504282135 03/21/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4328816

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TAO HUANG	03/08/2017
ARCHIE AGRAWAL	03/08/2017
AKSHAY JAIN	03/18/2017
XIANHONG ZHANG	03/09/2017

RECEIVING PARTY DATA

Name:	BANK OF AMERICA CORPORATION
Street Address:	MAIL CODE NC 1-027-20-05
Internal Address:	214 N. TRYON STREET
City:	CHARLOTTE
State/Country:	NORTH CAROLINA
Postal Code:	28255

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15464885

CORRESPONDENCE DATA

Fax Number: (312)463-5001

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: 312-463-5000

Email: PTO-71733@bannerwitcoff.com, jbrady@bannerwitcoff.com,

rkapur@bannerwitcoff.com

Correspondent Name: BANNER & WITCOFF, LTD Address Line 1: 10 SOUTH WACKER DR.

SUITE 3000 Address Line 2:

Address Line 4: CHICAGO, ILLINOIS 60606

ATTORNEY DOCKET NUMBER:	007131.01831
NAME OF SUBMITTER:	RAJIT KAPUR
SIGNATURE:	/Rajit Kapur/
DATE SIGNED:	03/21/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 8 source=PMN7508US1_CombinedAssignment_Declaration#page1.tif source=PMN7508US1_CombinedAssignment_Declaration#page2.tif source=PMN7508US1_CombinedAssignment_Declaration#page3.tif source=PMN7508US1_CombinedAssignment_Declaration#page4.tif source=PMN7508US1_CombinedAssignment_Declaration#page5.tif source=PMN7508US1_CombinedAssignment_Declaration#page6.tif source=PMN7508US1_CombinedAssignment_Declaration#page7.tif source=PMN7508US1_CombinedAssignment_Declaration#page8.tif

Firm No.: 007131.01831

PMN: 7508US1

COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT FOR UTILITY OR DESIGN **APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

Title of Invention	OPTIMIZING DATA REPLICATION ACROSS MULTIPLE DATA CENTERS
As the below	named inventor, I hereby declare that:
This declaration	
	United States application or PCT international application number filed on
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.
	pwledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or tof not more than five (5) years, or both.
	ASSIGNMENT
have invented otherwise, to	Tao Huang ("Assignor"), a citizen of Canada (Country), residing in Bellevue, Washington (City, State/Province) If the above invention. If the following lines are blank, the above application was filed on even date herewith, comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize the Bank of America to insert the filing date and application number below after they become known and prior to rdation.
	U.S. Application No. <u>15/464,885</u> , filed <u>March 21, 2017</u> .
Delaware, and title and inter	NK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of d 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:
payment for the said Assignor, representative countries for ecountries in it entitled under Letters Patentin-parts and econfidential in request the Coinventions or interest. I repwithout furthen nominees, amprovisional, diproceedings, si	FORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or he making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal es, the full and exclusive right, title and interest for the territory of the United States of America and all sign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign is own name and to claim any priority rights for such foreign applications to which such applications are rinternational conventions, treaties, or otherwise), in and to said inventions and in and to all applications and granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-xtensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and domains on a compilation of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and resent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will ser consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or y and all facts known to me regarding said inventions whenever requested, and that I will execute all non-ivisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its signs, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

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.

purposes are not retained in the application file and therefor	ore are not publicly available.
LEGAL NAME OF INVENTOR	
Inventor: <u>Tao Huang</u> Signature:	Date: <u>March 8 - 2017</u>

Firm No.: 007131.01831

PMN: 7508US1

COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	OPTIMIZING DATA REPLICATION ACROSS MULTIPLE DATA CENTERS
As the below	named inventor, I hereby declare that:
This declarati	(X) THE attached abbitement of
	United States application or PCT international application number
The above-id	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.
Thereby ackr imprisonmen	nowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or It of not more than five (5) years, or both.
	ASSIGNMENT
have invente	Archie Agrawal ("Assignor"), a citizen of <u>India</u> (Country), residing in <u>Seattle, Washington</u> (City, State/Province) d the above invention. If the following lines are blank, the above application was filed on even date herewith, a comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize the Bank of America to insert the filing date and application number below after they become known and prior to ordation.
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Delaware, ar	ANK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of and having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, west in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the soft America, and in any and all countries foreign thereto:
payment for said Assigno representati countries for countries in entitled und Letters Pater in-parts and confidential request the inventions of interest. I rewithout furt nominees, a provisional, proceedings	FORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I r, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal ves, the full and exclusive right, title and interest for the territory of the United States of America and all reign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign its own name and to claim any priority rights for such foreign applications to which such applications are er international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and not granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and present and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will her consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or my and all facts known to me regarding said inventions whenever requested, and that I will execute all non-divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal is sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

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LEGAL NAME OF INVENTOR	
Inventor: <u>Archie Agrawal</u> Signature:	Date: March 108, 2017

COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	OPTIMIZING DATA REPLICATION ACROSS MULTIPLE DATA CENTERS
As the below	named inventor, I hereby declare that:
This declarati is directed to	The attached application, or
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The above-id	entified application was made or authorized to be made by me.
l 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
have invente otherwise, to	
	U.S. Application No15/464,885, filed March 21, 2017
Delaware, an title and inte	ANK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of d having 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:
payment for said Assignor representative countries for countries in it entitled under Letters Patentin-parts and confidential it request the Conventions or interest. I requirement for the control of the countries of interest. I requirement for the countries of	FORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I, by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal was, the full and exclusive right, title and interest for the territory of the United States of America and all eign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign to sown name and to claim any priority rights for such foreign applications to which such applications are en international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and at granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and oresent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will nor 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 generally do everything reasonable for said Assignee, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

[Page 5 of 8]

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purposes are not retained in the application file and therefore a	re not publicly available.
LEGAL NAME OF INVENTOR	
Inventor: <u>Akshay Jain</u>	Date: 03/18/17
Signature: Ahshayain	

Firm No.: 007131.01831

PMN: 7508US1

COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT FOR UTILITY OR DESIGN **APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

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As the below	named inventor, I hereby declare that:
This declarati	The attached application, or
	United States application or PCT international application number filed on
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 tof not more than five (5) years, or both.
	ASSIGNMENT
State/Province date herewith authorize the	(ianhong Zhang ("Assignor"), a citizen of <u>Canada</u> (Country), residing in <u>Issaquah, Washington</u> (City, e) have invented the above invention. If the following lines are blank, the above application was filed on even of the comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby attorneys for Bank of America to insert the filing date and application number below after they become ior to filing the recordation.
	U.S. Application No. <u>15/464,885</u> , filed <u>March 21, 2017</u> .
Delaware, and title and inter	NK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of d 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:
payment for the said Assignor, representative countries for countries in it entitled under Letters Patentin-parts and econfidential in request the Conventions or interest. I repwithout furth nominees, an provisional, diproceedings,	FORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or he making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal es, the full and exclusive right, title and interest for the territory of the United States of America and all eigh thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign sown name and to claim any priority rights for such foreign applications to which such applications are rinternational conventions, treaties, or otherwise), in and to said inventions and in and to all applications and t granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, xensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and dommissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and resent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will er consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or y and all facts known to me regarding said inventions whenever requested, and that I will execute all non-ivisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its signs, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

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LEGAL NAME OF INVENTOR

Inventor: Xianhong Zhang

Signature:

Date: 03/09/2017

[Page 8 of 8]

RECORDED: 03/21/2017