504645916 11/16/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CALEB E. WELTON	05/23/2013
HITOSHI HARADA	05/23/2013
JEFFREY IRA COHEN	05/23/2013
LEI CHANG	05/07/2013
RADHIKA REDDY	06/18/2013
TAO MA	05/07/2013
ZHANWEI WANG	05/07/2013

RECEIVING PARTY DATA

Name:	EMC CORPORATION
Street Address:	176 SOUTH STREET
City:	HOPKINTON
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15714637

CORRESPONDENCE DATA

Fax Number: (408)973-2595

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Email: enguyen@ip-patent.com

Correspondent Name: VAN PELT, YI & JAMES LLP AND EMC IP HOLDING COMPA

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ATTORNEY DOCKET NUMBER:	EMCCP472C1
NAME OF SUBMITTER:	DANIEL M SCHNEIDER
SIGNATURE:	/Daniel M. Schneider/
DATE SIGNED:	11/16/2017

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Total Attachments: 9 source=EMCCP472C1 Executed Assignment#page1.tif source=EMCCP472C1 Executed Assignment#page2.tif source=EMCCP472C1 Executed Assignment#page3.tif source=EMCCP472C1 Executed Assignment#page4.tif source=EMCCP472C1 Executed Assignment#page5.tif source=EMCCP472C1 Executed Assignment#page6.tif source=EMCCP472C1 Executed Assignment#page6.tif source=EMCCP472C1 Executed Assignment#page7.tif source=EMCCP472C1 Executed Assignment#page8.tif source=EMCCP472C1 Executed Assignment#page8.tif

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ASSIGNMENT

WHEREAS, we, WELTON, Caleb E.; HARADA, Hitoshi; COHEN, Jeffrey Ira; CHANG, Lei; REDDY, Radhika; MA, Tao; and WANG, Zhanwei 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 <u>PARALLEL PROCESSING</u> <u>DATABASE SYSTEM</u>, the specification of which:

t in	is being executed on even date herewith and is about to be filed in the United States Patent Office;
[X]	was filed on March 15, 2013 as U.S. Application No. 13/839,390;
[]	was patented under U.S. Patent Noon

WHEREAS, EMC Corporation (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,

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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:

PATENTYJöint Assignment EMC Docket No.: EMC-13-0199(PRO)ORD9

Date:	5/20/2013	And
		Inventor's Signature
Print full	name of first inventor:	Calch E. WELTON
Residenc	ova:	Foster City, CA 94404
Citizensl	hip:	USA
Mailing.	Address:	744 Edgewater Boulevard - Apt. 301
		Foster City, CA 94404
	STATE OF CALLED	26318
	COUNTY OF SAU M	(ATEO
who pro- subscrib- in hisAre	ved to me on the basis of satisfactor ed to the within instrument and ack rAheir authorized capacity(ics), and	, 2013, before me appeared <u>Caleb E Weltorn</u> ry evidence to be the person(s) whose name(s) is/arc nowledged to me that he/she/they executed the same I that by his/her/their signature(s) on the instrument which the person(s) acted, executed the instrument.
•	under PENALTY OF PERJURY u g paragraph is true and correct.	nder the laws of the State of California that the
WITNE	SS my hand and official scal.	Latherin & Boule
	ZATHERINE F. BEAULIEU	Notary Public
	Convinsation # 1978561 Holary Public - California	Print Name: CATHERINE F BEAULEY
	San Malan County My Comm. Expires May 18, 2016	My Commission expires 5 / 18 / 14a

PATENT/Joint Assignment EMC Docket No.: EMC-13-0199(PRO)ORD9

Print Name: Catherine F Beautieu

My Commission expires 5 / 18 / 142

5/23/2013 Date: Inventór's Signature Print full name of second inventor: Hitoshi HARADA Residence: Foster City, CA 94404 Citizenship: Japan Mailing Address: 16 Commons Lane Foster City, CA 94404 STATE OF COUNTY OF On this <u>AB</u> day of <u>no.4</u>. 2013, before me appeared <u>Hitoshi Ho.carla</u> who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/nre subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ics), 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. CATHERINE F. BEAULIEU Commission # 1978561

Notary Public - California San Mateo County

My Comm. Expires May 18, 2016

PATENT/Joint Assignment EMC Docket No.: EMC-13-0199(PRO)ORD9

Date:

nventor's Signature

Print full name of third inventor:

Jeffrey Ira COHEN

Residence:

Sunnyvale, CA 94086

Citizenship:

USA

Mailing Address:

499 East McKinley Avenue

Sunnyvale, CA 94086

STATE OF

COUNTY OF

On this <u>23</u> day of <u>100.</u> . 2013, before me appeared <u>Jeffort I Colorn</u> 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 he/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) neted, 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,

CATHERINE F. BEAULIEU Commission # 1978561

Notary Public - California San Maleo County

My Comm. Expires May 18, 2016

Notary Public

Print Name: CATHERILE F BEALLING

My Commission expires 5/13/16

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PATENT/Joint Assignment EMC Docket No.: EMC-13-0199(PRO)ORD9

Date: May 7, 2013	LE CHANG
	Inventor's Signature
Print full name of fourth inventor:	Lei CHANG
Residence:	Beijing, CHINA
Citizenship:	China (People's Republic)
Mailing Address:	Room 661, Building 18, MaDianNanCun,
	Xicheng District, Beijing, CHINA
	100084
	.
I Shengwen Yang	(name) whose residential address is
Room 801, Building 7, Jin Dian Hua Yuar	ı, Haidian District, Beijing 100082, China
was personally present and did seeLe	ci Chang (name of person signing the assignment)
who is personally known to me, execute the	
Shenfree You's (sign	nature of first witness) Signed atG/F, Block D.
	China (location of witness signature) on this day
May. 7 of 2013 . (date of signature)	
I Jin Wang	(name) whose residential address is
	et, Beijing, China was personally present and did
	(name of person signing the assignment)
who is personally known to me, execute th	
	nature of second witness) Signed atG/F, Block
· /	g. China (location of witness signature) on this
day May. 7 of 2013 (date of signs	

PATENT/Joint Assignment EMC Docket No.: EMC-13-0199(PRO)ORD9

Date: 6/18/13	Ladio 162
	Inventor's Signature
Print full name of fifth inventor:	Radhika REDDY
Residence:	Foster City, CA 94404
Citizenship:	USA
Mailing Address:	844 Vega Circle Foster City, CA 94404
who proved to me on the basis of satisfactor	100000. 10000
in his/hei/their authorized capacity(ies), ar	nd that by his her/their signature(%) on the instrument which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY foregoing paragraph is true and correct.	under the laws of the State of California that the
WITNESS my hand and official seal.	Tonla Rae
	Notary Public
	Print Name: YOUNGO Shove
4	My Commission express 5/14/2017

PATENT/Joint Assignment EMC Docket No.: EMC-13-0199(PRO)ORD9

Date: May 7, 2013	Tan Ma	
	Inventor's Signat	ture
Print full name of sixth inventor:	Tao MA	
Residence:	Beining, CHINA	
Citizenship:	China (People's Republic)	
Mailing Address:	Room 413, 5/F, Unit 4, No. 35,	
	North 4th Ring Middle Road, Chao	yao District
	Beining, CHINA	
I Shengwen Yang	(name) whose residential addre	ess is
Room 801, Building 7, Jin Dian Hua Ye	uan, Haidian District, Beijing 100082, Chir	<u>na</u>
was personally present and did see	Tao Ma (name of person signing the	assignment)
who is personally known to me, execute		
Sherquen Yang (6	signature of first witness) Signed at	G/F, Block D.
	z. China (location of witness signat	
May, 7 of 2013 . (date of signature)	
I Jin Wang	(name) whose residential addre	ss is
No.15, Wangzhuang Road, Haidian Dis	strict, Beijing, China was personally I	oresent and did
see <u>Tao Ma</u>	(name of person signing the as	signment)
who is personally known to me, execute	the above assignment.	
	signature of second witness) Signed at	G/F, Block
11	ing, China (location of witness sig	
day May. 7 of 2013 . (date of signal	gnature)	

Date: May 7, 2013	Zhanwei Wang Inventor's Signature
Print full name of seventh inventor:	Zhanwei WANG
Residence:	Beijing, CHINA
Citizenship:	China (People's Republic)
Mailing Address:	Room 10, Unit 2, Building 2, XiWai
· ·	Taipingzhuang, Haidian District, Beijing, CHINA
I Shengwen Yang	(name) whose residential address is
Room 801, Building 7, Jin Dian Hua Yua	n, Haidian District, Beijing 100082, China was
personally present and did see Zhanv	vei Wang (name of person signing the assignment)
who is personally known to me, execute the	e above assignment.
Thanguon Carey (sig	nature of first witness) Signed at G/F, Block D,
	China (location of witness signature) on this day
May. 7 of 2013 . (date of signature)	
IIin Wang	(name) whose residential address is
No.15, Wangzhuang Road, Haidian Distri	ct. Beijing, China was personally present and did
see Zhanwei Wang	(name of person signing the assignment)
who is personally known to me, execute the	
	nature of second witness) Signed at G/F, Block
D, No. 1 Zhongguancun East Road, Beijin	mature of second witness) Signed at G/F, Block g, China (location of witness signature) on this
day May 7 of 2013 (date of cian	

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