

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3818218

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	MIKHAIL DANILOV	03/31/2016
	MIKHAIL MALYGIN	03/31/2016
	CHEN WANG	03/31/2016
	IVAN TCHOUB	03/31/2016
	SHASHWAT SRIVASTAV	04/04/2016
	ANDREY FOMIN	03/31/2016
	MAXIM TRUSOV	03/31/2016
<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>	15083324	
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(781)401-9966	
<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>	7814019988	
<b>Email:</b>	jlm@dc-m.com	
<b>Correspondent Name:</b>	DALY, CROWLEY, MOFFORD & DURKEE, LLP	
<b>Address Line 1:</b>	354A TURNPIKE STREET	
<b>Address Line 2:</b>	SUITE 301A	
<b>Address Line 4:</b>	CANTON, MASSACHUSETTS 02021-2714	
<b>ATTORNEY DOCKET NUMBER:</b>	EMC-268PUS	
<b>NAME OF SUBMITTER:</b>	KRISTOFFER W. LANGE	
<b>SIGNATURE:</b>	/Kristoffer W. Lange/	
<b>DATE SIGNED:</b>	04/06/2016	

PATENT

**Total Attachments: 9**

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## ASSIGNMENT

WHEREAS, we, Mikhail Danilov, Mikhail Malygin, Chen Wang, Ivan Tchoub, Shashwat Srivastav, Andrey Fomin, and Maxim Trusov, 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 TRACING GARBAGE COLLECTOR FOR SEARCH TREES UNDER MULTI-VERSION CONCURRENCY CONTROL and identified as Attorney Docket No. EMC-268PUS, 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 March 29, 2016 as U.S. Application No. 15/083,324;
- ☐ 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 me;

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;

AND, we hereby authorize attorneys that we have appointed and EMC Corporation to insert here in parenthesis ( ) the application number and filing date of said Application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

Date: 31-Mar-2016

  
Inventor's Signature

Print full name of first inventor:

Mikhail Danilov

Residence:

Gakkelevskaya Street, 25-1-161  
Saint Petersburg 197227  
RUSSIA


Citizenship:

Russia


Mailing Address:

Same as above

I, Gregory Skripko (name of first witness), whose residential address is  
Frunze str. 15 app. 76 Saint-Petersburg 196135 Russian Federation,  
was personally presented and did see Mikhail Danilov who is personally known to me, execute the  
above assignment.

  
(signature of first witness)  
Signed at Saint-Petersburg (location of witness signature)  
on this day 31 March, 20 16 (date of witness signature)

I, Alexander Fedrov (name of second witness), whose residential address is  
Troika pr. 80 app. 71 Saint-Petersburg 194012 Russian Federation,  
was personally presented and did see Mikhail Danilov who is personally known to me, execute the  
above assignment.

  
(signature of second witness)  
Signed at Saint-Petersburg (location of witness signature)  
on this day 31 March, 20 16 (date of witness signature)

Date: 31. Nov 2016

  
Inventor's Signature

Print full name of first inventor:

Mikhail Malygin

Residence:

Galkhevskaya Street, 22/3  
Apt. 95  
Saint Petersburg  
RUSSIA


Citizenship:

Russia


Mailing Address:

Same as above

I, Gregory Skripko (name of first witness), whose residential address is  
Frunze str. 15 apt 46 Saint-Petersburg 196135 Russian Federation  
was personally presented and did see Mikhail Malygin who is personally known to me, execute the  
above assignment.

 (signature of first witness)  
Signed at Saint-Petersburg (location of witness signature)  
on this day 31 March, 2016 (date of witness signature)

I, Alexander Fedorov (name of second witness), whose residential address is  
Tovara pr 80 app 71 Saint-Petersburg 194017 Russian Federation  
was personally presented and did see Mikhail Malygin who is personally known to me, execute the  
above assignment.

 (signature of second witness)  
Signed at Saint-Petersburg (location of witness signature)  
on this day 31 March, 2016 (date of witness signature)

Date: Mar. 31, 2016

Chen Wang  
Inventor's Signature

Print full name of first inventor:

Chen Wang

Residence:

Room 10-602, 88 SanJiang Road  
Shanghai 200235  
CHINA

Citizenship:

China

Mailing Address:

Same as above

I, AO Sun (name of first witness), whose residential address is  
Songhu Rd. 252, Yangpu District, Shanghai China,  
was personally presented and did see Chen Wang who is personally known to me, execute the above  
assignment.

AO Sun (signature of first witness)  
Signed at Songhu Rd. 252, Yangpu District, Shanghai (location of witness signature)  
on this day Mar. 31, 2016, 20 16 (date of witness signature)

I, Rongfang Dong (name of second witness), whose residential address is  
Songhu Rd. 252, Yangpu District, Shanghai China,  
was personally presented and did see Chen Wang who is personally known to me, execute the above  
assignment.

Rongfang Dong (signature of second witness)  
Signed at Songhu Rd. 252, Yangpu District, Shanghai (location of witness signature)  
on this day Mar 31, 20 16 (date of witness signature)

Date: 31.03.2016

  
Inventor's Signature

Print full name of first inventor:

Ivan Tchoub

Residence:

4th Sovetskaya Street, 23  
Apt. 23  
Saint Petersburg 191036  
RUSSIA

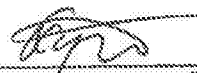
Citizenship:

Russia


Mailing Address:

Same as above

I, Gregory Skripko (name of first witness), whose residential address is  
Fruze str. 15 app. 76 Saint-Petersburg 196135 Russian Federation  
was personally presented and did see Ivan Tchoub who is personally known to me, execute the  
above assignment.

  
(signature of first witness)  
Signed at Saint-Petersburg (location of witness signature)  
on this day 31 March, 20 16 (date of witness signature)

I, Alexander Fedorov (name of second witness), whose residential address is  
Tovzha pr. 80 app 71 Saint-Petersburg 194017 Russian Federation  
was personally presented and did see Ivan Tchoub who is personally known to me, execute the  
above assignment.

  
(signature of second witness)  
Signed at Saint-Petersburg (location of witness signature)  
on this day 31 March, 20 16 (date of witness signature)



Date:

4/4/16

*Shashwat Srivastav*

Inventor's Signature

Print full name of first inventor:

Shashwat Srivastav

Residence:

2515 4th Avenue  
Apt. 2301  
Seattle, Washington 98121

Citizenship:

India

Mailing Address:

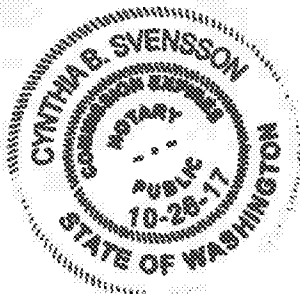
Same as above

STATE/Commonwealth of

COUNTY OF

Washington  
Jackson

On this 5<sup>th</sup> day of April, 2016, then personally appeared before me the above-named Shashwat Srivastav known to me through satisfactory evidence of identification ☒ employee identification card; ☐ driver's license; ☐ (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.



*Cynthia B. Svensson*

Notary Public

Print Name: Cynthia B. Svensson

My Commission expires 10/26/17

Date: 31 March 2016

Inventor's Signature

Print full name of first inventor:

Andrey Fomin

Residence:

Plotkina Street, 3, Block 2  
Apt. 13  
Vesvolozhsk  
RUSSIA

Citizenship:

Russia

Mailing Address:

Same as above

I, Gregory Skripko (name of first witness), whose residential address is  
Frunze Str. 15 apt 76 Saint-Petersburg 196135 Russian Federation,  
was personally presented and did see Andrey Fomin who is personally known to me, execute the  
above assignment.

(signature of first witness)

Signed at Saint-Petersburg (location of witness signature)

on this day 31 March, 20 16 (date of witness signature)

I, Alexander Fedorenko (name of second witness), whose residential address is  
Toreza pr. 20 apt 71 Saint-Petersburg 194012 Russian Federation,  
was personally presented and did see Andrey Fomin who is personally known to me, execute the  
above assignment.

(signature of second witness)

Signed at Saint-Petersburg (location of witness signature)

on this day 31 March, 20 16 (date of witness signature)

Date: 31 Mar 2016

  
Inventor's Signature

Print full name of first inventor:

Maxim Trusov

Residence:

Sestroretsk, Dubkovskoe Shosse 38  
Apt. 44  
Saint Petersburg 197706  
RUSSIA

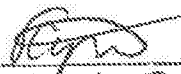
Citizenship:

Russia


Mailing Address:

Same as above

I, Gregory Skripko (name of first witness), whose residential address is  
Frunze str. 15 apt 46 Saint-Petersburg 196135 Russian Federation  
was personally presented and did see Maxim Trusov who is personally known to me, execute the  
above assignment.

  
\_\_\_\_\_  
(signature of first witness)  
Signed at Saint-Petersburg (location of witness signature)  
on this day 31 March, 20 16 (date of witness signature)

I, Alexander Tectorov (name of second witness), whose residential address is  
Toxeza pr. 30 apt 21 Saint-Petersburg 194012 Russian Federation  
was personally presented and did see Maxim Trusov who is personally known to me, execute the  
above assignment.

  
\_\_\_\_\_  
(signature of second witness)  
Signed at Saint-Petersburg (location of witness signature)  
on this day 31 March, 20 16 (date of witness signature)

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