

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT6343071

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
BRIAN ANDREW LAM	11/28/2019
ALEXEY SHPUROV	01/16/2020
HELENA LITANI	10/04/2020
RECEIVING PARTY DATA	
Name:	THE TORONTO-DOMINION BANK
Street Address:	66 WELLINGTON STREET WEST, TD TOWER, 15TH FLOOR
City:	TORONTO, ONTARIO
State/Country:	CANADA
Postal Code:	M5K 1A2
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16057791
CORRESPONDENCE DATA	
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ATTORNEY DOCKET NUMBER:	G4144-00265
NAME OF SUBMITTER:	JAMES A. COOKE, III
SIGNATURE:	/James A. Cooke, III/
DATE SIGNED:	10/09/2020
Total Attachments: 5	
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WORLDWIDE ASSIGNMENT

WHEREAS, WE, (hereinafter referred to as the “ASSIGNORS”):

**Brian Andrew LAM,
Alexey SHPUROV, and
Helena LITANI,**

have invented a certain new and useful invention entitled:

**DYNAMICALLY MANAGING EXCHANGES OF DATA
USING A DISTRIBUTED LEDGER AND HOMOMORPHIC COMMITMENTS**

for which a United States Patent application was filed on August 7, 2018, and accorded application serial number 16/057,791 (further identified by Attorney Docket No. G4144-00265 and TD Reference No. 18041-DID-US-PAT, hereinafter the “Patent Application”), and

WHEREAS, **The Toronto-Dominion Bank** (hereinafter “**Assignee**”), a corporation organized under the laws of the Province of Ontario, CANADA, having a place of business at 66 Wellington Street West, TD Tower, 15th Floor, Toronto, Ontario, M5K 1A2, has acquired or is desirous of acquiring the entire and exclusive right, title and interest in and to the Patent Application inclusive of any and all priority rights derived therefrom and the inventions therein disclosed or claimed, and in and to all Letters Patent, in the United States of America, Canada, and throughout the world, which may be granted and issued therefore throughout the world;

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged by each of the undersigned, WE, ASSIGNORS does/do hereby sell, assign, transfer, and set over to the ASSIGNEE, its successors and assigns, the entire and exclusive right, title and interest in and to the Patent Application for United States Letters Patent inclusive of any and all priority rights derived therefrom, and the inventions therein disclosed or claimed, and in and to all Letters Patent and issues thereof which may be granted upon the Patent Application and in and to all Letters Patent which may be issued upon any substitutes, continuations, continuations-in-part, divisions, re-issues or extensions of the Patent Application or Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, and in and to any and all Letters Patent which may be granted for the inventions in any foreign country or countries including priority rights derived from any application for the inventions in any country;

AND WE, ASSIGNORS hereby agrees/agree to execute, upon request, any and all further papers without charge which may be necessary or desirable to enable the ASSIGNEE, its successors and assigns, to file and prosecute the Patent Application, and any and all substitutes, continuations, continuations-in-part, divisions, or extensions thereof, and any and all reissues of the Letters Patent granted upon the Patent Application, and any and all applications for foreign Letters Patent on the inventions; and ASSIGNORS further agrees/agree to execute any and all further papers without charge which may be necessary or desirable to vest or perfect the title of

ASSIGNEE, its successors and assigns, in and to the Patent Application and the inventions therein disclosed or claimed, and in and to any and all Letters Patent and reissues thereof, in the United States of America, Canada, and foreign countries, which may be granted upon the Patent Application, and any substitutes, continuations, continuations-in-part, divisions, re-issues or extensions thereof, and upon any foreign applications;

AND WE, ASSIGNORS hereby authorizes/authorize and requests/request the Patent Office to issue each and every Letters Patent to be granted upon the Patent Application for United States Letters Patent, and upon any and all substitutes, continuations, continuations-in-part, divisions, or extensions of the Patent Application, and each and every reissue of the Letters Patent, to the ASSIGNEE, its successors and assigns, as the assignee of the entire right, title and interest therein, in accordance with this assignment;

AND WE, ASSIGNORS each individually hereby represent and warrant that I have read and fully understand the terms and provisions hereof, have had an opportunity to obtain independent legal advice, and have executed this assignment based upon my own judgment and advice of independent legal counsel (if sought), or alternatively, have waived the right to obtain independent legal counsel.

Inventor 1:

EXECUTED at (City, Province) Toronto, this 28th day of November, 2018⁹



Brian Andrew LAM

STATEMENT BY WITNESS

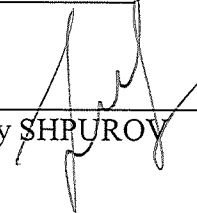
I, Ana Pacheco, whose full Post Office address is
66 Wellington St. W., 15^{FLR}, Toronto, ON M5K 1A2 was
personally present and did see the above named person, who is known to me, execute the above
Assignment.

(Signature of Witness)



Inventor 2:


EXECUTED at (City, Province) Toronto, Ontario this 16 day of January, 2018



Alexey SHPUROV

STATEMENT BY WITNESS

I, Ashkan Alavi-Harati, whose full Post Office address is
66 Wellington St.W, Toronto, ON M5K 1A2 was
personally present and did see the above named person, who is known to me, execute the above
Assignment.



(Signature of Witness)

TD Reference No. 18041-DID-US-PAT
Firm Name: Duane Morris LLP

Inventor 3:

EXECUTED at (City, Province) Scarborough, Ontario, this 04 day of October, 2020



Helena LITANI

STATEMENT BY WITNESS

I, _____, whose full Post Office address is
_____ was
personally present and did see the above named person, who is known to me, execute the above
Assignment.

(Signature of Witness)