506988450 11/19/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7035289

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MOHAMMED ARIF	10/30/2018
SAJEEV PHILIP	01/05/2019
SHANMUKESWARA RAO DONKADA	10/29/2018
RAMANATHAN RAMANATHAN	01/21/2021
JAYASREE IYER	10/29/2018
MATHEWBABU EDAPPILLY ANTONY	11/16/2021
RAMESHCHANDRA BHASKAR KETHARAJU	10/29/2018
AMIT TRIPATHI	01/07/2019
ARUN RAJ	04/02/2021
POORNIMA MAHABALESHWARAPPA	04/09/2021

RECEIVING PARTY DATA

Name:	WELLS FARGO BANK, N.A.	
Street Address:	420 MONTGOMERY STREET	
City:	SAN FRANCISCO	
State/Country:	CALIFORNIA	
Postal Code:	94104	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16170930

CORRESPONDENCE DATA

Fax Number: (704)331-4955

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: 7043314900

Email: susan.mcfarlane@wbd-us.com, wellsfargopatents@wbd-us.com

WOMBLE BOND DICKINSON (US) LLP Correspondent Name:

301 SOUTH COLLEGE STREET Address Line 1:

Address Line 2: **SUITE 3500**

Address Line 4: CHARLOTTE, NORTH CAROLINA 28202-6037

ATTORNEY DOCKET NUMBER: 111690.0146.0

PAIENI **REEL: 058170 FRAME: 0159** 506988450

NAME OF SUBMITTER:	DAVID EASWARAN, REG # 65,115
SIGNATURE:	/David Easwaran/
DATE SIGNED:	11/19/2021
Total Attachments: 18	
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PATENT REEL: 058170 FRAME: 0160

Date	Sajeev Philip
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Date	Mohammed Arif
10/30/2018	
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	nay be executed in counterparts, each of which when so deemed an original, but such counterparts together shall nent.
and prosecution of the APPLICA	cute all instruments and documents required for the making TION (and APPLICATION DERIVATIVES), for litigation refrom, and for the purpose of protecting and perfecting title CATION DERIVATIVES).
ASSIGNORS, the ASSIGNORS h	ideration, the receipt of which is hereby acknowledged by the ereby sell, assign and transfer to the ASSIGNEE, the entire interest in the INVENTION and the APPLICATION (and
("ASSIGNEE"), is entitled to, and and interest in the INVENTION ar	, on behalf of itself and its successors and assigns is desirous of acquiring, the entire and exclusive rights, title od the APPLICATION (and all other applications and patents sing applications, in and for the United States, its territories, ATION DERIVATIVES");
was filed on October 25	<u>, 2018</u> and was given U.S. Serial No. <u>16/179,930;</u>
authorizes, and requests ASSIGNI Tower at Ericview, 1301 East 9 th 8 with customer number 26672, to in-	nis executed PATENT ASSIGNMENT. ASSIGNOR hereby EE'S legal representatives of Walter Haverfield LLP, The treet, Suite 3500, Cleveland, Ohio 44114, who are associated sert here in parenthesis (U.S. Serial No. CATION'S U.S. Serial Number and filing date, when known;
Ramanathan, Jayasree Iyer, Mathev Amit Tripathi, Arun Raj, and Poorn subject matter ("INVENTION") dis	ev Philip, Shanmukeswara Rao Donkada, Ramanathan vbabu Edappilly Antony, Rameshchandra Bhaskar Ketharaju, sima Mahabaleshwarappa ("ASSIGNORS"), have invented sclosed and/or claimed in a patent application entitled ICATION" ("APPLICATION"), which:

Ramanathan, Jayasree Iyer, Amit Tripathi, Arun Raj, an subject matter ("INVENTIC	f, Sajeev Philip, Shanmukeswara Rao Donkada, Ramanathan Mathewbabu Edappilly Antony, Rameshchandra Bhaskar Ketharaju, d Poornima Mahabaleshwarappa ("ASSIGNORS"), have invented DN") disclosed and/or claimed in a patent application entitled "HENTICATION" ("APPLICATION"), which:
authorizes, and requests A Tower at Erieview, 1301 Ea with customer number 2667	thout this executed PATENT ASSIGNMENT. ASSIGNOR hereby SSIGNEE'S legal representatives of Walter Haverfield LLP, Thoust 9 th Street, Suite 3500, Cleveland, Ohio 44114, who are associated 2, to insert here in parenthesis (U.S. Serial No. APPLICATION'S U.S. Serial Number and filing date, when known;
was filed on Oct	ober 25, 2018 and was given U.S. Serial No. 16/170,930;
("ASSIGNEE"), is entitled and interest in the INVENT derived therefrom, such as	to, N.A., on behalf of itself and its successors and assignate, and is desirous of acquiring, the entire and exclusive rights, title ION and the APPLICATION (and all other applications and patents continuing applications, in and for the United States, its territories APPLICATION DERIVATIVES");
ASSIGNORS, the ASSIGN	le consideration, the receipt of which is hereby acknowledged by the IORS hereby sell, assign and transfer to the ASSIGNEE, the entire and interest in the INVENTION and the APPLICATION (and IVES);
and prosecution of the AP regarding letters patent deri	to execute all instruments and documents required for the making PLICATION (and APPLICATION DERIVATIVES), for litigation ved therefrom, and for the purpose of protecting and perfecting title APPLICATION DERIVATIVES).
_	ment may be executed in counterparts, each of which when so all be deemed an original, but such counterparts together shal instrument.
Date	Mohammed Arif
04.05.2040	
01-05-2019 Date	Sajeev Philip
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Date	Shanmukeswara Rao Donkada
Date	Ramanathan Ramanathan
Date	Jayasree Iyer
Date	Mathewbabu Edappilly Antony
Date	Rameshchandra Bhaskar Ketharaju
Date	Amit Tripathi
Date	Arun Raj
Date	Poornima Mahabaleshwarappa

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Date	Mohammed Arif
	nt may be executed in counterparts, each of which when so be deemed an original, but such counterparts together shall trument.
and prosecution of the APPLI regarding letters patent derived to the APPLICATION (and AP	execute all instruments and documents required for the making ICATION (and APPLICATION DERIVATIVES), for litigation I therefrom, and for the purpose of protecting and perfecting title PLICATION DERIVATIVES).
ASSIGNORS, the ASSIGNOR	consideration, the receipt of which is hereby acknowledged by the RS hereby sell, assign and transfer to the ASSIGNEE, the entire id interest in the INVENTION and the APPLICATION (and ES);
("ASSIGNEE"), is entitled to, and interest in the INVENTION derived therefrom, such as cor	N.A., on behalf of itself and its successors and assigns and is desirous of acquiring, the entire and exclusive rights, title N and the APPLICATION (and all other applications and patents attinuing applications, in and for the United States, its territories, PLICATION DERIVATIVES");
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authorizes, and requests ASSI Tower at Erieview, 1301 East 9 with customer number 26672, t	ut this executed PATENT ASSIGNMENT. ASSIGNOR hereby GNEE'S legal representatives of Walter Haverfield LLP, The 9 th Street, Suite 3500, Cleveland, Ohio 44114, who are associated o insert here in parenthesis (U.S. Serial No. PLICATION'S U.S. Serial Number and filing date, when known;
Ramanathan, Jayasree Iyer, Ma Amit Tripathi, Arun Raj, and Pe subject matter ("INVENTION"	Sajeev Philip, Shanmukeswara Rao Donkada, Ramanathan thewbabu Edappilly Antony, Rameshchandra Bhaskar Ketharaju, oornima Mahabaleshwarappa ("ASSIGNORS"), have invented by disclosed and/or claimed in a patent application entitled entitled entitled entitled entitled.

PATENT REEL: 058170 FRAME: 0164

29 00x 1/18 Date	Shanmukeswara Rao Donkada
Daté	Ramanathan Ramanathan
Date	Jayasree Iyer
Date 29 0c 2018 Date	Mathewbabu Edappilly Antony Ameshchandra Bhaskar Ketharaju
Date	Amit Tripathi
Date	Arun Raj
Date	Poornima Mahabaleshwaranna

Ramanathan, Jayasree Iyer, Mathewt Amit Tripathi, Arun Raj, and Poornii subject matter ("INVENTION") disc	Philip, Shanmukeswara Rao Donkada, Ramanathan babu Edappilly Antony, Rameshchandra Bhaskar Ketharaju, ma Mahabaleshwarappa ("ASSIGNORS"), have invented closed and/or claimed in a patent application entitled CATION" ("APPLICATION"), which:
authorizes, and requests ASSIGNEI Tower at Erieview, 1301 East 9 th Str with customer number 26672, to inse	s executed PATENT ASSIGNMENT. ASSIGNOR hereby E'S legal representatives of Walter Haverfield LLP, The reet, Suite 3500, Cleveland, Ohio 44114, who are associated ent here in parenthesis (U.S. Serial NoATION'S U.S. Serial Number and filing date, when known;
was filed on October 25,	2018 and was given U.S. Serial No. <u>16/170,930</u> ;
("ASSIGNEE"), is entitled to, and is and interest in the INVENTION and	on behalf of itself and its successors and assigns is desirous of acquiring, the entire and exclusive rights, titled the APPLICATION (and all other applications and patents applications, in and for the United States, its territories, ATION DERIVATIVES");
ASSIGNORS, the ASSIGNORS her	deration, the receipt of which is hereby acknowledged by the reby sell, assign and transfer to the ASSIGNEE, the entire erest in the INVENTION and the APPLICATION (and
and prosecution of the APPLICAT	ite all instruments and documents required for the making ION (and APPLICATION DERIVATIVES), for litigation efrom, and for the purpose of protecting and perfecting title ATION DERIVATIVES).
	ay be executed in counterparts, each of which when so leemed an original, but such counterparts together shall ent.
Date	Mohammed Arif
 Date	Sajeev Philip
	<u></u> -

Date	Shanmukeswara Rao Donkada
1/21/2021	Ramanathan Kamanathan
Date	Ramanathan Raffanathan
Date	Jayasree Iyer
Date	Mathewbabu Edappilly Antony
	Thurse would Edupping Timony
Date	Rameshchandra Bhaskar Ketharaju
Date	Amit Tripathi
Date	Arun Raj
Date	Poornima Mahabaleshwarappa

We, Mohammed Arif, Sajeev Philip, Shanmukesw Ramanathan, Jayasree Iyer, Mathewbabu Edappilly Antor Amit Tripathi, Arun Raj, and Poornima Mahabaleshwarap subject matter ("INVENTION") disclosed and/or claimed "FUNDS TRANSFER AUTHENTICATION" ("APPLICATION")	y, Rameshchandra Bhaskar Ketharaju, pa ("ASSIGNORS"), have invented in a patent application entitled
will be filed without this executed PATENT authorizes, and requests ASSIGNEE'S legal representat Tower at Erieview, 1301 East 9 th Street, Suite 3500, Clew with customer number 26672, to insert here in parenthesis filed) this APPLICATION'S U.S. Serial	ives of Walter Haverfield LLP, The reland, Ohio 44114, who are associated (U.S. Serial No
was filed on October 25, 2018 and was given to	U.S. Serial No. <u>16/170,930</u> ;
Wells Fargo Bank, N.A., on behalf of itse ("ASSIGNEE"), is entitled to, and is desirous of acquiring and interest in the INVENTION and the APPLICATION derived therefrom, such as continuing applications, in an and all foreign countries ("APPLICATION DERIVATIVE	ng, the entire and exclusive rights, title (and all other applications and patents and for the United States, its territories,
For good and valuable consideration, the receipt o ASSIGNORS, the ASSIGNORS hereby sell, assign and and exclusive rights, title and interest in the INVEN APPLICATION DERIVATIVES);	transfer to the ASSIGNEE, the entire
ASSIGNORS agree to execute all instruments an and prosecution of the APPLICATION (and APPLICA regarding letters patent derived therefrom, and for the put to the APPLICATION (and APPLICATION DERIVATIVE)	TION DERIVATIVES), for litigation impose of protecting and perfecting title
This Patent Assignment may be executed in executed and delivered shall be deemed an original, constitute one and the same instrument.	
Date Mohammed Arif	
Date Sajeev Philip	

Date	Shanmukeswara Rao Donkada	
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Date	Ramanathan Ramanathan	
	Jayar	
Oct 29,2018		
Date	Jayasree Iyer	
Date	Mathewbabu Edappilly Antony	
Date	Maniewoadu Edappiny Antony	
Date	Rameshchandra Bhaskar Ketharaju	
Date	Amit Tripathi	
Date	Arun Raj	
Date	Poornima Mahabaleshwarappa	

IDF-18-0150 Attorney Docket Number: 111690.0146.0

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor ("Assignor") hereby sells, assigns, and transfers unto

Wells Fargo Bank, N.A. 420 Montgomery Street San Francisco, CA 94104

(the "Assignee") the inventor's entire worldwide right, title, and interest in and to all inventions, improvements, and discoveries (collectively, the "Inventions") set forth in:

United States Patent Application No. 16/170,930, filed on October 25, 2018, and titled:

"FUNDS TRANSFER AUTHENTICATION",

as well as in and to (a) all improvements and modifications to any of the Inventions, (b) the above-identified patent application and all other patent applications, , utility models, design registrations, other rights of exclusion, and inventors' certificates in every country or region setting forth (i) any or all of the Inventions or (ii) any improvements or modifications to any or all of the Inventions, (collectively, the "Applications and Granted Rights") (c) every priority right that is or may be predicated upon or arise from any of the Inventions or the Applications and Granted Rights, and (d) 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 Inventions, the Applications and Granted Rights, and any other rights assigned by this Assignment.

Assignor hereby authorizes Assignee to file patent applications in any or all countries on any or all of the Inventions in the name of the Assignor or in the name of Assignee or otherwise as Assignee may deem advisable, under the Patent Cooperation Treaty or otherwise.

Assignor hereby authorizes the Commissioner of Patents, and officials of other countries whose duty it is to issue patents, to issue patents on any or all of the Inventions to Assignee.

Assignor hereby represents that Assignor has the full and unencumbered right to make this Assignment, and hereby covenants that Assignor will not execute any document or instrument in conflict herewith.

IDF-18-0150 Attorney Docket Number: 111690.0146.0

Assignor hereby agrees to:

- i. undertake all acts reasonably serving to ensure that the Inventions and the Applications and Granted Rights shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by Assignor if this assignment had not been made:
- ii. execute and deliver, as requested by Assignee or its legal representatives, any lawful documents relating to any of the Inventions, including oaths, declarations, assignments, invention disclaimers, or affidavits;
- iii. furnish to Assignee all facts known to Assignor relating to any of the Inventions, as well as all documents, photographs, models, samples or other physical exhibits which may embody any of the Inventions, and
- iv. cooperate with Assignee in any reexamination, reissue, opposition, dispute, or litigation involving any of the Inventions or the Applications and Granted Rights.

Assignor hereby grants Assignee and its legal representatives the right to insert in this Assignment any further identification that may be necessary or desirable to comply with the rules of the United States Patent and Trademark Office for recordation of this Assignment.

This agreement is binding upon, and inures to the benefit of, the parties and their respective successors and assigns.

This Assignment is deemed to be effective at least as early as the earliest filing date listed above. If the Assignor has previously assigned to Assignee any right, title, or interest in the Inventions or the Applications and Granted Rights, this document shall be interpreted as confirming the validity of such prior assignment.

	/	<u>/</u>
Date	Mohammed Arif	
	/	/
Date	Sajeev Philip	
	/	/
Date	 Shanmukeswara Rao Don	

IDF-18-0150

Attorney Docket Number: 111690.0146.0

Date	Ramanathan Ramanathan	<u>/</u>
Date	/	<u>/</u>
11/16/2021 Date	Docusigned by: A a the war and a consequence of the consequence of th	<u>/</u>
Date	/	<u>/</u>
Date	/Amit Tripathi	<u>/</u>
Date	/Arun Raj	<u>/</u>
Date	/Poonima Mahabaleshwarappa	<u>/</u>

Ramanaha, Jayasee Iyer Ma Amit Inpathi, Arun Raj, and Po Silvest mater (TNVENTION)	acc) Philip, Stanmokerwars Rac Denkada, Ramanathan Bowtaho Edappilly Antony, Rameshchandra Bhaskar Ketharaju ominta Mahabaleshwarappa ("ASSIGNORS"), have invented Idisclosed and or carmed in a patent application entitled NTICATION" ("APPLICATION"), which	
Sufferings and requests ASSIC Tower at Energies 1301 East 9 with customer number 26672 to liket	t this executed PATENT ASSIGNMENT ASSIGNOR hereby NEET'S legal representatives of Walter I Haverfield LLP. The Street Suite 3500 Cleveland, Ohio 44114, who are associated ment here in parenthesis (U.S. Serjal No. LICATION'S U.S. Serjal Number and filing date, when known as 25.2018 and was given U.S. Serjal No. 16.170.936.	
ANNANCE SERVICES	A. on behalf of itself and its successors and assigns id is desirous of acquiring, the entire and exclusive rights title and the APPLICATION (and all other applications and patents number applications, in and for the United States, its territories, CATION DERIVATIVES.	
ASSUNCTED ASSUMITES	isideration, the receipt of which is hereby acknowledged by the hereby soil, assign and transfer to the ASSIGNEE, the entire interest in the INVENTION and the APPLICATION (and	
and prosecution of the APPLICA	cute all instruments and documents required for the making ITON (and APPLICATION DERIVATIVES), for intigation sections, and for me purpose of protecting and perfecting trie (CATION DERIVATIVES).	
This Patent Assignment y executed and delivered shall be constitute one and the same instrum	nay be executed in counterparts, each of which when so deemed an original, but such counterparts together shall sent.	
)ate	Mohammed Arif	
	Sujees Philip	

Date	Shanmukeswara Rao Donkada
Date	Ramanathan Ramanathan
Date	Joyasree Iyer
Date	Mathewbabu Edappilly Antony
Date 07 Jan 2019 Date	Rameshchandra Bhaskar Ketharaju Amit Tripathi
Date	Arun Raj
)aic	Poornima Mahabaleshwarappa

Ramanathan, Jayasree Iyer, Mathewl Amit Tripathi, Arun Raj, and Poorni subject matter ("INVENTION") disc	Philip, Shanmukeswara Rao Donkada, Ramanathan babu Edappilly Antony, Rameshchandra Bhaskar Ketharaju, ma Mahabaleshwarappa ("ASSIGNORS"), have invented closed and/or claimed in a patent application entitled CATION" ("APPLICATION"), which:
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ASSIGNORS, the ASSIGNORS he	leration, the receipt of which is hereby acknowledged by the reby sell, assign and transfer to the ASSIGNEE, the entire erest in the INVENTION and the APPLICATION (and
and prosecution of the APPLICAT	ute all instruments and documents required for the making ION (and APPLICATION DERIVATIVES), for litigation afrom, and for the purpose of protecting and perfecting title (ATION DERIVATIVES).
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Date	Mohammed Arif
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Date	Shanmukeswara Rao Donkada
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Date	Jayasree Iyer
Date	Mathewbabu Edappilly Antony
Date	Rameshchandra Bhaskar Ketharaju
 Date	Amit Tripathi
4/2/2021	DocuSigned by: ED65CD629D0C45E
Date	Arun Raj
Date.	Poornima Mahahaleshwaranna

Ramanathan, Jayasree Iyer, Amit Tripathi, Arun Raj, an	Mathewbabu Edappilly Add Poornima Mahabaleshwo'') disclosed and/or clair	keswara Rao Donkada, Ramanathan Intony, Rameshchandra Bhaskar Ketharaju varappa ("ASSIGNORS"), have invented med in a patent application entitled LICATION"), which:	u,
authorizes, and requests A Tower at Erieview, 1301 Ea with customer number 2667	SSIGNEE'S legal represe ast 9 th Street, Suite 3500, 6 2, to insert here in parenth	ENT ASSIGNMENT. ASSIGNOR herelentatives of Walter Haverfield LLP, The Cleveland, Ohio 44114, who are associated the control of the control	he ed
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("ASSIGNEE"), is entitled and interest in the INVENT	to, and is desirous of acq TON and the APPLICATI continuing applications, i	itself and its successors and assignating, the entire and exclusive rights, tit ION (and all other applications and pater in and for the United States, its territorie TIVES");	tle nts
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Date	Mohammed Arif	f	
Date	Sajeev Philip		

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Date	Shanmukeswara Rao Donkada	
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Date	Ramanathan Ramanathan	
Date	Jayasree Iyer	
Date	Mathewbabu Edappilly Antony	
Date	Damashahan dua Dhastran Vathansia	
Date	Rameshchandra Bhaskar Ketharaju	
Date	Amit Tripathi	
Date	Arun Raj	
4 /0 /2021	DocuSigned by:	
4/9/2021	Poornima Mahabalashwarappa	
Date	Poornima Mahabaleshwarappa	