## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6921480

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MONIKA KAPUR	06/18/2019
KEVIN A. DELSON	06/18/2019
BRANDON SLOANE	06/18/2019
SITEN SANGHVI	06/20/2019
ALBENA N. FAIRCHILD	07/08/2019
JOHN RYAN BOWLING	06/19/2019

#### **RECEIVING PARTY DATA**

Name:	BANK OF AMERICA CORPORATION
Street Address:	214 N. 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:	17477660

#### **CORRESPONDENCE DATA**

**Fax Number:** (845)362-6111

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:** 8453626100

Email:cziskind@weissarons.comCorrespondent Name:WEISS & ARONS LLPAddress Line 1:63 SOUTH MAIN STREET

Address Line 4: SPRING VALLEY, NEW YORK 10977

ATTORNEY DOCKET NUMBER:	104-494DIV
NAME OF SUBMITTER:	JOEL WEISS
SIGNATURE:	/Joel Weiss/
DATE SIGNED:	09/17/2021

PATENT REEL: 057510 FRAME: 0789 Total Attachments: 12
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PATENT REEL: 057510 FRAME: 0790

Attorney Docket No.: 104-494

IDF9077

# 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		TRUSTED PAIR AUTHENTICATION WITH EDGE-COMPUTING DEVICES
As the below nam	ed inven	tor, I hereby declare that:
This declaration is directed to:	<b>Ø</b>	The attached application, or
		United States application or PCT International application number
The above-identif	ied appliji	cation was made or authorized to be made by me.
[ believe that I am	the origi	nal inventor or an original joint inventor of a claimed invention in the application.
i hereby acknowle imprisonment of r	dge that iot more	any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or than five (S) years, or both.
		ASSIGNMENT
Comply with 37 C.I America to insert I WHEREAS, BANK ( Delaware, and hav title and interest in	He filing  L  F AMER  Ing its of 1 and to 1	owing lines are blank, the above application was filed on even date herewith, otherwise, to be for recordal of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of date and application number below after they become known and prior to filing the recordation.  I.S. Application No. 16/505, 930, filed 07/09/20/9  ICA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of fices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, the aforesald inventions and in and to all applications and Letters Patent therefor granted in the
NOW, THEREFORE payment for the masaid Assignor, by the representatives, the countries foreign is own ander international Patent granted the information, and crommissioner of Paymissioner of	TO Wisk oking of pese pre- e full and hereto, a name a liconven refor, and reof, and and that on, but a gwin to he a gwin	OM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or inventions, or employee banefits, the receipt and sufficiency of which is hereby acknowledged, i sents do sell, assign and transfer unto said Assignee, its successors, assigns and legal discussive right, title and interest for the territory of the United States of America and all and throughout the world and in space, (including the right to apply for Letters Patent in foreign and to claim any priority rights for such foreign applications to which such applications are entitled tions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters diall non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-in-parts if in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential aris, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the old any official whose duty it is to issue patients, to issue all Letters Patent on said inventions or Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I have full right to agree to, execute, and deliver this assignment. I agree that I will without the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, he regarding said inventions whenever requested, and that I will execute all non-routeions.

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 1 of 2]

#### WARNING:

LEGAL NAME OF INVENTOR	<del></del>	
Inventor: <u>Monika Kapur</u>	Date:	<u> Color</u>
Signature:		

# 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		TRUSTED PAIR AUTHENTICATION WITH EDGE-COMPUTING DEVICES
As the below name	ed inven	tor, I hereby declare that:
This declaration is directed to:	Ø	The attached application, or
		United States application or PCT international application numberfiled on
The above-identifi	ed applic	cation was made or authorized to be made by me.
I believe that I am	the origi	inal inventor or an original joint inventor of a claimed invention in the application.
		any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or than five (5) years, or both.
	······	

#### **ASSIGNMENT**

WHEREAS, I, Kevin A. Delson ("Assignor"), a citizen of United States of America, residing in Woodland Hills, California, 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 filling the recordation.

U.S. Application No. 16/505 930 filed 07/09/2019.

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, 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 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.

#### WARNING:

LEGAL NAME OF INVENTOR			
Inventor: Kevin A. Delson	Date:	6/18/2019	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
Signature:			

# 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	TRUSTED PAIR AUTHENTICATION WITH EDGE-COMPUTING DEVICES		
As the below	named	invent	tor, I hereby declare that:
This declarati directed to:	on is	Ø	The attached application, or
			United States application or PCT international application numberfiled on
The above-ide	entified	applic	cation was made or authorized to be made by me.
I believe that	I am th	e origi	inal inventor or an original joint inventor of a claimed invention in the application.
			any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or than five (5) years, or both.
************			

#### **ASSIGNMENT**

WHEREAS, I, **Brandon Sloane** ("Assignor"), a citizen of **United States of America**, residing in **Charlotte**, **North Carolina**, 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. 16/505, 930 filed 07/09/2019

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, 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 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.

#### WARNING:

LEGAL NAME OF INVENTOR		
Inventor: Brandon Sloane	Date: 6/18/19	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Signature: A. J.		

# 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		TRUSTED PAIR AUTHENTICATION WITH EDGE-COMPUTING DEVICES
As the below n	amed inven	tor, I hereby declare that:
This declaration directed to:	n is	The attached application, or
		United States application or PCT international application numberfiled on
The above-iden	tified applic	ation was made or authorized to be made by me.
I believe that I a	am the origi	nal inventor or an original joint inventor of a claimed invention in the application.
		any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or than five (5) years, or both.
		ASSIGNMENT
invention. If the 37 C.F.R. §3.21	e following I for recordal date and ap	("Assignor"), a citizen of <b>India</b> , residing in <b>Jersey City, New Jersey</b> , have invented the above lines are blank, the above application was filed on even date herewith, otherwise, to comply with of this assignment, I, an assignor below, hereby authorize the attorneys for Bank of America to oplication number below after they become known and prior to filing the recordation.
	U	.S. Application No. 16/505,930 , filed 07/09/2019 .
Delaware, and I title and interes	naving its of it in and to t	CA CORPORATION ("Assignee"), a Corporation duly organized under the laws of the State of fices and place of business at Charlotte, North Carolina, is desirous of acquiring the entire right, the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the and in any and all countries foreign thereto:
payment for the said Assignor, by representatives countries foreig countries in its counder internation and extensions of information, and commissioner of resulting therefore present and we further consider any and all facts divisional, reissulting theres, mand all facts divisional, reissulting theres.	e making of y these present the full and n thereto, a pown name a ponal convent therefor, and d compilation f Patents, a rom to said varrant that ation, but a known to no ne, reexaminake all right	OM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I sents do sell, assign and transfer unto said Assignee, its successors, assigns and legal dexclusive right, title and interest for the territory of the United States of America and all and throughout the world and in space, (including the right to apply for Letters Patent in foreign and to claim any priority rights for such foreign applications to which such applications are entitled tions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters dall non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-in-parts in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential ons, necessary or useful to make, use, or sell the inventions. I hereby authorize and request the not any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or Assignee, or its successors and assigns, as assignee of the entire right, title and interest. I have full right to agree to, execute, and deliver this assignment. I agree that I will without the expense of Assignee, communicate to said Assignee, or its successors, assigns, or nominees, he regarding said inventions whenever requested, and that I will execute all non-provisional, nation, continuation and continuation-in-part applications, testify in any legal proceedings, sign all titul oaths, and generally do everything reasonable for said Assignee, its successors, assigns, and force proper patent protection for said inventions in all countries.

#### WARNING:

LEGAL NAME OF INVENTOR			
Inventor: Siten Sanghvi	Date:	06/20/2019	
Signature: <u>Sitan Sanghoi</u>			

### 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			TRUSTED PAIR AUTHENTICATION WITH EDGE-COMPUTING DEVICES
As the below	named	inven	tor, I hereby declare that:
This declarati directed to:	on is		The attached application, or
			United States application or PCT international application number
The above-ide	entified	applic	cation was made or authorized to be made by me.
I believe that	I am th	e origi	inal inventor or an original joint inventor of a claimed invention in the application.
			any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or than five (5) years, or both.
••••••••••••••••••••••••	**********	*********	ACCICAIBAEAIT

#### ASSIGNIVIENT

WHEREAS, I, Albena N. Fairchild ("Assignor"), a citizen of United States of America, residing in Indian Trail, North Carolina, 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. 16/505, 930 filed 07/09/2019

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, 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 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.

#### WARNING:

LEGAL NAME OF INVENTOR		***************************************
Inventor: Albena N. Fairchild	Date: July 8, 2019	ů.
Signature: / Albena N. Fairchild /		

Attorney Docket No.: 104-494

IDF9077

### 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		TRUSTED PAIR AUTHENTICATION WITH EDGE-COMPUTING DEVICES
As the below name	inven	ntor, I hereby declare that:
This declaration is directed to:	Ø	The attached application, or
		United States application or PCT international application number
The above-identifie	d appli	cation was made or authorized to be made by me.
believe that   am ti	ne orig	inal inventor or an original joint inventor of a claimed invention in the application.
		t any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or than five (5) years, or both.
		A C C I C A L A S T A L

#### ASSIGNMENT

WHEREAS, I, John Ryan Bowling ("Assignor"), a citizen of United States of America, residing in Mooresville, North Carolina, 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. 16/505, 930 filed 07/09/2019

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, 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 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.

#### WARNING:

		***************************************
LEGAL NAME OF INVENTOR		
Inventor: John Ryan Bowling	Date: 06/19/2019	
Signature:		