

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Zhen Cao</td> <td>12/17/2012</td> </tr> <tr> <td>Xiangdong Yin</td> <td>12/17/2012</td> </tr> <tr> <td>Wenneng Huang</td> <td>12/17/2012</td> </tr> </tbody> </table>		Name	Execution Date	Zhen Cao	12/17/2012	Xiangdong Yin	12/17/2012	Wenneng Huang	12/17/2012
Name	Execution Date								
Zhen Cao	12/17/2012								
Xiangdong Yin	12/17/2012								
Wenneng Huang	12/17/2012								
RECEIVING PARTY DATA									
Name:	Huawei Technologies Co., Ltd.								
Street Address:	Huawei Administration Building, Bantian, Longgang District,								
City:	Shenzhen, 518129, Guangdong, P.R.								
State/Country:	CHINA								
PROPERTY NUMBERS Total: 1									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13718921</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13718921				
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Application Number:	13718921								
CORRESPONDENCE DATA									
Fax Number:	9726283616								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
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NAME OF SUBMITTER:	Robert D. McCutcheon								
Total Attachments: 2 source=Assignment#page1.tif source=Assignment#page2.tif									

CH \$40.00 13718921

PATENT

Attorney Docket No. _____
Client Reference No. 82913848U504

ASSIGNMENT

WHEREAS, WE,

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

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

Wenneng HUANG
Huawei Administration Building
Bantian, Longgang District
Shenzhen, 518129, Guangdong
P.R. CHINA;

have invented and own a certain invention entitled:
**METHOD AND SYSTEM FOR INTERMEDIATE NODE TO LOCATE A FAULT
INDEPENDENTLY**
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

In re Appln. of Cao et al.
Attorney Docket No. _____

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.

Date Dec 17, 2012 Zhen Cao
Zhen CAO

Date Dec 17, 2012 Luo Ding
Witness

Date Dec 17, 2012 Yiming Zhang
Witness

=====
Date Dec 17, 2012 Xiangdong YIN
Xiangdong YIN

Date Dec 17, 2012 Luo Ding
Witness

Date Dec 17, 2012 Yiming Zhang
Witness

=====
Date Dec 17, 2012 Wenneng HUANG
Wenneng HUANG

Date Dec 17, 2012 Luo Ding
Witness

Date Dec 17, 2012 Yiming Zhang
Witness