

## PATENT ASSIGNMENT

Electronic Version v1.1  
Stylesheet Version v1.1

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>Xiaotian Zhang</td><td>03/21/2011</td></tr><tr><td>Junxia Xu</td><td>03/21/2011</td></tr></tbody></table>	Name	Execution Date	Xiaotian Zhang	03/21/2011	Junxia Xu	03/21/2011	
Name	Execution Date						
Xiaotian Zhang	03/21/2011						
Junxia Xu	03/21/2011						
RECEIVING PARTY DATA							
Name:	Huawei Device Co., LTD.						
Street Address:	Huawei Administration Building						
Internal Address:	Bantian, Longgang District						
City:	Shenzhen, Guangdong, P.R.						
State/Country:	CHINA						
Postal Code:	518129						
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>13052566</td></tr></tbody></table>	Property Type	Number	Application Number:	13052566			
Property Type	Number						
Application Number:	13052566						
CORRESPONDENCE DATA							
Fax Number: (202)408-4400 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
Phone: 202-408-4000							
Email: nicole.walsh@finnegan.com							
Correspondent Name: Huawei Technologies Co., Ltd./Finnegan							
Address Line 1: 901 New York Avenue							
Address Line 2: NW							
Address Line 4: Washington, DISTRICT OF COLUMBIA 20001							
ATTORNEY DOCKET NUMBER:	11005.0475-00000						
NAME OF SUBMITTER:	Weiguo Chen						
Total Attachments: 3 source=AssignmentAsFiled#page1.tif source=AssignmentAsFiled#page2.tif source=AssignmentAsFiled#page3.tif							

CH \$40.00 13052566

501495909

PATENT  
REEL: 026099 FRAME: 0638

**ASSIGNMENT****WHEREAS, WE,**

Xiaotian ZHANG  
Building B2, Huawei Industrial  
Base, Bantian, Longgang District,  
Shenzhen, 518129, Guangdong,  
P.R. China and

Junxia XU  
Building B2, Huawei Industrial  
Base, Longgang District,  
Shenzhen, 518129, Guangdong,  
P.R. China.

have invented and own a certain invention entitled:

**Method, Apparatus and System for Upgrading Through Multicast**

for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 21 March 2011, under U.S. Application No. 13052566, and

**WHEREAS**, HUAWEI DEVICE 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,

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

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 <u>March 21, 2011</u>	<u>Xiaotian ZHANG</u> Xiaotian ZHANG
Date <u>March 21, 2011</u>	<u>Ning XU</u> Witness
Date <u>March 21, 2011</u>	<u>Ye Liang</u> Witness

Date _____	_____ Junxia XU
Date _____	_____ Witness
Date _____	_____ Witness

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

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 \_\_\_\_\_

\_\_\_\_\_  
Xiaotian ZHANG

Date \_\_\_\_\_

\_\_\_\_\_  
Witness

Date \_\_\_\_\_

\_\_\_\_\_  
Witness

Date March 21, 2011

\_\_\_\_\_  
Junxia XU  
Junxia XU

Date March 21, 2011

\_\_\_\_\_  
Min SONG  
Witness

Date March 21, 2011

\_\_\_\_\_  
Xinjing GAI  
Witness