

Patent and Trademark Office

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

1. Name of conveying party(ies):

Yu YIN  
Zhiyu DI

01/15/2013



103654204

2. Name and Address of receiving party(ies):

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) December 21, 2012; 2) December 28, 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). 13/729,732, filed December 28, 2012; or

(b) Patent No(s). , issued .

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

STAAS &amp; HALSEY LLP

Our Docket: 2230.1107CAttention: Paul I. Kravetz1201 New York Ave., N.W., 7th Floor  
Washington, D.C. 200056. 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 [Signature]Date January 10, 2013Total number of pages including cover sheet: 5

DO NOT USE THIS SPACE

**PATENT**

Attorney Docket No. \_\_\_\_\_  
Client Reference No. 81352724US22

**ASSIGNMENT**

**WHEREAS, WE,**

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

Zhiyu DI  
Huawei Administration Building  
Bantian, Longgang District  
Shenzhen, 518129, Guangdong  
P.R. CHINA;

have invented and own a certain invention entitled:  
Tunnel Management Method, Tunnel Management Apparatus, and Communications 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  
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 re Appln. of Yin et al.  
Attorney Docket No. \_\_\_\_\_

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

Date Dec 21, 2012

Yu YIN

Yu YIN

Date Dec 21, 2012

Lingling XING

Witness

Date Dec 21, 2012

Carrie QI

Witness

Date \_\_\_\_\_

Zhiyu DI

Date \_\_\_\_\_

Witness

Date \_\_\_\_\_

Witness

**PATENT**

Attorney Docket No. \_\_\_\_\_  
Client Reference No. 81352724US22

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Bantian, Longgang District  
Shenzhen, 518129, Guangdong  
P.R. CHINA; and

Zhiyu DI  
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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)  
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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  
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 re Appln. of Yin et al.  
Attorney Docket No. \_\_\_\_\_

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

Date \_\_\_\_\_

Yu YIN

Date \_\_\_\_\_

Witness

Date \_\_\_\_\_

Witness

Date 2012.12.28

Zhiyu DI

Zhiyu DI

Date 2012.12.28

Xuenan Hu

Witness

Date 2012.12.28

Chao Chen

Witness