

## PATENT ASSIGNMENT

Electronic Version v1.1  
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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Jean-Pierre Bono</td> <td>05/21/2013</td> </tr> <tr> <td>Frederic Corniquet</td> <td>05/21/2013</td> </tr> <tr> <td>Miles A. de Forest</td> <td>05/20/2013</td> </tr> <tr> <td>Himabindu Tummala</td> <td>05/22/2013</td> </tr> <tr> <td>Walter C. Forrester</td> <td>05/30/2013</td> </tr> </tbody> </table>		Name	Execution Date	Jean-Pierre Bono	05/21/2013	Frederic Corniquet	05/21/2013	Miles A. de Forest	05/20/2013	Himabindu Tummala	05/22/2013	Walter C. Forrester	05/30/2013
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Jean-Pierre Bono	05/21/2013												
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Miles A. de Forest	05/20/2013												
Himabindu Tummala	05/22/2013												
Walter C. Forrester	05/30/2013												
RECEIVING PARTY DATA													
Name:	EMC Corporation												
Street Address:	176 South Street												
City:	Hopkinton												
State/Country:	MASSACHUSETTS												
Postal Code:	01748												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13837086</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13837086								
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Application Number:	13837086												
CORRESPONDENCE DATA													
Fax Number:	5083664688												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	508-616-2900												
Email:	Docket@BainwoodHuang.com												
Correspondent Name:	Bainwood, Huang & Associates, LLC												
Address Line 1:	2 Connector Road												
Address Line 4:	Westborough, MASSACHUSETTS 01581												
ATTORNEY DOCKET NUMBER:	1003-209												
NAME OF SUBMITTER:	David E. Huang, Esq.												
Signature:	/David E. Huang/												

CH \$40.00 13837086

Date:

06/12/2013

**Total Attachments: 15**

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**ASSIGNMENT**

**WHEREAS**, I, Jean-Pierre Bono, 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

**VIRTUAL STORAGE PROCESSOR LOAD BALANCING**

which is further identified by Attorney Docket Number 1003-209;

**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, 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 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 ( 13/837,086 filed 03/15/2013 ) 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:


Date: 5/21/13

  
\_\_\_\_\_  
Inventor's Signature

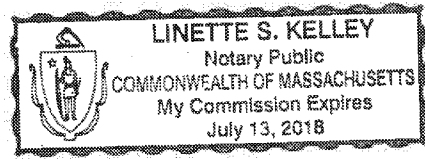
Legal name of inventor: Jean-Pierre Bono  
Residence: 33 Wachusett View Drive  
Westborough, MA 01581  
Citizenship: US  
Mailing Address: Same as above

STATE/Commonwealth of Massachusetts  
COUNTY OF Middlesex

On this 21<sup>st</sup> day of May, 2013, then personally appeared before me the above-named Jean-Pierre Bono known to me through satisfactory evidence of identification [] employee identification card; [] 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 free act and deed for the purposes therein contained.

  
\_\_\_\_\_  
Notary Public

Print Name: Linette S. Kelley  
My Commission expires 07/13/2018



**ASSIGNMENT**

**WHEREAS**, I, Frederic Corniquet, 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

**VIRTUAL STORAGE PROCESSOR LOAD BALANCING**

which is further identified by Attorney Docket Number 1003-209;

**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, 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

PATENT ASSIGNMENT  
Attorney Docket No.: 1003-209  
EMC Docket No.: EMC-12-903

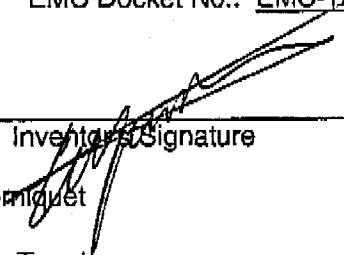
applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

**AND**, 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 ( 131837.086 filed 03/15/2013 ) 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:

Date: 21 MAY 2013

  
\_\_\_\_\_  
Inventor's Signature

Print full name of first inventor:

Frederic Corniquet

Residence:

13 Allée des Tennis  
Le Pecq, 78230 FRANCE

Citizenship:

FR

Mailing Address:

Same as above

I LUC VAN BRABANT (name) whose residential address is  
1643 RUE JULES REGNIER 78370 PLAISIR FRANCE  
was personally present and did see FREDERIC CORNIQUET (name  
of person signing the assignment) who is personally known to me, execute the above  
assignment.

V. B. (signature of first witness)

Signed at BEZONS, FRANCE (location of witness signature)

on this day 21 MAY of 2013. (date of signature)

I MARC AIRAGNES (name) whose residential address is  
41 RUE DE GLATIGNY 78150 LE CHESNAY .FR.  
was personally present and did see FREDERIC CORNIQUET (name  
of person signing the assignment) who is personally known to me, execute the above  
assignment.

M. Airagnes (signature of second witness)

Signed at BEZONS, FRANCE (location of witness signature)

on this day 21 MAY of 2013. (date of signature)



**ASSIGNMENT**

**WHEREAS**, I, Miles A. de Forest, 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

**VIRTUAL STORAGE PROCESSOR LOAD BALANCING**

which is further identified by Attorney Docket Number 1003-209;

**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, 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 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:

Date: 5/20/13

Miles A. de Forest  
Inventor's Signature

Legal name of inventor: Miles A. de Forest  
Residence: 6921 Iron Gate Drive  
Bahama, NC 27503  
Citizenship: US  
Mailing Address: Same as above

STATE/Commonwealth of North Carolina  
COUNTY OF Durham

On this 20<sup>th</sup> day of May, 2013, then personally appeared before me the above-named Miles A. de Forest known to me through satisfactory evidence of identification  employee identification card;  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 free act and deed for the purposes therein contained.



Tiffany Hinton  
Notary Public

Print Name: Tiffany Hinton  
My Commission expires 01/28/18

**ASSIGNMENT**

**WHEREAS**, I, Himabindu Tummala, 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

**VIRTUAL STORAGE PROCESSOR LOAD BALANCING**

which is further identified by Attorney Docket Number 1003-209;

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**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

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**AND** I hereby authorize the attorneys at Bainwood Huang & Associates LLC to insert here in parentheses (13/837,086 filed 03/15/2013) 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:

Date: 5/22/2013

*Budi*

Inventor's Signature

Legal name of inventor: Himabindu Tummala  
Residence: 19 Pratt Street  
South Grafton, MA 01560  
Citizenship: IN  
Mailing Address: Same as above

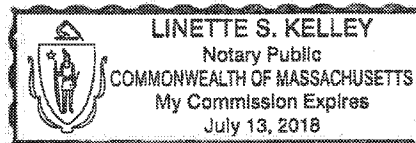
STATE/Commonwealth of Massachusetts  
COUNTY OF Middlesex

On this 22<sup>nd</sup> day of May, 2013, then personally appeared before me the above-named Himabindu Tummala known to me through satisfactory evidence of identification [] employee identification card; [] 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 free act and deed for the purposes therein contained.

*Linette S. Kelley*  
Notary Public

Print Name:

Linette S. Kelley  
My Commission expires 07 / 13 / 2018



**ASSIGNMENT**

**WHEREAS**, I, Walter C. Forrester, 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

**VIRTUAL STORAGE PROCESSOR LOAD BALANCING**

which is further identified by Attorney Docket Number 1003-209;

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**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;

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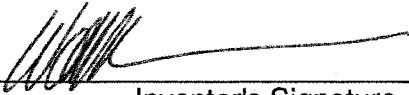
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PATENT ASSIGNMENT  
Attorney Docket No.: 1003-209  
EMC Docket No.: EMC-12-903

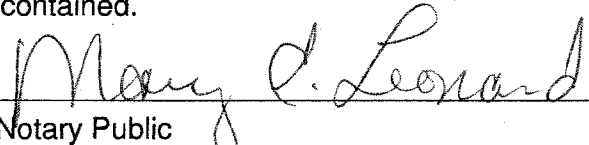
Date: 5/30/13

  
\_\_\_\_\_  
Inventor's Signature

Legal name of inventor: Walter C. Forrester  
Residence: 21 Magnum Court  
Berkeley Heights, NJ 07922  
Citizenship: US  
Mailing Address: Same as above

STATE/Commonwealth of New Jersey  
COUNTY OF Monmouth

On this 30 day of May, 2013, then personally appeared before me the above-named Walter C. Forrester known to me through satisfactory evidence of identification  employee identification card;  driver's license;  (other) Walter C. Forrester to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

  
\_\_\_\_\_  
Notary Public

Print Name: Mary E. Leonard

My Commission expires 10/18/2017

MARY E. LEONARD  
NOTARY PUBLIC OF NEW JERSEY  
MY COMMISSION EXPIRES OCT. 18, 2017