<b>FORM PTO-1595</b>
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Attorney Customer Number: 22,852

EMC Reference No. 02-119-(CIP1)CIP3

**U.S.** Department of Commerce

**Patent and Trademark Office** Attorney Docket No. 09646.0010

103270364 To the Director of the U.S. Patent and **Mail Stop Assignment Recordation Services** 

Please	record the attached original documents or copy thereor.	
1.	Name of conveying party(ies): (1) Prakash VENKATANARAYANAN,	Name and address of receiving party(ies):
	(2) Harold M. SANDSTROM, (3) Cesareo CONTRERAS (4) Cynthia J. BURNS, and (5) Matthew D. WAXMAN	Name: EMC Corporation
Addition	nal name(s) of conveying party(ies) attached?   Yes   No	Internal OS
3.	Nature of conveyance:	Street Address: 176 South Street
$\boxtimes$	Assignment	City: Hopkinton
	Security	State: Massachusetts Zip Code: 01748
	Other:	Additional name(s) & Address(es) attached?
Executi	on Date: (1) June 26, 2006, (2) June 22, 2006, (3) June 23, 2006, (4) June 26, 2006, and (5) June 27, 2006	☐ Yes
4.	Application number(s) or patent number(s): If this document is be the application:  (1) June 26, 2006, (2) June 22, 2006, (3) June 23, 20	
Α.	Patent Application Number(s):	B. Patent Number(s):
	Additional numbers attached?	☐ Yes
5.	Name and address of party to whom correspondence concerning document should be mailed:	Total number of applications and registrations involved: 1
Name:	Anthony J. Lombardi	7. Total fee (37 CFR 3.41): \$40
		Enclosed (Please charge deficiency to deposit account)
		Authorized to be charged to deposit account
	Address: FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.	
Street A	Address: 901 New York Avenue, N.W.	
City:	Washington, D.C.	
State:	Zip: 20001-4413	8. 0776872866 ERANTEIN OBBBBB99916 476887
9.	Statement and signature.	04 FC:8021 (40.00 OP
To the b	pest of my knowledge and belief, the foregoing information is true $\epsilon$ ant.	and correct and any attached copy is a true copy of the original
	Anthony J. Lombardi	June 29, 2006
	Reg No. 53,232 Signat	ture Date
	Total number of pages including cover sheet, a	attachments and documents: 7

**PATENT** REEL: 018062 FRAME: 0012

## ASSIGNMENT

WHEREAS, we, Prakash Venkatanarayanan, Harold M. Sandstrom, Cesareo Contreras, Cynthia J. Burns, and Matthew D. Waxman 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 SYSTEMS AND METHODS FOR MANAGING VIRTUALIZED LOGICAL UNITS USING VENDOR SPECIFIC STORAGE ARRAY **COMMANDS**, the specification of which:

[X]	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	
		nafter "ASSIGNEE"), a corporation organized and	

d 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: 018062 FRAME: 0013

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: June 26, 2006	Ulrakery		
	Inventor's Signature		
Print full name of first inventor:	Prakash Venkatanarayanan		
Residence:	Milford, MA		
Citizenship:	India		
Mailing Address:	15 Alfred Road, #H, Milford, MA 01757		
On this Alay of Ore			
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: Linds N. Delives  My Commission expires 2/18/2011		

-2-

Date: Harold M. Sandstrom Print full name of second inventor: Residence: Belmont, MA United States Citizenship: Mailing Address: 59 Slade Street, Belmont, MA 02478 Massachusetts STATE/COMMONWEALTH OF COUNTY OF On this 27rd day of John, 20006, then personally appeared before me the above-named Horold M. Sandshow 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. Maleua AMun

Notary Public

Print Name: MM My Commission expires 3 / 22 / 67

Date: 06/23/06	- Mesury Waters	
	Inventor's Signature	
Print full name of third inventor:	Cesareo Contreras	
Residence:	Northbridge, MA	
Citizenship:	United States	
Mailing Address:	24 Brookway Drive, Northbridge, MA 01534	
STATE/COMMONWEALTH OF COUNTY OF	Massachusens	
On this day of d	, 200, then personally appeared before me the known to me through satisfactory evidence of ication 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.		
	Print Name: Linda M. DeLuca	
	My Commission expires 2 / 18 / 2011	
	LINDA M. DeLUCA Notary Public Commonwealth of Massachusetts My Commission Expires FEBRUARY 18, 2011	

-4-

Date: June 26, 2006	Civita 1 B	
U	Inventor's Signature	
Print full name of fourth inventor:	Cynthia J. Burns	
Residence:	Franklin, MA	
Citizenship:	United States	
Mailing Address:	14 Amy's Way, Franklin, MA 02038	
STATE/COMMONWEALTH OF COUNTY OF COUN		
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.		
(	Notar Public  Print Name: Linda W. Del va  My Commission expires 2 / 18 / 2011	

Date: $6/27/0.6$	last UZ	
	Inventor's Signature	
Print full name of fifth inventor:	Matthew D. Waxman	
Residence:	Waltham, MA	
Citizenship:	Canada	
Mailing Address:	218 South Street, Unit 10, Waltham, MA 02453	
STATE/COMMONWEALTH OF Mas COUNTY OF Miss	sachuse to Idlesex.	
On this 27 day of Jule, 2006, then personally appeared before me the above-named Matthew. D. Waxmanknown to me through satisfactory evidence of identification [ Jemployee identification card; [ J 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: RACHEL H. GUCKMAN	
	My Commission expires 11 /17 / 2011	

**RECORDED: 06/29/2006**