504036116 10/04/2016 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYAN	ICE:	ASSIGNMENT	
CONVEYING PARTY DA			
		Name	Execution Date
HONGTAO DAI			09/28/2016
LEI ZHANG			09/28/2016
CHAO CHEN			09/28/2016
KUNWU HUANG	09/28/2016		
JINGJING LIU			09/28/2016
YING TENG			10/03/2016
RECEIVING PARTY DA	 TA		
Name:	EMC IP		
Street Address:	176 SOUTH ST.		
City:	HOPKINTON		
State/Country:	MASSACHUSETTS		
Postal Code:	01748		
PROPERTY NUMBERS	Total: 1	Number	
Property Type			4
Property Type Application Number:		15279892	
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Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will be</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA e sent to provided	(713)228-8600 <i>the e-mail address first; if that is uns</i> <i>; if that is unsuccessful, it will be sen</i> 7132288600 welsh@oshaliang.com OSHA LIANG LLP 909 FANNIN ST. SUITE 3500 HOUSTON, TEXAS 77010	
Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET NU	ATA e sent to provided	(713)228-8600 the e-mail address first; if that is uns ; if that is unsuccessful, it will be sen 7132288600 welsh@oshaliang.com OSHA LIANG LLP 909 FANNIN ST. SUITE 3500 HOUSTON, TEXAS 77010 18277/112001; EMC-16-0621	

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Total Attachments: 8	
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ASSIGNMENT

WHEREAS, we, Hongtao Dai, Lei Zhang, Chao Chen, Kunwu Huang, Jingjing Liu and Ying Teng 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 SYSTEM FOR DOCUMENT SEARCH IN STRUCTURED DOCUMENT REPOSITORIES 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"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts 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.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

PATENT/Joint Assignment EMC Docket No.: EMC-16-0621; 18377/112001

28 Date:

Inventor's Signuture

Print full name of second inventor: Residence: Citizenship: Mailing Address: Honglao Dai China China c/o EMC IP Holding Company LLC 176 South Street Hopkinton, Massachusetts 01748

Ink W whose, residential address is is. (name of person signing was personally present and did see the assignment) who is personally known to me, execute the above assignment.

(signature of first witness) Signed at <u>74. 4. 4. 5. Joseph J. Joseph</u> (Applettion of witness signature) on this day <u>for 1. 111</u> of 20 16 (dute of signature)

lims-Ma (name) whose residential address is was personally present and did see Heydae Ibi (name of person signing the assignment) who is personally known to me, execute the above assignment. (signature of second witness) 28 Stortes (location of witness signature) Signed at _> 282

, 281h of 20 1/2. (date of signature) on this day

PATENT/Joint Assignment EMC Docket No.: EMC-16-8611; 18277/112001

Date: 20/6, 9.28

lei Zha

Inventor's Signature

Print full name of second inventor: Residence: Citizenship: Mailing Address: Lel Zhang China China c/o EMC IP Holding Company LLC 176 South Street Hopkinton, Massachusetts 01748

whose residential address is

(signature of first witness) location of witness signature) Signed at 1/2.26.202 **NH**A 6 (date of signature) on this day of 20,

(signature of second witness) 12 Ya Show (location of witness signature) Signed as _2 22 on this day of 20 16. (date of signature)

PATENT/Joint Assignment EMC Dockst No.: EMC-36-4621; 18277/112001

Date: 2016.9.28

Inventor's Signature

Print full name of second inventor: Residence: Citizenship: Mailing Address: Chao Chen China China c/o EMC IP Holding Company LLC 176 South Street Hopkinton, Massachusetts 01748

8 whose residential addry (nome) was personally present and did see (name & person signing) the assignment) who is personally known to me, execute the above assignment. (signuture of first witness) 202 Jasperfull, Scation of witness signature) Signed ut 24 i.rl# on this day of 20 🔬 (date of signature) (name) whose residential address is 252. Shart 5.8% 2.00 was personally present and did see _ (name of person signing Qao_das the assignment) who is personally known to me, execute the above assignment. (signature of second witness) Sug (a) location of witness signature) Signed at 2

16 (date of signature) on this day of 20

PATENT/Joint Assignment EMC Docket No.: EMC-16-4621; 18277/112801

Date: 2011 4.28

's Signature

Print full nume of second inventor: **Residence:** Citizenship: Mailing Address:

Kunwu Huang China China c/o EMC IP Holding Company LLC 176 South Street Hopkimon, Massachusetts 01748

1 in (name) whose residential was personally present and did see (nume of person signing the assignment) who is personally known to me, execute the above assignment. (signature of first witness) Ention of witness signature) Signed at 2 (date of signature) 20 on this day 83.2 lons-Ma (name) whose residential address is Skaa hai

(nume of person signing was personally present and did see. Comment. Mam the assignment) who is personally known to me, execute the above assignment.

(signature of second witness) , 2]2 Realion of witness signature) Signed at 284 (b. (date of signature) on this day of 20

PATENT/joist Assignment EMC Docket No.: EMC-16-0521; 18277/112001

Date: 2016.9.78

Jingjing

Inventor's Signature

Print full name of second inventor: Residence: Citizenship: Muiling Address: Jingjing Liu China c/o EMC IP Holding Company LLC 176 South Street Hopkinton, Massachusens 01748

oddæss is (nume) whose residential (nume of person signing was personally present and did see , the assignment) who is personally known to me, exolute the above assignment. (signature of first witness) (fication of witness signature) Signed at 22 of 20<u>16</u>. (date of signature) on this day (name) whose residential address is <u>Skondal</u> (name of person signing the assignment) who is personally known it me, execute the above assignment. (signature of second witness) (inskill location of witness signature) Signed at \$ \$. of 20_1h. (date of signature) on this day

PATENT/Joint Assignment EMC Docket No.: EMC-16-8621; 18277/112801

Date: 10/03 /16

Inventor's Signature

Print full name of first inventor: Residence: Citizenship:

Mailing Address:

Ying Teng USA China c/o EMC IP Holding Company LLC 176 South Street Hopkinton, Massachusetts 01748

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the trathfulness, accuracy or validity of that document.

COUNTY OF Manned a

On this 3^{n-1} day of <u>October</u>, 2016, before me, <u>Marria J. Diar</u>, <u>Notan</u>, <u>Rubbe</u> (insert name and title of the officer) personally appeared <u>YMa</u> Teng who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are

subscribed to the within instrument and acknowledged to me that be/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Notary Public

Print Name: Mars. J. Dial

My Commission expires 02 127 1 2018

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