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PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Ritesh SHUKLA	06/30/2010
Rossen DIMITROV	06/30/2010

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:	13671774

CORRESPONDENCE DATA

Fax Number: 5088988602

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 5088988601

Email: docketing@westboro-ip.com

Correspondent Name: Muirhead and Saturnelli, LLC

Address Line 1: 200 Friberg Parkway

Address Line 2: Suite 1001

Address Line 4: Westborough, MASSACHUSETTS 01581

ATTORNEY DOCKET NUMBER:	EMS-351USCON1; EMC09337CN
NAME OF SUBMITTER:	Donald W. Muirhead

Total Attachments: 3

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PATENT REEL: 029532 FRAME: 0692 CH \$40.00 136/1/

Attorney Docket No.: EMS-351US EMC Docket No.: EMC-09-337

ASSIGNMENT

WHEREAS, we, Ritesh Shukla and Rossen Dimitrov, 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 RECOVERY OF DIRECTORY INFORMATION, the specification of which:

[X]	is being executed on even date he States Patent Office;	erewith and is about to be filed in the Unit	nited
[]	was filed on	as U.S. Application No.	;
[]	was patented under U.S. Patent N	onon	

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

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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: JUNE 30 to 2010	Rte Shible
	Inventor's Signature
Print full name of first inventor:	Ritesh Shukla
Residence:	31 Walnut Street, Apt. 17
	Somerville, MA 02143
Citizenship:	India
Mailing Address:	Same
Mailing Address:	Same

STATE OF MASSACHUSETTS
COUNTY OF MIDDLESEX

On this 30th day of June, 2010, then personally appeared before me the above-named **Ritesh**Shukla known to me through satisfactory evidence of identification [__] employee identification card; [__] driver's license; [\textstyle []] (other) _______ Or Sound [_] (other) _______ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained

Notary Public

Print Name: Donald W. Muirhead

My Commission expires: February 6, 2013

Attorney Docket No.: EMS-351US EMC Docket No.: EMC-09-337

Date: June 30th, 2010	Possen Dimitra
	inventor's Signature
Print full name of second inventor:	Rossen Dimitrov
Residence:	23 Middle Dunstable Road
	Nashua, NH 03062
Citizenship:	USA
Mailing Address:	Same
COUNTY OF MIDDLESEX	
Dimitrov known to me through satisfactor identification card; [] driver's license; [>] be the person whose name is subscribed to	nally appeared before me the above-named Rossen ry evidence of identification [] employee [_] (other)
	Print Name: Donald W. Muirhead
	My Commission expires: February 6, 2013