502366644 05/31/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Michael W. Healey	12/23/2008
J. Michael Dunbar	12/22/2008
Avinash Kallat	12/29/2008
Michael Craig Fishman	12/22/2008

RECEIVING PARTY DATA

Name:	EMC Corporation
Street Address:	176 South Street
Internal Address:	Office of the General Counsel
City:	Hopkinton
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13447048

CORRESPONDENCE DATA

Fax Number: 5082937189

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

Phone: 508-293-6985

Email: docketing@emc.com

Correspondent Name: Robert Kevin Perkins

Address Line 1: 176 South Street

Address Line 2: Office of the General Counsel

Address Line 4: Hopkinton, MASSACHUSETTS 01748

ATTORNEY DOCKET NUMBER:	EMC-08-218CON1
NAME OF SUBMITTER:	Robert Kevin Perkins
	PATENT

502366644 REEL: 030519 FRAME: 0495

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Signature:	/Robert Kevin Perkins/
Date:	05/31/2013
Total Attachments: 5 source=EMC-08-218CON1-Assignment#pa source=EMC-08-218CON1-Assignment#pa source=EMC-08-218CON1-Assignment#pa source=EMC-08-218CON1-Assignment#pa source=EMC-08-218CON1-Assignment#pa	ge2.tif ge3.tif ge4.tif

PATENT REEL: 030519 FRAME: 0496

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I the undersigned Assignor hereby:

- 1. Sell, assign and transfer to EMC Corporation, a Massachusetts Corporation having a place of business at 176 South Street; Hopkinton, Massachusetts 01748, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed Concurrently Herewith, bearing Attorney Docket No. E0295.70355US00, and entitled METHOD AND APPARATUS FOR BLOCK LEVEL DATA DE-DUPLICATION, and in and to said application and all corresponding provisional, non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to Japan and Korea, on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on said inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for Japan and Korea;
- 2. Agree that said Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for said inventions in its own name; and when requested, without charge to but at the expense of said Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said Assignee all facts known to me relating to said inventions and the history thereof, and generally by doing everything reasonably possible which said Assignee shall consider desirable for aiding in securing and maintaining proper protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said Assignee;
- 3. Request the Honorable Director of the United States Patent and Trademark Office to issue said Letters Patent to said Assignee;
- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;
- 5. Covenant with said Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
- 6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

1556083.1

Citizenship: US
STATE/COMMONWEALTH OF MUSSACHUSEHS COUNTY OF MID ALLES OX:
COUNTY OF Middlesex:
On this 23rd day of December, 2008, before me, the undersigned notary public,
personally appeared Michael W. Healey , proved to me through satisfactory evidence of
identification, which were <u>emc badge 1d</u>
to be the person who signed the preceding or attached document in my presence and swore or affirmed
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge
and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.
DA int in D. D.
SEAL Kristina a White Notary Public
Notary Public
My commission expires: <u>August 25 2011</u>
KRISTINA G WHITE

Inventor: Michael W. Healey

North Grosvenordale, CT 06255

Address: 3 Plum Road

12/22/08	and the
Date / / Inventor	: J Michael Dunbar
Address	: 15 Carriage Drive
	Brimfield, MA 01010
Citizenship	: US
,	
STATE/COMMONWEALTH OF MUSSICHUS.	
On this 22nd day of Detember, 20 personally appeared Michael J. Dunbar identification, which were Emc badge to be the person who signed the preceding or attached	by F, before me, the undersigned notary public, _, proved to me through satisfactory evidence of
to be the person who signed the preceding or attached to me that the contents of the document are truthful and and belief and acknowledged to me that (he) (she) sign	d accurate to the best of (his) (her) knowledge
SEAL Kristina a la Notary Public	
My commission expires: <u>August 2</u>	<u>5 3</u> 011
	KRIGHNA A. WHITE Nothing Public Mother Public Mother Mediachisetts Gunnmiesium Expires August 25, 2011

STATE/COMMONWEALTH OF Massachuse Tts COUNTY OF Warrester:
poorces fer.
On this 29th day of December, 2008, before me, the undersigned notary public,
personally appeared Avinash Kallat , proved to me through satisfactory evidence of
identification, which were Massachusetts Drivers Liceuse
to be the person who signed the preceding or attached document in my presence and swore or affirmed
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge
and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.
SEAL Juitte S. Kelley Notary Public
My commission expires: May 5, 2011
LINETTE S. KELLEY Notary Public Commonwearth of Massachusetts My Commission Expires May 5, 2011

Citizenship: India

Inventor: Avinash Kallat

Address: 109C Crystal Brook Way

Marlborough, MA 01752

12-22-2008	
	Michael Craig Eishman
Address:	20 Walnut Drive
	Southboro, MA 01745
Citizenship:	US
STATE/COMMONWEALTH OF MUSSACHUS COUNTY OF MICHALESET: On this Jana day of December, 200	F, before me, the undersigned notary public,
personally appeared Michael Craig Fishman	_, proved to me through satisfactory evidence of
to be the person who signed the preceding or attached d	, legument in my present and a series of
to me that the contents of the document are truthful and and belief and acknowledged to me that (he) (she) signed	accurate to the best of (his) (her) knowledge
SEAL Kustina a. Notary Public	White
My commission expires: <u>August</u> 2	
Kristina a. W. N.Jary Public My Cummission E August 25, 20	achusetts Expires