PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6310727

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MILOS DUNJIC	02/21/2019
ANTHONY HAITUYEN NGUYEN	02/20/2019
YUBING LIU	09/15/2020
ARTHUR CARROLL CHOW	04/01/2019
RICHARD JOHN FREDERICK THAKE	03/22/2019
CASEY LYN DOYLE	08/18/2020
MENGFEI WANG	03/12/2019
AARON ASHISH HUDALI	03/12/2019
GREGORY ALBERT KLIEWER	03/12/2019
MARTIN ALBERT LOZON	04/02/2019
YUSBEL GARCIA DIAZ	03/12/2019
GARETH DALY	03/12/2019
MASASHI KOBAYASHI	04/02/2019
RANDALL JOHN BAST	09/14/2020

RECEIVING PARTY DATA

Name:	THE TORONTO-DOMINION BANK
Street Address:	66 WELLINGTON ST. W., 15TH FLOOR
City:	TORONTO
State/Country:	CANADA
Postal Code:	M5K 1A2

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17028016

CORRESPONDENCE DATA

Fax Number: (416)363-8429

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: 416-479-8647

mailbox@rowandlaw.com Email:

> **PATENT** REEL: 053842 FRAME: 0741

Correspondent Name: ROWAND LLP

Address Line 1: SUITE 2302, 401 BAY STREET

Address Line 2: PO BOX 56

Address Line 4: TORONTO, CANADA M5H 2Y4

ATTORNEY DOCKET NUMBER:	337-0032USP2
NAME OF SUBMITTER:	JOANNA POON
SIGNATURE:	/Joanna Poon/
DATE SIGNED:	09/22/2020

Total Attachments: 17

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PATENT REEL: 053842 FRAME: 0742

ASSIGNMENT

WHEREAS, I/WE, (hereinafter referred to as the "ASSIGNOR(S)"):

DUNJIC, Milos

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

NGUYEN, Anthony Haituyen

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

LIU, Yubing

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

CHOW, Arthur Carroll

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

THAKE, Richard John Frederick

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

DOYLE, Casey Lyn

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

WANG, Mengfei

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

HUDALI, Aaron Ashish

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

KLIEWER, Gregory Albert

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

LOZON, Martin Albert

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

DIAZ, Yusbel Garcia

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

DALY, Gareth

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

KOBAYASHI, Masashi

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

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BAST, Randall John

66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada

has/have invented a METHODS AND SYSTEMS FOR CONTROLLING ACCESS TO A PROTECTED RESOURCE ("Invention") for which one or more applications for patent, design registration, utility model registration, or other form of protection, rights, or title have been or will be made in certain countries ("Applications"), as further described below:

US Patent Application No. 16/000,086	5, filed June 5, 2018	
CA Patent Application No	, filed	·
US Patent Application No. 17/028.016.	filed September 22, 2020	

AND WHEREAS, **The Toronto-Dominion Bank**, (hereinafter referred to as the "ASSIGNEE"), **66 Wellington St. W., 15th Floor, Toronto, Ontario M5K 1A2, Canada**, has acquired and/or is desirous of acquiring the full and exclusive right, title and interest in and to said Invention, said Applications inclusive of all ancillary rights relating thereto, any and all priority rights derived from said Applications, and all patents, design registrations, utility model registrations and other forms of protection, rights and titles relating to said Invention, in any country or countries and in respect of the whole or any part or parts of or improvements to the Invention;

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR(S) does/do hereby confirm that ASSIGNOR(S) has/have transferred, conveyed and assigned, and by way of further assurance does/do hereby transfer, convey and assign, any and all of ASSIGNOR(S)'s respective rights, title and interest in and to: the Invention; the Applications; any further applications for patent, design registration, utility model registration or other forms of protection, rights or titles for the whole or any part or parts of or improvements to the Invention in any country or countries ("Further Applications") together with the right to file divisional applications, substitute applications and continuation applications of any one or more of the Applications and Further Applications ("Divisionals"); the right to obtain patents, design registrations, utility model registrations and all other forms of protection, rights and titles relating to the Invention; the right in and to any patent or reissue patent relating to the Applications, Further Applications and Divisionals ("Grants"); and the right to obtain any extensions / supplementary protection certificates ("Extensions"); together with the right to bring proceedings to recover damages and/or to obtain other remedies for acts committed

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in respect of one or more of the aforesaid Invention, Applications, Grants, Further Applications, Divisionals and Extensions, whether such acts are committed before or after the date of this Worldwide Assignment; with the intent that the Invention, Applications, Grants, Further Applications, Divisionals and Extensions are owned and enjoyed by ASSIGNEE absolutely to the full end of the term or terms for same.

ASSIGNOR(S) does/do hereby agree, upon request, to provide assistance and to execute any and all further documents, at the expense of ASSIGNEE and/or its successors and assigns (as applicable), which may be necessary or desirable to enable ASSIGNEE, and/or its successors and assigns, to file, prosecute, bring proceedings and take other actions with respect to any and all of the Invention, Applications, Further Applications, Divisionals, Grants and Extensions, and any and all patents and registrations granted thereon and other forms of protection, rights and titles relating thereto, and ASSIGNOR(S) further agrees/agree to execute, upon request and at the expense of ASSIGNEE and/or its successors and assigns, any and all further documents which may be necessary to vest or perfect the title of ASSIGNEE therein.

ASSIGNOR(S) does/do hereby authorize ASSIGNEE or its patent agents or attorneys to insert, above, the jurisdictions, application numbers, filing dates and any other indicia identifying the Applications when such information is available for the purpose of recording this assignment.

ASSIGNOR(S) does/do hereby authorize and request The Commissioner of Patents or any equivalent authority to issue to ASSIGNEE each and every patent, registration and other form of protection, right, and title granted upon the Applications, Further Applications, Divisionals and Extensions.

THIS ASSIGNMENT shall inure to the benefit of ASSIGNEE and its successors and assigns, and shall be binding upon ASSIGNOR(S) and their successors and permitted assigns.

DELIVERY of this Worldwide Assignment by copy, however transmitted, constitutes valid and effective delivery. This Assignment may be executed in one or more counterparts,

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each of which when so executed and delivered shall be an original, and such counterparts shall together constitute one and the same instrument.

IN WITNESS WHEREOF, this Assignment has been executed below by the undersigned:

Date: F6821/19

DUNJIC, Milos

STATEMENT BY WITNESS

I, **RESECCA KILBURN**, hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.

Date: F68 21 / 19

undersigned:
Date: Cobracy W, 2014 MGUYEN, Anthony Haituyen
STATEMENT BY WITNESS
I, RESECCA KILBURN, hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.
Date: F68 20 / 19 (Signature of Witness)

IN WITNESS	WHEREOF,	this	Assignment l	has bee	n executed	below	by	the
undersigned:								

Date: Sept. 15, 2020

LIU, Yubing

STATEMENT BY WITNESS

I, TAN, Huifeng, hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.

Date: Sept 15, 2020

IN WITNESS WHEREOF, this Assignment has been executed below by the undersigned:
Date: April 1,2019 CHOW, Arthur Carroll
STATEMENT BY WITNESS
I, Madalina Minnear hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.
Date: April 1, 2019 (Signature of Witness)

IN WITNESS WHEREOF, this Assignment has been executed below by the undersigned:
Date: March 22, 2019 THAKE, Richard John Frederick
STATEMENT BY WITNESS
I, Madalina Minnear , hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.
Date: March &2, 2019 (Signature of Witness)

Date: 18/08/2026 Casey Doorld DOYLE, Casey Lyn

STATEMENT BY WITNESS

I, <u>Chytsnoe Stevers</u>, hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.

Date: 18/20

IN WITNESS WHEREOF, this Assignment has been executed below by the undersigned:				
Date: Mar. 12. 2016 WANG, Mengfei				
STATEMENT BY WITNESS				
I, Madalina Minnear, hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.				
Date: March 12, 2019 (Signature of Witness)				

IN WITNESS WHEREOF, this Assignment has been executed below by the undersigned:	
Date: March, 2th 2019 HUDAM, Aaron Ashish	
STATEMENT BY WITNESS	********
I, Devek Lee hereby declare that I was personal present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.	
Date: Musch 12/2019 (Signature of Witness)	000

Date: 6.8 0312

KLIEWER, Gregory Albert

STATEMENT BY WITNESS

I, Madalina Minner , hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.

Date: March 12, 2019

Date: April 2,2019

LOZON, Martin Albert

STATEMENT BY WITNESS

I, Madalina Minneat , hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.

Date: April a, 2019

Date: 3/12/19 DIAZ, Yus	sbel Garcia	
STATEMENT BY WITNESS		
I, Madalina Minnear	, hereby declare that I was personally	
present and did see the above named person, personally known to me to be a person named in the		
Assignment, duly sign and execute same.		
Date: March 12, 2019	all	
	(Signature of Witness)	

undersigned:

Date: 3/12/19 DALY, Ga	areth	
STATEMENT BY WITNESS		
I, Machina Minnear, hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.		
Date: March 12, 2019	(Signature of Witness)	

undersigned:

undersigned:		
Date: <u>April 2, 20/9</u>	コイルベベ KOBAYASHI, Masashi	
STATEMENT BY WITNESS		
I, Nadalina Minner , hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.		
Date: April 2, 2019	(Signature of Witness)	

Date: 9/19/2020

BASP, Randali John

STATEMENT BY WITNESS

I, <u>Juegar</u>, hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Assignment, duly sign and execute same.

Date: Sep 14,2020