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PATENT ASSIGNMENT COVER SHEET

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| NATURE OF CONVEYANCE: | | ASSIGNMENT | ASSIGNMENT | | |
| CONVEYING PARTY DA | ATA | | | | |
| | | Name | Execution Date | | |
| STANLEY MO | | | 01/05/2016 | | |
| RITA H. WOUHAYBI | | | 12/22/2015 | | |
| MUBASHIR A. MIAN | | | 12/22/2015 | | |
| TOBIAS M. KOHLENBE | RG | | 06/01/2016 | | |
| JIM S. BACA | | | 12/30/2015 | | |
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| Name: | | CORPORATION | | | |
| Street Address: | 2200 N | AISSION COLLEGE BOULEVARD | | | |
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| State/Country: | CALIFORNIA | | | | |
| Postal Code: | 95054 | | | | |
| | 1 | | | | |
| PROPERTY NUMBERS | Total: 1 | | 1 | | |
| Property Type Number | | - | | | |
| | | 13719563 | | | |
| Application Number: | | | 1 | | |
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| CORRESPONDENCE D | ΑΤΑ | (612)677-3572 | J | | |
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| CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p | e sent t | o the e-mail address first; if that is un d; if that is unsuccessful, it will be ser | | | |
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| CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if p</i> Email: Correspondent Name: Address Line 1: | e sent t | o the e-mail address first; if that is uns d; if that is unsuccessful, it will be ser ILOH-Formals@cpaglobal.com BARNES AND THORNBURG C/O CPA GLOBAL | nt via US Mail. | | |
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ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

STANLEY MO; RITA H. WOUHAYBI; MUBASHIR A. MIAN; TOBIAS M. KOHLENBERG; JIM S. BACA

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

PERSONALIZED SEARCH LIBRARY BASED ON CONTINUAL CONCEPT CORRELATION

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

| which was filed on De | cember 19, 2012 | | |
|-----------------------|--------------------|------------|-----|
| United States | Application Number | 13/719.563 | and |

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and ell said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors,

Page 1 of 2

assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Stanley Mo

1/5/2016 /Date signed

Rita H. Wouhaybi

Date signed

Mubashir A. Mian

Date signed

Tobias M. Kohlenberg

Date signed

Jim S. Baca

Date signed

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Page 2 of 2

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Page 1 of 2

Attorney Docket No.: P50558

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Date signed

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Stanley Mo

Date signed

Rita H. Wouhaybi

Date signed

Date signed

<u>Muber</u> Mubashir

12/22/2015

Tobias M. Kohlenberg

Date signed

Date signed

Jim S. Baca

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Page 2 of 2

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Page 2 of 2

PATENT REEL: 038851 FRAME: 0660

RECORDED: 06/09/2016