of applications and patents involved:
correspondence concerning document should be mailed:	7. Total fee (37 CFR 3.41): \$ 40.00
Name: Robert Kevin Perkins	[] Authorized to be charge by credit card
Internal Address: EMC Corporation	[X] Authorized to be charged to deposit account [] Enclosed
Office of the General Counsel	[] Enclosed [] None required (government interest not affecting title)
Street Address: 176 South Street	8. Payment Information
City: Hopkinton State: MA Zip: 01748	a. Credit Card Last 4 Numbers Expiration Date
Phone Number: (508) 293-6985	
Fax Number: (508) 293-7189	b. Deposit account number 05-0889
Email Address: Perkins_RKevin@emc.com	Authorized User Name Robert Kevin Perkins
9. Signature: Robert Re Let	A secola scar
Signature	Date
Robert Kevin Perkins Name of Person Signing	Total number of pages including cover sheet, attachments, and documents: []
Documents to be recorded (including cover sheet) sho	ould be faxed to (703) 306-5995, or mailed to:

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PATENT

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ASSIGNMENT

WHEREAS, we, Fernando Oliveira, Bradford B. Glade, Jeffrey A. Brown, Peter J.

McCann, David Harvey, James A. Wentworth, III, Walter M. Cariti, Matthew Waxman and Lee

W. VanTine 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

SYSTEM AND METHOD FOR MANAGING STORAGE NETWORKS AND PROVIDING

VIRTUALIZATION OF RESOURCES IN SUCH A NETWORK, 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 March 26, 2004 as U.S. Application No. 10/810,988;	
[]	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

PATENT REEL: 017210 FRAME: 0840

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: $\left(\frac{123}{64}\right)$	Tend of liver
	Inventor's Signature
Print full name of first inventor:	Fernando Oliveira
Residence:	72 River Ridge, Sudbury, MA 01776
Citizenship:	USA
Mailing Address:	Same as above
STATE/COMMONWEALTH OF M	assachuse et
COUNTY OF $igthappa$	a felv
, ,	V
On this 28 day of hine	, 2004, then personally appeared before me the
aboye-named Fernando Oliveira known	to me through satisfactory evidence of identification
employee identification card; [_] di	river's license; [] (other) be the person whose name is subscribed to the
foregoing Assignment and acknowledged deed for the purposes therein contained.	I that he/she executed the same as his/her free act and
purposes more semante.	. 0
	Tholan Kleduca
	Notary Public
	Print Name: Linda M. Deluca
	My Commission expires $\partial / 15/\partial 11$

deed for the purposes therein contained.

PATENT/Joint Assignment EMC Docket No.: EMC-02-119CIP1

Date: 6/23/04	Enford B. Line
	Inventor's Signature
Print full name of second inventor:	Bradford B. Glade
Residence:	109 East Bare Hill Road, Harvard, MA 01451
Citizenship:	USA
Mailing Address:	Same as above
STATE/COMMONWEALTH OF MCANCLUDERS	
above-named Bradford B/Glade known to me [v] employee identification card; [vi driver to be the content of the	2004, then personally appeared before me the through satisfactory evidence of identification s license; [] (other) he person whose name is subscribed to the he/she executed the same as his/her free act and

Notary Public
Print Name: Linda M. Deluca

My Commission expires 2 / 15 / 2011

Date: 7/22/04	Jeffrez a Brown	
	V V V Inventor's Signature	
Print full name of third inventor:	Jeffrey A. Brown	
Residence:	3 Birch Brush Road, Shrewsbury, MA 01545	
Citizenship:	USA	
Mailing Address:	Same as above	
STATE/COMMONWEALTH OF MAN	cuter	
On this 22nd day of, 2004, then personally appeared before me the above-named Jeffrey A. Brown 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.		

NANCY J. FORRISTER Notary Public My Commission Expires March 7, 2008

My Commission expires <u>13</u>/ <u>07</u>/ <u>30</u>24

-4-

Date: 7/22/04	_ Por 1 Mrc
	Inventor's Signature
Print full name of fourth inventor:	Peter J. McCann
Residence:	590 Valley Road, Manson, NH 03048
Citizenship:	USA
Mailing Address:	Same as above
STATE/COMMONWEALTH OF COUNTY OF	Massachusetts Francestu
On this	
foregoing Assignment and acknowled deed for the purposes therein contains	to be the person whose name is subscribed to the ged that he/she executed the same as his/her free act and ed.
	Hance Jarrester
	Print Name: Nancy J. Forester
	My Commission expires 03/07/2008

NANCY J. FORRISTER Notary Public My Commission Expires March 7, 2008

Date: 7-23-2004

Inventor signature

Print full name of fifth inventor:

David Harvey

Residence:

36 Pine Crest Road, Newton, MA 02459

Citizenship:

USA

Mailing Address:

Same as above

STATE/COMMONWEALTH OF

COUNTY OF

Massachusetts Francister

On this _________, 2004, then personally appeared before me the above-named ________ 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 03/ 07/ 2008

NANCY J, FORRISTER
Notery Public
My Commission Expires
March 7, 2008

Print full name of sixth inventor:

James A. Wentworth, III

Residence:

10 Leblanc Road, Shrewsbury, MA 01545

Citizenship:

USA

Mailing Address:

Same as above

STATE/COMMONWEALTH OF

COUNTY OF

_, 2004, then personally appeared before me the above-named James A. Mentworth, III known to me through satisfactory evidence of identification [\(\sqrt{} \)] employee identification card; [__] driver's license; [__] (other) Tanes A. Jontanan 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.

Print Name: LIACA

My Commission expires 2 / 18 / 2011

Date:

Print full name of seventh inventor:

Walter M. Caritj

Residence:

32 R Hill Road, Medway, MA 02053

Citizenship:

USA

Mailing Address:

Same as above

STATE/COMMONWEALTH OF

COUNTY OF

___, 2004, then personally appeared before me the above-named Walter M. Cariti known to me through satisfactory evidence of identification [/] employee identification card; [__] driver's license; [__] (other)

Walter M. Cariti 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.

Print Name: _

My Commission expires $\frac{\partial}{\partial t} / \frac{\partial}{\partial t} / \frac{\partial}{\partial t}$

Print full name of eighth inventor:

Matthew Waxman

Residence:

1405 Beacon Street, Apt. 1, Brookline, MA 02446

Citizenship:

Canada

Mailing Address:

Same as above

STATE/COMMONWEALTH OF

COUNTY OF

, 2004, then personally appeared before me the above-named Matthew Waxman known to me through satisfactory evidence of identification

[_____ employee identification card; [___] driver's license; [___] (other)

Matthe Daxnan 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.

My Commission expires A / A / 2011

Print Name: Linda N. Delvec

My Commission expires 2 / 18 / 2011

PATENT/Joint Assignment EMC Docket No.: EMC-02-119CIP1

Date: 6-23-2004	- Ly W. Vinfer	
	Inventor's Signature	
Print full name of ninth inventor:	Lee W. VanTine	
Residence:	7 Tower Hill Road, Oxford, MA 01540	
Citizenship:	USA	
Mailing Address:	Same as above	
On this day of, 2004, then personally appeared before me the above-named Lee W. Vantime known to me through satisfactory evidence of identification [] 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	

-10-

PATENT REEL: 017210 FRAME: <u>084</u>9