502129696 11/15/2012

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Aaron T. Smith	10/22/2012
Edward Brennan	10/22/2012
Keith Meyer	10/22/2012
Adnan Sahin	10/12/2012
Mark Nadler	10/22/2012
John O. Williams II	10/20/2012
Jesse D. Keefe	10/20/2012

RECEIVING PARTY DATA

Name:	EMC Corporation
Street Address:	176 South Street
City:	Hopkinton
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13632055

CORRESPONDENCE DATA

502129696

Fax Number: 5167599512

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 516-759-2722

nyoffice@rml-law.com Email: Correspondent Name: Joseph B. Ryan Address Line 1: 90 Forest Avenue

Address Line 2: Ryan, Mason & Lewis, LLP Address Line 4: Locust Valley, NEW YORK 11560

ATTORNEY DOCKET NUMBER: EMC-12-570

REEL: 029301 FRAME: 0920

PATENT

NAME OF SUBMITTER:	Joseph B. Ryan
Total Attachments: 8 source=4414-176_ASM#page1.tif source=4414-176_ASM#page2.tif	
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PATENT REEL: 029301 FRAME: 0921

ASSIGNMENT

WHEREAS, we, Aaron T. Smith, Edward Brennan, Keith Meyer, Adnan Sahin, Mark Nadler, John O. Williams, II and Jesse D. Keefe, 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 AUTOMATED STORAGE PROVISIONING AND MANAGEMENT USING A CENTRALIZED DATABASE, 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 September 30, 2012 as U.S. Application No. 13/632,055;
[]	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

PATENT REEL: 029301 FRAME: 0922 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.

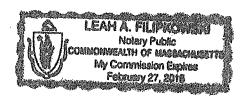
IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

Date: 16/22/12	am J. Ing
	Inventor's Signature
Print full name of first inventor:	Aaron T. Smith
Residence:	Sudbury, Massachusetts
Citizenship:	United States of America
Mailing Address:	45 White Oake Lane
	Sudbury, Massachusetts 01776
STATE/COMMONWEALTH OF MCOUNTY OF COUNTY OF	OSSAMUSEHS LICHESOX , 2012, then personally appeared before me the
above-named Aaron T. Smith known to me employee identification card; [X] driver's	e through satisfactory evidence of identification [] license; [X] (other) to be e foregoing Assignment and acknowledged that he/she
	Hon a Jolephansia Notary Public
Beautin	Print Name: Lach A. Filipkauski My Commission expires 2/27/15
A MY JOURNONWEALTH O	ILIPKOWSKI V Public IF MASSACHUSETTS sion Expires

PATENT REEL: 029301 FRAME: 0923

PATENT/Joint Assignment Attorney Docket No.: EMC-12-570

Date: 10-22-2012	Edward C. D. E. Inventor's Signature
	Inventor's Signature
Print full name of second inventor:	Edward Brennan
Residence:	Scituate, Massachusetts
Citizenship:	United States of America
Mailing Address:	114 Clapp Road
	Scituate, Massachusetts 02066
above-named Edward Brennan known employee identification card; [X] dri the person whose name is subscribed	Massachusetts Middle sex



PATENT/Joint Assignment Attorney Docket No.: EMC-12-570

Date: $10/22/2012$	_ All Min
, /	Inventor's Signature
Print full name of third inventor:	Keith Meyer
Residence:	Southborough, Massachusetts
Citizenship:	United States of America
Mailing Address:	61 Pine Hill Road
	Southborough, Massachusetts 01772
STATE/COMMONWEALTH OF COUNTY OF	Massachusetts Middlesex
above-named Keith Meyer known to employee identification card; [X] drittle person whose name is subscribed	
	Span a Glynaushi
	Notary Public
	Print Name: Llan A. himkwold
	My Commission expires 2/27/15
	LEAH A. FILIPKOWSKI Notary Public COMMONWEALTH OF MASSACHUSETTS My Commission Expires February 27, 2015

PATENT/Joint Assignment Attorney Docket No.: EMC-12-570

Date: 10/12/12	Solver Si
	Inventor's Signature
Print full name of fourth inventor:	Adnan Sahin
Residence:	Needham, Massachusetts
Citizenship:	United States of America
Mailing Address:	140 Pine Grove Street
L	Needham, Massachusetts 02494
STATE/COMMONWEALTH OF COUNTY OF	Passachusetts Middlesly
above-named Adnan Sahin known to me the employee identification card; driver's	, 20
	Manay E. Buck
	Notary Public (
	Print Name: Nancy E Buck
	My Commission expires 8/11/2017

Date: _/0 -22 - 12	Monde	
	Inventor's Signature	
Print full name of fifth inventor:	Mark Nadler	
Residence:	Westborough, Massachusetts	
Citizenship:	Canada	
Mailing Address:	1 Gable Ridge Road	
	Westborough, Massachusetts 01581	
above-named Mark Nadler known to memployee identification card; Aldrive the person whose name is subscribed to	MQSSQCh USE HS MUGUSEX , 20, then personally appeared before me the me through satisfactory evidence of identification [
one care and same as morner need act an	Glan a Flephaeski	
Notary Public Print Name: LON A. The Course My Commission expires 2/21/15		
LEAH A. FILIPKOWSM Notary Public My Commission Expires February 27, 2015		

PATENT/Joint Assignment Attorney Docket No.: EMC-12-570

Date: October lo, 2012	Sha Deva a Mant	
	Inventor's Signature	
Print full name of sixth inventor:	John O. Williams, II	
Residence:	Florence, Kentucky	
Citizenship:	United States of America	
Mailing Address:	310 Roberta Avenue	
	Florence, Kentucky 41042	
STATE/COMMONWEALTH OF COUNTY OF	Brone Brone	
On this 20 day of 000 , 2017, then personally appeared before me the above-named John O. Williams, II 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 ne/she executed the same as his/her free act and deed for the purposes therein contained.		
ence lufe		
	Notary Public U	
	Print Name: Jessica Prese	
	My Commission expires 4/13/16	

PATENT/Joint Assignment Attorney Docket No.: EMC-12-570

Date: October 20, 2012	
Print full name of seventh inventor: Residence: Citizenship: Mailing Address:	Inventor's Signature Jesse D. Keefe Florence, Kentucky United States of America 1337 Ashford Drive
STATE/COMMONWEALTH OF COUNTY OF	Florence, Kentucky 41042 Hentucky Doone
employee identification card; drive the person whose name is subscribed to	