505763216 11/07/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5810032

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CARLOS MIRANDA	04/07/2017
MANISH ARORA	06/06/2017
KUMAR THIRUMALAIAPPAN	04/07/2017
BRIAN DOWD	06/06/2017

RECEIVING PARTY DATA

Name:	TATA COMMUNICATIONS (AMERICA) INC.
Street Address:	2355 DULLES CORNER BOULEVARD
City:	HERNDON
State/Country:	VIRGINIA
Postal Code:	20171

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16677447

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Correspondent Name: RESOLUTE LEGAL PLLC

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Address Line 2: SUITE 900

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ATTORNEY DOCKET NUMBER:	TC-017-2
NAME OF SUBMITTER:	HASTINGS GALLOWAY
SIGNATURE:	/Hastings Galloway/
DATE SIGNED:	11/07/2019

Total Attachments: 8

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PATENT 505763216 REEL: 050952 FRAME: 0529



PATENT REEL: 050952 FRAME: 0530

COMBINED DECLARATION AND ASSIGNMENT FOR UTILITY PATENT APPLICATIONS AND DESIGN PATENT APPLICATIONS

Title of Invention: SYSTEM AND METHOD FOR REAL TIME FRAUD ANALYSIS OF COMMUNICATIONS DATA.

As a below named inventor, I hereby declare that:
This declaration is directed to the attached application, unless the following box is checked:
[] United States application or PCT international application numberfiled on
The above-identified application was made or authorized to be made by me.
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. § 1.56.

Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the docket number provided above in the header of this document;

Whereas, <u>Tata Communications (America) Inc.</u>, having a place of business at <u>Herndon, VA</u> (herein referred to as "Assignee"), desires to acquire, and each undersigned inventor desired to grant to Assignee, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto.

Therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("Assignor") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to Assignee, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisionals, continuations, reissues, reexaminations, supplemental examinations, inter partes reviews, post grant reviews, renewals, counterparts, substitutes, and extensions thereof, and all rights of priority (including under the International Convention) resulting from the filing of such applications and granting of such patents.

representatives, and assigns, whenever requested by Assignee, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to Assignee and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants Assignee, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, the relevant Patent Application Number) which may be necessary or desirable for recordation of this Assignment.

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

Legal Name of Inventor	Signature	Date
Carlos Miranda		4/7/20/7
Manish Arora		
Kumar Thirumalaiappan		
Brian Dowd		

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Legal Name of Inventor	Signature	Date
Carlos Miranda		
Manish Arora	1(W)	6/6/17
Kumar Thirumalaiappan		, i
Brian Dowd		

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Kumar Thirumalaiappan		04/07/2017
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Kumar Thirumalaiappan		
Brian Dowd	Buan Dougl	6/6/2017