# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3045789

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JEROEN VAN ROTTERDAM	09/26/2014
XIAOTING TANG	09/26/2014
MUNEER AHMED	09/26/2014

## **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:	14502322

## **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

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

Address Line 1: 10050 N. FOOTHILL BLVD.

Address Line 2: SUITE 200

Address Line 4: CUPERTINO, CALIFORNIA 95014

ATTORNEY DOCKET NUMBER:	EMCCP450
NAME OF SUBMITTER:	WILLIAM J. JAMES
SIGNATURE:	/william j. james/
DATE SIGNED:	09/30/2014

## **Total Attachments: 6**

source=EMCCP450 Executed Assignment#page1.tif source=EMCCP450 Executed Assignment#page2.tif source=EMCCP450 Executed Assignment#page3.tif source=EMCCP450 Executed Assignment#page4.tif

PATENT

502999189 REEL: 033854 FRAME: 0521

source=EMCCP450 Executed Assignment#page5.tif source=EMCCP450 Executed Assignment#page6.tif

PATENT REEL: 033854 FRAME: 0522

#### ASSIGNMENT

WHEREAS, we, Jeroen Van Rotterdam, Satyapal P. Reddy, Xiaoting Tang, and Muneer Ahmed 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 COMPOSITE INDEX ON HIERARCHICAL NODES IN THE HIERARCHICAL DATA MODEL WITH IN CASE MODEL, 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 onas 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

PATENT REEL: 033854 FRAME: 0523

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:

Sept 26 2014

Inventor's Signature

Print full name of first inventor:

Jeroen Van Rotterdam

Residence:

Berkeley, CA

Citizenship:

Netherlands

Mailing Address:

176 South Street

Hopkinton, MA 01748

STATE OF COUNTY OF

ALAMEDA.

On this ZO day of SET, 2014, before me appeared JEROEH YAN LOMERDAM 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
COMM. #1970685
Notary Public - California
Alameda County
My Comm. Expires Feb. 26, 2016

Notary Public

Print Name:

Darlene Milam, Notary Public

My Commission expires Feb 26/204

Date:	
	Inventor's Signature
Print full name of second inventor:	Satyapal P. Reddy
Residence:	Fremont, CA
Citizenship:	United States of America
Mailing Address:	176 South Street
	Hopkinton, MA 01748
STATE OF	·
subscribed to the within instrument and a in his/her/their authorized capacity(ies), the person(s), or the entity upon behalf o	, 20, before me appearedctory evidence to be the person(s) whose name(s) is/are acknowledged to me that he/she/they executed the same and that by his/her/their signature(s) on the instrument of which the person(s) acted, executed the instrument.  Y 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: 9/20/14	Ny Try  Neventor's Signature	
Print full name of third inventor:	Xiaoting Tang	
Residence:	Pleasanton, CA	
Citizenship:	United States of America	
Mailing Address:	176 South Street	
	Hopkinton, MA 01748	
On this St day of September, 2014, before me appeared X acting tong 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(jes), 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.	4-1	
	Notary Public	
CESTIE AND L	Print Name: Leslie Wolf	
Commission # 1963072 Notary Public - California	My Commission expires 1 / 5 / 16	

.5

Date: 9/26/14	Inventor's Signature
Print full name of fourth inventor:	Muneer Ahmed
Residence:	Pleasanton, CA
Citizenship:	India
Mailing Address:	176 South Street
	Hopkinton, MA 01748
who proved to me on the basis of satisfactor; subscribed to the within instrument and ackn in his/her/their authorized capacity(ies), and	20 14, before me appeared Muneer Change y evidence to be the person(s) whose name(s) is/are nowledged to me that he/she/they executed the same that by his/her/their signature(s) on the instrument nich the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY un foregoing paragraph is true and correct.	der the laws of the State of California that the
WITNESS my hand and official seal.	4-1
	Notary Public
LESLIE WOLF Commission # 1963072	Print Name: Leslic Wolf

~6.

My Commission expires 1 / 5 / 16

Notary Public - California
Alameda County
My Comm. Expires Jan 5, 2018

**RECORDED: 09/30/2014**