502268714 03/14/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Alexey Romanovskiy	03/12/2013
Tianqing Wang	03/12/2013
Andrey Pakhomov	03/12/2013
Vasily Zalunin	03/12/2013

RECEIVING PARTY DATA

Name:	EMC Corporation
Street Address:	176 South Street
City:	Hopkinton
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	13804962
Application Number:	13804893

CORRESPONDENCE DATA

Fax Number: 4083264811

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

Phone: 408-562-1446

Email: deanna.santos@emc.com

Correspondent Name: Deanna Santos, EMC Corporation
Address Line 1: 2831 Mission College Boulevard
Address Line 4: Santa Clara, CALIFORNIA 95054

ATTORNEY DOCKET NUMBER:	EMC-11-819, EMC-12-1278
NAME OF SUBMITTER:	John Gould

PATENT

REEL: 029998 FRAME: 0448

Total Attachments: 12 source=EMC_12_1278_EXECUTED_Assignment_ALL#page1.tif source=EMC_12_1278_EXECUTED_Assignment_ALL#page2.tif source=EMC_12_1278_EXECUTED_Assignment_ALL#page3.tif source=EMC_12_1278_EXECUTED_Assignment_ALL#page4.tif source=EMC_12_1278_EXECUTED_Assignment_ALL#page5.tif source=EMC_12_1278_EXECUTED_Assignment_ALL#page6.tif source=EMC_11_819_EXECUTED_Assignment_ALL#page1.tif source=EMC_11_819_EXECUTED_Assignment_ALL#page2.tif source=EMC_11_819_EXECUTED_Assignment_ALL#page3.tif source=EMC_11_819_EXECUTED_Assignment_ALL#page4.tif source=EMC_11_819_EXECUTED_Assignment_ALL#page5.tif source=EMC_11_819_EXECUTED_Assignment_ALL#page5.tif source=EMC_11_819_EXECUTED_Assignment_ALL#page6.tif

PATENT REEL: 029998 FRAME: 0449

ASSIGNMENT

WHEREAS, we, <u>Alexey Romanovskiy</u>, <u>Tianging Wang</u>, <u>Andrey Pakhomov</u> and <u>Vasily Zalunin</u> 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 **LIGHTWEIGHT APPLIANCE FOR CONTENT RETRIEVAL**, the specification of which:

[X]	 is being executed on even date herewith and is about to be filed in the Units States Patent Office, 	
[]	was filed on as U.S. Application No;	
[]	was patented under U.S. Patent Noon	
WHI	CREAS, EMC Corporation (bereinafter "ASSIGNEE"), a corporation organized and	

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:

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Date: 3/12/2013	204
	Inventor's/Signature
Print full name of first inventor:	Alexey Romanovskiy
Residence:	Bogatyrskiy Pr. 50, Apt. 71
	Saint-Petersburg, Russia, 197372
Citizenship:	RU
Mailing Address:	Same as above
the assignment) who is personally know	
Signed at Sugar - Pusche Lung	<u>★U</u> (location of witness signature)
on this day Muzzli 12	of 20 <u></u> (date of signature)
the assignment) who is personally know	(name) whose residential address is SELLY PLEX SOLF ROLLS OF XEY ROMANGES KIV (name of person signing on to me, execute the above assignment. (signature of second witness)
Signed at Speics / Patrons Eu	29 2425/G (location of witness signature)
on this day Moro R 12	

Date: March 12, 2013	退兵青
	Inventor's Signature
Print full name of second inventor:	Tianqing Wang
Residence;	402, Building 22, 218 Guoshun Roads
	Fengxian District
	Shanghai, China, 201400
Citizenship	CN
Mailing Address:	Same as above
Was personally present and did see the assignment) who is personally known to n	(name of person signing ne, execute the above assignment. gnature of first witness) ocation of witness signature)
was personally present and did see the assignment) who is personally known to not signed at the assignment of the assign	子子 (name of person signing

Date: 3/12/2013	
	Inventor's Signature
Print full name of third inventor:	Andrey Pakhemev
Residence:	Nastavníkov prospect, 34, appt. 21
	Saint-Petersburg, Russia, 195279
Citizenship:	RU
Mailing Address:	Same as above
I You have Shown and Your Shown and Your Shown and Shown	(name) whose residential address is 1. Social Research Street Bassica 19 1045 (name of person signing own to me, execute the above assignment. (signature of first witness)
Signed at Scient Percializacy	<u> (Lt.</u> (location of witness signature)
on this day 1000 ct 12	of 20 <u>13</u> . (date of signature)
was personally present and did see <u>//</u> the assignment) who is personally kno	(name) whose residential address is
Signed at Social Peters Euro	<u>Lucs/g</u> (location of witness signature)
on this day March 12	

Date: 93/12/70/3	
	Inventor's Signature
Print full name of fourth inventor:	Vasily Zalunin
Residence:	89, Grazhdansky Avenue, 116, Bldg. 5
	Saint-Petersburg, Russia, 195267
Citizenship:	RU
Mailing Address:	Same as above
the assignment) who is personally know	(signature of first witness)
Signed at 500 1 PERCENTION	(location of witness signature)
on this day Attoacty 47	
1 Alla Lopattins Kaya Trefoleva str 94276. Sawas personally present and did see <u>Va</u> the assignment) who is personally known	(name) whose residential address is July Parket Search
ery arts	(signature of second witness)
/	Q V (location of witness signature)
on this day March 12	

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ASSIGNMENT

WHEREAS, we, <u>Alexey Romanovskiy</u>, <u>Tianging Wang</u>, <u>Andrey Pakhomov</u> and <u>Vasily Zalunin</u> 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 LIGHTWEIGHT APPLIANCE FOR CONTENT STORAGE, the specification of which:

[X]	States Patent Office;
[]	was filed on as U.S. Application No;
[]	was patented under U.S. Patent Noon
WHE	REAS FMC Compration (hereinafter "ASSIGNEE"), a corporation organized and

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

PATENT REEL: 029998 FRAME: 0456

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:

J.

Date: <u>-2/2/2</u> 1/3	2 de la companya dela companya dela companya dela companya de la companya de la companya de la companya dela companya de la companya de la companya de la companya dela companya de la companya dela companya dela companya dela companya de la companya dela
	Inventor's Signature
Print full name of first inventor:	Alexey Romanovskiy
Residence:	Bogatyrskiy Pr.50, Apt.71
	Saint-Petersburg, Russia, 197372
Citizenship:	RU
Mailing Address:	Same as above
1 Ylodina Shozunov	(name) whose residential address is South the least though the last and 194045 Light Energy and the last an
was personally present and did see <u>1. (2.)</u> the assignment) who is personally known . (1.1 m) 4.6 (i to me, execute the above assignment.
Signed at Source Passassing Ala	
on this day <u>PROVER AR</u>	
I Alla Lupa-lins kaya The fole La Str. 114-76, was personally present and did see Aec the assignment) who is personally known	(name) whose residential address is \(\text{NUM Policy Stars Residential Policy Stars
<u>les</u> f	(signature of second witness)
Signed at <u>Frint Petersburg</u>	<u> Lossig</u> (location of witness signature)
on this day March 12	of 20 🛂 (date of signature)

Date: March 12, 2013	五三青	
	Inventor's Signature	
Print full name of second inventor:	Tianqing Wang	
Residence:	402, Building 22, 218 Guoshun Road,	
	Fengxian District	
	Shanghai, China, 201400	
Citizenship:	CN	
Mailing Address:	Same as above	
I 27 4 (r <u>Form Hol.</u> By Gay 1897. 3/19 Tory then Food. was personally present and did see 7	name) whose residential address is Jindary Pictrics Stangton,	
the assignment) who is personally known to m	(name of person signing	
si (si	-	
Signed at 256 Song ha Road, Shang hai (location of witness signature)		
on this day March 12 of 20 13. (date of signature)		
I (name) whose residential address is Was personally present and did see (name of person signing the assignment) who is personally known to me, execute the above assignment.		
the assignment) who is personally known to me, execute the above assignment.		
(signature of second witness)		
Signed at 206 Song he Road Short (Nocation of witness signature)		
on this day 12 of 20 13 (date of signature)		

Date: 5 //2 /2 310	
, , , , , , , , , , , , , , , , , , ,	Inventor's Signature
Print full name of third inventor:	Andrey Pakhomov
Residence:	Nastavníkov prospect, 34, appt. 21
	Saint-Petersburg, Russia, 195279
Citizenship:	RU
Mailing Address:	Same as above
I Podewil Stwing or 112 was personally present and did see As the assignment) who is personally known	
Signed at Solver - Process Business B	(location of witness signature)
on this day Alaceth 12	of 20 🖖 (date of signature)
me assignment) who is personally know	(name) whose residential address is (a) Ad Peder State Late 219 198 098 They Po Ehoppol (name of person signing not me, execute the above assignment. (signature of second witness)
Signed at Solid Petaz officz	Legge (location of witness signature)
on this day March 12	of 20 1/3 (date of signature)

Date: 03/12/2013		
	Inventor's Signature	
Print full name of fourth inventor:	Vasily Zalunin	
Residence:	89, Grazhdansky Avenue, 116, Bidg. 5	
	Saint-Petersburg, Russia, 195267	
Citizenship:	RU	
Mailing Address:	Same as above	
I Vegus in the Stronger Stronger (name) whose residential address is A positive Stronger Str		
on this day Nooch 12 of 1 Alle hope tinskaye Trefolera Str 48-16 Said	(20 <u>15)</u> (date of signature) (name) whose residential address is (1 Pokok S being Lussin 198005 (name of person signing	
was personally present and did see 103319 2016 114 (name of person signing		
the assignment) who is personally known to me, execute the above assignment.		
- Hasaf	(signature of second witness)	
Signed at Sulud Paled steep 9, to 8505 (location of witness signature)		
on this day March 12 of	f 20 <u>/3</u> . (date of signature)	

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