503608679 12/11/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3655310

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHENG LI	12/05/2015
PHILIP SHILANE	12/07/2015
GRANT WALLACE	12/05/2015
FREDERICK DOUGLIS	12/07/2015

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:	14966637

CORRESPONDENCE DATA

Fax Number: (408)973-2595

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 408-973-2585

Email: enguyen@ip-patent.com

VAN PELT, YI & JAMES LLP AND EMC CORPORA **Correspondent Name:**

10050 N. FOOTHILL BLVD. Address Line 1:

Address Line 2: SUITE 200

Address Line 4: CUPERTINO, CALIFORNIA 95014

ATTORNEY DOCKET NUMBER:	EMCCP497
NAME OF SUBMITTER:	WILLIAM J. JAMES
SIGNATURE:	/william j. james/
DATE SIGNED:	12/11/2015

Total Attachments: 6

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PATENT REEL: 037276 FRAME: 0132

ASSIGNMENT

WHEREAS, we, Cheng Li, Philip Shilane, Grant Wallace, and Frederick Douglis 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 FLASH CACHE THROTTLING TO CONTROL ERASURES, 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 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,

PATENT REEL: 037276 FRAME: 0133

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:

EMC Docket No.: EMC-15-0386(PRO)ORD3

Date: 5-Dec - 2015	Cheny C'	
	Inventor's Signature	
Print full name of first inventor:	Cheng Li	
Residence:	Palo Alto, CA	
Citizenship:	People's Republic of China	
Mailing Address:	176 South Street	
	Hopkinton, MA 01748	
STATE OF COUNTY OF Santa Clara		
On this		
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.		
WITNESS my hand and official seal.		
MARK ALLEN JAMES Mark Afair		
COMM. #2101001 Q	Notary Public	
NOTARY PUBLIC - CALIFORNIA SANTA CLARA COUNTY My Commission Expires 02/22/2019	Print Name: Mark A James	
71111111111111111111111111111111111111	My Commission expires <u>212121</u>	
Date: 5-Dec-2015	Chenyli	
	Inventor's Signature	

Dec 7. zers Date: Philip Shilane Print full name of second inventor: Residence: Newtown, PA Citizenship: United States of America Mailing Address: 176 South Street Hopkinton, MA 01748 STATE/COMMONWEALTH OF COUNTY OF Then personally appeared before me the above-named Philip Shilane and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this _______ day of Acombo , 20 15.

COMMONWEALTH OF PENNSYLVANIA

My Commission expires 2/20/

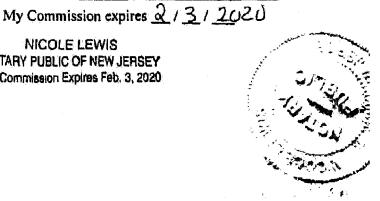
NOTARIAL SEAL ADINA APRIL SCARIANO, NOTARY PUBLIC NEWTON TWP, BUCKS COUNTY MY COMMISSION EXPIRES AUG. 10, 8019

Date: Dec. 5, 2015	At Wallen Inventor's Signature
Print full name of third inventor;	Grant Wallace
Residence:	Pennington, NJ
Citizenship;	United States of America
Mailing Address:	176 South Street
	Hopkinton, MA 01748
STATE/COMMONWEALTH OF COUNTY OF	Hercer Jerson
	e the above-named <u>Grant Wallace</u> and acknowledged that ament as his/her free act and deed this <u>5th</u> day of

NICOLE LEWIS NOTARY PUBLIC OF NEW JERSEY My Commission Expires Feb. 3, 2020

Notary Public

Print Name:



Date: Dec 7. 2015 Frederick Douglis Print full name of fourth inventor: Residence: Basking Ridge, NJ Citizenship: United States of America Mailing Address: 176 South Street Hopkinton, MA 01748 STATE/COMMONWEALTH OF **COUNTY OF** Then personally appeared before me the above-named Frederick Douglis and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this _____ day of 6) - 12, 20 VS. Notary Public

Print Name: /

My Commission expires

1

AHMED JAMA Notary Public State of New Jersey

My Commission Expires Nov. 9, 2020 I.D.# 2257754

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