

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3591840

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| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                      |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                          |
| <b>CONVEYING PARTY DATA</b>   |                                     |
| <b>Name</b>   | <b>Execution Date</b>               |
| MANISH MALIK  | 10/26/2015                          |
| QIFA KE   | 10/10/2015                          |
| RANGAN MAJUMDER   | 10/19/2015                          |
| ANDREAS BODE  | 10/09/2015                          |
| PUSHPRAJ SHUKLA   | 10/25/2015                          |
| YU SHI  | 10/13/2015                          |
| <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>  | 14925360                            |
| <b>CORRESPONDENCE DATA</b>  |                                     |
| <b>Fax Number:</b>  |                                     |
| <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>  | 14917.2662US01/358033.01            |
| <b>NAME OF SUBMITTER:</b>   | JASON E. BECKER                     |
| <b>SIGNATURE:</b>   | /Jason E. Becker/                   |
| <b>DATE SIGNED:</b>   | 10/29/2015                          |
| <b>Total Attachments: 12</b>  |                                     |

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source=2015\_10\_29\_ASSGNMT\_14917\_2662US01#page12.tif

I Manish Malik ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SINGLE UNIFIED RANKER" ("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 US - United States Patent and Trademark 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"));

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## PATENT ASSIGNMENT

MS Docket No.: 358033.01

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>10/26/15</u>  |
| Inventor's Signature  | Date   |
| Manish Malik  | मनीष मलिक  |
| Printed Name in English   | Printed Name in Native Language<br>(if other than English) |

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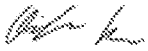
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[illegible]

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|---|---|
|  | 10/10/2015  |
| _____<br>Inventor's Signature   | _____<br>Date   |
| Qifa Ke   | 柯启发   |
| _____<br>Printed Name in English  | _____<br>Printed Name in Native Language<br>(if other than English) |

I Rangan Majumder ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SINGLE UNIFIED RANKER" ("APPLICATION"), which:

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| <br>Inventor's Signature | <u>10/19/15</u><br>Date  |
| <u>Rangan Majumder</u><br>Printed Name in English   | <br>Printed Name in Native Language<br>(If other than English) |



## PATENT ASSIGNMENT

MS Docket No.: 358033.01

I Andreas Bode ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SINGLE UNIFIED RANKER" ("APPLICATION"), which:

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| <br>Inventor's Signature | <u>10/9/2015</u><br>Date                                       |
| <u>Andreas Bode</u><br>Printed Name in English  | <br>Printed Name in Native Language<br>(if other than English) |

I Pushpraj Shukla ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SINGLE UNIFIED RANKER" ("APPLICATION"), which:

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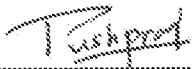
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|  | <u>10/25/2015</u>  |
| Inventor's Signature  | Date   |
| <u>Pushpraj Shukla</u>  |  |
| Printed Name in English   | Printed Name in Native Language<br>(if other than English) |

## PATENT ASSIGNMENT

MS Docket No.: 358033.01

I Yu Shi ("ASSIGNOR") am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SINGLE UNIFIED RANKER" ("APPLICATION"), which:

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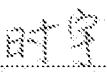
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|   |  |
|---|--|
|  | <u>10/13/2015</u>  |
| Inventor's Signature  | Date   |
| Yu Shi  |  |
| Printed Name in English   | Printed Name in Native Language<br>(if other than English)                         |