

## 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>Richard Michael Nemes</td> <td>05/13/2013</td> </tr> <tr> <td>Mikhail Lotvin</td> <td>05/13/2013</td> </tr> <tr> <td>David Garrod</td> <td>05/14/2013</td> </tr> </tbody> </table>		Name	Execution Date	Richard Michael Nemes	05/13/2013	Mikhail Lotvin	05/13/2013	David Garrod	05/14/2013				
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RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>Open Invention Network, LLC</td> </tr> <tr> <td>Street Address:</td> <td>Research Triangle Park Center</td> </tr> <tr> <td>Internal Address:</td> <td>4819 Emperor Blvd., Suite 400</td> </tr> <tr> <td>City:</td> <td>Durham</td> </tr> <tr> <td>State/Country:</td> <td>NORTH CAROLINA</td> </tr> <tr> <td>Postal Code:</td> <td>27703</td> </tr> </table>		Name:	Open Invention Network, LLC	Street Address:	Research Triangle Park Center	Internal Address:	4819 Emperor Blvd., Suite 400	City:	Durham	State/Country:	NORTH CAROLINA	Postal Code:	27703
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PROPERTY NUMBERS Total: 3													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Patent Number:</td> <td>5893120</td> </tr> <tr> <td>Application Number:</td> <td>90010856</td> </tr> <tr> <td>Application Number:</td> <td>90011426</td> </tr> </tbody> </table>		Property Type	Number	Patent Number:	5893120	Application Number:	90010856	Application Number:	90011426				
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Patent Number:	5893120												
Application Number:	90010856												
Application Number:	90011426												
CORRESPONDENCE DATA													
<p>Fax Number: 2142000853  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 2146515000        Email: <a href="mailto:theresa.oconnor@haynesboone.com">theresa.oconnor@haynesboone.com</a>        Correspondent Name: Haynes and Boone, LLP        Address Line 1: 2323 Victory Avenue        Address Line 2: Suite 700        Address Line 4: Dallas, TEXAS 75219</p>													
ATTORNEY DOCKET NUMBER:	48731.874												

OP \$120.00 5893120

NAME OF SUBMITTER:	J. Andrew Lowes
Signature:	/J. Andrew Lowes/
Date:	07/01/2013
<p>Total Attachments: 6 source=Assignment1#page1.tif source=Assignment1#page2.tif source=Assignment1#page3.tif source=Assignment1#page4.tif source=Assignment1#page5.tif source=Assignment1#page6.tif</p>	

## ASSIGNMENT

**WHEREAS**, Richard Michael Nemes, Mikhail Lotvin, and David Garrod (collectively "ASSIGNORS" and individually "ASSIGNOR") collectively own patent rights, as set forth in Attachment 1 attached hereto and incorporated herein by this reference ("PATENTS"); and

**WHEREAS**, Open Invention Network, LLC, a Delaware limited liability company with its principal place of business at Research Triangle Park Center, 4819 Emperor Blvd., Suite 400, Durham, NC 27703 ("ASSIGNEE"), desires to acquire all of the right, title and interest of ASSIGNOR in, to and under the PATENTS;

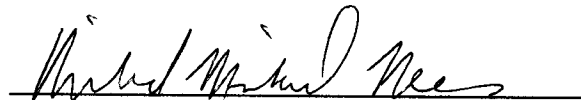
**WHEREAS**, ASSIGNORS and ASSIGNEE have entered into a certain Assignment Agreement, dated May 13<sup>th</sup>, 2013, assigning, among other things, all right, title and interest in and to the PATENTS from ASSIGNORS to ASSIGNEE;

**NOW, THEREFORE**, in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid by ASSIGNEE to ASSIGNORS, the receipt and sufficiency of which hereby is acknowledged, ASSIGNORS do hereby sell, assign, transfer and convey unto ASSIGNEE the entire right, title and interest in and to the PATENTS, including all divisions, continuations, continuations-in-part, reexaminations, substitutions, reissues, extensions and renewals of the applications and registrations for the PATENTS (and the right to apply for any of the foregoing); all rights to causes of action and remedies related thereto (including, without limitation, the right to sue for past, present or future infringement, misappropriation or violation of rights related to the foregoing); and any and all other rights and interests arising out of, in connection with or in relation to the PATENTS.

For the convenience of the Parties, this assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. Facsimile or electronically transmitted signatures to this assignment shall be as valid and binding as a signed original.

[signature pages follow]

IN WITNESS WHEREOF, Each ASSIGNOR has caused this Assignment to be duly executed:

  
Richard Michael Nemes

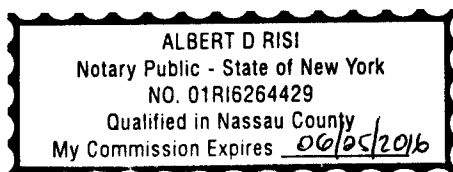
STATE OF NEW YORK )  
 ) ss.  
COUNTY OF NASSAU )


On May 13, 2013, before me, the undersigned notary public in and for said County and State, personally appeared Richard Michael Nemes,

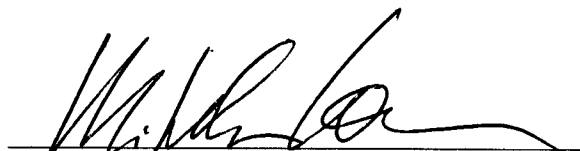
\_\_\_\_\_ personally known to me [or]  
X proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity(ies) and that, by his/her signature(s) on the instrument, the person(s) or the entity(ies) upon behalf of which the person(s) acted executed the instrument.

WITNESS my hand and official seal.



  
My commission expires on  
6/25/2016

  
Mikhail Lotvin

STATE OF California )  
COUNTY OF Santa Clara ) ss.

On May 13<sup>th</sup>, 2013, before me, the undersigned notary public in and for said County and State, personally appeared Mikhail Lotvin,

           ~~personally known to me [or]~~

X proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she executed the same in (his/her) authorized capacity(ies) and that, by (his/her) signature(s) on the instrument, the person(s) or the entity(ies) upon behalf of which the person(s) acted executed the instrument.

WITNESS my hand and official seal.

See:  
attached  
for Notary  
Stamp.  
AS

Shame Hunton (Notary Public)

See: attached for Notary

My commission expires on

12/25/15

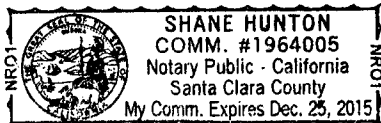
# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Santa Clara

On May 13<sup>th</sup> 2013 before me, Shane Hunton (Notary Public)

personally appeared Mikhail Lotvin



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: Shane Hunton

Place Notary Seal and/or Stamp Above

## 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: Assignment

Document Date:                      Number of Pages: 1 + sign pages

Signer(s) Other Than Named Above:                     

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

Signer's Name: Mikhail Lotvin Signer's Name:                     

☐ Corporate Officer — Title(s):                      ☐ Corporate Officer — Title(s):                     

☒ Individual ☐ Partner — ☐ Limited ☐ General ☐ Individual ☐ Partner — ☐ Limited ☐ General

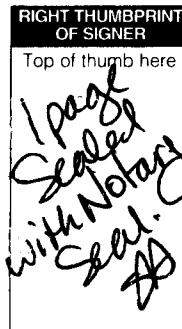
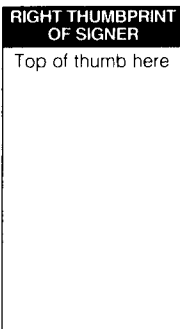
☐ Attorney in Fact ☐ Attorney in Fact

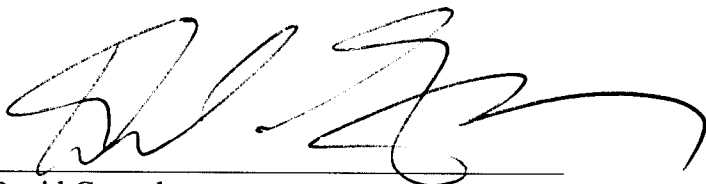
☐ Trustee ☐ Trustee

☐ Guardian or Conservator ☐ Guardian or Conservator

☐ Other:                      ☐ Other:                     

Signer Is Representing:                      Signer Is Representing:                     



  
David Garrod

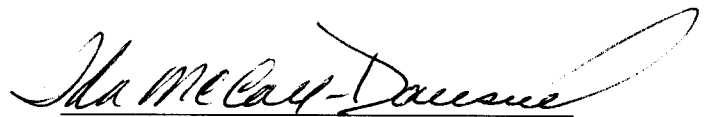
STATE OF Pa )  
COUNTY OF Allegheny ) ss.

On May 14, 2013, before me, the undersigned notary public in and for said County and State, personally appeared David Garrod,

       personally known to me [or]  
       proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity(ies) and that, by his/her signature(s) on the instrument, the person(s) or the entity(ies) upon behalf of which the person(s) acted executed the instrument.

WITNESS my hand and official seal.



My commission expires on

July 6, 2014

COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
Ida McCoy-Dausuel, Notary Public  
City of Pittsburgh, Allegheny County  
My commission expires July 06, 2014

**ATTACHMENT 1****PATENTS**

<b>Patent/Publication No.</b>	<b>Status</b>	<b>Title</b>	<b>Related Cases</b>
US 5,893,120	Granted	METHODS AND APPARATUS FOR INFORMATION STORAGE AND RETRIEVAL USING A HASHING TECHNIQUE WITH EXTERNAL CHAINING AND ON-THE-FLY REMOVAL OF EXPIRED DATA	90/010,856 90/011,426
90/010,856	Reexamination Certificate Issued	METHODS AND APPARATUS FOR INFORMATION STORAGE AND RETRIEVAL USING A HASHING TECHNIQUE WITH EXTERNAL CHAINING AND ON-THE-FLY REMOVAL OF EXPIRED DATA	US 5,893,120
90/011,426	Reexamination Certificate Issued	METHODS AND APPARATUS FOR INFORMATION STORAGE AND RETRIEVAL USING A HASHING TECHNIQUE WITH EXTERNAL CHAINING AND ON-THE-FLY REMOVAL OF EXPIRED DATA	US 5,893,120