506597650 04/07/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6644455

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ASHISH ARORA	05/11/2017
MUNIRAJU JAYARAMAIAH	05/11/2017
XIANHONG ZHANG	05/11/2017

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17224593

CORRESPONDENCE DATA

Fax Number: (202)824-3001

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (312) 463-5000

Email: bwptopat@bannerwitcoff.com, jbrady@bannerwitcoff.com

Correspondent Name: BANNER & WITCOFF, LTD.

Address Line 1: 1100 13TH ST. NW

Address Line 2: STE 1200

Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	007131.02479\US
NAME OF SUBMITTER:	RAJIT KAPUR
SIGNATURE:	/Rajit Kapur/
DATE SIGNED:	04/07/2021

Total Attachments: 6

source=7131-2479_Combined Assignment and Declaration from Parent as recorded#page1.tif source=7131-2479 Combined Assignment and Declaration from Parent as recorded#page2.tif

PATENT 506597650 REEL: 055854 FRAME: 0781

source=7131-2479_Combined Assignment and Declaration from Parent as recorded#page3.tif source=7131-2479_Combined Assignment and Declaration from Parent as recorded#page4.tif source=7131-2479_Combined Assignment and Declaration from Parent as recorded#page5.tif source=7131-2479_Combined Assignment and Declaration from Parent as recorded#page6.tif

PATENT REEL: 055854 FRAME: 0782

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	Preventing Unauthorized Access to Secured Information Systems Using Authentication Tokens and Multi-Device Authentication Prompts
As the helev	named inventor, I hereby declare that:
As the below	lamed inventor, i hereby deciare that.
This declaration is directed to:	
	United States application or PCT international application number filed on
The above-ide	entified application was made or authorized to be made by me.
I believe that	I am the original inventor or an original joint inventor of a claimed invention in the application.
	pwledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or tof not more than five (5) years, or both.
	ASSIGNMENT
have invented otherwise, to	Ashish Arora ("Assignor"), a citizen of India (Country), residing in Issaquah, Washington (City, State/Province) the above invention. If the following lines are blank, the above application was filed on even date herewith, comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby authorize the Bank of America to insert the filing date and application number below after they become known and prior to rdation.
	U.S. Application No. <u>17/224,593</u> , filed <u>April 7, 2021</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 Patentin-parts and econfidential in request the Countries. I republished without further nominees, and provisional, differential proceedings,	FORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or he making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I by these presents do sell, assign and transfer unto said Assignee, its successors, assigns and legal es, the full and exclusive right, title and interest for the territory of the United States of America and all sign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign is own name and to claim any priority rights for such foreign applications to which such applications are rinternational conventions, treaties, or otherwise), in and to said inventions and in and to all applications and granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuation-xtensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and dominissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and resent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will see consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or y and all facts known to me regarding said inventions whenever requested, and that I will execute all non-ivisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its signs, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTC-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: Ashish Arora	Date: 05-11-2017-
Signature: Signature:	Date. — » V

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	Preventing Unauthorized Access to Secured Information Systems Using Authentication Tokens and Multi-Device Authentication Prompts
	<u>_</u>
As the below	named inventor, I hereby declare that:
This declarations directed to:	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.
	powledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or tof not more than five (5) years, or both.
	ASSIGNMENT
State/Province date herewith authorize the	Muniraju Jayaramaiah ("Assignor"), a citizen of <u>India</u> (Country), residing in <u>Bellevue, Washington</u> (City, e) have invented the above invention. If the following lines are blank, the above application was filed on even a, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby attorneys for Bank of America to insert the filing date and application number below after they become ior to filing the recordation.
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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 Patentin-parts and econfidential in request the Countriest. I republished without furthen nominees, and provisional, deproceedings,	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 rinternational conventions, treaties, or otherwise), in and to said inventions and in and to all applications and granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-xtensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and domains on a compilation of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and resent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will ser consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or y and all facts known to me regarding said inventions whenever requested, and that I will execute all non-ivisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its signs, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

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LEGAL NAME OF INVENTOR	
inventor shipingu takaramash	Date: 05/11/2017
Summer Marchens	·

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	Preventing Unauthorized Access to Secured Information Systems Using Authentication Tokens and Multi-Device Authentication Prompts
As the below	named inventor, I hereby declare that:
This declaration	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	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
State/Province date herewith authorize the	Xianhong Zhang ("Assignor"), a citizen of <u>Canada</u> (Country), residing in <u>Issaquah, Washington</u> (City, e) have invented the above invention. If the following lines are blank, the above application was filed on even, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I, an assignor below, hereby attorneys for Bank of America to insert the filing date and application number below after they become ior to filing the recordation.
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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:
payment for the said Assignor, representative countries for a countries in it entitled under Letters Patentin-parts and econfidential in request the Countries. I republished without further nominees, and provisional, differential proceedings,	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 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, continuations, extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, information, and compilations, necessary or useful to make, use, or sell the inventions. I hereby authorize and deministration of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said resulting therefrom to said Assignee, or its successors and assigns, as assignee of the entire right, title and resent and warrant that I have full right to agree to, execute, and deliver this assignment. I agree that I will are consideration, but at the expense of Assignee, communicate to said Assignee, or its successors, assigns, or and all facts known to me regarding said inventions whenever requested, and that I will execute all non-visional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee, its signs, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

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Inventor Xianhong Zhang Date: 05/11/2017	LEGAL NAME OF INVENTOR		
Microsoft Americans 2	Incontrar Vischese Thans	Date:	
		25	