## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3550577

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
ASSIM SYED MOHAMMAD	09/25/2015
BADRI V. MANGALAM	09/23/2015
PRASANNA JOSHI	09/29/2015
SRIDHAR M. SEETHARAMAN	09/30/2015

## **RECEIVING PARTY DATA**

Name:	BANK OF AMERICA CORPORATION
Street Address:	214 NORTH TRYON STREET
Internal Address:	MAILCODE: NC1-027-20-05
City:	CHARLOTTE
State/Country:	NORTH CAROLINA
Postal Code:	28255

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14870801

### **CORRESPONDENCE DATA**

**Fax Number:** (704)339-5800

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.

**Phone:** 7043311000

**Email:** damionnenobles@mvalaw.com

Correspondent Name: MOORE & VAN ALLEN PLLC FOR BOFA

**Address Line 1:** 3015 CARRINGTON MILL BOULEVARD, STE 400

Address Line 2: POST OFFICE BOX 13706

Address Line 4: RESEARCH TRIANGLE PA, NORTH CAROLINA 27709

ATTORNEY DOCKET NUMBER:	6865US1.014033.2530
NAME OF SUBMITTER:	NICHOLAS C. RUSSELL
SIGNATURE:	/Nicholas C. Russell/
<b>DATE SIGNED:</b> 09/30/2015	
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT 503503951 REEL: 036697 FRAME: 0363

# Total Attachments: 8 source=2530Assignments#page1.tif source=2530Assignments#page3.tif source=2530Assignments#page4.tif source=2530Assignments#page5.tif source=2530Assignments#page6.tif source=2530Assignments#page7.tif source=2530Assignments#page8.tif

PATENT REEL: 036697 FRAME: 0364

PMN: 6865US1

Title of Invention	CHANNEL ACCESSIBLE SINGLE FUNCTION MICRO SERVICE DATA COLLECTION PROCESS FOR LIGHT ANALYTICS
As the below	named inventor, I hereby declare that:
This declarati	(X) The attached application, of
	United States application or PCT international application number
The above-ide	entified application was made or authorized to be made by me.
I believe that	am the original inventor or an original joint inventor of a claimed invention in the application.
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or of not more than five (5) years, or both.
*************************************	ASSIGNMENT
California (Cit was filed on e below, hereb	Assim Syed Mohammad ("Assignor"), a citizen of the United States of America (Country), residing in Fremont, y, State/Province) have invented the above invention. If the following lines are blank, the above application ven date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor y authorize the attorneys for Bank of America to insert the filing date and application number below after they and prior to filing the recordation.
	U.S. Application No. 14/870,801 filed September 30, 2015
Delaware, and title and inter	NK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of I having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, est in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the of America, and in any and all countries foreign thereto:
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and gene	

PMN: 6865US1

#### WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

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LEGAL NA	ME OF INVENTOR	
inventor:	ASSIM SYED MOHAMMAD	Date:
Signature:		

PMN: 6865US1

Title of Invention	CHANNEL ACCESSIBLE SINGLE FUNCTION MICRO SERVICE DATA COLLECTION PROCESS FOR LIGHT ANALYTICS
As the below	named inventor, I hereby declare that:
This declaration is directed to:	(A) The attached abuncation (a)
	United States application or PCT international application number
The above-ide	entified 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.
•	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or t of not more than five (5) years, or both.
	ASSIGNMENT
Barrington, Ill application w assignor belo	Badri V. Mangalam ("Assignor"), a citizen of the United States of America (Country), residing in South linois (City, State/Province) have invented the above invention. If the following lines are blank, the above as filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an w, hereby authorize the attorneys for Bank of America to insert the filing date and application number below come known and prior to filing the recordation.
	U.S. Application No. 14/870,801 filed September 30, 2015
Delaware, and title and inter	NNK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of dhaving its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, rest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the of America, and in any and all countries foreign thereto:
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and gene	

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LEGAL NAME OF INVENTOR

Inventor: BADRI V. MANGALAM

Date: 9/13/2015

[Page 2 of 2]

PMN: 6865US1

Title of Invention	CHANNEL ACCESSIBLE SINGLE FUNCTION MICRO SERVICE DATA COLLECTION PROCESS FOR LIGHT ANALYTICS
As the below	named inventor, I hereby declare that:
This declaration is directed to:	NATE THE ACCOUNT ADDRESS OF THE PROPERTY OF TH
	United States application or PCT international application number
The above-ide	entified application was made or authorized to be made by me.
I believe that	am the original inventor or an original joint inventor of a claimed invention in the application.
-	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or of not more than five (5) years, or both.
***************************************	ASSIGNMENT
Jersey (City, S filed on even hereby autho	Prasanna Joshi ("Assignor"), a citizen of the United States of America (Country), residing in Piscataway, New tate/Province) have invented the above invention. If the following lines are blank, the above application was date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, rize the attorneys for Bank of America to insert the filing date and application number below after they and prior to filing the recordation.
	U.S. Application No. 14/870,801 , filed September 30, 2015
Delaware, and title and inter	NK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of I having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, est in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the of America, and in any and all countries foreign thereto:
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and gene	

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LEGAL NAME OF INVENTOR	
Inventor: PRASANNA JOSHI	Date: <u>09.29 2015</u>
Signature: / Signature:	

PMN: 6865US1

Title of Invention	CHANNEL ACCESSIBLE SINGLE FUNCTION MICRO SERVICE DATA COLLECTION PROCESS FOR LIGHT ANALYTICS
As the below	named inventor, I hereby declare that:
This declarati	IN THE attached application, of
	United States application or PCT international application number
The above-ide	entified 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.
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or t of not more than five (5) years, or both.
***************************************	ASSIGNMENT
New Jersey (0 was filed on 6 below, hereb	Sridhar M. Seetharaman ("Assignor"), a citizen of the United States of America (Country), residing in Princeton, City, State/Province) have invented the above invention. If the following lines are blank, the above application even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor y authorize the attorneys for Bank of America to insert the filing date and application number below after they on and prior to filing the recordation.
	U.S. Application No. 14/870,801 filed September 30, 2015
Delaware, an title and inter	NK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of dhaving its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, est in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the of America, and in any and all countries foreign thereto:
NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I said Assignor, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and In space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and gene	

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LEGAL NAME OF INVENTOR

Inventor: SRIDHAR M SEETHARAMAN

Date: 09/30/2015

Signature: M.S. Sin Ha