

## PATENT ASSIGNMENT

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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>Philip Shilane</td> <td>03/01/2013</td> </tr> <tr> <td>Grant Wallace</td> <td>03/01/2013</td> </tr> </tbody> </table>		Name	Execution Date	Philip Shilane	03/01/2013	Grant Wallace	03/01/2013
Name	Execution Date						
Philip Shilane	03/01/2013						
Grant Wallace	03/01/2013						
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>13786270</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13786270		
Property Type	Number						
Application Number:	13786270						
CORRESPONDENCE DATA							
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Total Attachments: 2 source=P054 Assignment signed#page1.tif source=P054 Assignment signed#page2.tif							

CH \$40.00 13786270

**ASSIGNMENT OF PATENT APPLICATION**

Attorney Docket No.: 6988P054

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Philip Shilane and Grant Wallace

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 METADATA OPTIMIZATION FOR NETWORK REPLICATION USING REPRESENTATIVE OF METADATA BATCH

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 13/786,270 filed 3/5/2013

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

