

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
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EPAS ID: PAT4938075

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
PHILIPPE ARMANGAU	04/30/2018
IVAN BASSOV	04/26/2018
WALTER FORRESTER	04/27/2018
RECEIVING PARTY DATA	
Name:	EMC IP HOLDING COMPANY LLC
Street Address:	176 SOUTH STREET
City:	HOPKINTON
State/Country:	MASSACHUSETTS
Postal Code:	01748
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	15966184
CORRESPONDENCE DATA	
Fax Number:	
<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>	
Phone:	508-898-8601
Email:	docketing@WESTBORO-IP.COM
Correspondent Name:	MUIRHEAD AND SATURNELLI, LLC
Address Line 1:	200 FRIBERG PARKWAY, SUITE 1001
Address Line 4:	WESTBOROUGH, MASSACHUSETTS 01581
ATTORNEY DOCKET NUMBER:	EMS-685US
NAME OF SUBMITTER:	ANNE E. SATURNELLI
SIGNATURE:	/Anne E. Saturnelli/
DATE SIGNED:	04/30/2018
Total Attachments: 4	
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ASSIGNMENT

WHEREAS, we, Philippe ARMANGAU, Ivan BASSOV and Walter FORRESTER, 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 TECHNIQUES FOR SCAVENGING OF FREE PROVISIONED BLOCKS, 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 IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), which is a corporation organized and existing under the laws of Delaware 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;

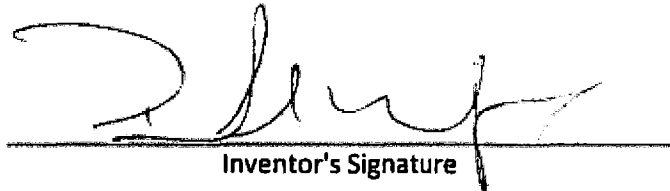
AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, 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.

AND, we hereby authorize attorneys of Muirhead and Saturnelli, LLC to insert here in parenthesis (15/966,184 filed April 30, 2018) 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: 4/30/18


Inventor's Signature

Print full name of first inventor: **Philippe ARMANGAU**
Residence: **51 Seminole Road**
Acton, MA 01720
Citizenship: **USA**
Mailing Address: **Same as above**

I Christophe Seibel (name) whose residential address is 7 Jean Road, W. Lake, MA 02081 was personally present and did see Philippe Armangu (name of person signing the assignment) who is personally known to me, execute the above assignment.

 (signature of first witness)

Signed at 228 South St, Hopkinton (location of witness signature)

on this day 4/30 of 20 18. (date of signature)

I Alexei Karasan (name) whose residential address is 95 Wesson Ter, Northborough, MA 01532 was personally present and did see Philippe Armangu (name of person signing the assignment) who is personally known to me, execute the above assignment.

 (signature of second witness)

Signed at 228 South St Hopkinton, MA (location of witness signature)

on this day 04/30 of 20 18. (date of signature)

Date: [Signature] 4/26/2018
Inventor's Signature

Print full name of second inventor: **Ivan BASSOV**
Residence: 55 Harvard Avenue, Apt. 3
Brookline, MA 02446
Citizenship: USA
Mailing Address: Same as above

I Vladimir Bassov (name) whose residential address is 19 Willow St. apt. 504, Lynn, MA 01901 was personally present and did see Ivan Bassov (name of person signing the assignment) who is personally known to me, execute the above assignment.

VBassov (signature of first witness)

Signed at Brookline, MA (location of witness signature)

on this day April 26 of 2018. (date of signature)

I Olga Basova (name) whose residential address is 19 Willow St. apt. 504, Lynn MA 01901 was personally present and did see Ivan Bassov (name of person signing the assignment) who is personally known to me, execute the above assignment.

OBasova (signature of second witness)

Signed at Brookline, MA (location of witness signature)

on this day April 26 of 2018 (date of signature)

Date: 4/27/2018


Inventor's Signature

Print full name of third inventor: **Walter FORRESTER**
Residence: 21 Magnum Court
Berkeley Heights, NJ 07922
Citizenship: USA
Mailing Address: Same as above

I FAIQ FAZAL (name) whose residential address is 185 Chausen Dr, Berkeley Hts NJ 07922 was personally present and did see Walter Forrester (name of person signing the assignment) who is personally known to me, execute the above assignment.

F.A. Fayal (signature of first witness)

Signed at Warren, NJ (location of witness signature)

on this day April 27 of 2018. (date of signature)

I Soumyadeep Sen (name) whose residential address is 480 Cedar Lane, Hilland Park, NJ 08904 was personally present and did see _____ (name of person signing the assignment) who is personally known to me, execute the above assignment.


(signature of second witness)

Signed at WARREN, NJ. (location of witness signature)

on this day 27th APRIL of 2018. (date of signature)