506920418 10/13/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6967253

NATURE OF CONVEYANCE: Corrective Assignment to correct the THIRD INV	
EXECUTION DATE previously recorded on Ree Assignor(s) hereby confirms the INVENTOR'S N KARRTHIK K G TO KARRTHIK KALAGA GOPA EXECUTION DATE CHANGE FROM 09/18/201	el 047195 Frame 0435. JAME CHANGE FROM ALAKRISHNAN

CONVEYING PARTY DATA

Name	Execution Date
MUTHU ANNAMALAI MUTHIAH	09/18/2018
ARCHANA CHINNAIAH	09/18/2018
KARRTHIK KALAGA GOPALAKRISHNAN	10/04/2021
JIJO VARGHESE	09/18/2018

RECEIVING PARTY DATA

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION
Street Address:	NEW ORCHARD ROAD
City:	ARMONK
State/Country:	NEW YORK
Postal Code:	10504

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16134606	

CORRESPONDENCE DATA

Fax Number:

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: (408) 971-2573

Email:alma@zilkakotab.comCorrespondent Name:ZILKA-KOTAB, PCAddress Line 1:1155 N. 1ST ST.

Address Line 2: SUITE 105

Address Line 4: SAN JOSE, CALIFORNIA 95112

ATTORNEY DOCKET NUMBER:	P201800246US01/TUC1P438
NAME OF SUBMITTER:	DOMINIC M. KOTAB
SIGNATURE:	/Dominic M. Kotab/
DATE SIGNED:	10/13/2021

PATENT 506920418 REEL: 057936 FRAME: 0466

This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 7

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PATENT REEL: 057936 FRAME: 0467

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MUTHU ANNAMALAI MUTHIAH	09/18/2018
ARCHANA CHINNAIAH	09/18/2018
KARRTHIK K. G.	09/18/2018
JIJO VARGHESE	09/18/2018

RECEIVING PARTY DATA

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION
Street Address:	NEW ORCHARD ROAD
City:	ARMONK
State/Country:	NEW YORK
Postal Code:	10504

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16134606	

CORRESPONDENCE DATA

 Fax Number:
 (408)971-4660

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 (408) 971-2573

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 alma@zilkakotab.com

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.

Correspondent Name: ZILKA-KOTAB, PC
Address Line 1: 1155 N. 1ST ST.
Address Line 2: SUITE 105

Address Line 4: SAN JOSE, CALIFORNIA 95112

ATTORNEY DOCKET NUMBER:	P201800246US01/TUC1P438
NAME OF SUBMITTER:	DOMINIC M. KOTAB
Signature:	/Dominic M. Kotab/
Date:	10/04/2018

PATENT REEL: 057936 FRAME: 0468/2018, 2:16 PM This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

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RECEIPT INFORMATION

EPAS ID: PAT5174129 **Receipt Date:** 10/04/2018

PATENT

REEL: 057936 FRAME: 0469/2018, 2:16 PM

IBM DOCKET NUMBER: P201800246US01

DECLARATION (37 C.F.R. § 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. § 1.76) AND ASSIGNMENT

Title of Invention: REDUCING THE AMOUNT OF DATA TRANSFERRED TO REMOTE STORAGE LOCATIONS FOR MODIFIED OBJECTS

As a below named and undersigned inventor, I hereby declare that:

This declaration is directed to the application that was provided to me electronically on or about 2021-10-1.

[] United States application or PCT international application number ______ filed on _____.

The above-identified 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.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. § 1.56.

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns,

> PATENT REEL: 057936 FRAME: 0470

whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

Signature
Date:
(1) Legal Name of Inventor: Muthu Annamalai Muthiah
Signature:
Date:
(2) Legal Name of Inventor: Archana Chinnaiah
Signature: E-SIGNED by /Karrthik Kalaga Gopalakrishnan/
Date: 2021-10-04
(3) Legal Name of Inventor: Karrthik Kalaga Gopalakrishnan
Signature:
Date:

(4) Legal Name of Inventor: Jijo Varghese

PATENT REEL: 057936 FRAME: 0471

DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

Title of Invention: <u>REDUCING THE AMOUNT OF DATA TRANSFERRED TO</u> <u>REMOTE STORAGE LOCATIONS FOR MODIFIED OBJECTS</u>

This declaration is directed to the attached application, or (if following box is checked):

	United States application or PCT international application number		
	filed on		

The above-identified application was made or authorized to be made by me.

As a below named and undersigned inventor, I hereby declare that:

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all

Page 1 of 2

IBM DOCKET NUMBER: TUC1P438/P201800246US01

related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1)	Legal Name of Inventor:	Muthu Annamalai Muthiah	
	Signature: Mallo	A MAK	Date: 18-5EP7-2018
(2)	Legal Name of Inventor:	Archana Chinnaiah	
	Signature:		Date:
(3)	Legal Name of Inventor:	Karrthik K. G.	
	Signature:		Date:
(4)	Legal Name of Inventor:	Jijo Varghese	
	Stanon.ra:		Data

Page 2 of 2

IBM DOCKET NUMBER: TUC1P438/P201800246U501

related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under $18 \, \mathrm{U.S.C.}$ 1001 by fine or imprisonment of not more than five (5) years, or both.

(1)	Legal Name of Inventor: Mutho Annamalai Muthiah	
	Signature:	Date:
(2)	Legal Name of Inventor: Archana Chinnaiah	
	Signature: AC c	Date: 18 09 2018
(3)	Legal Name of Inventor: Karrthik K. G.	
	Signature: Person 1	Date: 18 - 07 - 2018
(4)	Legal Name of Inventor: Jijo Varghese	
	Signature Signature	Date: 18 - 09 - 18

RECORDED: 10/13/2021