

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

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>Jeffrey Ira Cohen</td> <td>01/18/2012</td> </tr> <tr> <td>King Lun Choi</td> <td>01/18/2012</td> </tr> <tr> <td>Brian C. Hagenbuch</td> <td>01/20/2012</td> </tr> <tr> <td>Kurt Harriman</td> <td>03/09/2012</td> </tr> <tr> <td>Gavin John Sherry</td> <td>01/18/2012</td> </tr> <tr> <td>Charles F. McDevitt</td> <td>01/18/2012</td> </tr> <tr> <td>Caleb E. Welton</td> <td>01/18/2012</td> </tr> </tbody> </table>		Name	Execution Date	Jeffrey Ira Cohen	01/18/2012	King Lun Choi	01/18/2012	Brian C. Hagenbuch	01/20/2012	Kurt Harriman	03/09/2012	Gavin John Sherry	01/18/2012	Charles F. McDevitt	01/18/2012	Caleb E. Welton	01/18/2012
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RECEIVING PARTY DATA																	
<table border="1"> <tr> <td>Name:</td> <td>EMC Corporation</td> </tr> <tr> <td>Street Address:</td> <td>176 South Street</td> </tr> <tr> <td>City:</td> <td>Hopkinton</td> </tr> <tr> <td>State/Country:</td> <td>MASSACHUSETTS</td> </tr> <tr> <td>Postal Code:</td> <td>01748</td> </tr> </table>		Name:	EMC Corporation	Street Address:	176 South Street	City:	Hopkinton	State/Country:	MASSACHUSETTS	Postal Code:	01748						
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<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13335459</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13335459												
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Application Number:	13335459																
CORRESPONDENCE DATA																	
Fax Number:	(408)973-2595																
Phone:	408-973-2585																
Email:	egalvan@ip-patent.com																
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>																	
Correspondent Name:	Van Pelt, Yi & James LLP.																
Address Line 1:	10050 N. Foothill Blvd Ste 20																
Address Line 4:	Cupertino, CALIFORNIA 95014																
ATTORNEY DOCKET NUMBER:	EMCCP235																

CH \$40.00 13335459

NAME OF SUBMITTER:

Laura Ing

**Total Attachments: 12**

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## ASSIGNMENT

**WHEREAS**, we, Jeffrey Ira Cohen, King Lun Choi , Brian C. Hagenbuch, Kurt Harriman, Charles F. McDevitt, Gavin John Sherry and Caleb E. Welton 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 \_\_\_\_\_, the specification of which:

☐ is being executed on even date herewith and is about to be filed in the United States Patent Office;

☒ was filed on December 22, 2011 as U.S. Application No. 13/335,459;

☐ was patented under U.S. Patent No. \_\_\_\_\_ on \_\_\_\_\_.

**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, 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:

Date:

JAN 18 2012

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

Print full name of first inventor:

**Jeffrey Ira Cohen**

Residence:

Sunnyvale, CA

Citizenship:

United States of America

Mailing Address:

176 South Street, Hopkinton, MA 01748

STATE/COMMONWEALTH OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Then personally appeared before me the above-named \_\_\_\_\_ and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

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

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

*See insert*

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of San Mateo

On 1/18/12

Date

before me,

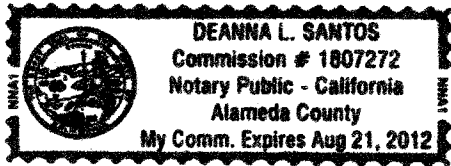
Deanna L. Santos, Notary Public

Here Insert Name and Title of the Officer

personally appeared

Jeffrey Ira Cohen

Name(s) of Signer(s)



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) 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.

Place Notary Seal Above

Signature

Deanna L. Santos

Signature of Notary Public

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_

- ☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner — ☐ Limited ☐ General  
☐ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

Signer's Name: \_\_\_\_\_

- ☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner — ☐ Limited ☐ General  
☐ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

Date:

1-18-2012

272

Inventor's Signature

Print full name of second inventor:

**King Lun Choi**

Residence:

Palo Alto, CA

Citizenship:

United States of America

Mailing Address:

176 South Street, Hopkinton, MA 01748

STATE/Commonwealth of

COUNTY OF

Then personally appeared before me the above-named \_\_\_\_\_ and  
acknowledged that he/she executed the foregoing instrument as his/her free act and deed this  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Notary Public

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

*See insert*

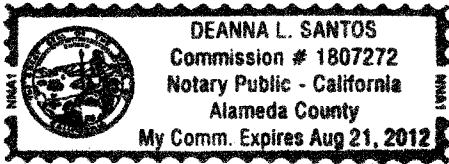
# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of San Mateo

On 1/18/12 before me, Deanna L. Santos, Notary Public  
Date Here Insert Name and Title of the Officer

personally appeared King Lun Choi  
Name(s) of Signer(s)



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) 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.

Signature Deanna L. Santos  
Signature of Notary Public

Place Notary Seal Above

## OPTIONAL

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Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer — Title(s): \_\_\_\_\_
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

Signer's Name: \_\_\_\_\_

- ☐ Individual
- ☐ Corporate Officer — Title(s): \_\_\_\_\_
- ☐ Partner — ☐ Limited ☐ General
- ☐ Attorney in Fact
- ☐ Trustee
- ☐ Guardian or Conservator
- ☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here

Date:

20 JANUARY 2012

  
Inventor's Signature

Print full name of third inventor:

**Brian C. Hagenbuch**

Residence:

Annapolis, Maryland

Citizenship:

United States of America

Mailing Address:

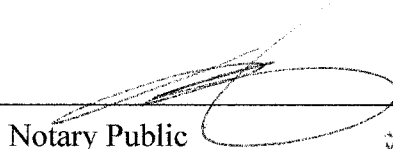
176 South Street, Hopkinton, MA 01748

STATE/Commonwealth of

COUNTY OF

Maryland  
Anne Arundel

Then personally appeared before me the above-named Brian Hagenbuch and  
acknowledged that he/she executed the foregoing instrument as his/her free act and deed this  
20<sup>th</sup> day of January, 2012.

  
Notary Public

SUNG K. GIL, NOTARY PUBLIC  
ANNE ARUNDEL COUNTY, MARYLAND  
My Commission Expires August 29, 2016

Print Name: \_\_\_\_\_

My Commission expires \_\_\_ / \_\_\_ / \_\_\_



Date: 3/9/2012

Kurt Harriman  
Inventor's Signature

Print full name of fourth inventor: **Kurt Harriman**  
Residence: Novato, CA  
Citizenship: United States of America  
Mailing Address: 176 South Street, Hopkinton, MA 01748

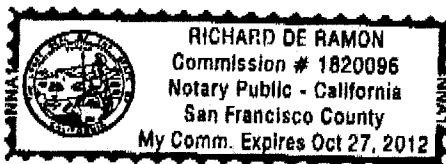
STATE OF CALIFORNIA  
COUNTY OF MARIN

On this 9<sup>th</sup> day of MARCH, 2012, before me appeared KURT HARRIMAN  
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) 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.

Richard De Ramon  
Notary Public



Print Name: RICHARD DE RAMON  
My Commission expires 10/27/2012

Date:

1/18/12

Charles F. McDevitt  
Inventor's Signature

Print full name of fifth inventor:

**Charles F. McDevitt**

Residence:

Belmont, CA

Citizenship:

United States of America

Mailing Address:

176 South Street, Hopkinton, MA 01748

STATE/Commonwealth of

COUNTY OF

Then personally appeared before me the above-named \_\_\_\_\_ and  
acknowledged that he/she executed the foregoing instrument as his/her free act and deed this  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

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

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

*See insert*

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of San Mateo

On 1/18/12 before me, Deanna L. Santos, Notary Public  
Date Here Insert Name and Title of the Officer

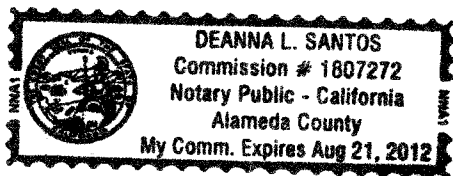
personally appeared Charles F. McDevitt  
Name(s) of Signer(s)

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) 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.

Signature Deanna L. Santos  
Signature of Notary Public



Place Notary Seal Above

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- ☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner — ☐ Limited ☐ General  
☐ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER

Top of thumb here

Signer's Name: \_\_\_\_\_

- ☐ Individual  
☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner — ☐ Limited ☐ General  
☐ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER

Top of thumb here

Date: 1/18/2012



Inventor's Signature

Print full name of sixth inventor:

Gavin John Sherry

Residence:

Beaune, France

Citizenship:

Australia

Mailing Address:

176 South Street, Hopkinton, MA 01748

I GEMMEVE NG (name) whose residential address is  
80 rue d'Alsace 21200 Beaune France  
was personally present and did see Gavin John Sherry (name of person signing  
the assignment) who is personally known to me, execute the above assignment.

 (signature of first witness)

Signed at Beaune (location of witness signature)

on this day 18 January of 2012 (date of signature)

I Philippe RENARD (name) whose residential address is  
Petite Rue Sans Desir des Aranges  
was personally present and did see Gavin John Sherry (name of person signing  
the assignment) who is personally known to me, execute the above assignment.

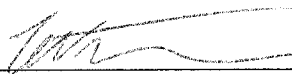
 (signature of second witness)

Signed at Beaune (location of witness signature)

on this day 18 January of 2012 (date of signature)

Date:

1/14/2012



Inventor's Signature

Print full name of seventh inventor:

**Caleb E. Welton**

Residence:

Foster City, CA

Citizenship:

United States of America

Mailing Address:

176 South Street, Hopkinton, MA 01748

STATE/COMMONWEALTH OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Then personally appeared before me the above-named \_\_\_\_\_ and  
acknowledged that he/she executed the foregoing instrument as his/her free act and deed this  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary Public

Print Name: \_\_\_\_\_

My Commission expires \_\_\_\_ / \_\_\_\_ / \_\_\_\_

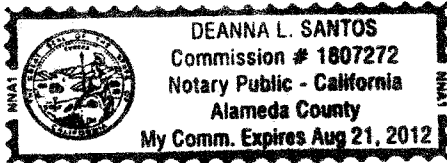
*See insert*

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of San Mateo

On 7/18/12 before me, Deanna L. Santos, Notary Public  
Date Here Insert Name and Title of the Officer  
personally appeared Caleb E. Welton  
Name(s) of Signer(s)



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) 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.

Place Notary Seal Above

Signature Deanna L. Santos  
Signature of Notary Public

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☐ Corporate Officer — Title(s): \_\_\_\_\_  
☐ Partner — ☐ Limited ☐ General  
☐ Attorney in Fact  
☐ Trustee  
☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER

Top of thumb here

Signer's Name: \_\_\_\_\_

- ☐ Individual  
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☐ Guardian or Conservator  
☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER

Top of thumb here