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U.S. DEPARTMENT OF COMMERCE

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To the Director of the U.S. Patent and Trademark Office: Please record the enclosed document.

1. Name of conveying parties:

- 1.) Dongmei ZHANG  
2.) Aiqin ZHANG  
3.) Xiaoyu BI  
4.) Jing LIU

2. Name and Address of receiving party:

**HUAWEI TECHNOLOGIES CO., LTD.**  
**Huawei Administration Building**  
**Bantian, Longgang District**  
**Shenzhen, 518129, Guangdong**  
**P.R., China**

3. Nature of conveyance:

☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other:

Execution Date(s): 1,3.) July 27, 2012; 2,4.) July 26, 2012

4. Application number(s) or patent number(s):

☐ This document is being filed together with a new application.

OR

☒ This document is being filed after filing of the application:

- (a) Patent Application No(s). 13/564,173, filed August 1, 2012; or  
(b) Patent No(s).

5. Name and address of party to whom correspondence concerning document should be mailed:

STAAS & HALSEY LLP Our Docket: 2230.1215  
Attention: Paul I. Kravetz  
1201 New York Ave., N.W., 7th Floor  
Washington, D.C. 20005

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41)..... (\$ 40.00 per Patent or Application in Assignment)

- ☒ Enclosed  
☐ Authorized to be charged to credit card.  
☐ Authorized to be charged to deposit account.

8. Deposit Account No.: 19-3935 (Any underpayment is authorized to be charged to this Deposit Account)

(Attach duplicate copy of this page if paying by deposit account)

Paul I. Kravetz, Reg. No. 35,230  
Name of Person Signing

Signature

Date

Total number of pages including cover sheet: 5

DO NOT USE THIS SPACE

**PATENT**

Attorney Docket No. \_\_\_\_\_  
Client Reference No. 82743419US05

**ASSIGNMENT**

**WHEREAS, WE,**

Dongmei ZHANG  
Huawei Administration Building  
Bantian, Longgang District  
Shenzhen, 518129, Guangdong  
P.R. CHINA; and

Aiqin ZHANG  
Huawei Administration Building  
Bantian, Longgang District  
Shenzhen, 518129, Guangdong  
P.R. CHINA; and

Xiaoyu BI  
Huawei Administration Building  
Bantian, Longgang District  
Shenzhen, 518129, Guangdong  
P.R. CHINA; and

Jing LIU  
Huawei Administration Building  
Bantian, Longgang District  
Shenzhen, 518129, Guangdong  
P.R. CHINA;

have invented and own a certain invention entitled:  
**RELAY NODE AUTHENTICATION METHOD, APPARATUS, AND SYSTEM**  
for which invention we have executed an application (provisional or non-provisional) for a U.S.  
patent, which was filed on \_\_\_\_\_, under U.S. Application No. \_\_\_\_\_ and

**WHEREAS, HUAWEI TECHNOLOGIES CO., LTD.**, of 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 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

In re Appln. Of Zhang et al.  
Attorney Docket No. \_\_\_\_\_

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.

Date <u>July 27, 2012</u>	<u>Dongmei ZHANG</u> Dongmei ZHANG
Date <u>July 27, 2012</u>	<u>Yixian Xu</u> Witness
Date <u>July 27, 2012</u>	<u>[Signature]</u> Witness

Date _____	_____
Date _____	Aiqin ZHANG
Date _____	_____
Date _____	_____

Date <u>July 27, 2012</u>	<u>Xiaoyu Bi</u> Xiaoyu BI
Date <u>July 27, 2012</u>	<u>Jiang Wei Jing</u> Witness
Date <u>July 27, 2012</u>	<u>[Signature]</u> Witness

Date _____	_____
Date _____	Jing LIU
Date _____	_____
Date _____	_____

**PATENT**

Attorney Docket No. \_\_\_\_\_  
Client Reference No. 82743419US05

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Bantian, Longgang District  
Shenzhen, 518129, Guangdong  
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IN WITNESS WHEREOF, we have hereunder set our hands on the dates shown below.

Date \_\_\_\_\_ Dongmei ZHANG

Date \_\_\_\_\_ Witness

Date \_\_\_\_\_ Witness

Date July, 26, 2012 Aiqin ZHANG  
Aiqin ZHANG

Date July, 26, 2012 Hai LIU  
Witness

Date July, 26, 2012 Yanping ZHANG  
Witness

Date \_\_\_\_\_ Xiaoyu BI

Date \_\_\_\_\_ Witness

Date \_\_\_\_\_ Witness

Date July 26, 2012 Jing Liu  
Jing LIU

Date July 26, 2012 Zhongfeng Li  
Witness

Date July 26, 2012 Ke Wang  
Witness