504830942 03/21/2018

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4877679

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------|----------------|
| KOMETHAGAN SUBRAMANIAM | 03/21/2018 |
| MICHAEL ENGAN | 03/16/2018 |
| RAMKISHAN SADASIVAM | 03/19/2018 |
| DOUGLAS MCDORMAN | 03/17/2018 |

RECEIVING PARTY DATA

| Name: | T-Mobile USA, Inc. |
|-----------------|----------------------|
| Street Address: | 12920 SE 38th Street |
| City: | Bellevue |
| State/Country: | WA |
| Postal Code: | 98006-1350 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15828266 |

CORRESPONDENCE DATA

Fax Number: (509)944-4692

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.

Phone: 509-324-9256

Email: alexisc@leehayes.com **Correspondent Name:** LEE & HAYES, PLLC

601 W. RIVERSIDE AVE, SUITE 1400 Address Line 1: Address Line 4: SPOKANE, WASHINGTON 99201

| ATTORNEY DOCKET NUMBER: | TM2-0563US |
|-------------------------|------------------|
| NAME OF SUBMITTER: | ALEXIS COLLINS |
| SIGNATURE: | /Alexis Collins/ |
| DATE SIGNED: | 03/21/2018 |

Total Attachments: 8 source=1S10409#page1.tif source=1S10409#page2.tif source=1S10409#page3.tif

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| source=1S10409#page8.tif | | |

ASSIGNMENT

WHEREAS, Komethagan Subramaniam, Michael Engan, Ramkishan Sadasivam, and Douglas McDorman, residing at Redmond, Washington, Bellevue, Washington, Cummings, Georgia, and Sammamish, Washington, respectively (hereinafter called "Assignors"), have made certain new and useful inventions or discoveries relating to

AUTHORIZATION TOKEN INCLUDING FINE GRAIN ENTITLEMENTS

| WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled |
|---|
| "AUTHORIZATION TOKEN INCLUDING FINE GRAIN ENTITLEMENTS" for which: |
| a provisional application for United States Letters Patent was filed on and |
| was given U.S. Serial No; and/or |
| a non-provisional application for United States Letters Patent was: |
| filed on November 30, 2017 and was given U.S. Serial No. <u>15/828,266;</u> |
| or filed concurrently herewith. Assignors hereby authorize and request ASSIGNEE's legal |
| representatives, of Lee & Hayes, PLLC, 601 W Riverside Ave, Suite 1400, Spokane, |
| Washington 99201, who are associated with customer number 132935, to insert in the |
| caption above the serial number and filing date of the patent application when known. |

WHEREAS, T-Mobile USA, Inc. a corporation of the State of Delaware, having its principal place of business at 12920 SE 38th Street, Bellevue, Washington, (hereinafter called "Assignee"), is desirous of acquiring Assignors' entire right, title, and interest therein:

NOW, THEREFORE, BE IT KNOWN that for and in consideration of the sum of One Dollar and other valuable considerations, the receipt of which is hereby acknowledged, Assignors have sold, assigned, and transferred, and do hereby sell, assign and transfer unto said Assignee their entire right, title and interest in and to all said inventions and discoveries disclosed in said application whose identification above by serial number and filing date, when available is hereby authorized, and in and to said application, all substitutions, divisions, and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals, and reissues thereof, the same to be held and enjoyed by said Assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by Assignors if this Assignment and sale had not been made;

And Assignors hereby authorize and request the Commissioner of Patents of the United States to issue said Letters Patent in accordance with this Assignment;

And for the consideration aforesaid, Assignors covenant and agree with said Assignee that he has a full and unencumbered title to the inventions and discoveries above

Page 1

described and hereby assigned, which title they warrant unto said Assignee, its successors and assigns;

And for the consideration aforesaid, Assignors further covenant and agree that they will, whenever requested, but without cost to them promptly communicate to said Assignee or its representatives any facts known to them relating to said inventions and discoveries, testify in any interference or legal proceedings involving said inventions and discoveries, and execute any additional papers that may be necessary to enable said Assignee or its representatives, successors, nominees, or assigns to secure full and complete protection for the said inventions and discoveries or that may be necessary to vest in said Assignee the complete title to the said inventions and discoveries and patents hereby conveyed and to enable it to record said title.

| 03/21/18 | |
|----------|------------------------|
| | Komethagan Subramaniam |
| Date | Michael Engan |
| Date | Ramkishan Sadasivam |
| Date | Douglas McDorman |

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| Date / / | Komethagan Subramaniam |
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| 3/16/18 Date | Michael Engan |
| Date | Ramkishan Sadasivam |
| Date | Douglas McDorman |

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| Date | Douglas McDorman |

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Patent Assignment T-Mobile File No. P1436-US / 680004 OC Ref. No. TM2-0563US

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| Date | Michael Engan |
| Date | Ramkishan Sadasiyam |
| <u>2/3-/3-//</u> Date | Douglas McDorman |
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| | |

RECORDED: 03/21/2018