

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4389908

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
MARCELO M. DE BARROS	04/17/2017
SIDDHARTH S. SHENOY	04/17/2017
AMAN SINGHAL	04/17/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MICROSOFT TECHNOLOGY LICENSING, LLC
<b>Street Address:</b>	ONE MICROSOFT WAY
<b>City:</b>	REDMOND
<b>State/Country:</b>	WASHINGTON
<b>Postal Code:</b>	98052
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15581265
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(612)332-9081
<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>	612-332-5300
<b>Email:</b>	usdoCKET@microsoft.com
<b>Correspondent Name:</b>	MERCHANT & GOULD (MICROSOFT)
<b>Address Line 1:</b>	P.O. BOX 2903
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55402-0903
<b>ATTORNEY DOCKET NUMBER:</b>	14917.3076USU1/400979-US-
<b>NAME OF SUBMITTER:</b>	TIMOTHY B. SCULL
<b>SIGNATURE:</b>	/Timothy B. Scull/
<b>DATE SIGNED:</b>	04/28/2017
<b>Total Attachments: 6</b>	
source=Assignments#page1.tif	
source=Assignments#page2.tif	
source=Assignments#page3.tif	
source=Assignments#page4.tif	

source=Assignments#page5.tif

source=Assignments#page6.tif

PATENT ASSIGNMENT

MS Docket No.:14917.3076USU1/400979-US-NP

I, Marcelo M. De Barros ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "Auto-Generation Of Key-Value Clusters To Classify Implicit APP Queries and Increase Coverage for Existing Classified Queries" ("APPLICATION"), which:

will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representative, Microsoft Technology Licensing, LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed on \_\_\_\_\_ and given Application No. \_\_\_\_\_ by the following Office \_\_\_\_\_) this APPLICATION's Application No., filing date, and Office, when known;

was filed on \_\_\_\_\_ and was given Application No. \_\_\_\_\_ by the following Office " \_\_\_\_\_";

Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;

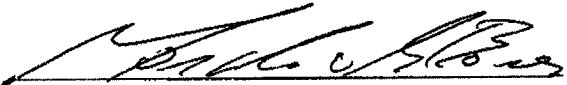
Application No.	Filing Date	Office

PATENT ASSIGNMENT

MS Docket No.:14917.3076USU1/400979-US-NP

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

 Inventor's Signature	<u>04/17/2017</u> Date
<u>Marcelo M. De Barros</u> Printed Name in English	<u>MARCELO DE BARROS</u> Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

MS Docket No.:14917.3076USU1/400979-US-NP

I, Siddharth S. Shenoy ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "Auto-Generation Of Key-Value Clusters To Classify Implicit APP Queries and Increase Coverage for Existing Classified Queries" ("APPLICATION"), which:

will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representative, Microsoft Technology Licensing, LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed on \_\_\_\_\_ and given Application No. \_\_\_\_\_ by the following Office \_\_\_\_\_) this APPLICATION's Application No., filing date, and Office, when known;

was filed on \_\_\_\_\_ and was given Application No \_\_\_\_\_ by the following Office " \_\_\_\_\_";

Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;


Application No.	Filing Date	Office

PATENT ASSIGNMENT

MS Docket No.:14917.3076USU1/400979-US-NP

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

 _____ Inventor's Signature	April 17, 2017 _____ Date
Siddharth S. Shenoy _____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

PATENT ASSIGNMENT

MS Docket No.:14917.3076USU1/400979-US-NP

I, Aman Singhal ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "Auto-Generation Of Key-Value Clusters To Classify Implicit APP Queries and Increase Coverage for Existing Classified Queries" ("APPLICATION"), which:

will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representative, Microsoft Technology Licensing, LLC, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed on \_\_\_\_\_ and given Application No. \_\_\_\_\_ by the following Office \_\_\_\_\_) this APPLICATION's Application No., filing date, and Office, when known;

was filed on \_\_\_\_\_ and was given Application No \_\_\_\_\_ by the following Office " \_\_\_\_\_";

Microsoft Technology Licensing, LLC, a Washington limited liability company, on behalf of itself and its successors and assigns ("ASSIGNEE"), is entitled to, and is desirous of acquiring, the entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S LEGAL REPRESENTATIVES to insert the Application No., filing date, and Office into the following table for any APPLICATION DERIVATIVES after they are known;

Application No.	Filing Date	Office

PATENT ASSIGNMENT

MS Docket No.:14917.3076USU1/400979-US-NP

For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest, including the right of priority, in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in whole or in part, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

<u>Aman</u>	<u>04/17/2017</u>
Inventor's Signature	Date
<u>Aman Singhal</u>	<u>अमन सिंहल</u>
Printed Name In English	Printed Name In Native Language (If other than English)