

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5526109

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the <ASSIGNOR> FROM <EDWARD ROBERT LOUNSBURY> TO <EDWARD ROBERT LUCAS LOUNSBURY> previously recorded on Reel 048857 Frame 0973. Assignor(s) hereby confirms the ASSIGNMENT.
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
VIPUL KISHORE LALKA	02/08/2018
SARABJIT SINGH WALIA	10/25/2017
EDWARD ROBERT LUCAS LOUNSBURY	03/12/2018
JOHN JONG-SUK LEE	12/01/2017
ARUN VICTOR JAGGA	03/08/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE TORONTO-DOMINION BANK
<b>Street Address:</b>	66 WELLINGTON STREET WEST, 12TH FLOOR
<b>City:</b>	TORONTO
<b>State/Country:</b>	CANADA
<b>Postal Code:</b>	M5K 1A2
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15724473
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
<i>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.</i>	
<b>Phone:</b>	2142924009
<b>Email:</b>	apsi@fr.com
<b>Correspondent Name:</b>	FISH & RICHARDSON P.C.
<b>Address Line 1:</b>	P.O. BOX 1022
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55440-1022
<b>ATTORNEY DOCKET NUMBER:</b>	36302-0124001
<b>NAME OF SUBMITTER:</b>	C. JORDAN NEWELL
<b>SIGNATURE:</b>	/C. Jordan Newell/
<b>DATE SIGNED:</b>	05/16/2019

**Total Attachments: 9**

source=36302-0124001\_Assignment Cover Sheet (Marked Up)#page1.tif

source=36302-0124001\_Assignment Cover Sheet (Marked Up)#page2.tif

source=36302-0124001\_Assignment Cover Sheet (Marked Up)#page3.tif

source=36302-0124001\_Assignment Cover Sheet (Marked Up)#page4.tif

source=36302-0124001\_Assignment Cover Sheet (Marked Up)#page5.tif

source=36302-0124001\_Assignment Cover Sheet (Marked Up)#page6.tif

source=36302-0124001\_Assignment Cover Sheet (Marked Up)#page7.tif

source=36302-0124001\_Assignment Cover Sheet (Marked Up)#page8.tif

source=36302-0124001\_Assignment Cover Sheet (Marked Up)#page9.tif



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

APRIL 12, 2019

PTAS

FISH & RICHARDSON P.C.  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

**505422602**

### UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 04/11/2019

REEL/FRAME: 048857/0973  
NUMBER OF PAGES: 8

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: 36302-0124001

ASSIGNOR:

LALKA, VIPUL KISHORE

DOC DATE: 02/08/2018

ASSIGNOR:

WALIA, SARABJIT SINGH

DOC DATE: 10/25/2017

ASSIGNOR:

~~LOUNSBURY, EDWARD ROBERT~~

DOC DATE: 03/12/2018

Edward Robert Lucas Lounsbury

ASSIGNOR:

LEE, JOHN JONG-SUK

DOC DATE: 12/01/2017

ASSIGNOR:

JAGGA, ARUN VICTOR

DOC DATE: 03/08/2018

ASSIGNEE:

THE TORONTO-DOMINION BANK  
66 WELLINGTON STREET WEST, 12TH  
FLOOR  
TORONTO, CANADA M5K 1A2

APPLICATION NUMBER: 15724473

FILING DATE: 10/04/2017

PATENT NUMBER:

ISSUE DATE:

TITLE: DYNAMIC NOTIFICATION ENGINE FOR NOTIFICATION THROTTLING BASED ON  
CONTEXTUAL ANALYSES

ASSIGNMENT RECORDATION BRANCH  
PUBLIC RECORDS DIVISION

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5469393

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	VIPUL KISHORE LALKA	02/08/2018
	SARABJIT SINGH WALIA	10/25/2017
	<del>EDWARD ROBERT LOUNSBURY</del> Edward Robert Lucas Lounsbury	03/12/2018
	JOHN JONG-SUK LEE	12/01/2017
	ARUN VICTOR JAGGA	03/08/2018
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	THE TORONTO-DOMINION BANK	
<b>Street Address:</b>	66 WELLINGTON STREET WEST, 12TH FLOOR	
<b>City:</b>	TORONTO	
<b>State/Country:</b>	CANADA	
<b>Postal Code:</b>	M5K 1A2	
<b>PROPERTY NUMBERS Total: 1</b>		
<b>Property Type</b>	<b>Number</b>	
<b>Application Number:</b>	15724473	
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(877)769-7945	
<i>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.</i>		
<b>Phone:</b>	2142924009	
<b>Email:</b>	apsi@fr.com	
<b>Correspondent Name:</b>	FISH & RICHARDSON P.C.	
<b>Address Line 1:</b>	P.O. BOX 1022	
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55440-1022	
<b>ATTORNEY DOCKET NUMBER:</b>	36302-0124001	
<b>NAME OF SUBMITTER:</b>	C. JORDAN NEWELL	
<b>SIGNATURE:</b>	/C. Jordan Newell/	
<b>DATE SIGNED:</b>	04/11/2019	
<b>Total Attachments: 6</b>		
source=36302-0124001_Assignment#page1.tif		

ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, VIPUL KISHORE LALKA, SARABJIT SINGH WALIA, EDWARD ROBERT LUCAS LOUNSBURY, JOHN JONG-SUK LEE, and ARUN VICTOR JAGGA, each individually assign to THE TORONTO-DOMINION BANK, a corporation formed under the laws of Canada and having a principal place of business at 66 Wellington Street West, 12th Floor, Toronto, Ontario M5K 1A2, CANADA, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the subject matter (the "Subject Matter") of a patent application that names us as inventors, is titled "DYNAMIC NOTIFICATION ENGINE FOR NOTIFICATION THROTTLING BASED ON CONTEXTUAL ANALYSES," and was filed in the United States Patent and Trademark Office on October 4, 2017, as application 15/724,473 (the "Application").

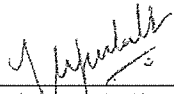
This Assignment assigns (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter, will execute and provide all oaths and

declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

  
\_\_\_\_\_  
Vipul Kishore Lalka

Date: Feb 8, 2018

\_\_\_\_\_  
Sarabjit Singh Walia

Date: \_\_\_\_\_

\_\_\_\_\_  
Edward Robert Lucas Lounsbury

Date: \_\_\_\_\_

\_\_\_\_\_  
John Jong-Suk Lee

Date: \_\_\_\_\_

\_\_\_\_\_  
Arun Victor Jagga

Date: \_\_\_\_\_

91143888.doc

declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

\_\_\_\_\_  
Vipul Kishore Lalka

Date: \_\_\_\_\_

  
\_\_\_\_\_  
Sarabjit Singh Walia

Date: 04-25/17

\_\_\_\_\_  
Edward Robert Lucas Lounsbury

Date: \_\_\_\_\_

\_\_\_\_\_  
John Jong-Suk Lee

Date: \_\_\_\_\_

\_\_\_\_\_  
Arun Victor Jagga

Date: \_\_\_\_\_

91143888.doc



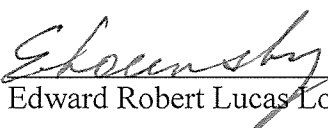
declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

\_\_\_\_\_  
Vipul Kishore Lalka

Date: \_\_\_\_\_

\_\_\_\_\_  
Sarabjit Singh Walia

Date: \_\_\_\_\_

  
\_\_\_\_\_  
Edward Robert Lucas Lounsbury

Date: March 12, 2018.

\_\_\_\_\_  
John Jong-Suk Lee

Date: \_\_\_\_\_

\_\_\_\_\_  
Arun Victor Jagga

Date: \_\_\_\_\_

91143888.doc

declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

\_\_\_\_\_  
Vipul Kishore Lalka

Date: \_\_\_\_\_

\_\_\_\_\_  
Sarabjit Singh Walia

Date: \_\_\_\_\_

\_\_\_\_\_  
Edward Robert Lucas Lounsbury

Date: \_\_\_\_\_

  
\_\_\_\_\_  
John Jong-Suk Lee

Date: \_\_\_\_\_

DEC 01 2017

DEC 01 2017

\_\_\_\_\_  
Arun Victor Jagga

Date: \_\_\_\_\_

91143888.doc

declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

\_\_\_\_\_  
Vipul Kishore Lalka

Date: \_\_\_\_\_

\_\_\_\_\_  
Sarabjit Singh Walia


Date: \_\_\_\_\_

\_\_\_\_\_  
Edward Robert Lucas Lounsbury

Date: \_\_\_\_\_

\_\_\_\_\_  
John Jong-Suk Lee

Date: \_\_\_\_\_

  
\_\_\_\_\_  
Arun Victor Jagga

Date: \_\_\_\_\_ MAR 08 2018

91143888.doc