

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4074861

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BIAO YAN	09/29/2016
BO HU	09/29/2016
JIA HUANG	09/29/2016
JING YE	09/29/2016
QIAN WU	09/29/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	EMC IP HOLDING COMPANY LLC
<b>Street Address:</b>	176 SOUTH STREET
<b>City:</b>	HOPKINTON
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01748
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15279717
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Phone:</b>	508-898-8601
<b>Email:</b>	docketing@westboro-ip.com
<b>Correspondent Name:</b>	MUIRHEAD AND SATURNELLI, LLC
<b>Address Line 1:</b>	200 FRIBERG PARKWAY, SUITE 1001
<b>Address Line 4:</b>	WESTBOROUGH, MASSACHUSETTS 01581
<b>ATTORNEY DOCKET NUMBER:</b>	EMS-638US
<b>NAME OF SUBMITTER:</b>	ANNE E. SATURNELLI
<b>SIGNATURE:</b>	/Anne E. Saturnelli/
<b>DATE SIGNED:</b>	09/29/2016
<b>Total Attachments: 6</b>	
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**ASSIGNMENT**

**WHEREAS**, we, Biao YAN, Bo HU, Jia HUANG, Jing YE and Qian WU, 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 CACHING TECHNIQUES, the specification of which:

- ☒ [ X ] is being executed on even 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 No. \_\_\_\_\_ on \_\_\_\_\_.

**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.

AND, we hereby authorize attorneys of Muirhead and Saturnelli, LLC to insert here in parenthesis ( 15/279,717 filed September 29, 2016 ) 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: 2016.9.29 Biao Yan  
Inventor's Signature

Print full name of first inventor: **Biao YAN**  
Residence: c12-7 Jianfu Software Park  
Chengdu, China  
Citizenship: China  
Mailing Address: Same as above

I Lvao, Rui (name) whose residential address is Houcang Road 169# Tianfu new district, Chengdu, Sichuan, China was personally present and did see Biao Yan (name of person signing the assignment) who is personally known to me, execute the above assignment.

Lvao, Rui (signature of first witness)  
Signed at Chengdu (location of witness signature)  
on this day Sep. 29 of 20 16. (date of signature)

I Amber Li (name) whose residential address is Mei'an Road 66# Tianfu new district, Chengdu, Sichuan, China was personally present and did see Biao Yan (name of person signing the assignment) who is personally known to me, execute the above assignment.

Amber Li (signature of second witness)  
Signed at Chengdu (location of witness signature)  
on this day Sep 29 of 20 16. (date of signature)

Date:

2016.9.29

Bo HU

Inventor's Signature

Print full name of second inventor:

**Bo HU**

Residence:

3-2-1204, No 166 Taipingyuan Middle

Chengdu, China

Citizenship:

China

Mailing Address:

Same as above

I Lvao, Rui (name) whose residential address is Haidong Road 169#, Tianfu new district, Chengdu, Sichuan, China was personally present and did see Bo Hu (name of person signing the assignment) who is personally known to me, execute the above assignment.

Lvao, Rui (signature of first witness)

Signed at Chengdu (location of witness signature)

on this day Sep. 29 of 20 16. (date of signature)

I Amber Li (name) whose residential address is Meijian Road 66#, Tianfu new district, Chengdu, Sichuan, China was personally present and did see Bo Hu (name of person signing the assignment) who is personally known to me, execute the above assignment.

Amber Li (signature of second witness)

Signed at Chengdu (location of witness signature)

on this day Sep 29 of 20 16. (date of signature)

Date: 2016. 9. 29

Jia Huang  
Inventor's Signature

Print full name of third inventor:

Jia HUANG

Residence:

205 Dormitory, Wangjiang Campus Beijing  
Chengdu, China 61000

Citizenship:

China

Mailing Address:

Same as above

I Liao, Rui (name) whose residential address is Haidang Road 169 # Tianfu new district, Chengdu, Sichuan, China was personally present and did see Jia Huang (name of person signing the assignment) who is personally known to me, execute the above assignment.

Liao Rui (signature of first witness)

Signed at Chengdu (location of witness signature)

on this day Sep. 29 of 2016. (date of signature)

I Amber Li (name) whose residential address is Mei an Road 66 #, Tianfu new district, Chengdu, Sichuan, China was personally present and did see Jia Huang (name of person signing the assignment) who is personally known to me, execute the above assignment.

Amber Li (signature of second witness)

Signed at Chengdu (location of witness signature)

on this day Sep. 29 of 2016. (date of signature)

Date: 2016.9.29

叶静  
Inventor's Signature

Print full name of fourth inventor:

Jing YE

Residence:

Yifeng Xincheng, 651# Tianfu Road

Chengdu, China 61000

Citizenship:

China

Mailing Address:

Same as above

I Liao, Rui (name) whose residential address is Haidang Road 169#, Tianfu new district, Chengdu, Sichuan, China was personally present and did see Jing Ye (name of person signing the assignment) who is personally known to me, execute the above assignment.

Liao, Rui (signature of first witness)

Signed at Chengdu (location of witness signature)

on this day Sep. 29th of 20 16. (date of signature)

I Amber, Li (name) whose residential address is Meian Road 66#, Tianfu new district, Chengdu, Sichuan, China was personally present and did see Jing Ye (name of person signing the assignment) who is personally known to me, execute the above assignment.

Amber. Li (signature of second witness)

Signed at Chengdu (location of witness signature)

on this day Sep. 29th of 20 16. (date of signature)

Date: Sep 29th 2016

[Signature]  
Inventor's Signature

Print full name of fifth inventor:

Qian WU

Residence:

6-808#, Hai Yue Hui Cheng  
Chengdu, China 610041

Citizenship:

China

Mailing Address:

Same as above

I Liao, Rui (name) whose residential address is Haochang Road 169#, Tianfu new district, Chengdu, Sichuan, China was personally present and did see [Signature] (name of person signing the assignment) who is personally known to me, execute the above assignment.

Liao, Rui (signature of first witness)

Signed at Chengdu (location of witness signature)

on this day Sep. 29 of 20 16. (date of signature)

I Amber Li (name) whose residential address is Meian Road 66#, Tianfu new district, Chengdu, Sichuan, China was personally present and did see [Signature] (name of person signing the assignment) who is personally known to me, execute the above assignment.

Amber Li (signature of second witness)

Signed at Chengdu (location of witness signature)

on this day Sep. 29 of 20 16. (date of signature)