503665133 01/26/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3711768

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| SHARAD AGARWAL | 10/28/2011 |
| MING ZHANG | 11/01/2011 |
| LIN ZHONG | 11/01/2011 |
| ARDALAN AMIRI SANI | 11/01/2011 |
| PARAMVIR BAHL | 11/08/2011 |

RECEIVING PARTY DATA

| Name: | MICROSOFT CORPORATION |
|-----------------------------------|-----------------------|
| Street Address: ONE MICROSOFT WAY | |
| City: | REDMOND |
| State/Country: | WASHINGTON |
| Postal Code: 98052 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15005283 |

CORRESPONDENCE DATA

Fax Number:

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.

Email: usdocket@microsoft.com, ashley@cuttingedgepatents.com

Correspondent Name: ASSAL MEFTAHI

Address Line 1: ONE MICROSOFT WAY

Address Line 2: PATENT GROUP DOCKETING DEPARTMENT

Address Line 4: REDMOND, WASHINGTON 98052

| ATTORNEY DOCKET NUMBER: | 333854.01 |
|-----------------------------|----------------|
| NAME OF SUBMITTER: | MARK A. WATSON |
| SIGNATURE: /Mark A. Watson/ | |
| DATE SIGNED: | 01/26/2016 |

Total Attachments: 6

source=333854-13_MCS38-13-CON-CON_Executed-Assignment#page1.tif

PATENT REEL: 037587 FRAME: 0858 source=333854-13_MCS38-13-CON-CON_Executed-Assignment#page2.tif
source=333854-13_MCS38-13-CON-CON_Executed-Assignment#page3.tif
source=333854-13_MCS38-13-CON-CON_Executed-Assignment#page4.tif
source=333854-13_MCS38-13-CON-CON_Executed-Assignment#page5.tif
source=333854-13_MCS38-13-CON-CON_Executed-Assignment#page6.tif

PATENT REEL: 037587 FRAME: 0859

PATENT ASSIGNMENT MS Docket No.: 333854.01

| will be filed without this executed PATENT ASSIGNMENT. ASSIGNOR |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hereby authorizes, and requests, ASSIGNEE'S legal representatives, of |
| the Law and Corporate Affairs Department, Microsoft Corporation, One |
| Microsoft Way, Redmond, Washington 98052, who are associated with |
| customer number 69316, to insert here in parenthesis (Application No. $\frac{13/293149}{}$, filed $\frac{11/10/2011}{}$) this APPLICATION's Application No. and |
| filing date, when known; |
| was filed on and was given Application No; |
| is filed concurrently herewith; |
| |

Microsoft Corporation, a Washington Corporation, 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 in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES"));

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, the entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and 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).

| Shadal | 28 October 2011 |
|-------------------------|-------------------------------------|
| Inventor's Signature | Date |
| Sharad Agarwal | |
| Printed Name in English | Printed Name in Native Language (if |

PATENT ASSIGNMENT

MS Docket No.: 333854.01

| Paramvir Bahl Printed Name in English | Printed Name in Native Language (if |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inventor's Signature | Date |
| | |
| | |
| | *************************************** |
| Printed Name in English | Printed Name in Native Language (if other than English) |
| Ardalan Amiri Sani | D |
| | on avious bee sides sit ,0040424. Sit |
| | Date |
| | |
| | |
| | rining the equipolity with the first |
| | Printed Name in Native Language (if other than English) |
| Lin Zhong | No. 1 3 No. 1 No. |
| | |
| | Date |
| | na <u>Pertendanta de la compaña</u> Na <u>Compaña de la Compaña d</u> |
| | |
| | |
| Printed Name in English | Printed Name in Native Language (if other than English) |
| | 2k/372 |
| 040H2M JPŠRÁŽRYA TROTKA Bandar | |
| Inventor's Signature | Date |
| | ' |

<u>PATENT ASSIGNMENT</u>

| I/WE, Sharad Agarwal, Ming Zhang, Lin Zhong, Ardalan Amiri Sani, and Paramvir ahl ("ASSIGNOR"), have invented subject matter ("INVENTION") disclosed and/or laimed in a patent application entitled "Providing Per-Application Resource Usage formation" ("APPLICATION"), which: 図 will be filed without this executed PATENT ASSIGNMENT. ASSIGNOR | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| hereby authorizes, and requests, ASSIGNEE'S legal representatives, of the Law and Corporate Affairs Department, Microsoft Corporation, One Microsoft Way, Redmond, Washington 98052, who are associated with customer number 69316, to insert here in parenthesis (Application No. 13/293149, filed 11/10/2011) this APPLICATION's Application No. and filing date, when known; Was filed on and was given Application No; Is filed concurrently herewith; | | |
| Microsoft Corporation, a Washington Corporation, 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 in the INVENTION and the APPLICATION (and all other applications and patents derived therefrom, such as continuing applications, in and for the United States, its territories, and all foreign countries ("APPLICATION DERIVATIVES")); 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, the entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and 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 Date | | |
| Sharad Agarwal (1994) 1886 - 1 anno 18 Bus east (1994) 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 199 | | |

Printed Name in English Printed Name in Native Language (if

other than English)

MS Docket No.: <u>333854.01</u>

PATENT ASSIGNMENT

MS Docket No.: \$33854.01

| (8000000 | |
|-------------------------|-----------------------------------------------------------|
| | |
| Inventor's Signature | Date |
| Ming Zhang | |
| Printed Name in English | Printed Name in Native Language (f other than English) |
| | |
| Inventor's Signature | Date 11/01/2011 |
| Lin Zhong | |
| Printed Name in English | Printed Name in Native Language (f other than English) |
| to the day a se | |
| 27 | 11/1/2011 |
| Inventor's Signature | Date |
| Ardalan Amiri Sani | (Iranian) BLOSCION |
| Printed Name in Fnglish | Printed Name in Native Language if other than English) |
| | |
| | |
| Inventor's Signature | Date |
| Paramvir Bahl | |
| Printed Name in English | Printed Name in Native Language lif |

<u>PATENT ASSIGNMENT</u>

other than English)

MS Docket No.: <u>333854.01</u>

| aneste a 1886 – sačil miž četo, je odavalo s | Bargasab Albariak asya binadiraka |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| on that take out to applicable on the | |
| | ti gairt a casa agu, gasaí e ar gcodh |
| Inventor's Signature | Date (18 no. p. 19 (19 no. 19 no. p. p. p. c.) |
| | |
| Ming Zhang state to the 1998 and the second | <u>, us kara kan rajang pangkara</u> |
| Printed Name in English | Printed Name in Native Language (if |
| angawi amin'ikusang mma umila di sabit sa magawi | other than English) |
| | |
| harried harrings of the all the arms | |
| | and management strange |
| | Bak Arless - L. |
| Inventor's Signature | spi Date , i constituida de la constituida del constituida de la constituida de la constituida de la constituida del constituida de la con |
| | |
| Lin Zhong | s <u>la sacididación de la sacidada en la la calabación de </u> |
| Printed Name in English | Printed Name in Native Language (if |
| | other than English) |
| | |
| una dinako ingerikali dia dijang ya disebukun jeo. | AUABA LEBALUL SIBS BYĞIRIL Bİ BALAR BİŞLE |
| | eponenaseo de la companio |
| v <u>ik si za Renav le nasak bila na</u> p | a <u>ntilakha skitulia itok hasti kes</u> |
| a Inventor's Signature and block with the Mills | 4.0 Date 5.66 P. 1800 Dázluk, akir vili hilagi. Harriya y |
| | |
| Ardalan Amiri Sani | BASS II ABTRICES EN LA |
| Printed Name in English | Printed Name in Native Language (if |
| son editivisti o edika herri de e 10 | other than English) |
| | etrik versir destrik edelte der der degår be, segir |
| 人名英西克 英语诗的 计特别分类的复数形式 | bazazione escab etaina percebaga de |
| 0 0 0 | |
| Gran D- | Nov. 8, 2011 |
| Inventor's Signature | Date |
| | |
| Paramvir Bahl | |
| Printed Name in English | Printed Name in Native Language (if |
| Pergraph Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors of the Colors | other than English) |