505697486 09/29/2019

PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|----------|----------------|
| RONG WU | 09/19/2019 |
| BO ZHANG | 06/10/2019 |
| LU GAN | 09/17/2019 |

RECEIVING PARTY DATA

| Name: | HUAWEI TECHNOLOGIES CO., LTD. |
|-----------------|--|
| Street Address: | HUAWEI ADMINISTRATION BUILDING, BANTIAN, LONGGANG DISTRICT |
| City: | SHENZHEN |
| State/Country: | CHINA |
| Postal Code: | 518129 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16248778 |

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.

Phone: 404-815-6500

Email: VWang@kilpatricktownsend.com

Correspondent Name: KILPATRICK TOWNSEND & STOCKTON LLP (HUAW

Address Line 1: 1100 PEACHTREE STREET

Address Line 2: SUITE 2800

Address Line 4: ATLANTA, GEORGIA 30309

| ATTORNEY DOCKET NUMBER: | 088963-1113619 (041200US) |
|-------------------------|---------------------------|
| NAME OF SUBMITTER: | CHARLES W. GRAY |
| SIGNATURE: | /CHARLES W. GRAY/ |
| DATE SIGNED: | 09/29/2019 |

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> PATENT REEL: 050539 FRAME: 0276

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PATENT

Attorney Docket No. 088963-1113619 (041200US) Client Reference No. 85074957US07

ASSIGNMENT

WHEREAS, WE,

Rong Wu Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA: and

Lu Gan Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; Bo Zhang Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and

have invented and own a certain invention entitled:

NETWORK AUTHENTICATION METHOD, AND RELATED DEVICE AND SYSTEM

for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 2019-01-16, under U.S. Application No. 16248778 and

WHEREAS, HUAWEI TECHNOLOGIES CO.,LTD., Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA;, hereinafter referred to as Assignee, is desirous of acquiring the entire domestic and foreign right, title, and interest in and under the invention described in the patent application.

Now, THEREFORE, for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, we assign and transfer to the Assignee and the Assignee's legal representatives, successors and assigns the full and exclusive rights in and to the invention in the U.S. and every foreign country and the entire right, title, and interest in and to the patent application and other such applications (e.g., provisional applications, non-provisional applications, continuations, continuations-in-part, divisionals, reissues, reexaminations, National phase applications, including petty patent applications, and utility model applications) that may be filed in the United States and every foreign country on the invention, and the patents, extensions, or derivations thereof, both foreign and domestic, that may issue thereon, and we do hereby authorize and request the Commissioner of Patents to issue U.S. patents to the above-mentioned Assignee agreeably with the terms of this assignment document.

WE HEREBY AUTHORIZE the Assignee to insert in this assignment document the filing date and application number of the application if the date and number are unavailable at the time this document is executed.

WE DO HEREBY COVENANT and agree with the Assignee that we will not execute any writing or do any act whatsoever conflicting with the terms of this assignment document set

forth herein, and that we will at any time upon request, without further or additional consideration, but at the expense of the Assignee, execute such additional assignments and other writings and do such additional acts as the Assignee may deem necessary or desirable to

In re Appln. of Wu et al. Attorney Docket No.088963-1113619 (041200US)

perfect the Assignee's enjoyment of this assignment, and render all necessary assistance in making application for and obtaining original, continuation, continuation-in-part, divisional, reissued, reexamined, and National phase patents of the U.S. or of any and all foreign countries on the invention, and in enforcing any rights or chooses in action accruing as a result of such applications or patents, and by executing statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of all parties hereto.

IN WITNESS WHEREOF, We have hereunder set our hands on the dates shown below.

| DateSept.19.2019 | Rong Wn. |
|------------------|----------|
| | Rong Wu |
| Date | |
| | Bo Zhang |
| Date | |
| | Lu Gan |

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Attorney Docket No. <u>088963-11136</u>19 (041200US) Client Reference No. 85074957US07

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| Date | | |
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| | Rong Wu | |
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| Date | | | |
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| 1.00.00/00.00 | | Rong Wu | |
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| Date | *************************************** | | **** |
| | | Bo Zhang | |
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| Date | 17.09.2019 | Lu Gron | ~~~~~ |
| | · | Lu Gan | |