# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
XIANGPING CHEN	05/16/2017
ANTON KUCHEROV	05/16/2017
YUVAL HARDUF	05/18/2017
YING HU	05/16/2016
FELIX SHVAIGER	05/16/2017

### **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:	15499951

### **CORRESPONDENCE DATA**

**Fax Number:** (781)401-9966

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:** 7814019988 **Email:** mmc@dc-m.com

Correspondent Name: DALY, CROWLEY, MOFFORD & DURKEE, LLP

Address Line 1: 354A TURNPIKE STREET

Address Line 2: SUITE 301A

Address Line 4: CANTON, MASSACHUSETTS 02021-2714

ATTORNEY DOCKET NUMBER:	EMC-384PUS
NAME OF SUBMITTER:	DAVID W. ROUILLE
SIGNATURE:	/David W. Rouille/
DATE SIGNED:	05/18/2017
	•

**Total Attachments: 7** 

PATENT REEL: 042432 FRAME: 0780



PATENT REEL: 042432 FRAME: 0781

### ASSIGNMENT

WHEREAS, we, Xiangping Chen, Anton Kucherov, Yuval Harduf, Ying Hu and Felix Shvaiger, 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 Ensure Volume Consistency for Online System Checkpoint and identified as Attorney Docket No. EMC-384PUS, the specification of which:

	is being executed on even date herewith and is about to be filed in the United States Patent Office;
[X]	was filed on 4/28/2017 as U.S. Application No.; 15/499,951
[ ]	was patented under U.S. Patent No on

WHEREAS, EMC IP Holding Company LLC (hereinafter "ASSIGNEE"), a Delaware limited liability company 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;

PATENT REEL: 042432 FRAME: 0782

**PATENT** 

Atty. Dekt. No.: EMC-384PUS Client Case No.: EMC-16-0990

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 IP Holding Company LLC to insert here in parenthesis (15/499,951 filed on 4/28/2017) 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:

and the second second	Atty. Dckt. No.: EMC Client Case No.: EMC	
ate: <u>05//6/17</u>		
	Inventor's Signature	
int full name of first inventor:	Xiangping Chen	
esidence:	22 Harrington Ridge Road Sherborn, MA 01770	
itizenship:	United States	
failing Address:	Same as above	
32 Griffia Rd Francia	(name of first witness), whose residential address  ngham, MA 0170)  Gangping Chen who is personally known to me, exec	
Llustophe Sinfer (	(signature of first witness)	
	<u>10kinton, MA</u> (location of witness signature)	
	, 2017 (date of witness signature)	
	(name of second witness), whose residential addre	ess is
75 Station Landing, 214 Meditor		

\_\_\_\_\_(signature of second witness)

\_\_\_\_\_, 2017 (date of witness signature)

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

on this day \_\_\_\_//b\_\_\_/b\_

REEL: 042432 FRAME: 0784

	PATENT Atty. Dckt. No.: EMC-384PUS
	Client Case No.: EMC-16-0990
Date: 5/1//2017	A. lorgo
- Lydig stilly	Inventor's Signature
***	
Print full name of first inventor:	Anton Kucherov
Residence:	7 Congress Street, Apt. 4
	Milford, MA 01757
Citizenship:	Israel
- 000000000000000000000000000000000000	
Mailing Address:	Same as above
32 Griffin Rd. Framin	(name of first witness), whose residential address is  whom MA()[70]  inton Kucherov who is personally known to me, execute the
above assignment.	and the parameter with the parameter and the par
Christophus Simples (	signature of first witness)
Signed at 1228 South St. Har	<u>kinhon, MA</u> (location of witness signature) , 2017 (date of witness signature)
on this dayMay 16	, 2017 (date of witness signature)
	**************************************
I, <u>Xiuo Zhao</u>	(name of second witness), whose residential address is
75 Station Landing 214, MedTo,	
	nton Kucheroy who is personally known to me, execute the
above assignment.	
7 Va 7L.,	e * 50 00.00     ea     00     a     a.00000     .
	(signature of second witness)
Signed at 228 South Sc. Hopkin	<u>συν ΛιΑ</u> (location of witness signature)
on this day // 16	, 2017 (date of witness signature)

REEL: 042432 FRAME: 0785

Atty. Dckt. No.: EMC-384PUS Client Case No.: EMC-16-0990 Date: 18 MAY 2012 Inventor's Signature Print full name of first inventor: Yuval Harduf Residence: 24 Moshe Dayan Street Yehud 564012 ISRAEL Citizenship: Israel Mailing Address: Same as above (name of first witness), whose residential address is was personally presented and did see Yuval Hardul who is personally known to me, execute the above assignment. (signature of first witness) ISRAGE (location of witness signature) , 2017 (date of witness signature) \_ (name of second witness), whose residential address is 20 Toiled House 12 Street Tel Adia, 1572 was personally presented and did see Yuval Harduf who is personally known to me, execute the above assignment. (signature of second witness) LSCAL (location of witness signature) Signed at

Page 5 of 7

on this day

**PATENT** REEL: 042432 FRAME: 0786

PATENT

	Atty. Dckt. No.: EMC-384PUS Client Case No.: EMC-16-0990
Date: 5/16/2017	V // )
Date: 2/19/2-1/	Inventor & Signature
Print full name of first inventor:	Ying Hu
Residence:	52 Little Pond Road Northborough, MA 01532
Citizenship:	US
Mailing Address:	Same as above
32 Griffin Rd Framin	(name of first witness), whose residential address is  sham, MA 01701 Ying Hu who is personally known to me, execute the above
assignment.	<u>Ting the</u> who is personally known to me, execute the above
Urristophen Lugler	(signature of first witness)
Signed at <u>228 South St. Ho</u>	ρ <u>kinton, MA</u> (location of witness signature)
on this day <u>May 16</u>	, 2017 (date of witness signature)
•	
1 Yun 7km	(name of second witness), whose residential address is
75 Station Landing, 219 Med	
was personally presented and did see assignment.	Ying Hu who is personally known to me, execute the above
I, <u>Xiao Zhao</u>	(signature of second witness)
Signed at 228 South St. Hubbing	gn, Λ\Δ (location of witness signature)

on this day \_

2017 (date of witness signature)

**REEL: 042432 FRAME: 0787** 

**PATENT** 

Atty. Dekt. No.: EMC-384PUS Client Case No.: EMC-16-0990

Take a see a see the see the see	All the transfer of the transf
	Inventor's Signature
Print full name of first inventor:	Felix Shvaiger
Residence:	116 Tremont Street, #104
	Brighton, MA 02135
Citizenship:	Israel
Mailing Address:	Same as above
I. Chaitholes Sailes	_(name of first witness), whose residential address is
32 Griffin Rd, Examingh	
was personally presented and did see Fe	<u>lix Shyaiger</u> who is personally known to me, execute the
above assignment.	
Maistopher Low (5	ignature of first witness)
	Kihton MA (location of witness signature)
on this day May 16	, 2017 (date of witness signature)
1, Xier Zhao	(name of second witness), whose residential address is
75 Station Landing 219, Medi	ગત, ૦૨/૬૦
	lix Shvaiger who is personally known to me, execute the
above assignment.	
٠ و هند	
1, <u>Xiao Zhao</u>	(signature of second witness)
Signed at 218 South St. Hopkins	on MA (location of witness signature)
on this day Nan 16	, 2017 (date of witness signature)
585951	

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