

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

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>Nicholas Michael Ryan</td> <td>03/21/2013</td> </tr> <tr> <td>Krishna Yadappanavar</td> <td>03/22/2013</td> </tr> <tr> <td>Prasanna Aithal</td> <td>03/22/2013</td> </tr> <tr> <td>Sunil Satnur</td> <td>03/22/2013</td> </tr> </tbody> </table>		Name	Execution Date	Nicholas Michael Ryan	03/21/2013	Krishna Yadappanavar	03/22/2013	Prasanna Aithal	03/22/2013	Sunil Satnur	03/22/2013
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>VMware, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>3401 Hillview Avenue</td> </tr> <tr> <td>City:</td> <td>Palo Alto</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>94304</td> </tr> </table>		Name:	VMware, Inc.	Street Address:	3401 Hillview Avenue	City:	Palo Alto	State/Country:	CALIFORNIA	Postal Code:	94304
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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>13849249</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13849249						
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CORRESPONDENCE DATA											
<p>Fax Number: 650-427-48  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 650-427-1049        Email: ipadmin@vmware.com</p> <p>Correspondent Name: VMWARE, INC.        Address Line 1: DARRYL SMITH        Address Line 2: 3401 Hillview Ave.        Address Line 4: PALO ALTO, CALIFORNIA 94304</p>											
ATTORNEY DOCKET NUMBER:	B091										
NAME OF SUBMITTER:	Rodney C. LeRoy										
Total Attachments: 5											

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## ASSIGNMENT

### ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, we, the ASSIGNORS named below,

Ryan, Nicholas Michael	of	Palo Alto, California
Yadappanavar, Krishna	of	Sunnyvale, California
Aithal, Prasanna	of	Palo Alto, California
Satnur, Sunil	of	Palo Alto, California

hereby sell, assign, transfer and set over to

ASSIGNEE: VMware, Inc., a Delaware corporation, having a principal place of business at 3401 Hillview Avenue, Palo Alto, California 94304, U.S.A. (VMware), its successors, assigns and legal representatives,

our entire right, title and interest throughout the world, including all rights to claim priority, in and to the inventions disclosed in:

- \_\_\_ U.S. Patent Application executed on or about the date of this Assignment,
- \_\_\_ U.S. Patent Application No.: \_\_\_\_\_, filed on \_\_\_\_\_;
- \_\_\_ U.S. Provisional Application No.: \_\_\_\_\_, filed on \_\_\_\_\_;
- \_\_\_ International Application No.: PCT/\_\_\_\_\_, filed on \_\_\_\_\_;

and

ENTITLED: IMPROVING STORAGE PERFORMANCE BY HEURISTICALLY COALESCING IO REQUESTS

and identified by Attorney Docket Number: B091

and naming inventors as follows:

INVENTORS: Ryan, Nicholas Michael; Yadappanavar, Krishna; Aithal, Prasanna; Satnur, Sunil

including without limitation, our entire right, title and interest in and to any and all United States and foreign applications (including any and all provisional, international, regional and foreign national applications) for said inventions, including divisionals, continuations, continuations-in-part, renewals, substitutes and extensions thereof, and in and to any and all patents of every country or region that may be granted or have been granted for said inventions, including any reissues and reexaminations thereof –the foreign applications including, without limitation, all applications for patents, utility models and designs which may hereafter be filed for the inventions in any country or countries foreign to the United States, and all forms of industrial property protection, including, without limitation, patents,

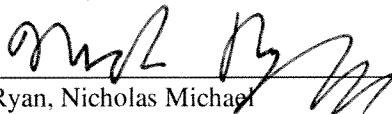
## ASSIGNMENT

We authorize ASSIGNEE to apply for patents of foreign countries for said inventions; to claim all rights of priority without further authorization from me, which priority rights include rights derived from any United States application (provisional or otherwise) under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and to own in its own name all applications, all patents and inventor's certificates in all countries based on the inventions.

We agree to execute any and all documents requested by ASSIGNEE, its successors, assigns, legal representatives, or nominees, at their reasonable expense, in connection with filing and prosecution of any and all United States and foreign applications (including international, regional, and foreign national applications), enforcement of all patents, and maintenance of all rights in the inventions, patents, inventor's certificates and applications for patents or inventor's certificates based on any of the inventions; and generally to do everything possible to aid ASSIGNEE, its successors, assigns, legal representatives, and nominees, at their request and reasonable expense, in obtaining, enforcing, and maintaining patents and inventor's certificates for said inventions in all countries. In particular, we agree to provide to ASSIGNEE, its successors, assigns, legal representatives, or nominees, at their request and at their reasonable expense, all information known to or ascertainable by us and all documents and other materials and objects pertaining to the inventions that are in the possession of or accessible to me; and further, at any trial, hearing, deposition or other legal proceeding where we are called as a witness by ASSIGNEE, its successors, assigns, legal representatives, or nominee, we agree to testify to all facts pertaining to the inventions for which we are competent to testify.

We hereby covenant that we have full right to convey the entire interest that is being assigned by this Assignment, and that no assignment, sale, license, agreement, or encumbrance has been or will be made or entered into that would conflict with this Assignment.

We authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue any U.S. Letters Patent or any other patent or property right that may be granted for said inventions to ASSIGNEE, its successors or assigns.

Executed on 3/21/13, by   
Date Ryan, Nicholas Michael

Executed on \_\_\_\_\_, by \_\_\_\_\_  
Date Yadappanavar, Krishna

Executed on \_\_\_\_\_, by \_\_\_\_\_  
Date Aithal, Prasanna

Executed on \_\_\_\_\_, by \_\_\_\_\_  
Date Satnur, Sunil

**ASSIGNMENT**

utility models, inventor's certificates and designs which may be granted for the inventions in any country or countries foreign to the United States and all extensions, renewals and reissues thereof.

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Executed on \_\_\_\_\_, by \_\_\_\_\_

Date

Ryan, Nicholas Michael

Executed on 03/22/2013, by K. S. Yadappanavar

Date

Yadappanavar, Krishna

Executed on \_\_\_\_\_, by \_\_\_\_\_

Date

Aithal, Prasanna

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Date Satnur, Sunil