

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT														
NATURE OF CONVEYANCE:	ASSIGNMENT														
CONVEYING PARTY DATA															
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>HYONG SHIM</td> <td>10/08/2013</td> </tr> <tr> <td>STEPHEN SMALDONE</td> <td>10/08/2013</td> </tr> <tr> <td>GRANT R. WALLACE</td> <td>10/08/2013</td> </tr> <tr> <td>FREDERICK DOUGLIS</td> <td>10/08/2013</td> </tr> <tr> <td>WINDSOR W. HSU</td> <td>10/08/2013</td> </tr> <tr> <td>PHILIP N. SHILANE</td> <td>10/08/2013</td> </tr> </tbody> </table>		Name	Execution Date	HYONG SHIM	10/08/2013	STEPHEN SMALDONE	10/08/2013	GRANT R. WALLACE	10/08/2013	FREDERICK DOUGLIS	10/08/2013	WINDSOR W. HSU	10/08/2013	PHILIP N. SHILANE	10/08/2013
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PHILIP N. SHILANE	10/08/2013														
RECEIVING PARTY DATA															
Name:	EMC CORPORATION														
Street Address:	176 SOUTH STREET														
City:	HOPKINTON														
State/Country:	MASSACHUSETTS														
Postal Code:	01748														
PROPERTY NUMBERS Total: 1															
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14038687</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14038687										
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Application Number:	14038687														
CORRESPONDENCE DATA															
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<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>															
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ATTORNEY DOCKET NUMBER:	6368P080F3														
NAME OF SUBMITTER:	HUI (HARRY) WANG														

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Signature:	/Hui Wang/
Date:	10/22/2013
Total Attachments: 4 source=6368P080F3_Assignment#page1.tif source=6368P080F3_Assignment#page2.tif source=6368P080F3_Assignment#page3.tif source=6368P080F3_Assignment#page4.tif	

ASSIGNMENT OF PATENT APPLICATION

Attorney Docket No.: 6368P080F3

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Hyong Shim, Stephen Smaldone, Grant R. Wallace, Frederick Douglis, Windsor W. Hsu and Philip N. Shilane

hereby sell, assign, and transfer to EMC CORPORATION

a corporation of Delaware,
(Type of Assignee: e.g., corporation, company, partnership, university, etc.)

having a principal place of business at 176 SOUTH STREET, HOPKINTON, MA 01748

("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

FILE INDEXING USING AN EXCLUSION LIST OF A DEDUPLICATED CACHE SYSTEM OF A STORAGE SYSTEM,

said patent application also identified as follows (when known):

[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]

United States Patent Application Number 14/038,687 filed September 26, 2013,

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or

improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

_____, 20____
Date Signature

Hyong Shim
Printed/Typed Name

_____, 20____
Date Signature

Stephen Smaldone
Printed/Typed Name

_____, 20____
Date Signature

Grant R. Wallace
Printed/Typed Name

_____, 20____
Date Signature

Frederick Douglass
Printed/Typed Name

10/8, 2013
Date Signature

Windsor W. Hsu
Printed/Typed Name

_____, 20____
Date Signature

Philip N. Shilane
Printed/Typed Name

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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