505454186 04/30/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5500988

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PATRICK THOMAS MCCONNELL	04/22/2019
WILLIAM BRADLEY BURKS	04/22/2019
DANIEL JAMES DOHERTY	04/24/2019
JUSTIN RILEY DUPONT	04/24/2019
THOMAS ELLIOTT	04/22/2019
TONY ENGLAND	04/29/2019
MATTHEW MURPHY	04/22/2019
NICKOLAS PATRICK PARKER	04/30/2019
STEPHEN PHILIP SELFRIDGE	04/26/2019
STEVEN MICHAEL TWOMBLY	04/22/2019
JAMES J. WILLIAMS	04/23/2019

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:	16399874

CORRESPONDENCE DATA

(704)339-5800 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.

Phone: 7043311000

Email: cindigraser@mvalaw.com, iplaw@mvalaw.com,

bacdocket@mvalaw.com

Correspondent Name: MOORE & VAN ALLEN PLLC FOR BOFA Address Line 1: 100 NORTH TRYON STREET, SUITE 4700

REEL: 049048 FRAME: 0768 505454186

PATENT

Address Line 2: ATTN: IP DEPARTMENT

Address Line 4: CHARLOTTE, NORTH CAROLINA 28202

ATTORNEY DOCKET NUMBER:	8966US1.014033.3412
NAME OF SUBMITTER:	NICHOLAS C. RUSSELL
SIGNATURE:	/Nicholas C. Russell/
DATE SIGNED:	04/30/2019
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 33

source=8966US1-3412-Dec-Assign-4-30-2019#page1.tif source=8966US1-3412-Dec-Assign-4-30-2019#page2.tif source=8966US1-3412-Dec-Assign-4-30-2019#page3.tif source=8966US1-3412-Dec-Assign-4-30-2019#page4.tif source=8966US1-3412-Dec-Assign-4-30-2019#page5.tif source=8966US1-3412-Dec-Assign-4-30-2019#page6.tif source=8966US1-3412-Dec-Assign-4-30-2019#page7.tif source=8966US1-3412-Dec-Assign-4-30-2019#page8.tif source=8966US1-3412-Dec-Assign-4-30-2019#page9.tif source=8966US1-3412-Dec-Assign-4-30-2019#page10.tif source=8966US1-3412-Dec-Assign-4-30-2019#page11.tif source=8966US1-3412-Dec-Assign-4-30-2019#page12.tif source=8966US1-3412-Dec-Assign-4-30-2019#page13.tif source=8966US1-3412-Dec-Assign-4-30-2019#page14.tif source=8966US1-3412-Dec-Assign-4-30-2019#page15.tif source=8966US1-3412-Dec-Assign-4-30-2019#page16.tif source=8966US1-3412-Dec-Assign-4-30-2019#page17.tif source=8966US1-3412-Dec-Assign-4-30-2019#page18.tif source=8966US1-3412-Dec-Assign-4-30-2019#page19.tif source=8966US1-3412-Dec-Assign-4-30-2019#page20.tif source=8966US1-3412-Dec-Assign-4-30-2019#page21.tif source=8966US1-3412-Dec-Assign-4-30-2019#page22.tif source=8966US1-3412-Dec-Assign-4-30-2019#page23.tif source=8966US1-3412-Dec-Assign-4-30-2019#page24.tif source=8966US1-3412-Dec-Assign-4-30-2019#page25.tif source=8966US1-3412-Dec-Assign-4-30-2019#page26.tif source=8966US1-3412-Dec-Assign-4-30-2019#page27.tif source=8966US1-3412-Dec-Assign-4-30-2019#page28.tif source=8966US1-3412-Dec-Assign-4-30-2019#page29.tif source=8966US1-3412-Dec-Assign-4-30-2019#page30.tif source=8966US1-3412-Dec-Assign-4-30-2019#page31.tif source=8966US1-3412-Dec-Assign-4-30-2019#page32.tif source=8966US1-3412-Dec-Assign-4-30-2019#page33.tif

> PATENT REEL: 049048 FRAME: 0769

PMN: 8966US1

Title of Invention	RESOURCE DISTRIBUTION HUB GENERATION ON A MOBILE DEVICE	
As the below	named inventor, I hereby declare that:	
This declarati is directed to	\(\chi\) The attached application, of	
	filed on	
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.	
	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	
WHEREAS, I, Patrick Thomas McConnell ("Assignor"), a citizen of the United States of America (Country), residing in Huntersville, North Carolina (City, State/Province) have invented the invention(s) described in the below listed application(s). 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(s) below after they become known and prior to filing the recordation.		
	U.S. Application No. <u>16/399,874</u> , filed <u>April 30, 2019</u> .	
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 s of America, and in any and all countries foreign thereto:	
United States 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 leg		

Firm No.: 014033-003412 PMN: 8966US1

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.

LEGAL NAME OF INVENTOR				
Inventor: PATRICK THOMAS N	1cconnext	Date:	4/22/19	
Signature:	Mh			

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

- The information on this form will be treated confidentially to the extent allowed under the Freedom of Information
 Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the
 Department of Justice to determine whether disclosure of these records is required by the Freedom of Information
 Act
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PMN: 8966US1

Title of Invention	RESOURCE DISTRIBUTION HUB GENERATION ON A MOBILE DEVICE	
As the below	named inventor, I hereby declare that:	
This declaration		
	United States application or PCT international application numberfiled 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	
WHEREAS, I, Steven Michael Twombly ("Assignor"), a citizen of the United States of America (Country), residing in Saco, Maine (City, State/Province) have invented the invention(s) described in the below listed application(s). 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(s) below after they become known and prior to filing the recordation.		
	U.S. Application No. <u>16/399,874</u> , filed <u>April 30, 2019</u> .	
WHEREAS, BANK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of Delaware, and having its offices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States 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: 8966US1

WARNING:

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properties and reconnect in the application life and therefore a	ne not publicly available.
LEGAL NAME OF INVENTOR	
Inventor: STEVEN MICHAEL TWOMBLY	Date: 4/22/19
Signature: Hwen I Twomby	

REEL: 049048 FRAME: 0774

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
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PMN: 8966US1

Title of Invention	RESOURCE DISTRIBUTION HUB GENERATION ON A MOBILE DEVICE
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-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.
	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.
1	ASSIGNMENT
University, Pe the following §3.21 for rece	James J. Williams ("Assignor"), a citizen of the United States of America (Country), residing in Lincoln ennsylvania (City, State/Province) have invented the invention(s) described in the below listed application(s). If lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. ordal of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the d application number(s) below after they become known and prior to filing the recordation.
	U.S. Application No. <u>16/399,874</u> , filed <u>April 30, 2019</u> .
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 s of America, and in any and all countries foreign thereto:
payment for said Assignor representative countries for countries in it entitled under Letters Pater continuation secrets, confiauthorize and Patent on said right, title and agree that I was successors, a will execute a testify in any	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 is, 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 ts own 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, reviews, continuations, -in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade idential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby defended in resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire definite interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its ssigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I all 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 e, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all

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purposes are not retained in the application file and therefore	• •
LEGAL NAME OF INVENTOR	
	10.010
Inventor: JAMES J. WILLIAMS	Date: 4/23/2019
Signature: J. Vii.	

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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PMN: 8966US1

Title of Invention	RESOURCE DISTRIBUTION HUB GENERATION ON A MOBILE DEVICE	
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-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.	
	owledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or to fine the total more than five (5) years, or both.	
	ASSIGNMENT	
WHEREAS, I, Matthew Murphy ("Assignor"), a citizen of the United States of America (Country), residing in Charlotte, North Carolina (City, State/Province) have invented the invention(s) described in the below listed application(s). 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(s) below after they become known and prior to filing the recordation.		
	U.S. Application No. 16/399,874, filed April 30, 2019	
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:	
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		

Firm No.: 014033-003412 PMN: 8966US1

WARNING:

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LEGAL NAME OF INVENTOR		
Inventor: MATTHEW MURPHY	Date: 4/22/107	
Signature: ———————————————————————————————————		

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Title of Invention	RESOURCE DISTRIBUTION HUB GENERATION ON A MOBILE DEVICE
As the below	named inventor, I hereby declare that:
This declarati	The attached application, or
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The above-id	entified application was made or authorized to be made by me.
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LEGAL NAME OF INVENTOR	
Inventor: WILLIAM BRADLEY BURKS	Date: 4-22-2019
Signature: William B. Burks	

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The above-id	entified application was made or authorized to be made by me.
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	ASSIGNMENT
Huntersville, application(s with 37 C.F.R	Stephen Philip Selfridge ("Assignor"), a citizen of the United States of America (Country), residing in North Carolina (City, State/Province) have invented the invention(s) described in the below listed in the following lines are blank, the above application was filed on even date herewith, otherwise, to comply §3.21 for recordal of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of sert the filing date and application number(s) below after they become known and prior to filing the
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LEGAL NAME OF INVENTOR

Inventor: STEPHEN PHILIP SELFRIDGE

Date: 4/26/19

Signature:

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LEGAL NAME OF INVENTOR

Inventor: THOMAS ELLIOTT

Date: Apr 22 2019

Signature: _

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Delaware, ar title and inte	ANK OF AMERICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of ad 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 s of America, and in any and all countries foreign thereto:
payment for said Assignorepresentaticountries for countries in entitled und Letters Pater continuation secrets, confauthorize and Patent on saright, title aragree that I successors, will execute testify in any	FFORE, 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 in granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, in-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade indential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby differential information and compilations, necessary or useful to make, use, or sell the inventions. I hereby differential information and compilations or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, y legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for e, its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in al

Firm No.: 014033-003412 PMN: 8966US1

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purposes are not retained in the application file and theref	ore are not publicly available.
LEGAL NAME OF INVENTOR	
Inventor: JUSTIN RILEY DUPONT	Date:4/24/2019
0 6 0 10 4	
Signature: <u>Justin R. duPont</u>	

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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Title of Invention	RESOURCE DISTRIBUTION HUB GENERATION ON A MOBILE DEVICE
As the below	named inventor, I hereby declare that:
This declarati	INC attached application, or
	United States application or PCT international application number
The above-id	lentified 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.
	nowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or at of not more than five (5) years, or both.
	ASSIGNMENT
North Caroling following line for recordal (Daniel James Doherty ("Assignor"), a citizen of the United States of America (Country), residing in Huntersville, na (City, State/Province) have invented the invention(s) described in the below listed application(s). If the es are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the filing blication number(s) below after they become known and prior to filing the recordation.
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payment for said Assigno representati countries for countries in entitled und Letters Pater continuation secrets, continuation secrets, continuation sathorize and Patent on saright, title aragree that I successors, will execute testify in any	EFORE, 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 nt granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, reviews, continuations, n-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade fidential information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters and inventions or resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire and interest. I represent and warrant that I have full right to agree to, execute, and deliver this assignment. I will without further consideration, but at the expense of Assignee, communicate to said Assignee, or its assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that I all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, y legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for the, its 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: DANIEL JAMES DOHERTY

Date: 4/44/

Signature:

[Page 2 of 3]

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Title of Invention	RESOURCE DISTRIBUTION HUB GENERATION ON A MOBILE DEVICE
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-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.
	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
Carolina (City lines are blan recordal of th	Tony England ("Assignor"), a citizen of the United States of America (Country), residing in Tega Cay, South r, State/Province) have invented the invention(s) described in the below listed application(s). If the following lk, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for his assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to insert the filing date on number(s) below after they become known and prior to filing the recordation.
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The production and the dependent of the and the cross	are not put	oncry available.	
LEGAL NAME OF INVENTOR			
Inventor: TONY ENGLAND	Date:	4/29/19	
Signature: Jon Snyla J			

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LEGAL NAME OF INVENTOR

Inventor: NICKOLAS PATRICK PARKER-

Signature:

[Page 2 of 3]

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[Page 3 of 3]

RECORDED: 04/30/2019