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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Jean-Pierre Bono	07/12/2013
Philippe Armangau	07/15/2013
David W. Harvey	07/12/2013

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:	13930164

CORRESPONDENCE DATA

Fax Number: 5083664688

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 508-616-2900

Email: docket@bainwoodhuang.com

Correspondent Name: James F. Thompson

Address Line 1: Bainwood, Huang & Associates, Inc.

Address Line 2: 2 Connector Road

Address Line 4: Westborough, MASSACHUSETTS 01581

ATTORNEY DOCKET NUMBER:	1003-215
NAME OF SUBMITTER:	James F. Thompson, Esq.
Signature:	/James F. Thompson/

PATENT REEL: 030960 FRAME: 0216 0 00 1393

Date:	08/07/2013
Total Attachments: 9	
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PATENT REEL: 030960 FRAME: 0217

Attorney Docket No.: 1003-215 EMC Docket No.: EMC-12-911

ASSIGNMENT

WHEREAS, I, <u>Jean-Pierre Bono</u>, as the original inventor or an original joint inventor 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

DATA STORAGE SYSTEM WITH UNIFIED SYSTEM CACHE

which is further identified by Attorney Docket Number 1003-215;

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 St., Hopkinton, MA 01748, USA desires to acquire an interest therein in accordance with agreements duly entered into with me;

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, I 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 me had this assignment and sale not been made: I 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. I 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, I hereby further agree for myself and my 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

Attorney Docket No.: 1003-215 EMC Docket No.: EMC-12-911

interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, I 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 I hereby authorize the attorneys at Bainwood Huang & Associates LLC to insert here in parentheses (<u>13/930,164 filed on 06/28/2013</u>) 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, I have hereunto set my hand and affixed my seal as set forth below:

Attorney Docket No.: 1003-215 EMC Docket No.: EMC-12-911

Date: 07/12/13	Marie
	Inventor's Signature
Legal name of inventor:	Jean-Pierre Bono
Residence:	33 Wachusett View Drive
	Westborough, MA 01581
Citizenship:	US
Mailing Address:	Same as above
STATE/COMMONWEALTH OF M	assachusetts iddlesex
me the above-named <u>Jean-Pierre Bono</u> k identification [太] employee identification to	be the person whose name is subscribed to ged that he/she executed the same as his/her
noo dot and dood to the purposes more	A second 1
	Notary Public O. Kelley
	Print Name:
	Linette S. Kelley
	My Commission expires <u>7</u> / <u>/3</u> / <u>2018</u>
	LINETTE S. KELLEY
	COMMONWEALTH OF MASSACHUSETTS My Commission Expires
	July 13, 2018

Attorney Docket No.: 1003-215 EMC Docket No.: EMC-12-911

ASSIGNMENT

WHEREAS, I, Philippe Armangau, as the original inventor or an original joint inventor 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

DATA STORAGE SYSTEM WITH UNIFIED SYSTEM CACHE

which is further identified by Attorney Docket Number 1003-215;

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 St., Hopkinton, MA 01748, USA desires to acquire an interest therein in accordance with agreements duly entered into with me;

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, I 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 me had this assignment and sale not been made: I 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. I 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, I hereby further agree for myself and my 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

Attorney Docket No.: 1003-215 EMC Docket No.: EMC-12-911

interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, I 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;

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IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my seal as set forth below:

PATENT ASSIGNMENT Attorney Docket No.: 1003-215 EMC Docket No.: EMC-12-911
EMC)Docket No.: <u>EMC-12-911</u>
MM
Inventor's Signature
inventors agriature
Philippe Armangau 51 Seminole Road

Citizenship:

Date: 7/15/2013

Legal name of inventor:

Residence:

Mailing Address: Same as above

STATE/COMMONWEALTH OF Massachusetts
COUNTY OF Middle sex

US

Print Name:

Acton, MA 01720

My Commission expires <u>07</u> / <u>13</u> / <u>20</u> / §

LINETTE S. KELLEY
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
July 13, 2018

Attorney Docket No.: 1003-215 EMC Docket No.: EMC-12-911

ASSIGNMENT

WHEREAS, I, <u>David W. Harvey</u>, as the original inventor or an original joint inventor 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

DATA STORAGE SYSTEM WITH UNIFIED SYSTEM CACHE

which is further identified by Attorney Docket Number 1003-215;

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 St., Hopkinton, MA 01748, USA desires to acquire an interest therein in accordance with agreements duly entered into with me;

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, I 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 me had this assignment and sale not been made; I 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. I 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, I hereby further agree for myself and my 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

Attorney Docket No.: 1003-215 EMC Docket No.: EMC-12-911

interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, I 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 I hereby authorize the attorneys at Bainwood Huang & Associates LLC to insert here in parentheses (13/930,164 filed on 06/28/2013) 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, I have hereunto set my hand and affixed my seal as set forth below:

Attorney Docket No.: 1003-215 EMC Docket No.: EMC-12-911

12/2013 Dudid Withing

Legal name of inventor:

David W. Harvey

Residence:

36 Pine Crest Road

Newton, MA 02569

Citizenship:

US

Mailing Address:

Same as above

STATE/COMMONWEALTH OF ____

COUNTY OF

free act and deed for the purposes therein contained.

Massachusetts Middlesex

On this /2 day of _______, 2013, then personally appeared before me the above-named David W. Harvey known to me through satisfactory evidence of identification [__] employee identification card; [X] driver's license; [__] (other) to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her

Notary Public

Print Name:

Linette S. Kelley

My Commission expires 07 / 13 / 2018

