

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>Matthew FATA</td> <td>01/15/2013</td> </tr> <tr> <td>Anthony VIRTUOSO</td> <td>01/15/2013</td> </tr> </tbody> </table>		Name	Execution Date	Matthew FATA	01/15/2013	Anthony VIRTUOSO	01/15/2013
Name	Execution Date						
Matthew FATA	01/15/2013						
Anthony VIRTUOSO	01/15/2013						
RECEIVING PARTY DATA							
Name:	NOMURA HOLDINGS, INC.						
Street Address:	1-9-1 NIHONBASHI						
Internal Address:	CHUOKU						
City:	TOKYO						
State/Country:	JAPAN						
Postal Code:	103-8645						
PROPERTY NUMBERS Total: 2							
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13740881</td> </tr> <tr> <td>PCT Number:</td> <td>US1321436</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13740881	PCT Number:	US1321436
Property Type	Number						
Application Number:	13740881						
PCT Number:	US1321436						
CORRESPONDENCE DATA							
Fax Number:	2128067833						
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
Phone:	2128065400						
Email:	dguido@stroock.com						
Correspondent Name:	Stroock & Stroock & Lavan LLP						
Address Line 1:	180 Maiden Lane						
Address Line 4:	New York, NEW YORK 10038						
ATTORNEY DOCKET NUMBER:	449205-0056 & 449205-0057						
NAME OF SUBMITTER:	Ian G. DiBernardo						
Total Attachments: 3 source=449205-0056Assignment#page1.tif source=449205-0056Assignment#page2.tif source=449205-0056Assignment#page3.tif							

CH \$80.00 13740881

ASSIGNMENT

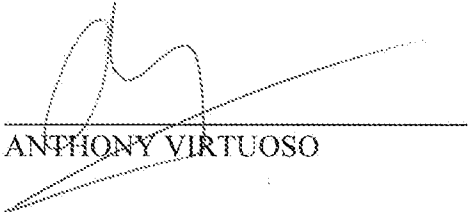
WHEREAS We, **Matthew FATA** and **Anthony VIRTUOSO**, (Assignors) have made or contributed to a certain new and useful invention, development, design and/or subject matter as set forth in a U.S. Application Serial No. 13/740,881 and International Application No. PCT/US13/21436, both entitled METHODS AND SYSTEMS FOR MONITORING MULTICAST AVAILABILITY and filed on January 14, 2013;

WHEREAS I hereby declare and provide the following statement: (1) the application was made or was authorized to be made on my behalf; (2) I believe I am the original inventor or an original joint inventor of a claimed invention in the application; and (3) I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that any willful false statement made in such declaration or statement is punishable under section 1001 of title 18 by fine or imprisonment of not more than 5 years, or both.

AND WHEREAS, **NOMURA HOLDINGS, INC.** having an address of 1-9-1 NIHONBASHI, CHUO-KU, TOKYO, 103-8645 JAPAN, is desirous of acquiring the entire right, title and interest in and to said invention and in and to any and all Letters Patent of the United States and foreign countries which may be obtained therefore (Assignee);

NOW, THEREFORE, for good and valuable consideration, the receipt for and sufficiency of which is hereby acknowledged, Assignors do hereby sell, assign, transfer and set jointly over unto Assignee, its legal representatives, successors, and assigns, the entire right, title and interest in and to said invention development, design and/or subject matter as set forth in the above mentioned application(s) and/or patent(s), and any modifications and/or improvements relating thereto (hereinafter "invention"), and any additional patent applications and patents in the United States and foreign countries, and any provisional applications, including U.S. Provisional Patent Application No. 61/586,296, original applications, non-provisional applications, formal applications, continuation applications, continuations-in-part applications, continued prosecution applications, request for continued examination applications, divisional applications, reissue applications, re-examinations or extensions thereof, and in and to any and all patents of the United States and foreign countries which may be issued or have already issued for said invention and any additional inventions, developments, designs and/or subject matter relating to said invention (hereinafter "related inventions"), and all proprietary, trade secret, intellectual property and/or confidential rights related to said invention and related inventions, and all rights to claim priority therefrom and/or thereto; and any copyright or designs associated with or in said invention and related inventions; and all rights of action and damages for any past, present or future infringement relating thereto, including all rights of actions and damages from publication of the patent applications and/or issuance of any patent relating thereto;

UPON SAID CONSIDERATIONS, Assignors hereby agree with the said Assignee that Assignors will not execute any writing or do any act whatsoever conflicting with these presents, and that Assignors will, at any time upon request, without further or additional consideration but at the expense of said Assignee, execute such additional assignments and other writings and do such additional acts as said Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining said invention, related inventions, provisional applications, original applications, non-provisional applications, formal applications, continuation applications, continuations-in-part applications, continued prosecution applications, request for continued examination applications,

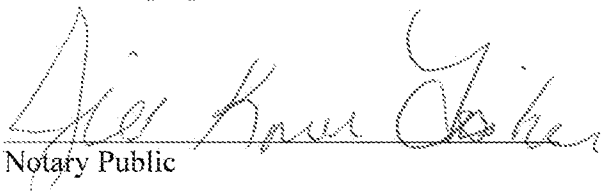

ANTHONY VIRTUOSO

1/15/13
Date

STATE OF New York)
COUNTY OF New York) SS:

On this 15th day of January, 2013, before me personally appeared Anthony VIRTUOSO, to me known to be the person named in and who executed the above instrument, and acknowledged to me that he executed the same for the uses and purposes therein set forth.

SEAL


Notary Public

My commission expires March 27, 2014

JILL KAREN FISHER
Notary Public, State of New York
No. 01FIS142862
Qualified in New York County
Commission Expires March 27, 2014