505330321 02/14/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MOSES CHARIKAR	09/03/2013
DEEPA RAMAKRISHNA	09/03/2013

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:	16276411

CORRESPONDENCE DATA

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Correspondent Name: VAN PELT, YI & JAMES LLP AND EMC IP HOLDING COMPA

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ATTORNEY DOCKET NUMBER:	DDOMP054AC2	
NAME OF SUBMITTER:	DANIEL SCHNEIDER	
SIGNATURE: /Daniel M. Schneider/		
DATE SIGNED:	02/14/2019	

Total Attachments: 3

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PATENT 505330321 REEL: 048340 FRAME: 0032

PATENT/Joint Assignment Attorney Docket No.: DDOMP054 EMC Docket No.: EMC-13-0241(PRO)ORD1

ASSIGNMENT

WHEREAS, we, Moses Charikar and Deepa Ramakrishna 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 LOSSLESS COMPRESSION OF FRAGMENTED IMAGE DATA, 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 June 30, 2013 as U.S. Application No. 13/931,985;
	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 the execution of applications for patents in foreign countries, and the execution of substitution,

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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: 9/3/13	drankage-
	Inventor's Signature
Print full name of first inventor:	Moses Charikar
Residence:	Princeton, NJ
Citizenship:	United States
Mailing Address:	176 South Street, Hopkinton, MA 01748
STATE/COMMONWEALTH OF COUNTY OF	New Jersey Mercer
Then personally appeared before me the acknowledged that he/she executed the form of the day of Seplember 20	oregoing instrument as his/her free act and deed this
	Notary Public
	Print Name: Ruch See
	My Commission expires//
	RICHARD J SEERY JR Notary Public State of New Jersey My Commission Expires Aug. 30, 2015

PATENT/Joint Assignment

Attorney Docket No.: DDOMP054

EMC Docket No.: EMC-13-0241(PRO)ORD1

Date: $\frac{9/3/2 \circ 13}{}$	Inventor's Signature
Print full name of second inventor:	Deepa Ramakrishna
Residence:	Princeton, NJ
Citizenship:	India
Mailing Address:	176 South Street, Hopkinton, MA 01748
STATE/COMMONWEALTH OF N	ercec .
Then personally appeared before me the about acknowledged that he/she executed the forest day of	toing instrument as his/her free act and deed this
	Notary Public
	Print Name: PICA Seeral
	My Commission expires FICHARD J SEERY JR Notary Public State of New Jersey My Commission Expires Aug. 20, 2015

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RECORDED: 02/14/2019