503683166 02/05/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ELLIOT HAMBURGER	02/02/2016
JONATHAN S. HARRIS	02/02/2016
JEFFREY A LITVIN	02/02/2016
SAUHARD SAHI	02/02/2016
JOHN D. VALOIS	02/02/2016
ARA BASIL	02/03/2016

RECEIVING PARTY DATA

Name:	BLACKROCK FINANCIAL MANAGEMENT, INC.
Street Address:	55 EAST 52ND STREET
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10055

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15011334

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	22869-32980/US
NAME OF SUBMITTER:	ANDREW M. HILGER, REG.73,366
SIGNATURE:	/Andrew M. Hilger/
DATE SIGNED:	02/05/2016

PATENT 503683166 REEL: 037679 FRAME: 0686

Total Attachments: 3

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PATENT REEL: 037679 FRAME: 0687

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to **BlackRock Financial Management**, Inc., a Delaware corporation, having a place of business at 55 East 52nd Street, New York, NY 10055 ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

- 1. The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the following provisional or non-provisional application filed under 35 U.S.C. § 111, design application filed under 35 U.S.C. § 171, international application filed according to the Patent Cooperation Treaty (PCT), or U.S. national phase application filed under 35 U.S.C. § 371 ("APPLICATION"):
 - Application No. 15/011,334, entitled "Authenticating Connections and Program Identity in a Messaging System," filed on January 29, 2016, which claims priority from a provisional application, filed on January 29, 2015, now bearing US Application No. 62/109,512.
 - 2. The entire worldwide right, title, and interest in and to:
- (a) the APPLICATION; (b) all applications claiming priority from the APPLICATION; (c) all provisional, utility, divisional, continuation, substitute, renewal, reissue, and other applications related thereto that have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) that may be granted on the applications set forth in (a), (b), and (c) above; and (e) all right of priority in the APPLICATION and in any underlying provisional or foreign application, together with all rights to recover damages for infringement of provisional rights.

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

INVENTOR represents that INVENTOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the INVENTOR has not made and will not

1 of 3

22869/32980/DOCS/3909813.1

Title:	Authenticating Connections and Program Identity in a Messaging System		
Filed:	January 29, 2016	Attorney Docket #:	22869-32980
Application #:	15/011,334	Client Ref #:	

hereafter make any assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

INVENTOR grants the attorney of record the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other authority for recordation of this document.

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment.

By signing below, INVENTOR further attests to the following:

- The APPLICATION was made or authorized to be made by INVENTOR.
- INVENTOR believes that INVENTOR is the original inventor or an original joint inventor of a claimed invention in the APPLICATION.

INVENTOR hereby acknowledges that any willful false statement made in this document is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Name and Signature	Date of Signature
EU+ III	2/2/2014
Elliot Hamburger	a daga tahun kagat tiring daga Delikasi ini ket
Name and Signature	Date of Signature
<u> </u>	2/2/16
Jonathad S. Harris "	And the second of the second o
Name and Signature	Date of Signature
Mark Lander var i serie de la fille de la companya	22/62 12/28
Jeffrey A. Litvin	rangemen service en et el 1979. Nacionales de al 1980 en esc.
Name and Signature	Date of Signature
Sam Pelis	2/2/2016
Sauhard Sahi	

Title:	e: Authenticating Connections and Program Identity in a Messaging System		n
Filed:	January 29, 2016	Attomey Docket #: Client Ref #:	2869-32980
Application #:	15/011,334	Client Ref #:	
Name ar	nd Signature	Date of Signature	
	DU	2/2/2016	
76in D.	Valois		
Name ar	nd Signature	Date of Signature	***************************************
13	LEX	2/8/16	

Ara Basil