505836024 12/23/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5882958

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TRACY BETH GREENE	06/13/2017
FREDERIKA ZIPPORAH MORRIS ANGUS	05/30/2017
EMILY PAIGE BOSIN	06/08/2017
KATHLEEN MIRANDA BRAND	06/08/2017
WILLIAM BRADLEY BURKS	06/09/2017
DEEPAK JOSEPH	06/08/2017
KARLA RAMIREZ	05/30/2017
LAURA ELIZABETH RANDALL	05/30/2017

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:	16725389

CORRESPONDENCE DATA

Fax Number: (704)331-1159

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.

using a lax number, if provided, if that is unsuccessful, it will be sent via 05 mail.

Phone: 704-331-2359

Email: bacdocket@mvalaw.com, boauspto@mvalaw.com,

cindigraser@mvalaw.com, IPlaw@mvalaw.com

Correspondent Name: MOORE AND VAN ALLEN PLLC FOR BOFA
Address Line 1: 100 NORTH TRYON STREET, SUITE 4700
Address Line 4: CHARLOTTE, NORTH CAROLINA 28202

ATTORNEY DOCKET NUMBER: 7088USC1 (3658)

NAME OF SUBMITTER: NICHOLAS C. RUSSELL

PATENT 505836024 REEL: 051360 FRAME: 0380

SIGNATURE:	/Nicholas C. Russell/
DATE SIGNED:	12/23/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 16	
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PATENT REEL: 051360 FRAME: 0381

PMN: 7880US1

Title of Invention	DYNAMIC UTILIZATION OF ALTERNATIVE RESOURCES BASED ON TOKEN ASSOCIATION
As the below	named inventor, I hereby declare that:
This declarati	/\ The attached application, or
	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 tof not more than five (5) years, or both.
	ASSIGNMENT
North Carolin application w assignor below	Tracy Beth Greene ("Assignor"), a citizen of the United States of America (Country), residing in Mooresville, a (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 some known and prior to filing the recordation.
	U.S. Application No. <u>15/630,270</u> , filed <u>June 22, 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 a countries in it entitled under Letters Patent continuation-secrets, confination authorize and Patent on said right, title and agree that I was successors, as will execute a testify in any	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 sown name and to claim any priority rights for such foreign applications to which such applications are international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and a granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade dential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters dinventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I ill without further consideration, but at the expense of Assignee, communicate to said Assignee, or its signs, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I ll non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all

PMN: 7880US1

WARNING:

purposes are not retained in the application me and therefore ar	e not publicly available.
LEGAL NAME OF INVENTOR	
Inventor: TRACY BETH GREENE	Date:June 13, 2017
Signature: Tracy Beth Greene	

PMN: 7880US1

Title of Invention	DYNAMIC UTILIZATION OF ALTERNATIVE RESOURCES BASED ON TOKEN ASSOCIATION
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
Charlotte, No above applica assignment, I	Frederika Zipporah Morris Angus ("Assignor"), a citizen of the United States of America (Country), residing in rth Carolina (City, State/Province) have invented the above invention. If the following lines are blank, the tion was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this an assignor below, hereby authorize the attorneys for Bank of America to insert the filing date and application vafter they become known and prior to filing the recordation.
	U.S. Application No. <u>15/630,270</u> , filed <u>June 22, 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:
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: 7880US1

WARNING:

purposes are not retained in the application me and therefore a	are not publicly available.	
LEGAL NAME OF INVENTOR		
Inventor: FREDERIKA ZIPPORAH MORRIS ANGUS	Date:May 30, 2017	
Signature: Frederika ZM Angus		

PMN: 7880US1

Title of Invention	DYNAMIC UTILIZATION OF ALTERNATIVE RESOURCES BASED ON TOKEN ASSOCIATION
As the below	named inventor, I hereby declare that:
This declaration is directed to:	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	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
Carolina (City, filed on even hereby autho	Emily Paige Bosin ("Assignor"), a citizen of the United States of America (Country), residing in Charlotte, North State/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 in and prior to filing the recordation. U.S. Application No
	U.S. Application No. 15/050,270 , filed <u>Julie 22, 2017</u> .
Delaware, and 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:
payment for the said Assignor, representative countries for a countries in it entitled under Letters Patent continuation-secrets, confiduationize and Patent on said right, title and agree that I was successors, as will execute a testify in any	ORE, 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 es, the full and exclusive right, title and interest for the territory of the United States of America and all ign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign ign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign in sown name and to claim any priority rights for such foreign applications to which such applications are international 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, reviews, continuations, in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade dential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I ill without further consideration, but at the expense of Assignee, communicate to said Assignee, or its signs, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I ill non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, egal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all

PMN: 7880US1

WARNING:

LEGAL NAME OF INVENTOR		
Inventor: EMILY PAIGE BOSIN	Date:06/08/2017	
Signature: Emily Paige Bosin		

PMN: 7880US1

Title of Invention	DYNAMIC UTILIZATION OF ALTERNATIVE RESOURCES BASED ON TOKEN ASSOCIATION
As the below	named inventor, I hereby declare that:
This declarati	The attached application, or
	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
North Carolinapplication wassignor below	Kathleen Miranda Brand ("Assignor"), a citizen of the United States of America (Country), residing in Charlotte, a (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 ome known and prior to filing the recordation.
	U.S. Application No
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, restify in any legal proceedings, sign all lawful papers, make all rightful oaths, and gene	

PMN: 7880US1

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.

Ween M. F.

Date:

LEGAL NAME OF INVENTOR

Inventor: KATHLEEN MIRANDA BRAND

Signature:

PMN: 7880US1

Title of Invention	DYNAMIC UTILIZATION OF ALTERNATIVE RESOURCES BASED ON TOKEN ASSOCIATION
As the below	named inventor, I hereby declare that:
This declaration is directed to:	The attached application, or
	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 to fine for the five (5) years, or both.
	ASSIGNMENT
North Carolin application was assignor below	William Bradley Burks ("Assignor"), a citizen of the United States of America (Country), residing in Charlotte, a (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 some known and prior to filing the recordation.
	U.S. Application No. <u>15/630,270</u> , filed <u>June 22, 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 a countries in it entitled under Letters Patent continuation-secrets, confiduationize and Patent on said right, title and agree that I was successors, as will execute a testify in any	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 eign 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 granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade dential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters dinventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire dinterest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I ill without further consideration, but at the expense of Assignee, communicate to said Assignee, or its signs, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I li non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all

Firm No.: 014033-003038 PMN: 7880US1

WARNING:

LEGAL NAN	ME OF INVENTOR			
Inventor:	WILLIAM BRADLEY BURKS	0	Date:	Minimum and a second a second and a second a
Signature:		<u> </u>		

PMN: 7880US1

	YNAMIC UTILIZATION OF ALTERNATIVE RESOURCES BASED ON OKEN ASSOCIATION	
As the below nam	ned inventor, I hereby declare that:	
This declaration is directed to:	The attached application, or United States application or PCT international application number	
	filed on	
The above-identif	fied application was made or authorized to be made by me.	
I believe that I am	n the original inventor or an original joint inventor of a claimed invention in the application.	
	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or not more than five (5) years, or both.	
	ASSIGNMENT	
WHEREAS, I, Deepak Joseph ("Assignor"), a citizen of the United States of America (Country), residing in Charlotte, North Carolina (City, State/Province) have invented the above invention. If the following lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the filing date and application number below after they become known and prior to filing the recordation.		
	U.S. Application No. <u>15/630,270</u> , filed <u>June 22, 2017</u> .	
Delaware, and har title and interest i	OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of wing its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the America, and in any and all countries foreign thereto:	
payment for the n said Assignor, by t representatives, t countries foreign countries in its ow entitled under int Letters Patent gra continuation-in-pa secrets, confident authorize and req Patent on said inv right, title and inte agree that I will w successors, assign will execute all no testify in any legal	E, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal the full and exclusive right, title and interest for the territory of the United States of America and all thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign with name and to claim any priority rights for such foreign applications to which such applications are ternational conventions, treaties, or otherwise), in and to said inventions and in and to all applications and anted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, harts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade tial information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby quest the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters ventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire terest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I without further consideration, but at the expense of Assignee, communicate to said Assignee, or its ans, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I con-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, all proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all	

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LEGAL NAME OF INVENTOR

Inventor: DEEPAK JOSEPH

Signature:

PMN: 7880US1

Title of Invention	DYNAMIC UTILIZATION OF ALTERNATIVE RESOURCES BASED ON TOKEN ASSOCIATION
As the below	named inventor, I hereby declare that:
This declaration	
	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 tof not more than five (5) years, or both.
	ASSIGNMENT
Carolina (City filed on even hereby autho	Karla Ramirez ("Assignor"), a citizen of the United States of America (Country), residing in Charlotte, North, State/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. <u>15/630,270</u> , filed <u>June 22, 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:
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: 7880US1

WARNING:

LEGAL NAME OF INVENTOR	
Inventor: KARLA RAMIREZ	Date:5/30/2017
Signature: Karla Ramirez	

PMN: 7880US1

Title of Invention	DYNAMIC UTILIZATION OF ALTERNATIVE RESOURCES BASED ON TOKEN ASSOCIATION
As the below	named inventor, I hereby declare that:
This declaration is directed to:	The attached application, or
	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 to fine for the five (5) years, or both.
	ASSIGNMENT
North Carolin application was assignor below	Laura Elizabeth Randall ("Assignor"), a citizen of the United States of America (Country), residing in Davidson, a (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 some known and prior to filing the recordation.
	U.S. Application No. <u>15/630,270</u> , filed <u>June 22, 2017</u> .
Delaware, and 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:
payment for the said Assignor, representative countries for a countries in it entitled under Letters Patent continuation-secrets, confiduationize and Patent on said right, title and agree that I was successors, as will execute a testify in any	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 eign 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 reinternational conventions, treaties, or otherwise), in and to said inventions and in and to all applications and a granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade dential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters dinventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire dinterest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I ill without further consideration, but at the expense of Assignee, communicate to said Assignee, or its signs, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I ill non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all

PMN: 7880US1

WARNING:

purposes are not retained in the application life and therefore are not publicly available.		
LEGAL NAME OF INVENTOR		
Inventor: LAURA ELIZABETH RANDALL	Date: <u>5/30/17</u>	
Signature: Laura Elizabeth Randall		