PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4793403

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

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| SARVESH SAKALANAGA | 01/24/2018 |
| RAGHAV MOHAN | 01/03/2018 |
| ASHISH BHARGAVA | 12/18/2017 |
| VISHAL TANEJA | 01/09/2018 |

RECEIVING PARTY DATA

| Name: | MICROSOFT TECHNOLOGY LICENSING, LLC |
|-----------------|-------------------------------------|
| Street Address: | ONE MICROSOFT WAY |
| City: | REDMOND |
| State/Country: | WASHINGTON |
| Postal Code: | 98052 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15826638 |

CORRESPONDENCE DATA

Fax Number: (248)641-0270

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.

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usdocket@microsoft.com

Correspondent Name: HARNESS, DICKEY & PIERCE, P.L.C.

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Address Line 4: BLOOMFIELD HILLS, MICHIGAN 48303

| ATTORNEY DOCKET NUMBER: | 98052-122/403011-US-NP |
|-------------------------|------------------------|
| NAME OF SUBMITTER: | APRIL M. MINARIK |
| SIGNATURE: | /April M Minarik/ |
| DATE SIGNED: | 01/25/2018 |

Total Attachments: 8

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PATENT REEL: 044728 FRAME: 0974 504746675

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PATENT REEL: 044728 FRAME: 0975

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| inventor | of subj | ject ma | itter ("If | NVENTION | l") disci | losed a | and/or | claimed | in a | patent |
| applicatio | ın entitle | ed "Fast | Join and L | eave Virtua | ıl Network | " ("APP | LICATIC |)N"), whic | :h: | |

| | ASSIGNEE'S legal represent LLC, One Microsoft Way, Re | | | 7. | · · · · · · · · · · · · · · · · · · · |
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| | LEGAL REPRESENTATIVES), | | | | |
| | on | _ and | giv | en / | Application |
| | No | by | t | he | following |
| | Office | |) t | his APPI | JCATION's |
| | Application No., filing date, | and Office | , when ki | nown; | |
| \boxtimes | was filed on November 29. | <u>2017</u> and v | vas given | Applicati | ion No |
| | 15/826,638 by the followin | g Office " <u>U</u> | SPTO"; | | |

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 |
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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).

| S. H. Salves | 01/24/2018 |
|-------------------------|---------------------------------|
| Inventor's Signature | Date |
| Sarvesh SAKALANAGA | |
| Printed Name in English | Printed Name in Native Language |
| | (if other than English) |

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| | I Visl | hal TANE | JA ("ASSIGNOR") | am the or | iginal inv | ventor or | an | ori | ginal jo | int invent | or |
|----|------------|-------------|---------------------|-------------------|------------|-----------|----|-----|----------|------------|----|
| of | subject | matter | ("INVENTION") | ${\sf disclosed}$ | and/or | claimed | in | a | patent | applicati | on |
| en | titled "Fa | ist Join an | id Leave Virtual Ne | twork" ("APF | PLICATIO | N"), whic | h: | | | | |

| | will | be | filed. | ASSIGNOR | hereby | autho | rizes, | and | requ | uests, |
|---|-------------|--------|----------------|---------------------|-------------------|---------|--------|----------|-------|--------|
| | ASSI | GNE | E'S legal | representa | tive, Micr | osoft | Techno | ology | Licer | ısing, |
| | LLC, | One | Microso | oft Way, Redi | mond, Wa | shingt | on 980 |)52 (A | SSIG | NEE'S |
| | LEGA | AL R | EPRESEN | ITATIVES), t | o insert | here | in pa | renthe | eses | (filed |
| | on | | | | and | g | given | А | pplic | ation |
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| | App | licati | on No., | filing date, a | nd Office | , when | knowi | n; | | |
| | | | | | | | | | | |
| X | was | filed | on <u>Nove</u> | <u>ember 29, 20</u> | <u>017</u> and v | vas giv | en App | olicatio | on No | О |
| | <u>15/8</u> | 326,6 | 638 by tl | he following | Office " <u>U</u> | SPTO"; | | | | |

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| | 01/09/2018 | |
|-------------------------|---------------------------------|--|
| Inventor's Signature | Date | |
| Vishal TANEJA | | |
| Printed Name in English | Printed Name in Native Language | |
| | (if other than English) | |

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| 111. | ILIVI ABBIOIVILIVI | | |
|--|---|---|--|
| I Raghav MOHAN ("ASSIC inventor of subject matter (application entitled "Fast Join and | "INVENTION") disclosed | • | |
| LLC, One Microsoft LEGAL REPRESENT on No. Office | ASSIGNOR hereby auth representative, Microsoft ft Way, Redmond, Washing TATIVES), to insert here and by | Technology Licensing, gton 98052 (ASSIGNEE'S in parentheses (filed given Application the following) this APPLICATION's | |
| | <u>mber 29, 2017</u> and was gi e following Office " <u>USPTO</u> " | | |
| 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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Inventor's Signature

Raghav MOHAN

Printed Name in English

1/3/2018

Date

Printed Name in Native Language (if other than English)

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| inventor of | subject matțer (| | I inventor or an original joint and/or claimed in a patent PLICATION"), which: |
| | ASSIGNEE'S legal LLC, One Microso LEGAL REPRESEN on No. Office | ASSIGNOR hereby authorepresentative, Microsof ft Way, Redmond, Washin TATIVES), to insert here and by | t Technology Licensing, gton 98052 (ASSIGNEE'S e in parentheses (filed given Application the following) this APPLICATION's |
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| behalf of its desirous of a right of prior patents deriv | ielf and its succe acquiring, the enti ity, in the INVENTI red therefrom, suc ited States, its | ssors and assigns ("ASS re and exclusive rights, I ION and the APPLICATION th as continuing application | on limited liability company, on IGNEE"), is entitled to, and is title and interest, including the land all other applications and ons, in whole or in part, in and eign countries ("APPLICATION |
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| We will be the second of the s | 12/18/17 |
|--|---------------------------------|
| Inventor's Signature | Date |
| Ashish BHARGAVA | आग्रीघ भागत |
| Printed Name in English | Printed Name in Native Language |
| | (if other than English) |