505077744 09/05/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
QIU SHANG	05/28/2018
YUAN LUO	05/22/2018
MARK YUE QIAN	05/28/2018

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:	15996625

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.

Email: Holly_Vigliatura@dell.com

Correspondent Name: EMC IP HOLDING COMPANY LLC

Address Line 1: 176 SOUTH STREET

Address Line 4: HOPKINTON, MASSACHUSETTS 01748

ATTORNEY DOCKET NUMBER:	EMC-17-0025.02
NAME OF SUBMITTER:	HOLLY VIGLIATURA
SIGNATURE:	/Holly Vigliatura/
DATE SIGNED:	09/05/2018

Total Attachments: 5

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> PATENT REEL: 046787 FRAME: 0054

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ASSIGNMENT

WHEREAS, we, Qiu Shang, Yuan Luo, Mark Yue Qian, and Colin He Wang, 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 APPARATUS FOR MANAGING SESSIONS (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 4, 2018 as U.S. Application No. 15/996625;
[]	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 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

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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 (15/996625 filed June 4, 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:

Inventor's Signature Print full name of inventor Qiu Shang Residence 2F Building 2, KIC Plaza No. 252, Shanghai, Yangpu 200433, China Citizenship China (People's Republic) Same as above 1	Date: 5/28/29/8	Shaug Qin
Residence 2F Building 2, KIC Plaza No. 252, Shanghai, Yangpu 200433, China Citizenship China (People's Republic) Mailing Address Same as above 1. Jian Jian Zhang (name of first witness), whose residential address is was personally present and did see Qiulin Cheng (name of person signing the assignment), who is personally known to me, execute the above assignment. Jianjian Zhang (signature of first witness) Signed at EMC SH of i (2 (location of witness signature)		Inventor's Signature
Shanghai, Yangpu 200433, China China (People's Republic) Mailing Address Same as above I. Jian Jian Zhang (name of first witness), whose residential address is was personally present and did see Qiulin Cheng (name of person signing the assignment), who is personally known to me, execute the above assignment. Jianjian Zhang (signature of first witness) Signed at FAC SH of i (a (location of witness signature)	Print full name of inventor	Qiu Shang
China (People's Republic) Mailing Address Same as above 1. Jaojao Zhan (name of first witness), whose residential address is No. 1 Lian yuan Road Judong Shan Had was personally present and did see Qiulin Cheng (name of person signing the assignment), who is personally known to me, execute the above assignment. Jiaojiao Zhang (signature of first witness) Signed at ENG SH of (Q (location of witness signature)	Residence	2F Building 2, KIC Plaza No. 252,
I. Jiao Jiao Zhang (name of first witness), whose residential address is No Jianguah Road Judong Shanguah was personally present and did see Qiulin Cheng (name of person signing the assignment), who is personally known to me, execute the above assignment. Jiaojiao Zhang (signature of first witness) Signed at FMC SH of file (location of witness signature)		Shanghai, Yangpu 200433, China
1. Jiw jiw. Zhang (name of first witness), whose residential address is NO I Lian Muan. Road Judong Shanghai was personally present and did see Qiulin Cheng (name of person signing the assignment), who is personally known to me, execute the above assignment. Jiwijia Zhang (signature of first witness) Signed at EMC SH of (Q (location of witness signature)	Citizenship	China (People's Republic)
was personally present and did see Qiulin Cheng (name of person signing the assignment). who is personally known to me, execute the above assignment. Jianjan Zhang (signature of first witness) Signed at FAC SH of (a (location of witness signature)	Mailing Address	Same as above
	was personally present and did see Qiuh is personally known to me, execute the a Jiaojiao Zhang Signed at EMC C	in Cheng (name of person signing the assignment), who bove assignment. (signature of first witness) (location of witness signature)
	was personally present and did see Qiu	fin Cheng (name of person signing the assignment), who
I, Jay Hay (name of second witness), whose residential address is 150 No 18 Day Road (Name of person signing the assignment), who is personally known to me, execute the above assignment.	Signed at 2F Building 4. IC.	(signature of second witness) 1024 NO 252 Say (Affection of witness signature)

Date: May 22, 2018	Yuan Luo
U	Inventor's Signature
Print full name of inventor	Yuan Luo
Residence	Room 1201, No.28, Lane 1388
	Shanghai, China
Citizenship	China (People's Republic)
Mailing Address	Same as above
I, Les Wany (nam	ne of first witness), whose residential address is
Room 601 No 23 Fishon Donal	Shanghai, China
	(name of person signing the assignment), who is
personally known to me, execute the above as	
_ low Wary	(signature of first witness)
Signed at FMC S	(signature of first witness) (location of witness signature) 2018 (date of signature).
on this day. May 27	2018 (data of signature)
on this day, May 22,	2018 (dațe of signature).
	₩.
- T. 71	
I, Jia Zhuo (nam	ne of second witness), whose residential address is
Room 503, No 401, Guo ding	- -
•	(name of person signing the assignment), who is
personally known to me, execute the above as	signment.
1. 71 -	
- ha vino	(signature of second witness) (location of witness signature)
Signed at EMC SIA Of	(location of witness signature)
on this day, May 22,	2018 (date of signature).

Date: May 28, 2018	Mark Lue Gian
(Inventor's Signature
Print full name of inventor	Mark Yue Qian
Residence	No.51, Lane1702, North Sichuan Road
	Shanghai, China 200080
Citizenship	China (People's Republic)
Mailing Address	Same as above
	:
I, Jiao Jiao Zhang (nan	ne of first witness), whose residential address is un Road Fudong Shanghai
	e Qian (name of person signing the assignment),
who is personally known to me, execute the a	
Signed at EMC on this day,	(signature of first witness) SH. Office (location of witness signature) 2018 (date of signature).
	√ n
I, <u>parid Chang sheng Ren</u> (nan	ne of second witness), whose residential address is
was personally present and did see Mark Yuo	e Qian (name of person signing the assignment),
who is personally known to me, execute the a	bove assignment.
barid changsherg ken	(signature of second witness) (location of witness signature) 2018 (date of signature).
Signed at EMC SH Office	(location of witness signature)
on this day, May 28	2018 (date of signature).

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RECORDED: 09/05/2018