505452414 04/30/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ANDREW L. CHANLER	04/29/2019
KEVIN M. TOBIN	04/29/2019
GABI BENHANOKH	04/28/2019

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:	16398624

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-753US	
NAME OF SUBMITTER:	DANIEL P. MCLOUGHLIN
SIGNATURE: /Daniel P. McLoughlin/	
DATE SIGNED:	04/30/2019

Total Attachments: 4

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> PATENT REEL: 049032 FRAME: 0531

ASSIGNMENT

WHEREAS, we, Andrew L. CHANLER, Kevin M. TOBIN and Gabi BENHANOKH, 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 HOST ACCESS TO STORAGE SYSTEM METADATA, the specification of which:

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

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: 049032 FRAME: 0532

AND, we hereby authorize attorneys of Muirhead and Saturnelli, LLC to insert here in parenthesis (16/398,624 filed April 30, 2019) the application number and filing date of said Application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.		
below:	unto set our hands and affixed our seals as set forth	
Date: 4 29 2019	Inventor's Signature	
Print full name of first inventor:	Andrew L. CHANLER	
Residence:	27 Ball Hill Road	
	Berlin, MA 01503	
Citizenship:	USA	
Mailing Address:	Same as above	
I Brian Asselin. (name) whose residential address is personally present and did see Andrew (name of person signing the assignment) who is personally known to me, execute the above assignment. (signature of first witness)		
Signed at 176 South St. Hopkinton, MAlloca	tion of witness signature)	
on this day April 29th of 2019. (date of signature)		
personally present and did see ANDREW C	(name of person signing the	
assignment) who is personally known to me, execute the above assignment.		
South Mothy (signa	ture of second witness)	
Signed at 176 South S+ Hopkinter, MA (location of witness signature)		
on this day April 29th of 2019	(date of signature)	

Date: 4/29/19	luli_	
	Inventor's Signature	
Print full name of second invent	Kevin M. TOBIN or:	
Residence:	40 Westcott Rd	
	Hopedale, MA 01747	
Citízenship:	USA	
Mailing Address:	Same as above	
perspnally present and did see	(name) whose residential address is	was
assignment) who is personally k	nown to me, execute the above assignment.	
	(signature of first witness)	
Signed at	f4 <u>\$+ .</u> (location of witness signature)	
on this day Apr. 30	of 20 /9. (date of signature)	
	•	
TEPHEN LATTERO	(name) whose residential address is	
personally present and did see	KEVIN TORIN (name of person signing the	was
	nown to me, execute the above assignment.	
tal mille	(signature of second witness)	
Signed at 174 Suff St	(location of witness signature)	
on this day April 3D	of 20 <i>1</i> 9. (date of signature)	

Date: APR-28-2019		
	loventor's Signature	
Print full name of third inventor:	Gabi BENHANOKH	
Residence:	14 Gretz ST, Apartment #2	
	Tel-Aviv 63465, Israel	
Citizenship:	ISRAEL	
Mailing Address:	Same as above	
personally present and did see GASI BEN assignment) who is personally known to me, exe	ture of first witness)	was
personally present and did see <u>Gab</u> ; <u>Bin</u> assignment) who is personally known to me, exe	ture of second witness)	was
on this day APR-28 of 2019. (date of signature)		