505166621 10/30/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SORIN FAIBISH	10/30/2018
JAMES M. PEDONE JR.	10/25/2018
IVAN BASSOV	10/25/2018

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:	16174857

CORRESPONDENCE DATA

Fax Number:

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: 508-898-8601

Email:docketing@WESTBORO-IP.COMCorrespondent Name:MUIRHEAD AND SATURNELLI, LLCAddress Line 1:200 FRIBERG PARKWAY, SUITE 1001

Address Line 4: WESTBOROUGH, MASSACHUSETTS 01581

ATTORNEY DOCKET NUMBER:	EMS-717US
NAME OF SUBMITTER:	ANNE E. SATURNELLI
SIGNATURE:	/Anne E. Saturnelli/
DATE SIGNED:	10/30/2018

Total Attachments: 5

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PATENT 505166621 REEL: 047357 FRAME: 0499

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PATENT REEL: 047357 FRAME: 0500

ASSIGNMENT

WHEREAS, we, Sorin FAIBISH, Ronald A. MILLER II, James M. PEDONE Jr. and Ivan BASSOV, 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 OPTIMIZING DATA REDUCTION BY UNDERSTANDING APPLICATION DATA, the specification of which:

[X]	is being executed on eve	in 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 Noon
	•	

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.

PATENT REEL: 047357 FRAME: 0501

Date:10/30/2018	Full
	Inventor's Signature
Print full name of first inventor:	Sorin Faibish
Residence:	11 Selwyn Road, Newton, MA 0246
Citizenship:	USA
Mailing Address:	Same as Above
I, Christine Carey	(name of first witness), whose residential address is
Upton, MA	
was personally present and did see S	orin Faibish (name of person signing the assignment), who
is personally known to me, execute t	
Christine Care	(signature of first witness)
Signed at228 South St.	(location of witness signature)
on this day, <u>10/30</u>	, 2018 (date of signature).
I, <u>Jill Kelly</u> Shrewsbury, MA	(name of second witness), whose residential address is
was personally present and did see S	orin Faibish (name of person signing the assignment), who
is personally known to me, execute t	he above assignment.
Tillkelly	(signature of second witness)
Signed at 228 South St.	(location of witness signature)
on this day,10/30	, 20 <u>18</u> (date of signature)

Date:		
	Inventor's Signature	
Print full name of second inventor:	Ronald A. MILLER II	
Residence:	8805 Attingham Dr.	
	Raleigh, NC 27615	
Citizenship:	USA	
Mailing Address:	Same as above	
	(name) whose residential address is	wae
	(name of person signing the to me, execute the above assignment.	was
	(signature of first witness)	
Signed at	(location of witness signature)	
on this day	of 20 (date of signature)	
I	(name) whose residential address is	
	(name of person signing the to me, execute the above assignment.	was
	(signature of second witness)	
Signed at	(location of witness signature)	
on this day	of 20 (date of signature)	

Date: 10/25-/18	laines me alan	
•	Inventor's Signature	
Print full name of third inventor:	James M. PEDONE Jr.	
Residence:	1 Pheasant Hill Run	
	West Boylston, MA 01583	
Citizenship:	USA	
Mailing Address:	Same as above	
IS CEDAIK STREET. DOLY A personally present and did see Taylos PE	in the Strain of person signing the	was
assignment) who is personally known to me, exec	cute the above assignment.	
(signate	ure of first witness)	
signed at 228 South ST HP (locat	ion of witness signature)	
on this day <u>254 OCT</u> of 2018	. (date of signature)	
WILLIAM A STEWART (name 28 SHERYL DRIVE , WASTINSVILLE		was
personally present and did see <u>Tames Pelone</u> (name of person signing the assignment) who is personally known to me, execute the above assignment.		
11/2 / /	ure of second witness)	
Signed at ZZ8 SOOTH ST. HOPILINION	(location of witness signature)	
on this day 75 TH OCTOBER OF 20 18	(date of signature)	

Date: $10/25/2018$	36
•	Inventor's Signature
Print full name of fourth inventor:	Ivan BASSOV
Residence:	55 Harvard Avenue
	Brookline, MA 02446
Citizenship:	USA
Mailing Address:	Same as above
I Vladimir Basov (nam Lyun, MA personally present and did see <u>Ivan</u> B	ne) whose residential address is was
personally present and did see	(name of person signing the
Basov	•
(signat	ture of first witness)
Signed at Brookline, MA (local	tion of witness signature)
on this day 10/25 of 20 <u>18</u>	(date of signature)
1 Olga Basova (nam	Mac
personally present and did see	(name of person signing the
assignment) who is personally known to me, exe	cute the above assignment.
Objective (signate	ture of second witness)
Signed at Brooklike, MA	(location of witness signature)
on this day 10/25 of 20/8	(date of signature)