505200213 11/20/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5246982

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SUSHANT KUMAR	01/29/2017
KANNAN ACHAN	01/30/2017
VENKATA SYAM PRAKASH RAPAKA	01/28/2017

RECEIVING PARTY DATA

Name:	WAL-MART STORES, INC.	
Street Address:	702 SW 8TH STREET	
City:	BENTONVILLE	
State/Country:	ARKANSAS	
Postal Code:	72716	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15420678

CORRESPONDENCE DATA

Fax Number: (602)364-7070

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: 602-364-7000

Email: julie.eslick@bclplaw.com

BRYAN CAVE LEIGHTON PAISNER LLP **Correspondent Name:** Address Line 1: TWO N CENTRAL AVENUE, SUITE 2100

Address Line 2: JULIE A. ESLICK

PHOENIX, ARIZONA 85004 Address Line 4:

ATTORNEY DOCKET NUMBER:	WMT-17-011-US/0552782	
NAME OF SUBMITTER:	JULIE A. ESLICK	
SIGNATURE:	/Julie A. Eslick/	
DATE SIGNED:	11/20/2018	

Total Attachments: 4

source=WMT-17-011-US-Assignment#page1.tif source=WMT-17-011-US-Assignment#page2.tif source=WMT-17-011-US-Assignment#page3.tif

> **PATENT REEL: 047557 FRAME: 0066** 505200213

source = WMT-17-011-US-Assignment #page 4.t if

PATENT REEL: 047557 FRAME: 0067

ASSIGNMENT

In consideration of my agreement with Wal-Mart Stores, Inc., and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, Sushant Kumar, an individual residing in Sunnyvale, California, and I, Kannan Achan, an individual residing in Saratoga, California and I, Venkata Syam Prakash Rapaka, an individual residing in Cupertino, California, (collectively referred to herein as the "ASSIGNOR"), will assign, transfer, set over, convey, and deliver to Wal-Mart Stores, Inc., a Delaware corporation, having a principal place of business located at 702 SW 8th Street, Bentonville, Arkansas 72716, its successors and assigns (collectively referred to herein as "ASSIGNEE"), all of my right, title, and interest in, to, and under any and all subject matter disclosed and/or claimed in the application(s) for patent, titled:

SYSTEMS AND METHODS FOR SEARCH QUERY REFINEMENT

filed in the U.S. Patent and Trademark Office on January 31, 2017 and assigned Application No. 15/420,678, a copy of which has been provided to me and I have reviewed; in, to and under the application(s) and any and all utility, design, provisional, non-provisional, continuation, continuation-in-part, continued prosecution, request-forcontinued-examination, and divisional applications thereof, in, to, and under, my exclusive right to make and prosecute any and all applications for patents, reissues, renewals, and extensions thereof; in, to, and under any and all patents and Convention and Treaty rights of all kinds, in the United States of America and all other countries throughout the world, for all such subject matter; in, to, and under any and all know-how and/or confidential, proprietary, and/or trade secret information relating to any such subject matter, applications, patents, and/or technology; in, to, and under the right to sue for present, past, and future infringement or misappropriation relating to any such subject matter, applications, patents, and/or technology; in, to, and under the right to enforce any rights and file any causes of action, in law and/or equity, relating to any such subject matter, applications, patents, and/or technology; and in, to, and under the right to all income, royalties, fees, damages, and payments now or hereafter due or payable in respect to any such subject matter, applications, patents, and/or technology. The right, title, and interest is to be held and enjoyed by ASSIGNEE and its successors and assigns as fully and exclusively as it would have been held and enjoyed by ASSIGNOR had this assignment not been made. I request the applicable official having authority to issue patents and/or corresponding rights to issue same on the subject matter of the invention(s) to ASSIGNEE, its successors and assigns, and, if called upon by ASSIGNEE, its successors, assigns, or legal representatives, I agree to promptly sign any and all documents necessary to secure any and all such patents and/or rights and for issuance of same to ASSIGNEE or its successors and assigns.

I covenant with ASSIGNEE, its successors, assigns, and legal representatives, that the interest and property hereby conveyed is free from all prior assignment, grant, mortgage, license, or other encumbrance.

1

810663.1

PATENT REEL: 047557 FRAME: 0068 i grant to ASSIGNEE, its successors assigns, and legal representatives the power to insert on this Assignment any further identification, including the application numbers and filling dates, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office, and/or any other patent office in any other country throughout the world, for recordation of this document.

I confirm that I have not made any agreement in conflict with this Assignment. I further agree that I will provide information within my knowledge or belief, and do any and all other relevant things that ASSIGNEE, its successors, assigns, or legal representatives deem necessary or desirable and request of me in connection with obtaining and/or maintaining any such patents and/or rights, in connection with any proceeding, controversy, and/or litigation pertaining to any such patents and/or rights, in order to perfect and/or enforce the ownership by ASSIGNEE, its successors and assigns, of the right, title, and interest conveyed by this Assignment, and/or in connection with this Assignment, without payment of consideration to me beyond that called for in my written agreement with ASSIGNEE on the understanding, however that ASSIGNEE will bear all reasonable expenses actually incurred for or in connection with such matters. This Assignment and the obligations assumed by me shall be binding on my heirs and personal representatives.

I confirm that I am a true inventor of the subject matter described in the patent application(s) identified above, and that there are no other individuals who are true inventors of the subject matter described in the patent applications identified above who are not listed as ASSIGNOR on this document.

Date <u>01/29/2017</u>

Sushed Kumar

Sushant Kumar

Date: 30 Jan 2017

Kannan Achan

3

Date: <u>61/28/201</u>7

Venkata Syam Prakash Rapaka

810663.1

RECORDED: 11/20/2018

PATENT REEL: 047557 FRAME: 0071

4