

PATENT ASSIGNMENT

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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>Ayelet AVNI</td> <td>03/26/2012</td> </tr> <tr> <td>Bryan KNAUSS</td> <td>04/17/2012</td> </tr> <tr> <td>Yedidya DOTAN</td> <td>04/05/2012</td> </tr> <tr> <td>Erez YAKOEL</td> <td>03/23/2012</td> </tr> </tbody> </table>		Name	Execution Date	Ayelet AVNI	03/26/2012	Bryan KNAUSS	04/17/2012	Yedidya DOTAN	04/05/2012	Erez YAKOEL	03/23/2012
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<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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PROPERTY NUMBERS Total: 1											
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CORRESPONDENCE DATA											
<p>Fax Number: (508)366-4688 Phone: 5086162900 Email: docket@bainwoodhuang.com <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Ronald L. Gordon, Ph.D. Address Line 1: Bainwood, Huang & Associates, LLC Address Line 2: 2 Connector Road Address Line 4: Westborough, MASSACHUSETTS 01568</p>											
ATTORNEY DOCKET NUMBER:	1048-118										
NAME OF SUBMITTER:	Ronald L. Gordon, Ph.D.										

CH \$40.00 13434993

Total Attachments: 12

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ASSIGNMENT

WHEREAS, we, Ayelet Avni, Bryan Knauss, Yedidya Dotan and Erez Yakoel, 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 **COMMON DATA FORMAT IN KNOWLEDGE-BASED AUTHENTICATION** 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 _____ as U.S. Application No. _____;
- ☐ 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, USA 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;

AND we hereby authorize our attorneys Bainwood Huang & Associates LLC to insert here in parentheses (13/434,993 March 30, 2012) 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, we have hereunto set our hands and affixed our seals as set forth below:

Date: 26.3.2012

[Signature]
Inventor's Signature

Print full name of first inventor: Ayelet Avni
Residence: Hayuval 13
Binyamina, 30500 ISRAEL
Citizenship: Israel
Mailing Address: Same as above

I, AYELET BIGER (name) whose residential address is
8 Hagit Street, Pardes Hanna, ISRAEL
was personally present and did see Ayelet Avni (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at 7 Hamada Herzeliya (location of witness signature)

on this day 26/3/2012 of 2012. (date of signature)

I, MAOR FRANCO (name) whose residential address is

was personally present and did see _____ (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of second witness)

Signed at HERZELIYA ISRAEL (location of witness signature)

on this day 26/3/2012 of 2012. (date of signature)

Date: _____

Inventor's Signature

Print full name of second inventor: Bryan Knauss
Residence: 22051 Stone Hollow Drive
Broadlands, VA 20148
Citizenship: United States of America
Mailing Address: Same as above

STATE/Commonwealth of _____
COUNTY OF _____

On this _____ day of _____, 2012, then personally appeared before me the above-named **Bryan Knauss** 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:

My Commission expires ____ / ____ / ____

Date: _____

Inventor's Signature

Print full name of third inventor:

Yedidya Dotan

Residence:

1 Barazani Moshe Street

Tel Aviv, 69121 ISRAEL

Citizenship:

Israel

Mailing Address:

Same as above

I _____ (name) whose residential address is

was personally present and did see _____ (name of person signing
the assignment) who is personally known to me, execute the above assignment.

(signature of first witness)

Signed at _____ (location of witness signature)

on this day _____ of 2012. (date of signature)

I _____ (name) whose residential address is

was personally present and did see _____ (name of person signing
the assignment) who is personally known to me, execute the above assignment.

(signature of second witness)

Signed at _____ (location of witness signature)

on this day _____ of 2012. (date of signature)

Date: March 23 2012

[Signature]
Inventor's Signature

Print full name of fourth inventor: Erez Yakoel
Residence: Harzit 341, Kidron, IL
Citizenship: Israel
Mailing Address: Same as above

I Carol Yakoel (name) whose residential address is AVITAL 14 Nofit Israel
was personally present and did see Erez Yakoel (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at Nofit Israel (location of witness signature)

on this day MARCH 23 of 2012. (date of signature)

I Ari Levian (name) whose residential address is 44 Gilboa St., Nofit
was personally present and did see Erez Yakoel (name of person signing
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of second witness)

Signed at Nofit ISRAEL (location of witness signature)

on this day MARCH 23 of 2012. (date of signature)

ASSIGNMENT

WHEREAS, we, Ayelet Avni, Bryan Knauss, Yedidya Dotan and Erez Yakoel, 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 **COMMON DATA FORMAT IN KNOWLEDGE-BASED AUTHENTICATION** 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 March 30, 2012 as U.S. Application No. 13/434,993;

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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, 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;

AND we hereby authorize our attorneys Bainwood Huang & Associates LLC to insert here in parentheses (_____) 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, we have hereunto set our hands and affixed our seals as set forth below:

Date: _____

Inventor's Signature

Print full name of first inventor: Ayelet Avni
Residence: Hayuval 13
Binyamina, 30500 ISRAEL
Citizenship: Israel
Mailing Address: Same as above

I _____ (name) whose residential address is _____
was personally present and did see _____ (name of person signing
the assignment) who is personally known to me, execute the above assignment.

_____ (signature of first witness)

Signed at _____ (location of witness signature)

on this day _____ of 2012. (date of signature)

I _____ (name) whose residential address is _____
was personally present and did see _____ (name of person signing
the assignment) who is personally known to me, execute the above assignment.

_____ (signature of second witness)

Signed at _____ (location of witness signature)

on this day _____ of 2012. (date of signature)

Date: 4/17/12

Bryan Knauss
Inventor's Signature

Print full name of second inventor:

Bryan Knauss

Residence:

22051 Stone Hollow Drive

Broadlands, VA 20148

Citizenship:

United States of America

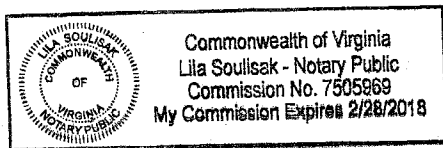
Mailing Address:

Same as above

STATE/COMMONWEALTH OF
COUNTY OF

Virginia
 Loudoun

On this 17th day of April, 2012, then personally appeared before me the above-named **Bryan Knauss** known to me through satisfactory evidence of identification ☐ employee identification card; ☒ driver's license; ☐ (other) Bryan Knauss 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.



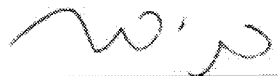
Lila Soulikak
Notary Public

Print Name: Lila Soulikak

My Commission expires 02/28/18

Date:

5/4/2012


Inventor's Signature

Print full name of third inventor:

Yedidya Dotan

Residence:

1 Barazani Moshe Street

Tel Aviv, 69121 ISRAEL

Citizenship:


Israel

Mailing Address:

Same as above

I Oleg Freylafert (name) whose residential address is
Ha Odem st 12/6 Hod Hasharon Israel

was personally present and did see Yedidya Dotan (name of person signing
the assignment) who is personally known to me, execute the above assignment.

 (signature of first witness)

Signed at Herzlia (location of witness signature)

on this day April 5th of 2012. (date of signature)

I Orit Kalderon (name) whose residential address is
16 Inbar st. Modin Israel

was personally present and did see Yedidya Dotan (name of person signing
the assignment) who is personally known to me, execute the above assignment.

 (signature of second witness)

Signed at Herzlia (location of witness signature)

on this day April 5th of 2012. (date of signature)

Date: _____

Inventor's Signature

Print full name of fourth inventor: Erez Yakoel
Residence: Harzit 341, Kidron, IL

Citizenship: Israel
Mailing Address: Same as above

I _____ (name) whose residential address is _____
was personally present and did see _____ (name of person signing
the assignment) who is personally known to me, execute the above assignment.

_____ (signature of first witness)

Signed at _____ (location of witness signature)

on this day _____ of 2012. (date of signature)

I _____ (name) whose residential address is _____
was personally present and did see _____ (name of person signing
the assignment) who is personally known to me, execute the above assignment.

_____ (signature of second witness)

Signed at _____ (location of witness signature)

on this day _____ of 2012. (date of signature)