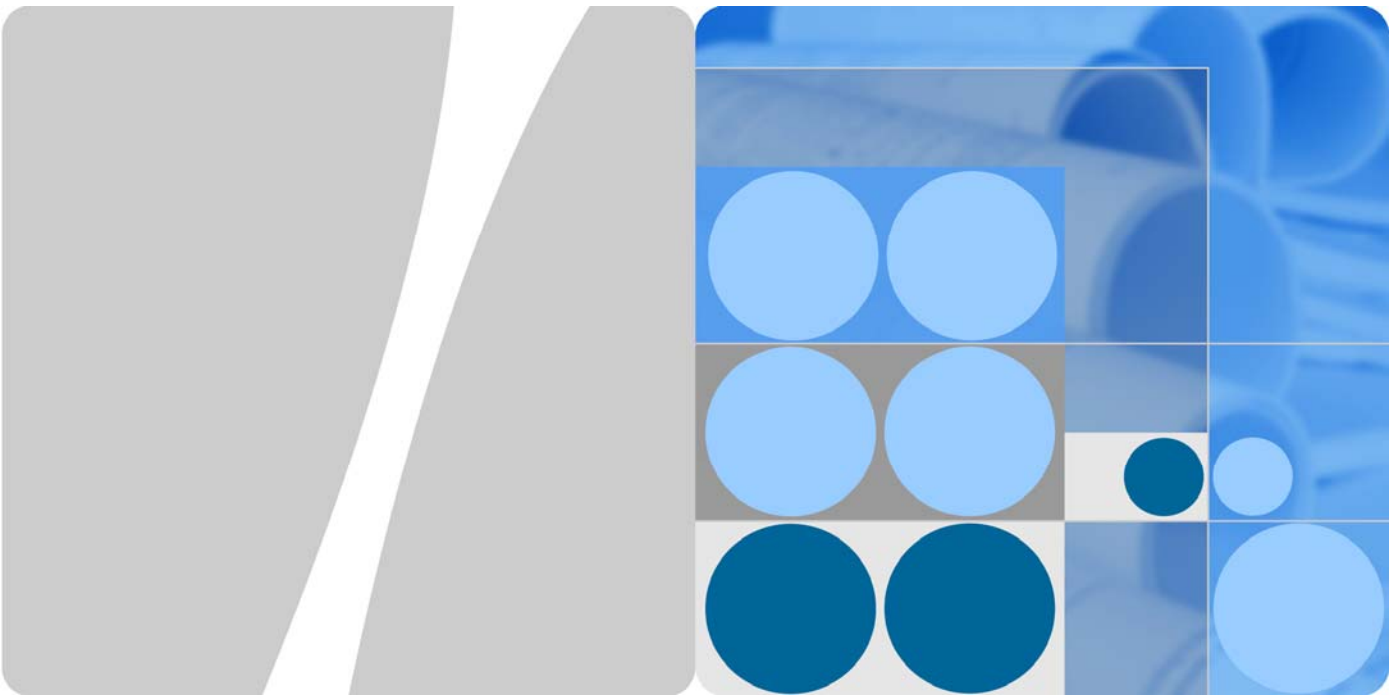

eSpace EGW1500E Enterprise Gateway V100R001C06

Quick Start

Issue 03

Date 2011-12-20

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Contents

1 Planning and Preparation

1.1 Safety Precautions

For more information about safety precautions, see the *eSpace EGW1500E Enterprise Gateway Product Documentation*.

Basic Requirements

- The installation instructions provided should be followed.
- In the event of a fault, contact the maintenance personnel. Do not open the device.
- Any company or person cannot change the design of the structure or security without permission.
- This device must be used in compliance with the legal and regulatory requirements of the country in which it is being used. Please respect the legal rights of others when using this device.

Usage Notice

- Keep the power plug clean and dry to avoid risk of electric shock and other potential risk.
- Use the power supply adapter provided with this product.
- Keep your hands dry when plugging in or out the device cable.
- When the device is not in use, the power should be turned off and the mains power cable should be disconnected from the mains supply.
- Keep water and other liquids away from the device. In the event of liquid coming into contact with the device, disconnect from the power immediately. Remove all cables, including network connections and power cables and contact your maintenance personnel.
- In the event of unusual behavior, such as smoke emitting from the device, unusual noises or smells, disconnect from the mains power supply immediately, remove all the cables connected to the device and contact an authorized maintenance personnel.

Cleaning Notice

- Before cleaning, the device should be shut down and disconnected from the mains power supply, removing all power and network cables.
- Clean using a soft, dry cloth. Do not use liquid or aerosol cleaners on this device.

1.2 Checking the Installation Environment

Before installation, check the installation environment.

Table 1-1 lists the major check items in the installation environment.

Table 1-1 Major check items in the installation environment

Item	Requirement
Damppr oof	Working humidity: 5%–95% relative humidity (RH), no condensing. The dehumidifier devices such as air conditioners with the dehumidifier function and special dehumidifiers must be installed in the equipment room where the relative humidity is higher than 95%. Water seepage, dripping, and dew producing are forbidden in the room.
Dustpro of	If the equipment room is close to a dust source, such as a coal mine, a country road or a farmland, install aluminum alloy windows and fireproofing doors.
Lightpr oof	Place the device in an environment without direct and strong sunlight.
Interven tion-pro of	Prevent the device from other RF devices within 50 meters. Place the device at the center of the working area by considering the WLAN coverage range. Install the antennas vertically to get the best WLAN performance.
AC power	In the equipment room, a stable AC power supply that meets the power requirements of the equipment must be available.
Heat dissipati on	Place the device in an environment with good ventilation and without heat sources. Leave more than 10 cm space for heat dissipation at the top and all four sides of the device.

1.3 Unpacking Check

You need to check the received equipment according to the packing list and check whether all the materials (such as hosts, cables, and CD-ROMs) are complete and undamaged.If any material is damaged or lost, contact the local merchant.

Table 1-2 Packing list

Item	Quantity	Remarks
eSpace EGW1500E including antennas	1	-
Power supply adapter	1	-
Straight-through network cable	1	A straight-through network cable is 2 meters long.
Swell fixtures	2	Swell fixtures are used to install the EGW1500E on the wall.

Item	Quantity	Remarks
Document and CD-ROM	1	Product document and open source code notice.
eSpace EGW1500E Enterprise Gateway Quick Start	1	Containing the product certificate and the *Declaration on Hazardous Substances in Electronic Information Products*.

1.4 Customer Requirement Analysis and Network Planning

This topic describes the customer requirements that you need to obtain and the typical networking.

Collecting Customer Requirements

You need to obtain customer requirements as listed in Table 1-3 before installing and configuring the device.

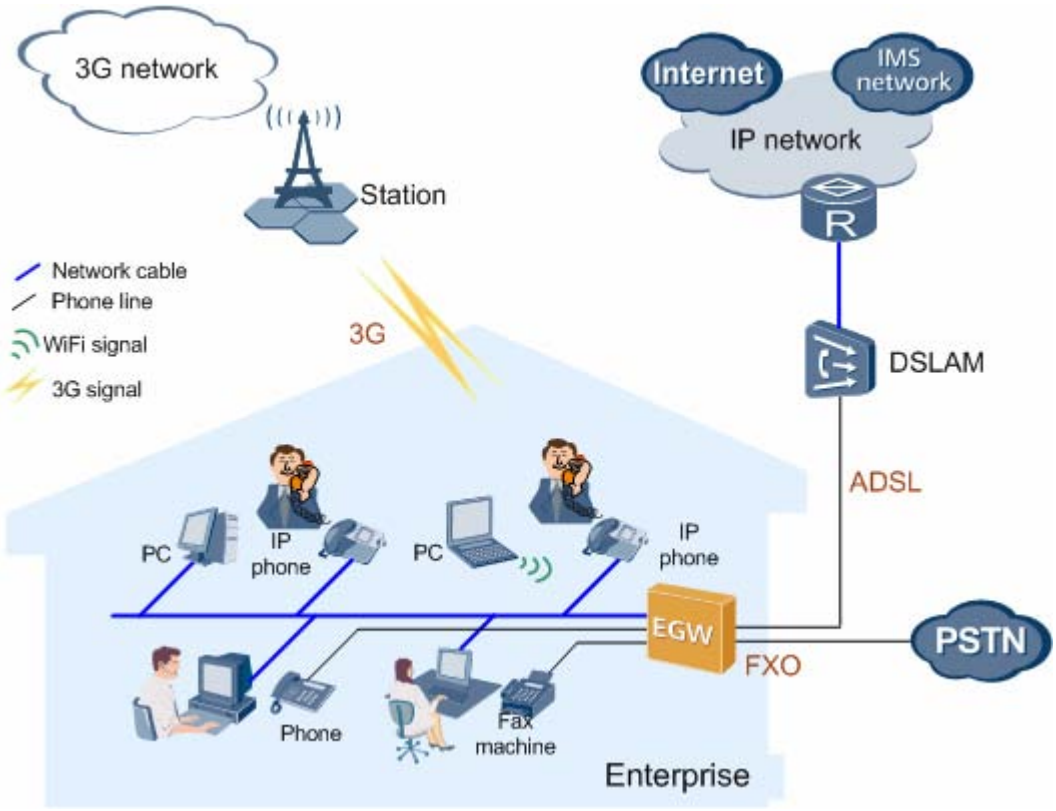
Table 1-3 Customer requirements

Item	Description
Internet access	Determine the access mode (ADSL or WAN) and whether the customer requires 3G network backup.
Number of POTS users	Determine the number of POTS phones.
Number of SIP users	Determine the number of IP phones and soft terminals.
Internal number	Learn about the customer's requirements on internal numbers.
FXO ports	The EGW1500E connects to the PSTN network by means of FXO ports. It supports FXO-based switchboard and dedicated line functions.
...	...

Network Planning

Figure 1-1 shows the typical networking of the EGW1500E.

Figure 1-1 Typical networking



2 Hardware Installation

2.1 Preparing Installation Tools

This topic describes the tools for installing the EGW1500E on the wall. If you want to install the EGW1500E on a horizontal surface, place it on the surface.

Table 2-1 Installation tools

Phillips screwdriver 	Claw hammer 
Hammer drill 	Level ruler 

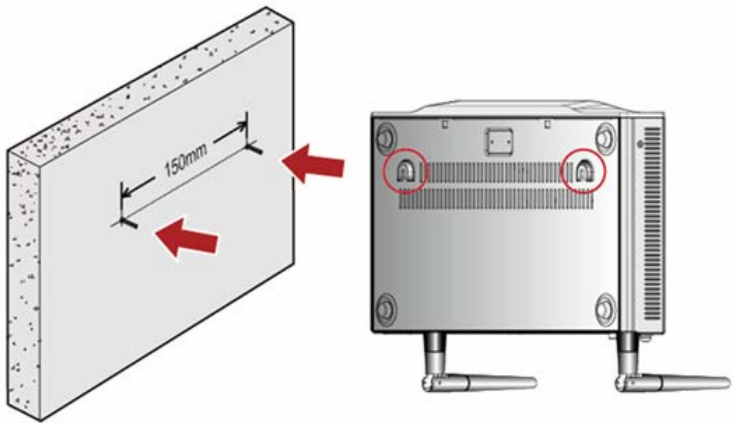
2.2 Installing EGW1500E

Install an EGW1500E on a horizontal surface or on the wall.

Installing EGW1500E on a horizontal surface is easy. You only need to place it on the surface and leave 10 cm space around for heat dissipation.

To install an EGW1500E on the wall, fix the swell fixtures and ensure that 5 mm of the swell fixtures is exposed for mounting the EGW1500E, as shown in Figure 2-1.

Figure 2-1 Mounting an EGW1500E on the wall

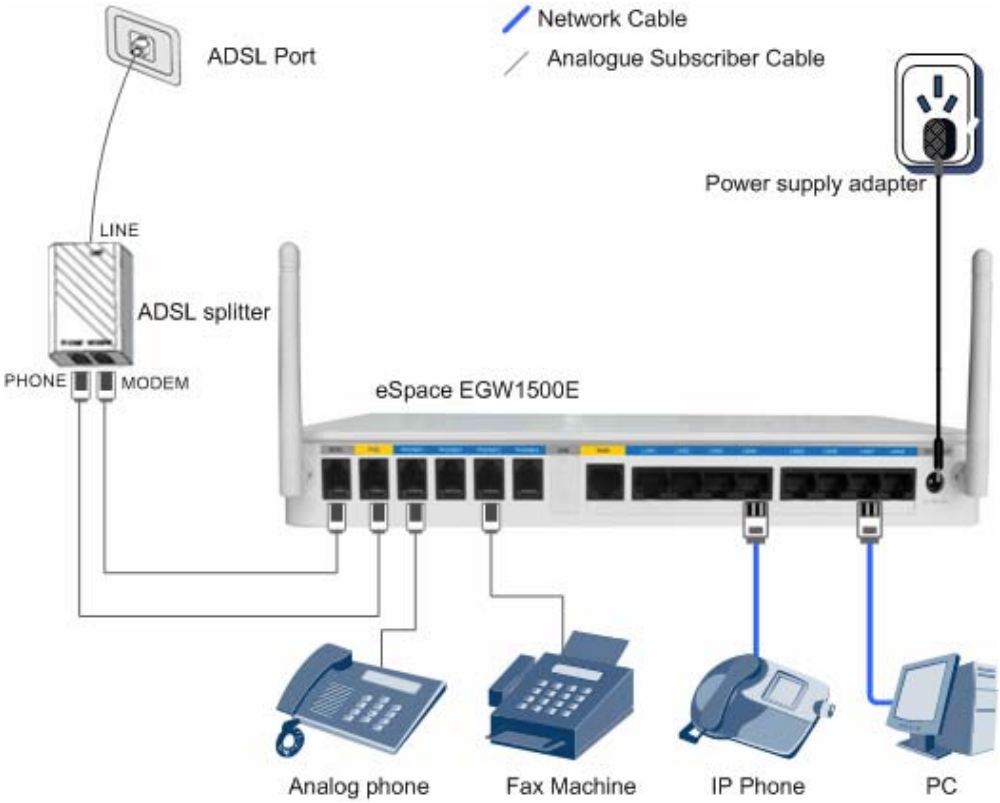


2.3 Connecting Cables

This topic describes how to connect cables for the EGW1500E.

Select a cable connection mode based on the site requirements. Figure 2-2 and Figure 2-3 show the cable connection modes.

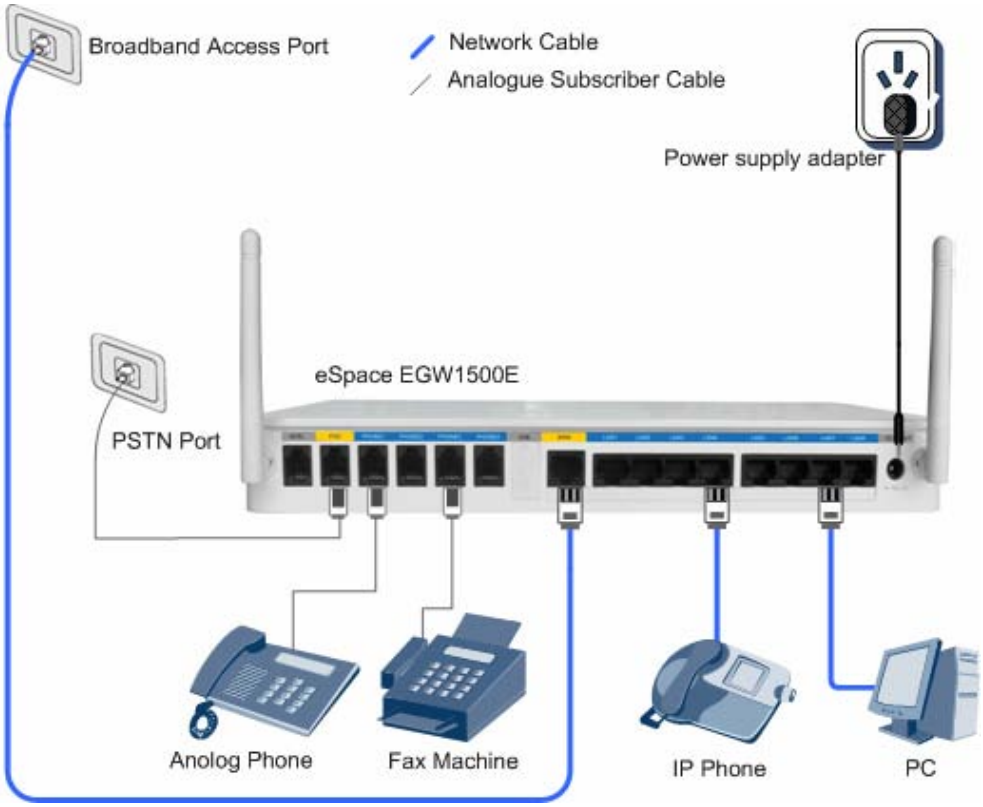
Figure 2-2 ADSL access



NOTE

The ADSL splitter separates voice and data signals. You can connect the splitter to ADSL and FXO ports of the EGW1500E or connect ADSL ports on user devices to the ADSL port of the EGW1500E.

Figure 2-3 Broadband access



NOTE

- The EGW1500E provides eight LAN interfaces, which can connect to terminals such as computers and IP phones. To use more than eight LAN interfaces, connect the EGW1500E to an Ethernet switch or hub.
- The EGW1500E provides four POTS interfaces (PHONE1 to PHONE4), which can connect to common phones or fax machines. To use more than four POTS interfaces, connect the EGW1500E to an IAD.

2.4 Powering On the EGW1500E

After cables are connected, press the power button to power on the EGW1500E. View the power supply indicators and verify that the EGW1500E is working properly. Before pressing the power button, ensure that all cables are connected correctly to the ports.

Figure 2-4 shows the location of the power button. If the POWER indicator is on, the EGW1500E works properly.

Figure 2-4 Power button

3 Product Function Configuration

3.1 Logging In to the Web Management System

The web management system allows users to set parameters, detect faults, and upgrade devices.

Procedure

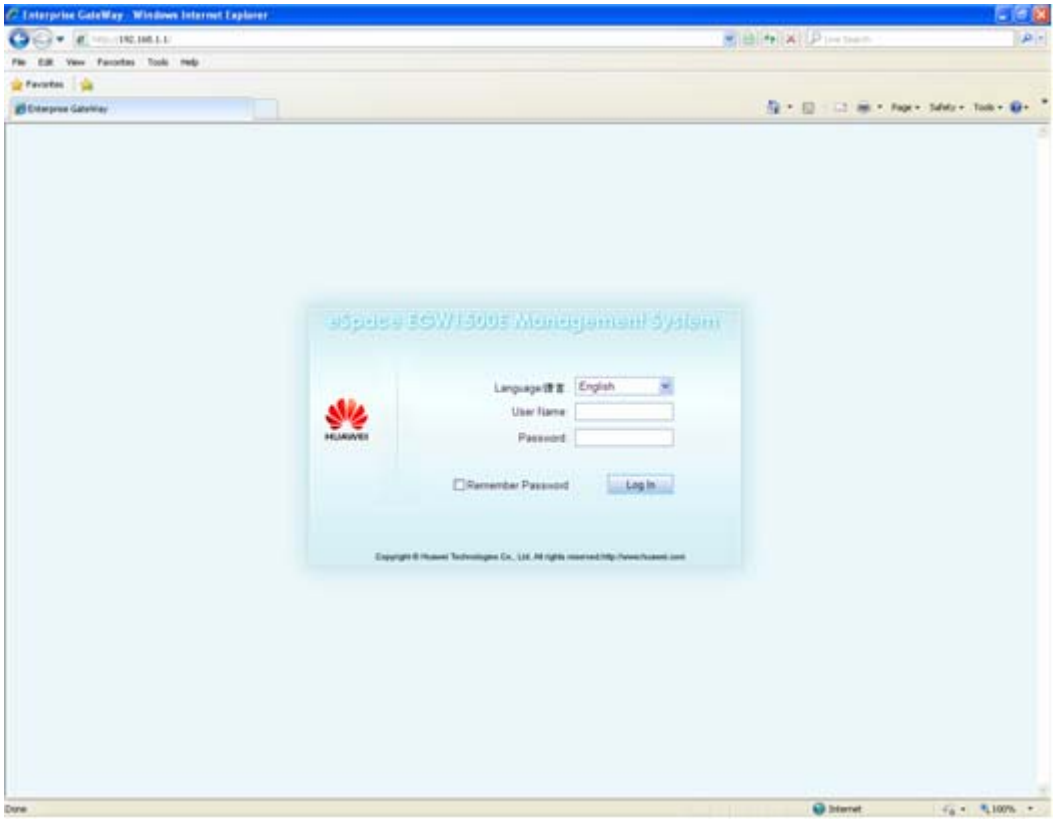
Step 1 Set the mode in which IP addresses are obtained to **Obtain an IP address automatically**.

Step 2 Log in to the EGW1500E using Internet Explorer 6.0 or later. The default URL is **http://192.168.1.1**.

NOTE
The default IP address of the EGW1500E, login user name, and password can be obtained from the label at the bottom of the EGW1500E.

Step 3 Enter the user name **admin** and default password **Admin@123**, and click **Log In**. The page is shown in Figure 3-1.

Figure 3-1 Logging in to the web management system



----End

3.2 Configuring Internet Access

This document describes how to configure the basic Internet access functions, as shown in Table 3-1. For the 3G, MAN, VLAN, static route, QoS, network security, and other network-related functions, see the *eSpace EGW1500E Enterprise Gateway Product Documentation*.

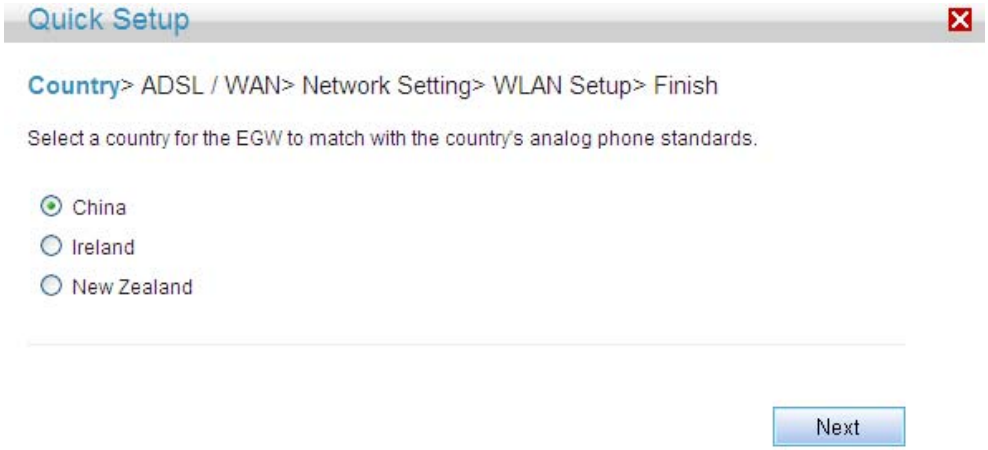
Table 3-1 Internet access function

	Description
Through ADSL	Select one out of the two. **NOTE** • The EGW1500E connects to the IP network using an ADSL port, a WAN port, or a 3G data card. The 3G data card is the backup of an ADSL or WAN port. When the ADSL or WAN port is unavailable, the EGW1500E can connect to the IP network through the 3G data card, ensuring nonstop service transmission. • For details about 3G configurations, see the *eSpace EGW1500E Enterprise Gateway Product Documentation*.
Through the WAN port	
WLAN function	Enable the WLAN function and set a password to access the WLAN.

Procedure

Step 1 On the web management page, choose **Quick Setup** from the navigation tree.

Figure 3-2 Quick Setup



Step 2 Complete the configuration according to Figure 3-3, Table 3-2, Figure 3-5, Table 3-4, Figure 3-4, and Table 3-3.

Figure 3-3 Setting ADSL parameters

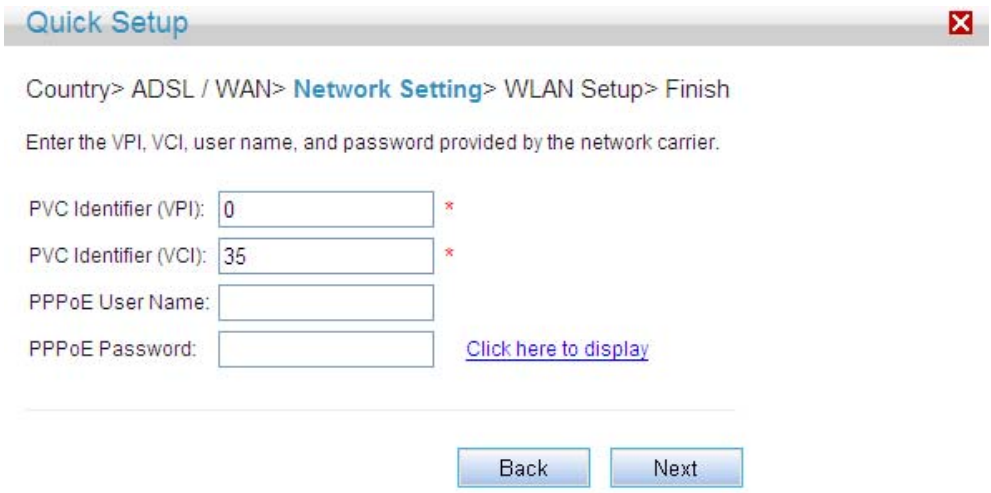


Table 3-2 ADSL parameters

Parameter	Description
VPI	Virtual path identifier (VPI), which is obtained from the network carrier.
VCI	Virtual channel identifier (VCI), which is obtained from the network carrier.
PPPoE User Name	User name to access the network, which is obtained from the network carrier.
PPPoE Password	Password to access the network, which is obtained from the network carrier.

Figure 3-4 Setting WAN parameters

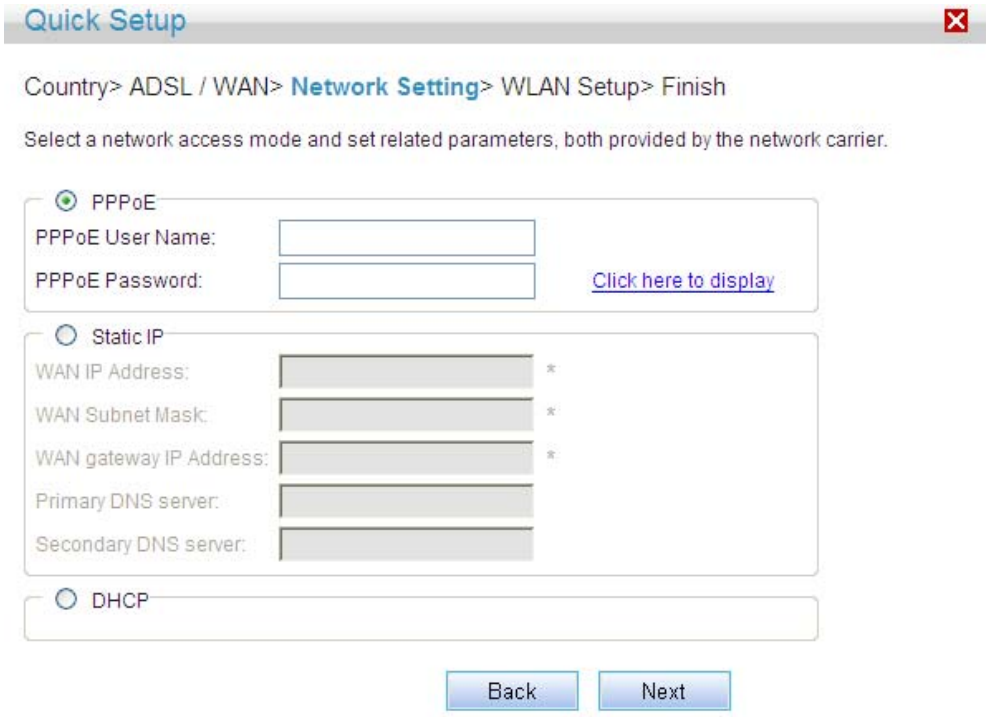


Table 3-3 WAN parameters

Parameter	Description
PPPoE	Indicates that Point-to-Point Protocol over Ethernet (PPPoE) is used. • PPPoE User Name: user name to access the network, which is obtained from the network carrier. • PPPoE Password: password to access the network, which is obtained from the network carrier.
Static IP	Indicates that the static IP address of the EGW1500E is used. The setting must be the same as that on the Broadband Remote Access Server (BRAS) of the network carrier.
DHCP	As a DHCP client, the EGW1500E obtains the IP address from the DHCP server. The IP address must be the same as that on the BRAS of the network carrier.

Figure 3-5 Setting WLAN parameters

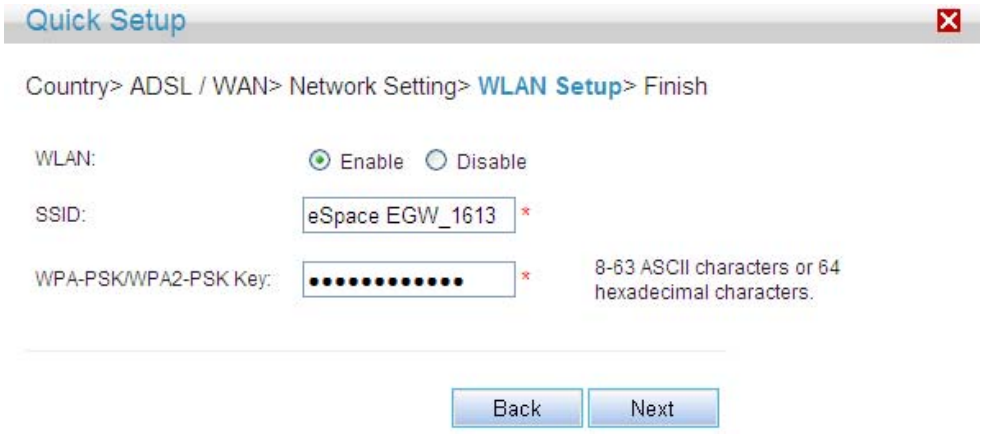


Table 3-4 WLAN parameters

Parameter	Description
WLAN	Indicates whether to enable the WLAN function. This function is enabled by default.
SSID	Indicates the service set identifier (SSID), which identifies a WLAN.
WPA-PSK/WPA2–PSK Key	Indicates the password to access the WLAN. The password is encrypted through Wi-Fi protected access II-pre-shared key (WPA2-PSK) and WPA-PSK. The EGW1500E uses the PSK to encrypt all communication, which prevents unauthorized listening and access. The default password is the MAC address of the EGW1500E, which can be viewed from the bottom label of the device.

----End

Verification

To verify that the ADSL/WAN connection is set up, proceed as follows:

Step 1 Choose **System** > **Network**. The **Network** page is displayed.

Step 2 Check the value of **Status**.

If the value of **Status** is **Connected**, the ADSL/WAN connection is set up. If the value is not **Connected**, verify that the configuration is correct.

----End

3.3 Configuring Voice Functions

This topic describes how to configure internal and external numbers to implement voice communication. For the configuration of voice services, FXO-based switchboard and dedicated line functions, fax, and power failure survival function, see the *eSpace EGW1500E Enterprise Gateway Product Documentation*.

NOTE

Before the configuration, plan user numbers and configure the SIP server based on the customer requirements obtained in 1.4 Customer Requirement Analysis and Network Planning.

User Number Planning (IMS)

Table 3-5 describes the number plan for the phones connected to the IMS network.

NOTE

Obtain the external number, registration type, SIP trunk ID, SIP trunk user name, and IMS domain name from the network carrier. The external number corresponds to the SIP trunk ID. If the SIP trunk ID starts with a plus (+), change the plus to 00 when configuring the external number.

Table 3-5 Number plan for the phones connected to the IMS network

User	Internal No.	External No.	Registration Group	Register Type	Sip Trunk ID	Sip Trunk Name	IMS Domain
User1	6001	008657187654321	0	Group	+8657187654321	+8657187654321@abc.def.com	abc.def.com
User2	6002	008657187654322					
User3	6003	008657187654323					
...	...	...					

User Number Planning (NGN)

Table 3-6 describes the number plan for the phones connected to the NGN network.

NOTE

Obtain the external number, registration type, SIP trunk ID, and SIP trunk user name from the network carrier. The value of **RegisterType** is usually **Single** for the NGN network. The external number corresponds to the SIP trunk ID.

Table 3-6 Number plan for the phones connected to the NGN network

User	Internal No	External No	Registration Group	Register Type	Sip Trunk ID	Sip Trunk Name	IMS Domain
User1	6001	008657187654321	0	Single	057187654321	057187654321	N/A
User2	6002	008657187654322	1	Single	057187654322	057187654321	N/A
User3	6003	008657187654323	2	Single	057187654323	057187654321	N/A
...	...	...	...	...	...	...	...

SIP Server Planning

Table 3-7 Configuration reference

SIPServer Type	Address Type	Description
The value can be NGN or IMS, which is determined by the network carrier.	IP/Domain	IP address or DNS domain name of the SIP server. The value is provided by the network carrier. For example, 191.1.1.1.

Configure the Session Initiation Protocol (SIP) server.

Step 1 On the web management page, choose **Voice** > **SIP Server** from the navigation tree.

Step 2 Click Add.

Figure 3-6 SIP Server tab page

Step 3 Perform configurations according to the following tables. Click Save to save the settings.

Table 3-8 Parameter description (1)

Parameter	Description
Working Mode	• Master: active server. The server that is added first is the active server. • Slave: standby server.
Recovery	Whether to enable the failback function. When the active server fails, resources and services will be automatically switched to the standby server. If this function is enabled, resources and services will be automatically switched back to the original active server after the original active server has been recovered.
OptionInterval	Interval for sending the option messages to the active server. The value ranges from 10 to 900, in seconds. The default value 60 is recommended. **NOTE** The option messages are sent to active server only, and therefore this parameter is valid only for the active server.

Parameter	Description
Address Type	Address type. The options are **IP** and **Domain**.
IP/Domain	IP address or DNS domain name of the SIP server. The value is provided by the network carrier.
DNS Type	Mode for the DNS server to parse the IP address. This parameter is valid when **Address Type** is set to **Domain**. • SRV: Two IP addresses are parsed from one the domain name parsing. One IP address functions as the IP address of the active server, and the other functions as the IP address of the standby server. **NOTE** If you set **DNS Type** to **SRV**, you do not need to configure the slave SIP server. • HOST: One domain name corresponds to one IP address. To perform switchover between the active and standby servers, two SIP servers need to be configured.
Server Type	SIP network type,The value is provided by the network carrier.
Port	Port number of the SIP server. The value is provided by the network carrier. The default value 5060 is recommended.
Expiration Time	Timeout duration for the registration group to register with the SIP server. The value ranges from 0 to 14400, in seconds. The default value 360 is recommended.

----End

Configure a registration group

Step 1 On the web management page, choose **Voice** > **SIP Server** from the navigation tree.

Step 2 Click Add.

Figure 3-7 SIP Group tab page

Step 3 Perform configurations according to Table 3-9. Click Save to save the settings.

Table 3-9 Parameter description (2)

Parameter	Description
RegisterType	Registration type. This parameter is specified by the peer SIP server. • Single: Only one user can exist in the registration group. The value of **RegisterType** is **Single** for the NGN network. • Group: Multiple users can exist in the registration group. • Wildcard: Wildcard registration group. This registration group registers with the IMS or NGN based on certain wildcard rules, which are provided by the network carrier.
Authentication	Authentication mode when a registration group registers with the IMS or NGN. The value is provided by the network carrier.
Password	The value is provided by the network carrier.
Sip Trunk ID	The value is provided by the network carrier.
Sip Trunk Name	The value is provided by the network carrier.
IMS Domain	The value is provided by the network carrier.
Expiration Time	Indicates the time when the SIP group expires. The value is negotiated by the EGW1500E and the SIP server. The EGW1500E must be registered with the SIP server at least once within the expiration time to ensure that the SIP server can exchange information with the EGW1500E.

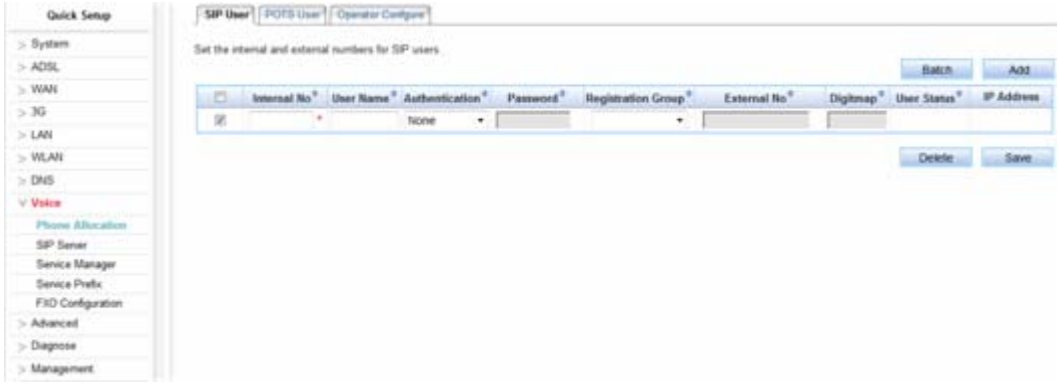
----End

Add SIP users

Step 1 On the web management page, choose **Voice** > **Phone Allocation** from the navigation tree.

Step 2 Click Add.

Figure 3-8 Adding SIP users



Step 3 Perform configurations according to Table 3-10. Click Save to save the settings.

Table 3-10 Parameter description (3)

Parameter	Description
Internal No	The internal number is used for the calls between intra-office subscribers.1-30 digit number, which can be user-defined. It cannot conflict with any service prefixes, emergency numbers, outer-office numbers, or other intra-office numbers.
User Name	A string of 1-64 characters, which can be user-defined. For example, Jack.
Authentication	Authentication mode used when a SIP user registers with the EGW1500E. The value must be the same as that set on the SIP terminal.
Password	Authentication password used when a SIP user registers with the EGW1500E. The value must be the same as that set on the SIP terminal.
Registration Group	Registration group used when a SIP user registers with the IMS or NGN. **NOTE** If the required registration group does not exist, choose **Voice > SIP Server**, and click the **SIP Group** tab to add it.
External No	External number of the user, which is used for outgoing and incoming calls. It is provided by the carrier. This parameter is valid after you set the **Registration Group** parameter. The external number cannot conflict with any service prefixes, emergency numbers, outer-office numbers, or other intra-office numbers. **NOTE** **Registration Group** bound to **External No** must correspond to **Sip Trunk ID**. If **Sip Trunk ID** starts with +, you need to change + to 00 when you configure **External No**.
Digitmap	A dialing rule, which determines whether the range and length of the dialed number comply with the dialing rule. This parameter is valid after you set the **Registration Group** parameter. The EGW1500E allows users to dial numbers that are defined in the digitmap to make calls quickly. If the dialed number length is the same as that defined in the digitmap, the EGW1500E stops collecting digits and initiates the call, which reduces the connection duration. Use the default settings. To customize the settings, see the *eSpace EGW1500E Enterprise Gateway Product Documentation*.
User State	User status.
IP Address	IP address of the IP phone on the LAN.

----End

Add POTS users

Step 1 On the web management page, choose **Voice** > **Phone Allocation** from the navigation tree. Click the **POTS User** tab page.

Step 2 Click 

.

Figure 3-9 Adding POTS users

Step 3 Perform configurations according to Table 3-11. Click Save to save the settings.

Table 3-11 Parameter description (5)

Parameter	Description
Port	Port number used by the common phone to access the EGW1500E. Value **1** indicates the PHONE1 port on the EGW1500E, value **2** indicates the PHONE2 port, and the rest can be deducted by analogy. **NOTE** You are advised to use the PHONE1 port becuase it supports the power-off survival function.
Internal No	The internal number is used for the calls between intra-office subscribers.1-30 digit number, which can be user-defined. It cannot conflict with any service prefixes, emergency numbers, outer-office numbers, or other intra-office numbers.
User Name	A string of 1-64 characters, which can be user-defined. For example, Jack.
Registration Group	Registration group used when a POTS user registers with the IMS or NGN. **NOTE** If the required registration group does not exist, choose **Voice > Sip Server**, and click the **SIP Group** tab to add it.
External No	External number of the user, which is used for outgoing and incoming calls. It is provided by the carrier.This parameter is valid after you set the **Registration Group** parameter. The external number cannot conflict with any service prefixes, emergency numbers, outer-office numbers, or other intra-office numbers. **NOTE** **Registration Group** bound to **External No** must correspond to the trunk ID. If the trunk ID starts with +, you need to change + to 00 when you configure **External No**.

Parameter	Description
Digitmap	A dialing rule, which determines whether the range and length of the dialed number comply with the dialing rule. This parameter is valid after you set the **Registration Group** parameter. The EGW1500E allows users to dial numbers that are defined in the digitmap to make calls quickly. If the dialed number length is the same as that defined in the digitmap, the EGW1500E stops collecting digits and initiates the call, which reduces the connection duration. Use the default settings. To customize the settings, see the *eSpace EGW1500E Enterprise Gateway Product Documentation*.
User State	User status.

----End

Configuring an IP Phone

Set the IP phone's IP address, SIP user's internal number, and IP address of the SIP server (EGW1500) to register the IP phone with the EGW1500E. For details, see related IP phone manuals.

If you do not use an IP phone, skip this procedure.

Verification

- Verify internal numbers.

  Use the analog phone and IP phone to call each other by dialing internal numbers.
- Verify external numbers.
  - Use an analog or IP phone and a mobile phone to call each other.
  - Use the analog phone and IP phone to call each other by dialing external numbers.

If the call fails, verify that the preceding configuration is correct.

4 FAQs

1. Q:What is the default IP address of the EGW1500E web management system? What is the default user name and password for logging in to the system? What can I do if I forget the password?

   A: The default IP address of the web management system is **http://192.168.1.1**. The default user name and password are **admin** and **Admin@123** respectively.

   If you forget the password, restore the factory settings by pressing the **RESET** button on the EGW1500E with an acicular object for at least 6 seconds. Then you can use the default IP address, user name, and password to log in to the EGW1500E.

CAUTION

If you restore the factory settings, you need to you must reconfigure the EGW1500E.

2. Q: How do I restore factory settings?

   A: You can restore factory settings in either of the following ways:

   - Press the **RESET** button on the EGW1500E with an acicular object for at least 6 seconds.
   - Choose **Management** > **Configuration** > **Restore** on the navigation bar, click **Restore Default**, and set relevant parameters on the displayed page.

3. Q: Why did I fail to log in to the web management system?

   A: Ensure that you have correctly entered the IP address of the EGW1500E, user name, and password. If you still fail to log in to the web management system, perform the following operations:

   - Disable the proxy server.

     Open Internet Explorer, choose **Tools** > **Internet Options** > **Connections**, click **LAN settings**, and disable the proxy server.
   - Obtain the IP address of your computer.

     Click the local connection icon and choose **Properties** > **Internet Protocol** > **Properties**. And then select **Obtain an IP address automatically**.

4. Q: Does the EGW1500E support the switchboard function? If it does, how can I configure this function?

   A: EGW1500E provides an FXO port and supports that supports the switchboard function and the dedicated line function. For details on how to configure the switchboard

function, see **Feature Description and Implementation** > **Voice** > **FXO Port** in the *eSpace EGW1500E Enterprise Gateway Product Documentation*.

5. Q: How do I switch the language of prompt tone for my phone?

   A: Choose **Advanced** > **Language** > **Region** and change the value of **Current Country** to switch the language.

   For example, if you select **China**, the language is Chinese; if you select **New Zealand** or **Ireland**, the language is English.

6. Q: Does ADSL degrade the quality of telephone calls? Doe telephone calls lower the network access rate?

   A: ADLS uses the frequency division multiplex technology to separate voice signals from data signals. Although voice and data signals are transmitted through one telephone line, they are carried by different frequency bands. Therefore, they do not interfere with each other. This allows you to make a call and access the Internet simultaneously without degrading the call quality or lowering the Internet access rate.

7. Q: What can I do if I forget the WPA key?

   A: You can view the WPA key by logging in to the web management system of the EGW1500E. Choose **WLAN** > **Security** and click **Click here to display** next to **WPA Key**.

8. Q: Why wireless signals on the WLAN are unstable?

   A: The possible causes and solutions are as follows:

   - There may be strong magnetic field or radio waves near the device, which interfere with the wireless signals. Ensure that the EGW1500E and your computer are far away from devices with strong magnetic or electric fields.
   - There may be concrete walls or wooden boards around the EGW1500E, which increase the attenuation of wireless signals. It is recommended that the EGW1500E be installed in an open space.
   - Your computer may be too far away from the EGW1500E. Try to move your computer closer to the EGW1500E.
   - On a thunder day, the WLAN will be affected. It is recommended that the WLAN is not used in a thunder day.

5 Qualification Card

6 Declaration on Hazardous Substances in Electronic Information Products

Parts	Hazardous Substances					
	Pb	Hg	Cd	Cr6+	PBB	PBDE
Mechanical part	×	○	○	○	○	○
Board/circuit module	×	○	○	○	○	○
Signal cable	×	○	○	○	○	○
Cable connector	×	○	○	○	○	○
Power adapter	×	○	○	○	○	○
Auxiliary equipment	×	○	○	○	○	○

○: Indicates that the concentration of the hazardous substance contained in all the homogeneous materials of this part is below the limit requirement of the SJ/T 11363−2006 standard.

×: Indicates that the concentration of the hazardous substance contained in all the homogeneous materials of this part is above the limit requirement.

NOTE

1. Mechanical part such as shell: The steel, aluminum or copper materials contain lead.
2. Board and circuit module:
   - The PCB pad contains lead.
   - Ceramic capacitor or feedthrough capacitor or mica capacitor on the board: The ceramic chip contains lead.
   - The resistor inside the clock oscillator is immune from lead.
   - The high temperature type solder, used for the connector inside the transformer, contains more than 85% lead.
   - The luminescence glass of chip inductor contains lead.
   - The high temperature type solder used for the transistor chip contains lead.
   - The glass of resistance layer and protection layer is immune from lead.
   - The pin and solder of the components such as the IC and power unit contain lead.
3. Signal cables: The alloy materials such as the steel, aluminum, and copper materials contain lead.
4. Cable connector: For most connectors, the metal shell, terminal and pin contain lead.
5. Power adapter: The interior contains lead.
6. The circuit board of the auxiliary equipment contains lead. Same as point one and point two.