PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Stephen Todd	05/07/2012
Ivan Gumenyuk	05/13/2012
Pavel B. Egorov	05/15/2012
Inga Petryaevskaya	05/12/2012
Padraig Murphy	05/14/2012
Shareef Muhammad Mahmoud Bassiouny	05/16/2012
Karthikeyan Srinivasan	05/26/2012
Yael Eliana Villa	05/13/2012
Jidong Chen	05/08/2012
Qiyan Chen	05/14/2012
Sudhir Vijendra	05/08/2012
Calvin Donahue Smith	05/08/2012

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:	13338864

CORRESPONDENCE DATA

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REEL: 028286 FRAME: 0610

 via US Mail.

 Correspondent Name:
 William E. Lewis

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 Locust Valley, NEW YORK 11560

ATTORNEY DOCKET NUMBER: EMC-11-663

NAME OF SUBMITTER: William E. Lewis

Total Attachments: 13

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PATENT REEL: 028286 FRAME: 0611

ASSIGNMENT

Villa, Jidong invention con described in a	REAS, we, Stephen Todd, Ivan Gumenyuk, Pavel B. Egorov, Inga Petryaevskaya, furphy, Shareef Muhammad Mahmoud Bassiouny, Karthik Srinivasan, Yael Eliana Chen, Qiyan Chen, Sudhir Vijendra and Calvin Donahue Smith, have invented an imprising and/or embodying certain improvements or discoveries or both as an application for Letters Patent of the United States entitled KNOWLEDGE IENT ACROSS DISTRIBUTED ENTITY, the specification of which:	KARTHIKEYAN 26/05/12 26/may/12
[]	is being executed on even date herewith and is about to be filed in the United States Patent Office;	

[]WHEREAS, EMC Corporation (hereinafter "ASSIGNEE"), a corporation organized and

was filed on December 28, 2011 as U.S. Application No. 13/338,864;

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;

was patented under U.S. Patent No. on

[X]

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;

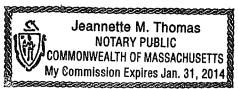
AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its

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:

set forth below.	•
Date: My 7 2012	Inventor's Signature
Print full name of first inventor:	Stephen Todd
Residence:	Shrewsbury, Massachusetts
Citizenship:	United States of America
Mailing Address:	36 Thomas Farm Circle
	Shrewsbury, Massachusetts 01545
STATE/COMMONWEALTH OF COUNTY OF	Massachusetts Middlesex
above-named Stephen Todd known to me employee identification card; [] driver	, 2012, then personally appeared before me the ethrough satisfactory evidence of identification [] is license; [] (other)personally known to be the foregoing Assignment and acknowledged that he/she deed for the purposes therein contained.
	Oppulary Thomas
	Notary Public
	Notary Public Print Name: Jeanne He M. Thomas
	• •



My Commission expires 1 / 31 / 2014

PATENT

Date:

13-May -2012

ventor's Signature

Print full name of second inventor:

Residence:

Citizenship:

Mailing Address:

Ivan Gumenyuk

Saint-Petersburg, Russia

Russia

198261, ul. Stojkosti, 26-3, Apt. 58

Saint-Petersburg, Russia

Witness #1 Signature

14- Muy-2017 Date

Date: 15 May 2012	The film
	Inventor's Signature
Print full name of third inventor:	Pavel B. Egorov
Residence:	St-Petersburg, Russia
Citizenship:	Russia
Mailing Address:	Asafieva Street 5-1-158
	St-Petersburg, 194356, Russia
May 15, 2012 Date	Witness #1 Signature Viaches lav Mesterov Witness #1 Print Name
Date	Witness #2 Signature Tatiana Loseva Witness #2 Print Name

Print full name of fifth inventor:

Residence:

Citizenship:

Mailing Address:

Padraig D. Murphy

Glanmire, Ireland

Ireland

Gleann Rua, Sarsfield's Court, County Cork

Glanmire, Ireland

Witness #1 Signature

PATRICK

Witness #1 Print Name

Witness #2 Signature

Witness #2 Print Name

Date: 16 Hay 2019

/Inventor's Signature

Print full name of sixth inventor:

Residence:

Citizenship:

Mailing Address:

Shareef Muhammad Mahmoud Bassiouny

Giza, Egypt

Egypt

Flat 310, Building No. 1 El Aalam City

Behind Baloon Theatre, Agouza

Giza, Egypt

16 Hay 2012

Date

Fody Eskandar Lame

Witness #1 Signature

Fady Eskandor lami

Witness #1 Print Name

16 May 2012
Date

Witness #2 Signature

Witness #2 Print Nome

-7-

Date: 26 may 2012	Just .
	Inventor's Signature
Print full name of seventh inventor: Residence:	KARTHIKE YAW Karthik Srinivasan BANGALORE, INDIA Massachusetts
Citizenship:	Paro India R306, PURVA FOUNTAIN SQUARE APT
Mailing Address:	176 South Street VARTHUR ROAD
	Hopkinton, Massachusetts 01748
	16 MARATHA HALU, BANGALORE-560037
26-May-2012	Many
Date	Witness #1 Signature
	SHAILENDRA RAVI Witness #1 Print Name
26-May-2012 Date	Witness #2 Signature
	SURAJ MULTANI Witness #2 Print Name

Date: 13/5/2012	
	Inventor's Signature
Print full name of eighth inventor:	Yael Eliana Villa 从
Residence:	Tel Aviv, Israel
Citizenship:	Germany
Mailing Address:	Romema 36/1
	Tel Aviv, Israel
13/5/12-	Witness #1 Signature
Date	Witness #1 Signature ACON KANTMAN
	Witness #1 Print Name
13/5/1)	110 M XX
Date	Witness #2 Signature
	Cuy Fligher
	Witness #2 Print Name

Date: May 8, 20/2	Ji dong Chen Inventor's Signature
Print full name of ninth inventor: Residence: Citizenship: Mailing Address:	Jidong Chen Beijing, China China 8/F, Block D, SP Tower, Tsinghua Science Park Zhongguancun Dong Road 1, Haidian District Beijing, China
STATE/COMMONWEALTH OF MO	ddlesex
above-named Jidong Chen known to me through	20 2, then personally appeared before me the agh satisfactory evidence of identification [_] ense; [_] (other) personally known the foregoing Assignment and acknowledged that and deed for the purposes therein contained. Deanwall Notary Public Deanwall Dea
	Notary Public Print Name: <u>Jeannette M. Thomas</u> My Commission expires <u>I</u> /31/2014
	Jeannette M. Thomas NOTARY PUBLIC COMMONWEALTH OF MASSACHUSETTS My Commission Expires Jan. 31, 2014

Print full name of tenth inventor:

Residence:
Citizenship:
Mailing Address:

2012. 5.14

Date

Qiyan Chen
Shanghai, China
China
Room 102, Guilding #26, ZaoZhuang Road 399
Shanghai 200136 China

Witness #1 Signature

Zony Gub
Witness #1 Print Name

Witness #2 Signature

Lintar Wan
Witness #2 Print Name

Date: 5/8/12	Which lip-
	Inventor's Signature
Print full name of eleventh inventor:	Sudhir Vijendra
Residence:	Cambridge, Massachusetts
Citizenship:	India
Mailing Address:	30 Cambridgepark Drive, Apt. 2111
	Cambridge, Massachusetts 02140
STATE/COMMONWEALTH OF	Massachusetts
COUNTY OF _	Middlesex
above-named Sudhir Vijendra known temployee identification card; [] driv to be the person whose name is subscri	, 20 12, then personally appeared before me the to me through satisfactory evidence of identification [] er's license; [] (other)personally Known bed to the foregoing Assignment and acknowledged that e act and deed for the purposes therein contained.
	Notary/Public
	Print Name: Jeannette M. Thomas
	My Commission expires 1 / 31 / 2014
	Jeannette M. Thomas NOTARY PUBLIC COMMONWEALTH OF MASSACHUSETTS My Commission Expires Jan. 31, 2014

Date: 5/8/12	Cha Mat
. (Inventor's Signature
Print full name of twelfth inventor:	Calvin Donahue Smith
Residence:	Brighton, Massachusetts
Citizenship:	United States of America
Mailing Address:	61 Bigelow Street
	Brighton, Massachusetts 02135
STATE/COMMONWEALTH OF COUNTY OF	Massachuselts Middlesex
above-named Calvin Donahue Smith identification [] employee identification [] to be the part of th	, 20 2, then personally appeared before me the known to me through satisfactory evidence of ation card; [] driver's license; [] (other) person whose name is subscribed to the foregoing e/she executed the same as his/her free act and deed for the
	Notary/Public
	Print Name: Jegnnette M. Thomas
	My Commission expires 1/31/2014
	Jeannette M. Thomas NOTARY PUBLIC COMMONWEALTH OF MASSACHUSETTS My Commission Expires Jan. 31, 2014