PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6243091

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
RUIYONG JIA	06/01/2018
XINLEI XU	06/01/2018
LIFENG YANG	06/01/2018
LIAM XIONGCHENG LI	06/01/2018
JIAN GAO	06/01/2018

RECEIVING PARTY DATA

Name:	EMC IP HOLDING COMPANY LLC	
Street Address:	176 SOUTH STREET	
City:	HOPKINTON	
State/Country:	y: MASSACHUSETTS	
Postal Code:	01748	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16989496

CORRESPONDENCE DATA

Fax Number: (617)523-6850

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: 617-523-2700

Email: patentdocketing@hklaw.com,susan.dinicola@hklaw.com

Correspondent Name: HOLLAND & KNIGHT LLP Address Line 1: 10 ST. JAMES AVENUE

Address Line 4: BOSTON, MASSACHUSETTS 02116

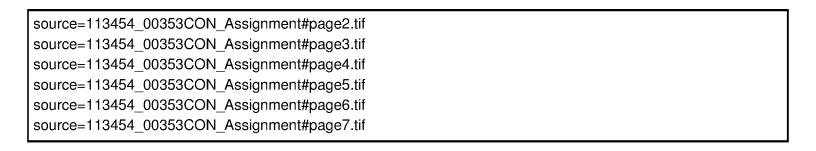
ATTORNEY DOCKET NUMBER: 113454.00335CON		
NAME OF SUBMITTER:	SUSAN C. DINICOLA	
SIGNATURE:	/Susan C. DiNicola/	
DATE SIGNED:	08/10/2020	

Total Attachments: 7

source=113454_00353CON_Assignment#page1.tif

PATENT REEL: 053447 FRAME: 0712

506196352



PATENT REEL: 053447 FRAME: 0713

ASSIGNMENT

WHEREAS, we, Ruiyong Jia, Xinlei Xu, Lifeng Yang, Liam Xiongcheng Li, and Jian Gao, 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 METHOD AND DEVICES FOR MANAGING CACHE (Application), 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 June 1, 2018 as U.S. Application No. 15/995386;
[]	was patented under U.S. Patent No on

WHEREAS, EMC IP Holding Company LLC (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State 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

PATENT REEL: 053447 FRAME: 0714 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 our attorneys, EMC IP Holding Company LLC, to insert here in parenthesis (15/995386 filed June 1, 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: 2018.6./	Inventor's Signature
	Invertor's Signature
Print full name of inventor	Ruiyong Jia
	Room 403, Building 27, No.105 North
Residence	Beijing, China 100010
Citizenship	China (People's Republic)
Mailing Address	Same as above
I, Ling Your hary (nam	ne of first witness), whose residential address is Handian Dist. Renjing
7/F. Block D. Tstoghea Scoul Park.	Hardian Dist. Berjing
	lia (name of person signing the assignment), who is
personally known to me, execute the above as	ssignment.
Cin Youshy	(signature of first witness) (location of witness signature) 2018 (date of signature).
Signed at Try has School Purk.	(location of witness signature)
on this day, $6 \cdot 1$,	2018 (date of signature).
i, <u>baote Thuo</u> (nan	ne of second witness), whose residential address is a k, HaiDian Dismit Beijing
(7 Brock D. Tsinghua Science p	ark, HaiDian Diswict Beijing
was personally present and did see Jesse Ruij	yong Jia (name of person signing the assignment),
who is personally known to me, execute the a	bove assignment.
Caste Thus	(signature of second witness)
Signed at 7 (F. Brook D. Tsinghua S.	conse park Ma (location of witness signature)
on this day, 6.7	(signature of second witness) Conse Park Ma Rocation of witness signature) 2018 (date of signature).

Date: 2016.06.01.	Xinai Xu.	
	Inventor's Signature	
Print full name of inventor	Xînlei Xu	
Residence	6-6-602, Tiantongyuan Zhong Yuan	
	Beijing, China 100010	
Citizenship	China (People's Republic)	
Mailing Address	Same as above	
1, Lieu Youshen	(name of first witness), whose residential address is Haidian Pist. Beijim	
7/K. Block D. Tsin has Science Park	Haidian Ptst. Beijim	
was personally present and did see Xinlei	Xu (name of person signing the assignment), who is	
personally known to me, execute the above	e assignment.	
Lin Grashay	(signature of first witness)	
Signed at Crished Scient Park on this day, 6	(location of witness signature)	
on this day,	, 2018 (date of signature).	
l l		
2		
I, <u>Baole Thuo</u> ((name of second witness), whose residential address is the fark, Hai Dian Dismitt Beijing	
7/7 Block D. Tsing hua Scien	u fark, Hailian Dismict Beiging	
was personally present and did see Xinlei Xu (name of person signing the assignment), who is		
personally known to me, execute the above	ve assignment.	
Baste Thus	(signature of second witness)	
Signed at 7/F. Book D Ising Lua So	(signature of second witness) ience fack WaiDalocation of witness signature) , 2018 (date of signature).	
on this day,	, 2018 (date of signature).	

Date: 286 \	lefons ting	
	Inventor's Signature	
Print full name of inventor	Lifeng Yang	
Residence	21-1803, Xingfu-jiayuan, Dongcheng Dist.	
	Beijing, China 100062	
Citizenship	China (People's Republic)	
Mailing Address	Same as above	
I, Lin You Shoop (nam	e of first witness), whose residential address is [[a]dim Dist . Beijin]	
	ng (name of person signing the assignment), who	
is personally known to me, execute the above	assignment.	
Lin Youshing.	signature of first witness) (location of witness signature) 2018 (date of signature).	
Signed at Tony haa Soing Pont	(location of witness signature)	
on this day, ℓ ,	2018 (date of signature).	
1		
I, Baots Thus (nam	e of second witness), whose residential address is	
7/7, Block D. Tsighua Science park, Har Dian District Beijing		
was personally present and did see Lifeng Yang (name of person signing the assignment), who		
is personally known to me, execute the above assignment.		
Baste Thus	signature of second witness)	
Signed at 7/7, Block D, Ts Ing Lu a Scie	ale park Hai Ulocation of witness signature)	
on this day,	signature of second witness) MU Park Har Unocation of witness signature) 2018 (date of signature).	

Date: 6/1/2018	Kiongelere Li
	Inventor's Signature
Print full name of inventor	Liam Xiongcheng Li
Residence	Longhuiyuan 1-3-401, Huilongguan,
	Beijing, China
Citizenship	China (People's Republic)
Mailing Address	Same as above
I, Lin Loushey (name of lock D. Timbus Site land was personally present and did see Liam Xion assignment), who is personally known to me,	
Can Ypashen	(signature of first witness) (location of witness signature) 2018 (date of signature).
Signed at Complia Signa Pad	(location of witness signature)
on this day,,	2018 (date of signature).
	ne of second witness), whose residential address is Dark, Hai Dian District Beijing
was personally present and did see Liam Xio	ngcheng Li (name of person signing the
assignment), who is personally known to me,	
Baote Thuo Signed at 7(F. Blocks) Ising Lua Scient	(signature of second witness) Le parke Har Dia (location of witness signature) 2018 (date of signature).
on this day, $b \cdot f$,	2018 (date of signature).
Date:	
	Inventor's Signature

7016.6.	PATENT/Joint Assignmen Docket No.: EMC-16-1162.02
Print full name of inventor	Jian Gao
Residence	8/F, Block D, Tsinghua Science Park
	No.1 Zhongguancun East Road
	Beijing, China 100084
Citizenship	China (People's Republic)
Mailing Address	Same as above
was personally present and did see Jian (personally known to me, execute the above	(circustana of first with and)
Line Youshlan	(signature of first witness)
Signed at Tsinhaa Sil me Vo	(location of witness signature)
on this day,	(signature of first witness) (location of witness signature) , 2018 (date of signature).
vas personally present and did see Jian C personally known to me, execute the above	
Baole Pano	(signature of second witness) Signature of second witness) Signature for by HaiDian (location of witness signature)
on this day,	, 2018 (date of signature).