

<b>PATENT ASSIGNMENT COVER SHEET</b>
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 Stylesheet Version v1.2

EPAS ID: PAT3045787

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JEROEN VAN ROTTERDAM	09/26/2014
MICHAEL T. MOHEN	09/26/2014
MUTHUKUMARAPPA JAYAKUMAR	09/26/2014
RAVIKUMAR MEENAKSHISUNDARAM	09/26/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	EMC CORPORATION
<b>Street Address:</b>	176 SOUTH STREET
<b>City:</b>	HOPKINTON
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01748
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14502281
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(408)973-2595
<i>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.</i>	
<b>Phone:</b>	408-973-2585
<b>Email:</b>	enguyen@ip-patent.com
<b>Correspondent Name:</b>	VAN PELT, YI & JAMES LLP AND EMC CORPORA
<b>Address Line 1:</b>	10050 N. FOOTHILL BLVD.
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<b>Address Line 4:</b>	CUPERTINO, CALIFORNIA 95014
<b>ATTORNEY DOCKET NUMBER:</b>	EMCCP449
<b>NAME OF SUBMITTER:</b>	WILLIAM J. JAMES
<b>SIGNATURE:</b>	/william j. james/
<b>DATE SIGNED:</b>	09/30/2014
<b>Total Attachments: 7</b>	
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ASSIGNMENT

WHEREAS, we, Satyapal P. Reddy, Jeroen Van Rotterdam, Michael T. Mohen, Muthukumarappa Jayakumar, and Ravikumar Meenakshisundaram 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 *BINDING TRAITS TO CASE NODES*, the specification of which:

- 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 No. \_\_\_\_\_ on \_\_\_\_\_.

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, 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: \_\_\_\_\_

\_\_\_\_\_  
Inventor's Signature

Print full name of first inventor: **Satyapal P. Reddy**  
Residence: Fremont, CA  
Citizenship: United States of America  
Mailing Address: 176 South Street  
Hopkinton, MA 01748

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

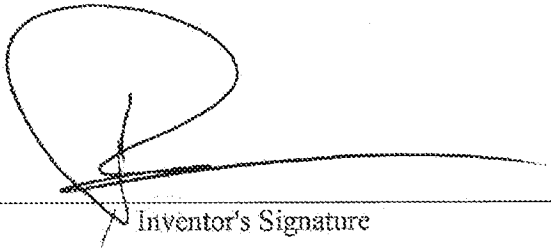
On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me appeared \_\_\_\_\_  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same  
in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument  
the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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.

\_\_\_\_\_  
Notary Public  
Print Name: \_\_\_\_\_  
My Commission expires \_\_\_/\_\_\_/\_\_\_

Date: Sept 26, 2014

  
Inventor's Signature

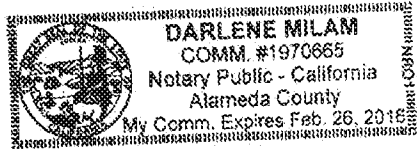
Print full name of second inventor: Jeroen Van Rotterdam  
Residence: Berkeley, CA  
Citizenship: Netherlands  
Mailing Address: 176 South Street  
Hopkinton, MA 01748

STATE OF CALIF  
COUNTY OF ALAMEDA

On this 26 day of SEPT, 2014, before me appeared JEROEN VAN ROTTERDAM who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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.



Darlene Milam  
Notary Public  
Print Name: Darlene Milam, Notary Public  
My Commission expires Feb 26 2016

Date: 9/26/2014

*Michael T. Mohen*

Inventor's Signature

Print full name of third inventor:

**Michael T. Mohen**

Residence:

Millington, MD

Citizenship:

United States of America

Mailing Address:

176 South Street  
Hopkinton, MA 01748

STATE/Commonwealth of  
COUNTY OF

Maryland  
Queen Anne's County

Then personally appeared before me the above-named Michael T. Mohen and  
acknowledged that he/she executed the foregoing instrument as his/her free act and deed this  
26 day of September, 2014.

*Linde R. Keating*

Notary Public

Print Name: Linde R. Keating

My Commission expires 2/19/17

Date: SEPT-26-2014

Muthu Jaya Kumar  
Inventor's Signature

Print full name of fourth inventor: Muthukumarappa Jayakumar  
Residence: Mountain House, CA  
Citizenship: India  
Mailing Address: 176 South Street  
Hopkinton, MA 01748

STATE OF California  
COUNTY OF Alameda

On this 26 day of Sept., 2014, before me appeared Muthukumarappa Jayakumar who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she~~/they executed the same in his/~~her~~/their authorized capacity(ies), and that by his/~~her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

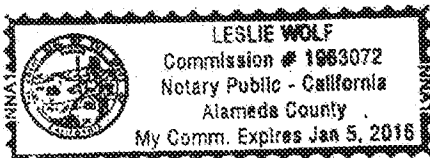
WITNESS my hand and official seal.

[Signature]

Notary Public

Print Name: Leslie Wolf

My Commission expires 1 / 5 / 16





Date: 09/26/14

M. Ravikumar  
Inventor's Signature

Print full name of fifth inventor: **Ravikumar Meenakshisundaram**  
Residence: Pleasanton, CA  
Citizenship: India  
Mailing Address: 176 South Street  
Hopkinton, MA 01748

STATE OF California  
COUNTY OF Alameda

On this 26 day of Sept., 2014, before me appeared Ravikumar Meenakshisundaram who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she~~/they executed the same in his/~~her~~/their authorized capacity(ies), and that by his/~~her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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.

[Signature]

Notary Public

Print Name: Leslie Wolf

My Commission expires 1/5/16

