6304W ONU Gateway Configuration Guide

Version 1.01

ubiQuoss Inc.
www.ubiQuoss.com

CHAPTER 1

Getting Started

Default Settings

The following table lists the default settings for the four WAN interfaces to provide triple play services.

TABLE 1-1. Default Settings

Interface	Type	VLAN	Binding LAN Ports	Service
1_TR069_R_VID_400	IPoE	400		TR-069
2_VOICE_R_VID_200	IPoE	200	PHONE1, PHONE2	Voice
3_INTERNET_R_VID_100	IPoE	100	LAN1, Wireless(2.4G/5G)	Internet
4_OTHER_B_VID_300	Bridge	300	LAN2, LAN3, LAN4	IPTV

FIGURE 1-1. Rear View

CHAPTER 2

Logging into the Web GUI

Logging into the Web GUI

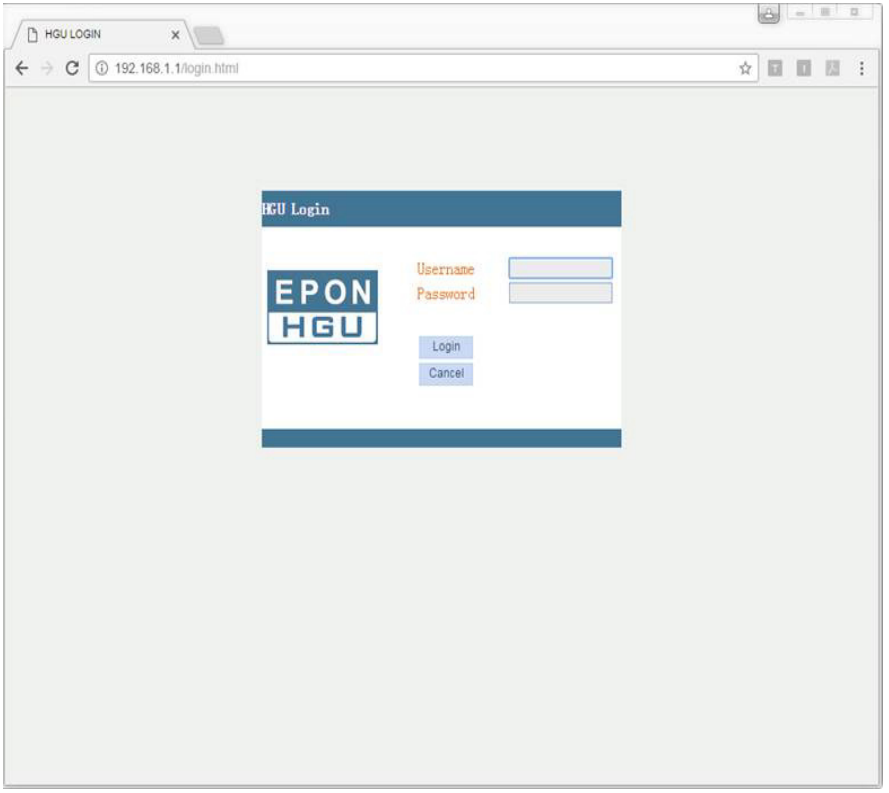
Follow these steps to log into the web GUI.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. User names and passwords are case-sensitive.

TABLE 2-1. User Names and Default Passwords

	Administrator	User
User Name	admin	useradmin
Default Password	admin	useradmin

FIGURE 2-1. Login Screen

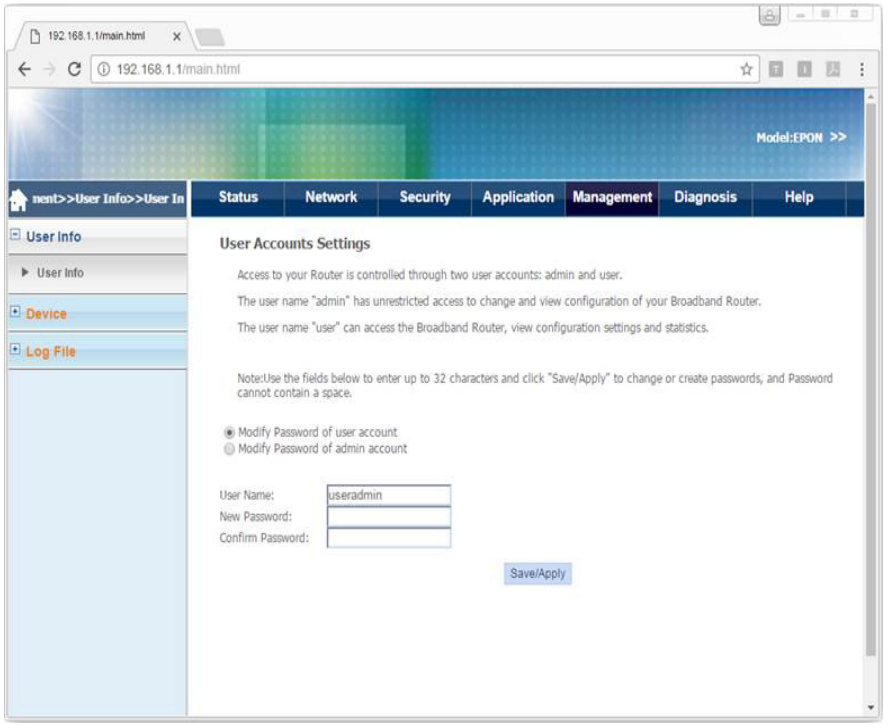


Changing Passwords

Follow these steps to change a password.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Management > User Info > User Info.

FIGURE 2-2. User Info



6 Select whether to change the user or admin password.

7 Enter the user name, the new password, and then confirm the password.

8 Click Save/Apply.

CHAPTER 3

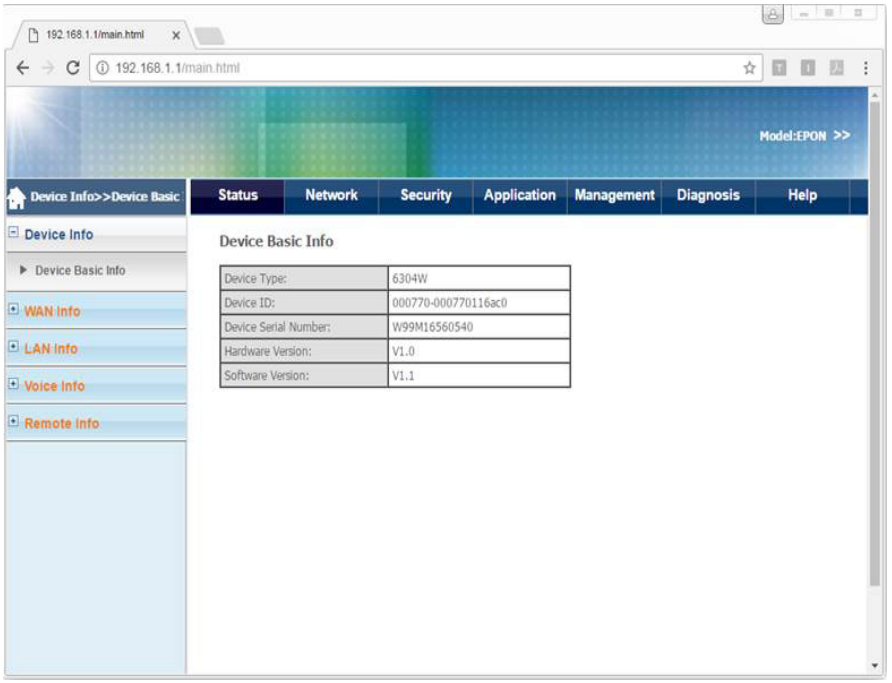
Viewing Device Information

Viewing Device Information

Follow these steps to view device information.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Status > Device Info > Device Basic Info. You can view the device type, device ID, hardware version, and software version.

FIGURE 3-1. Device Basic Info



CHAPTER 4

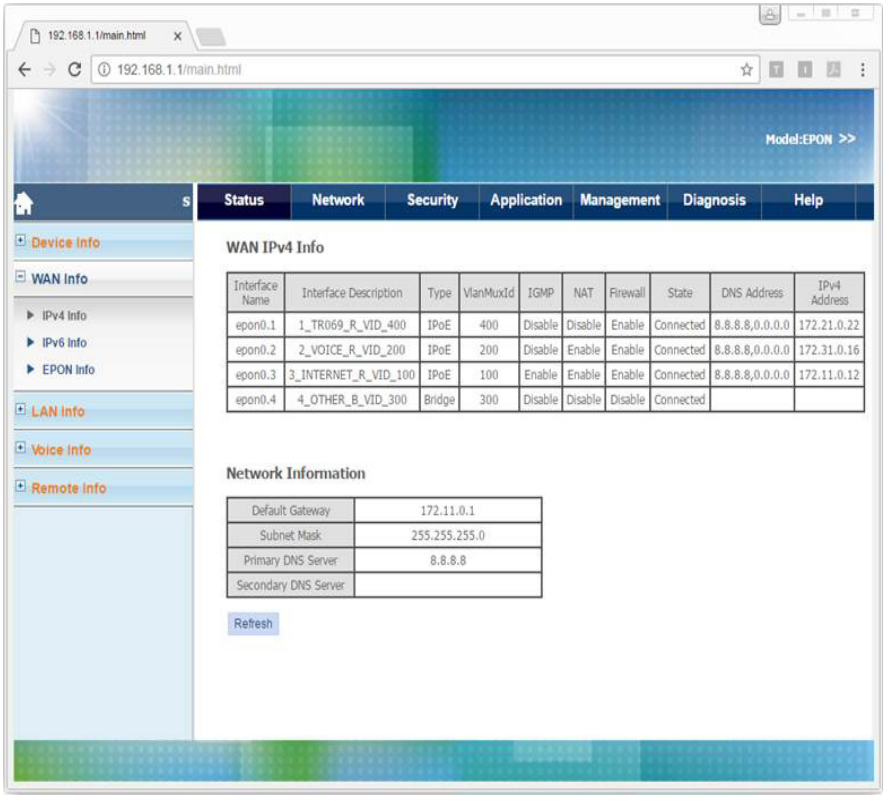
Viewing WAN Interface Information

Viewing WAN Interface Information

Follow these steps to view WAN interface information.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Status > WAN Info > IPv4 Info. You can view the interface description, type, state, DNS address, and IPv4 address.

FIGURE 4-1. IPv4 Info



CHAPTER 5

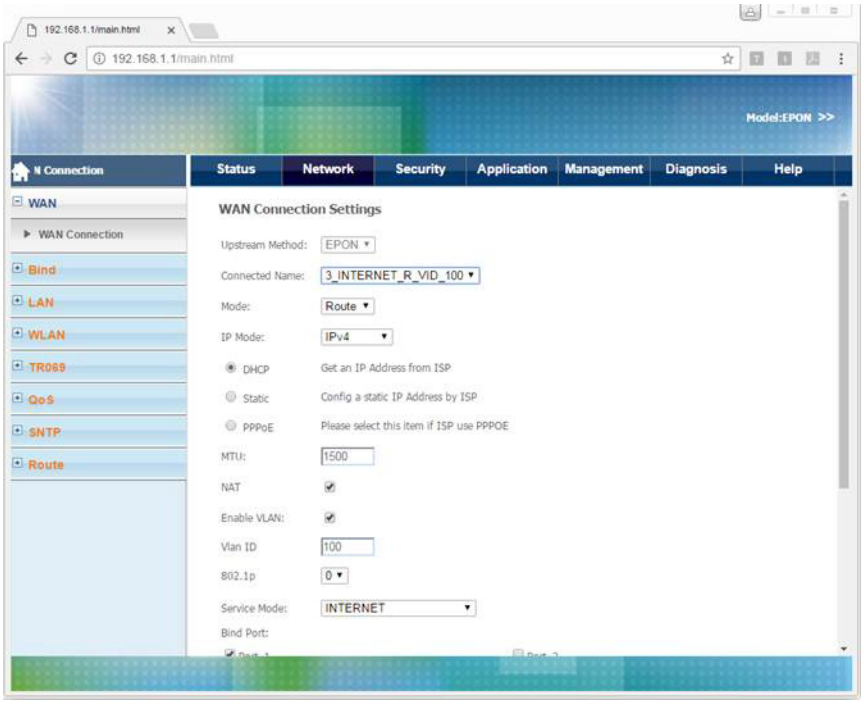
Configuring WAN Interfaces

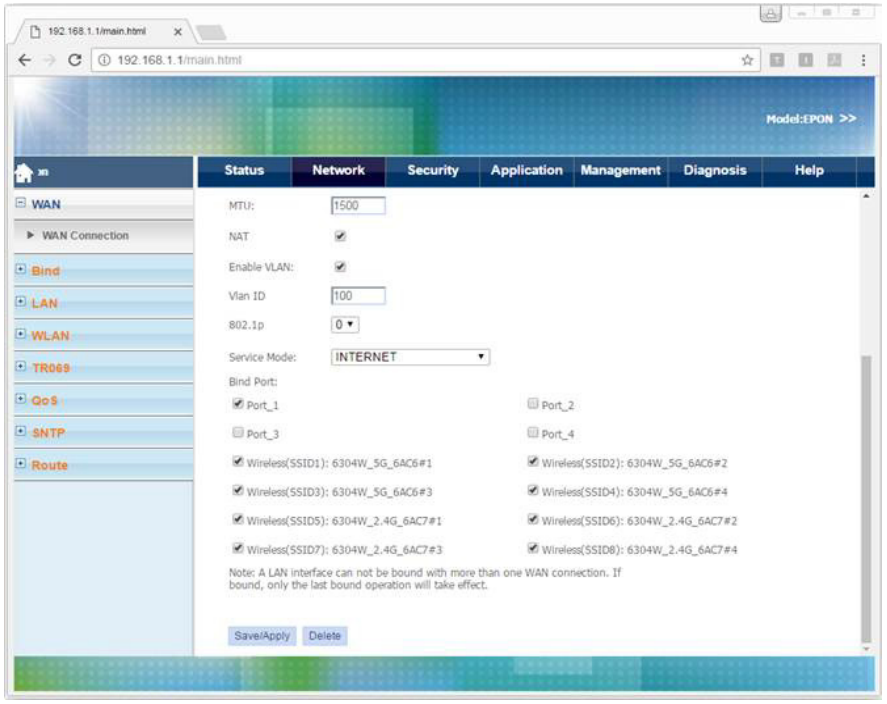
Configuring WAN Interfaces

Follow these steps to configure a WAN interface.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Network > WAN > WAN Connection. You can add, modify or delete WAN connection settings.

FIGURE 5-1. WAN Connection





- Connection Name

  To add a new WAN connection, select Add new WAN.

  To modify or delete a WAN connection, select the WAN connection.
- Service Mode

  Select from Internet (nat), VoIP (voice), and Other (bridge).
- Binding Port

  Select the LAN port to bind to the WAN interface.

CHAPTER 6

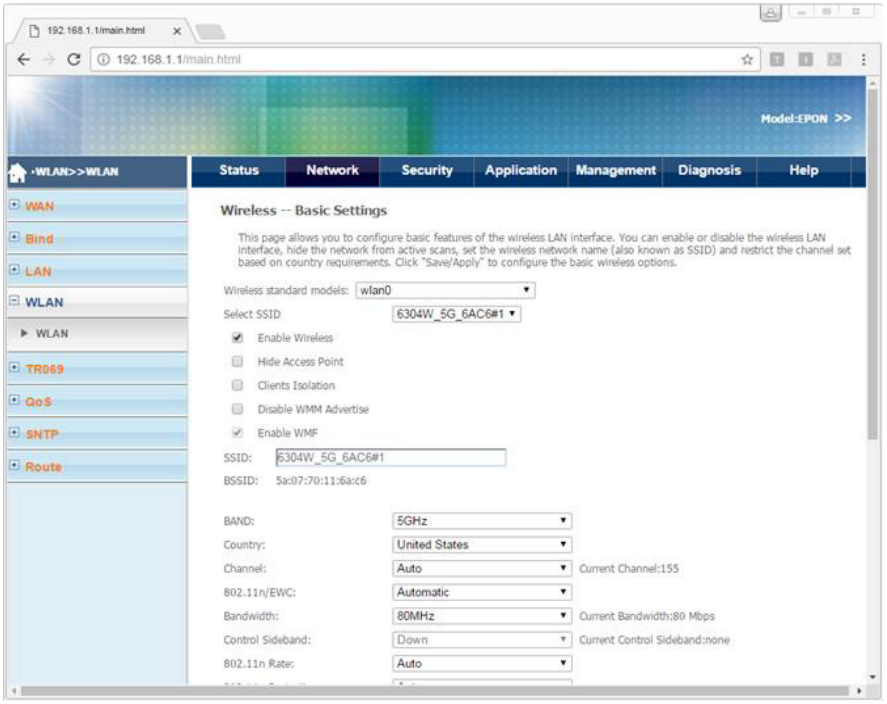
Configuring Wi-Fi

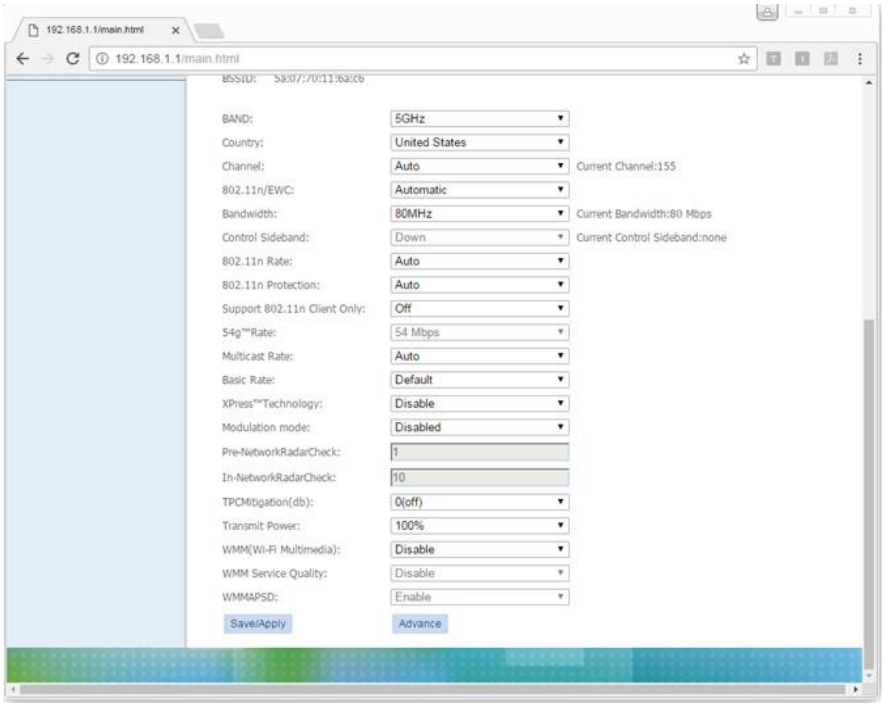
Configuring Wi-Fi

Follow these steps to configure Wi-Fi.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Network > WLAN > WLAN. You can configure basic Wi-Fi features.

FIGURE 6-1. WLAN





Changing the Wi-Fi Password

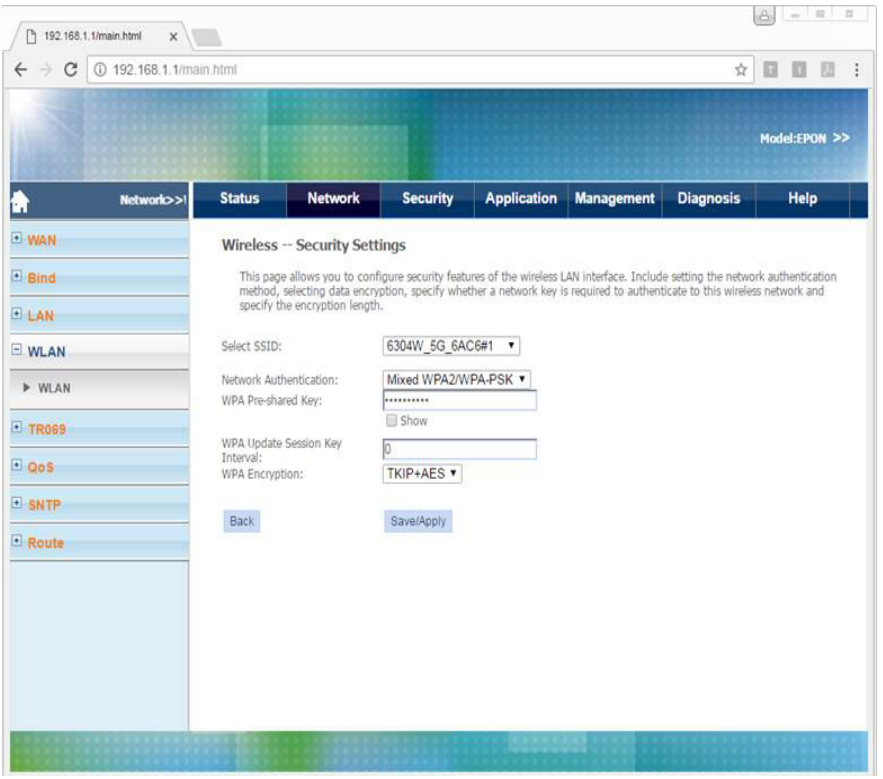
Follow these steps to change the Wi-Fi password.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Network > WLAN > WLAN.
6. Click Advance. Security Settings are displayed.
7. Select the SSID to change the password for.
   The following table lists the default Wi-Fi passwords.

TABLE 6-1. Default Wi-Fi Passwords

Wi-Fi	Password
5GHz	1234567890
2.4GHz	12345678

FIGURE 6-2. Wi-Fi Security Settings



CHAPTER 7

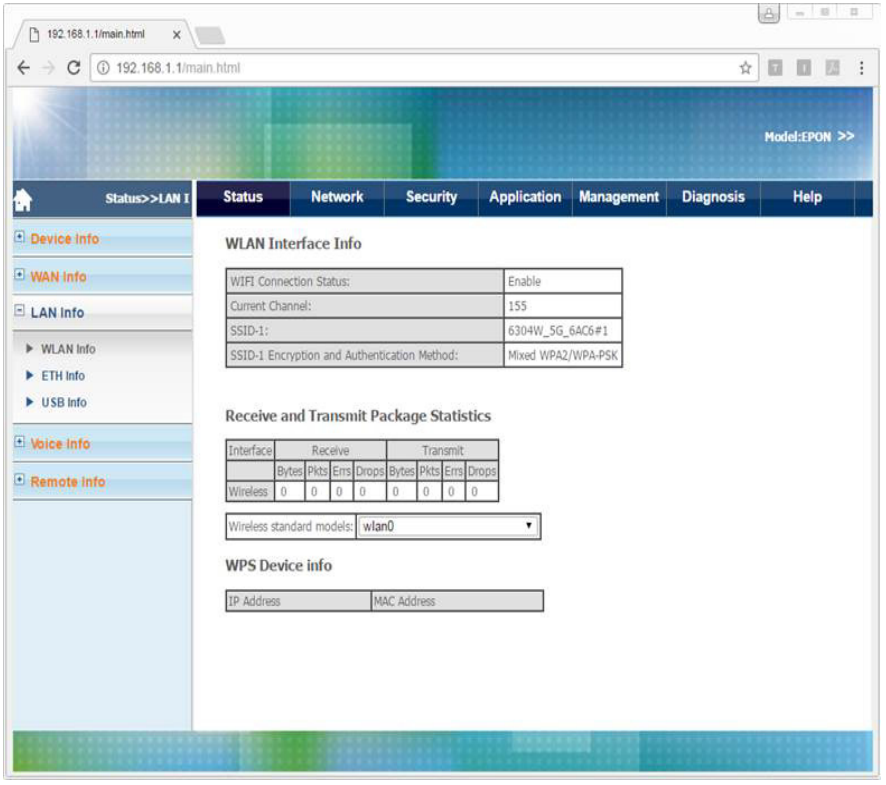
Viewing Wi-Fi Information

Viewing Wi-Fi Information

Follow these steps to configure Wi-Fi.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Network > LAN Info> WLAN Info.

FIGURE 7-1. WLAN Info



- WLAN Interface Info

  Displays Wi-Fi interface information.
- WPS Device Info

  Displays wireless devices connected to the ONU using the WPS button.

CHAPTER 8

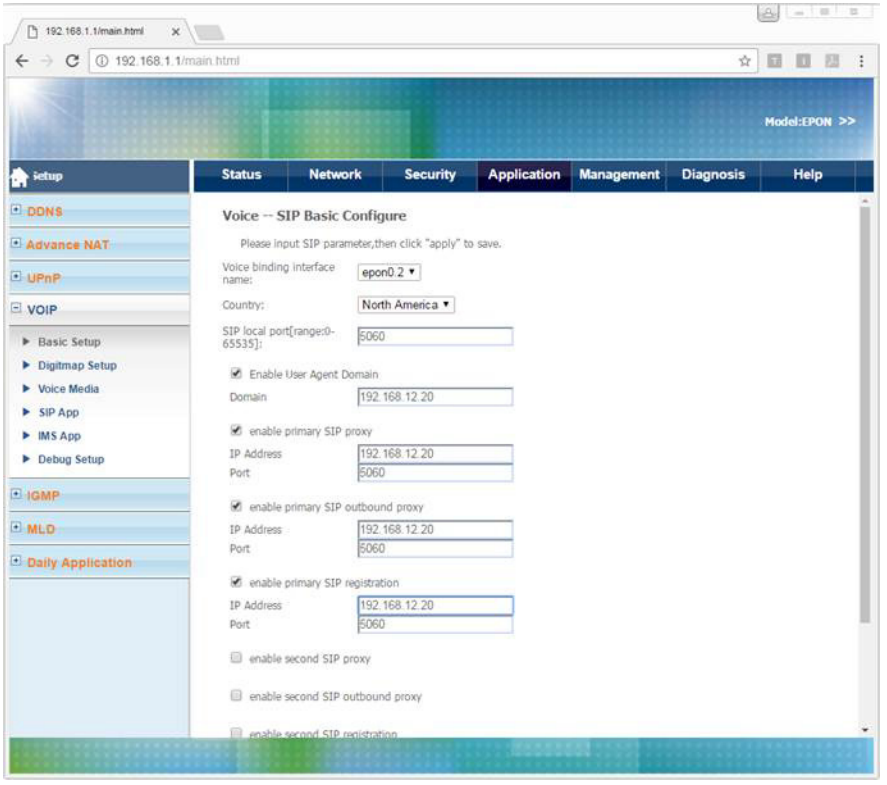
Configuring Voice Service

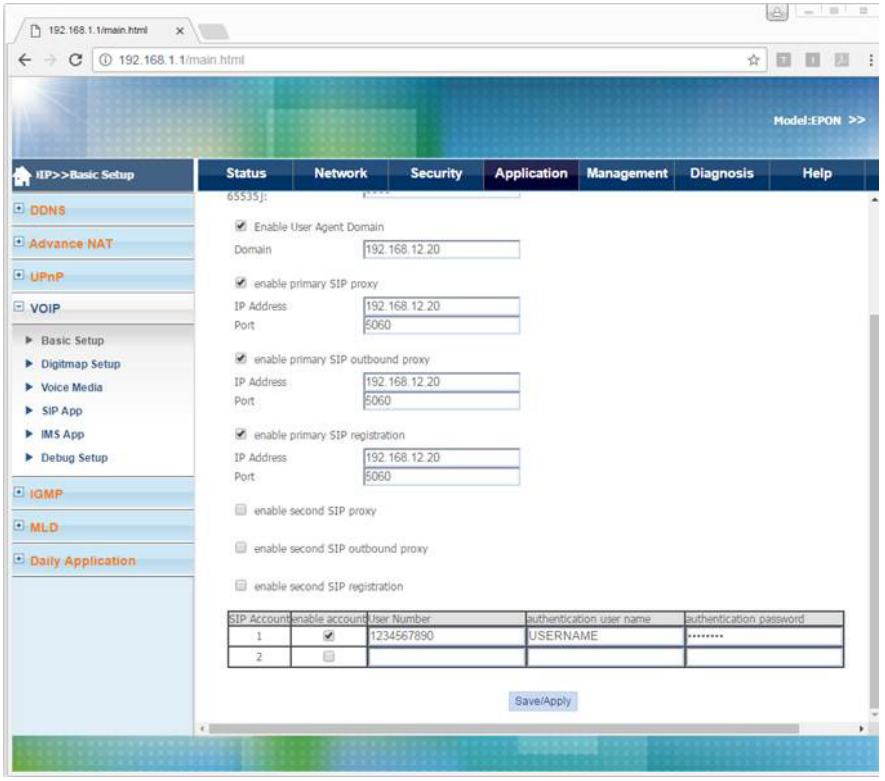
Configuring Voice Service

Follow these steps to configure voice service.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Application > VoIP > Basic Setup. You can configure SIP parameters and enable or disable SIP accounts.

FIGURE 8-1. VoIP > Basic Setup



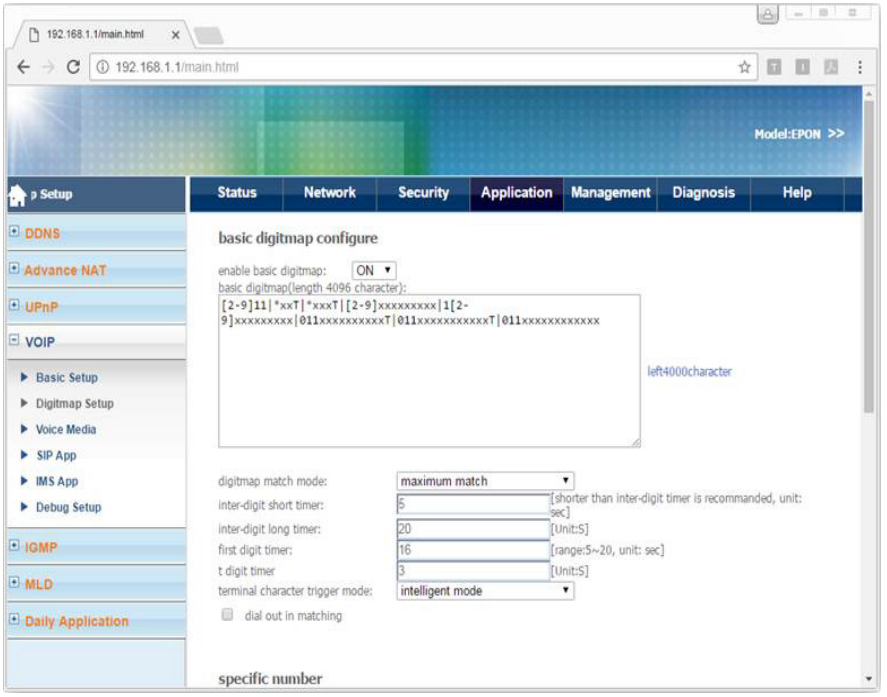


Configuring Dial Plans

Follow these steps to configure a dial plan.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Application > VoIP > Digitmap Setup.

FIGURE 8-2. VoIP > Digitmap Setup



CHAPTER 9

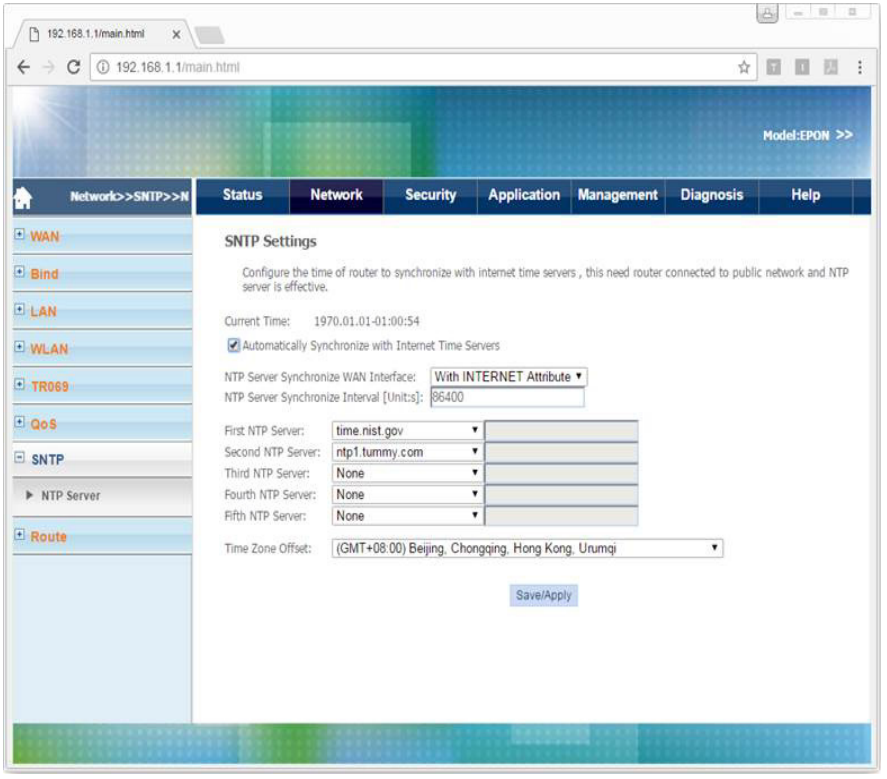
Configuring NTP

Configuring NTP

Follow these steps to configure NTP.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Network > SNTP > NTP Server. You can configure the ONU to synchronize local time with internet time servers.

FIGURE 9-1. SNTP



CHAPTER 10

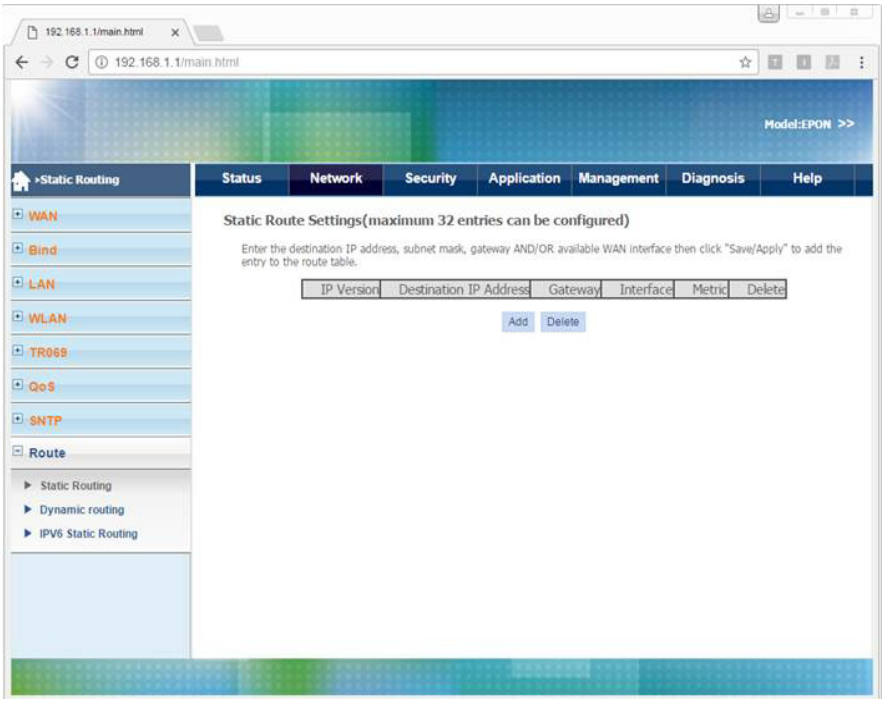
Configuring Static Routing

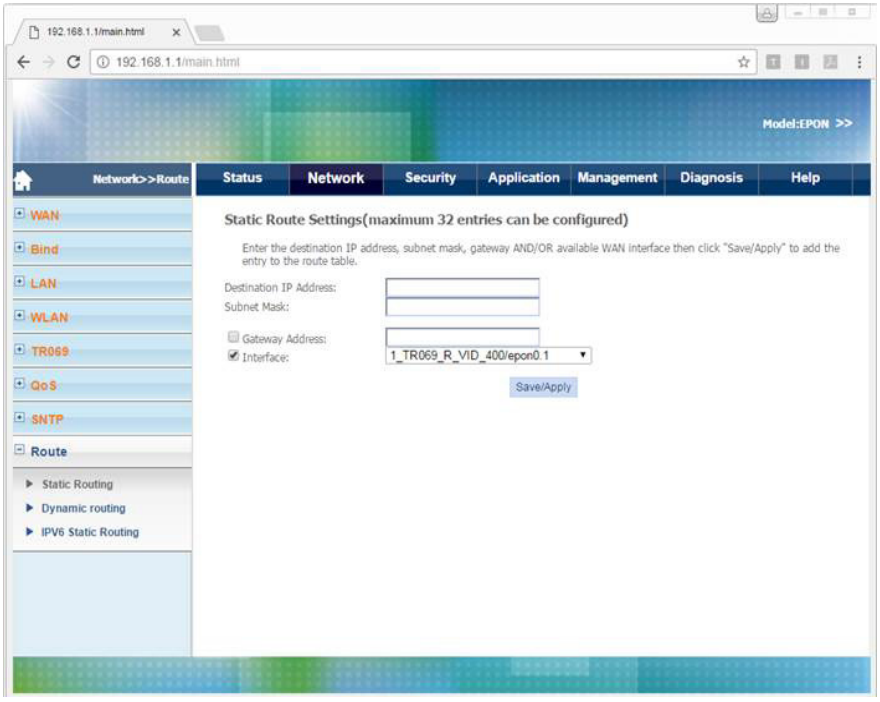
Configuring Static Routing

Follow these steps to configure static routing.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Network > Route > Static Routing. You can configure or delete a static route.

FIGURE 10-1. Route > Static Routing




192.168.1.1/main.html
192.168.1.1/main.html
Model:EPON >>
Network>>Route
Status
Network
Security
Application
Management
Diagnosis
Help
WAN
Bind
LAN
WLAN
TR069
QoS
SNTP
Route
Static Routing
Dynamic routing
IPV6 Static Routing
Static Route Settings(maximum 32 entries can be configured)
Enter the destination IP address, subnet mask, gateway AND/OR available WAN interface then click "Save/Apply" to add the entry to the route table.
Destination IP Address:
Subnet Mask:
Gateway Address:
Interface:
1_TR069_R_VID_400/epon0.1
Save/Apply

CHAPTER 11

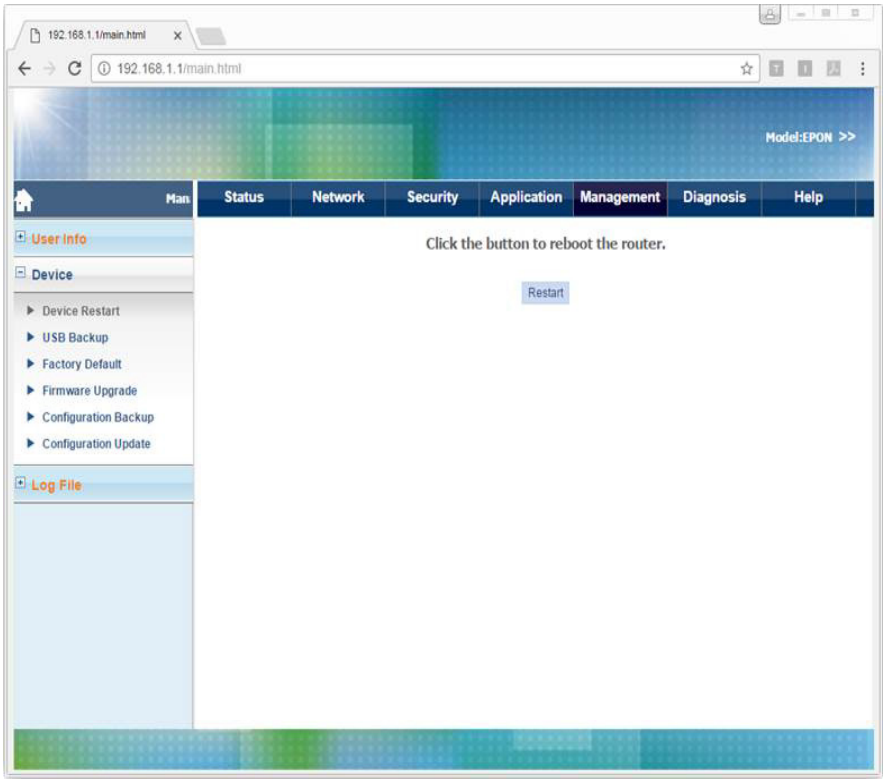
Restarting the Device

Restarting the Device

Follow these steps to restart the device.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Management > Device> Device Restart.
6. Click Restart.

FIGURE 11-1. Device Restart



CHAPTER 12

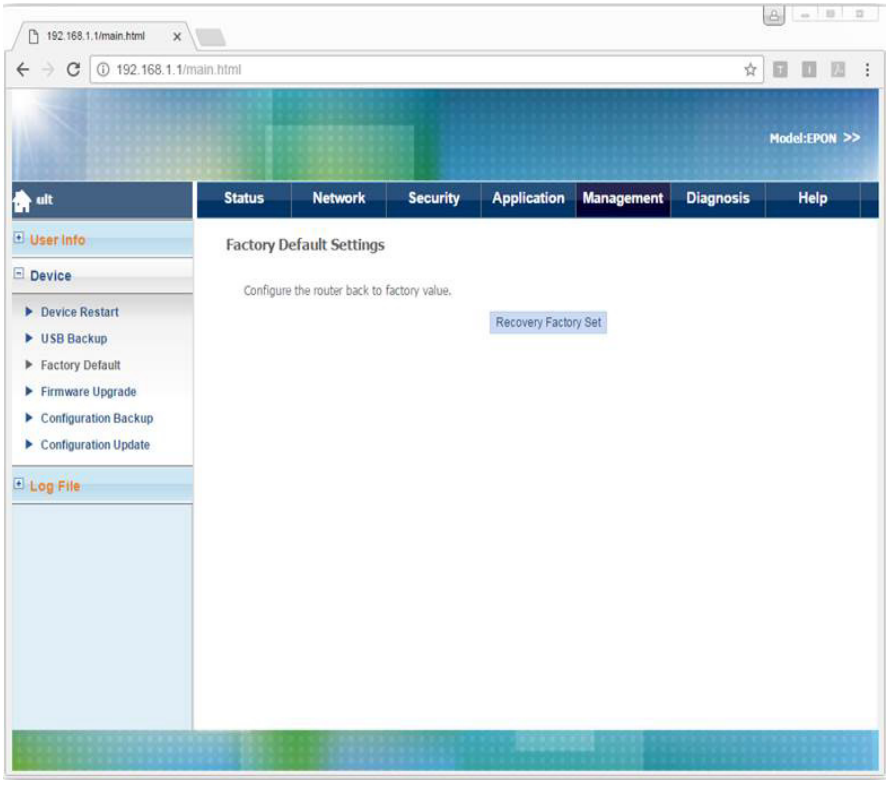
Reverting to the Default Setting

Reverting to the Default Setting

Follow these steps to revert to the default setting.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Management > Device> Factory Default.
6. Click Recovery Factory Set.

FIGURE 12-1. Factory Default



CHAPTER 13

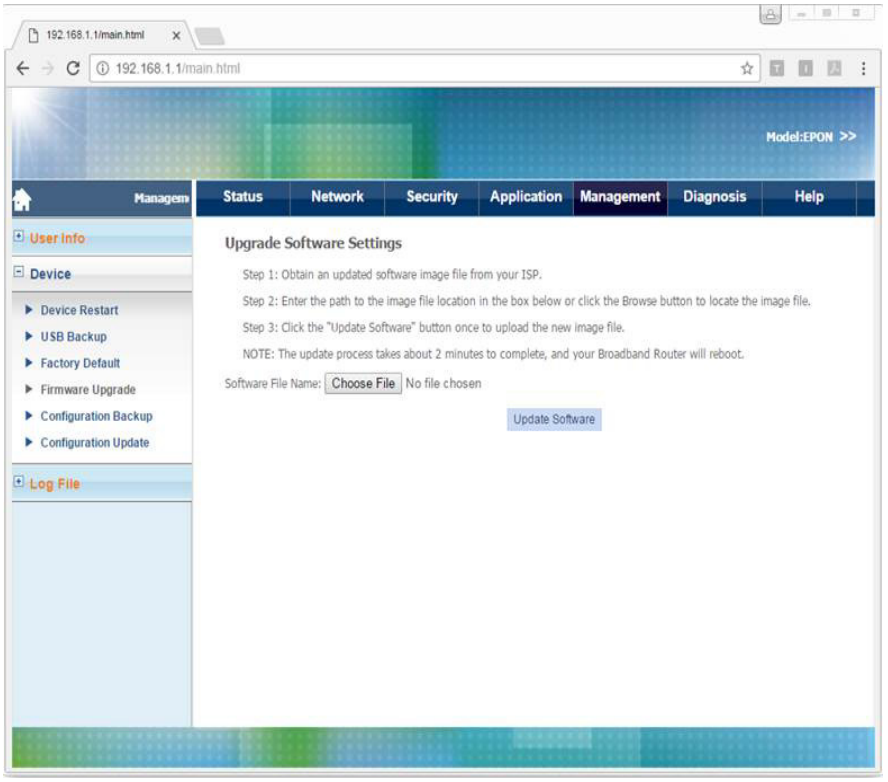
Upgrading Software

Upgrading Software

Follow these steps to upgrade software.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Management > Device> Firmware Upgrade.
6. Choose the file, and then click Upgrade Software.

FIGURE 13-1. Firmware Upgrade



CHAPTER 14

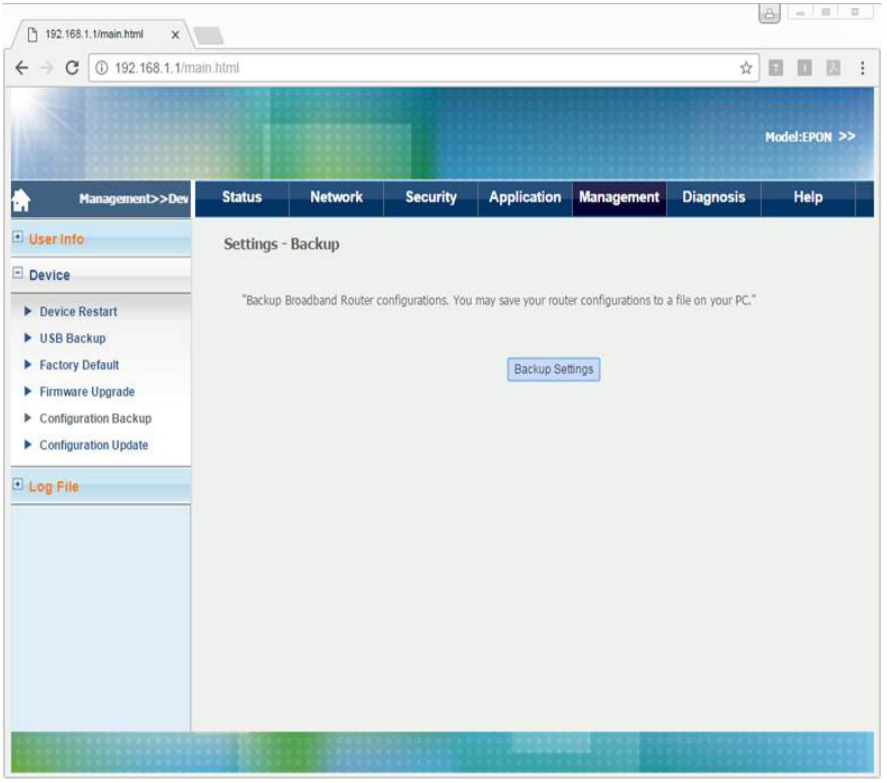
Configuring Backups

Configuring Backups

Follow these steps to configure backups.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Management > Device> Configuration Backup.
6. To save the current configuration to a backup file, click Backup Settings.

FIGURE 14-1. Configuration Backup



CHAPTER 15

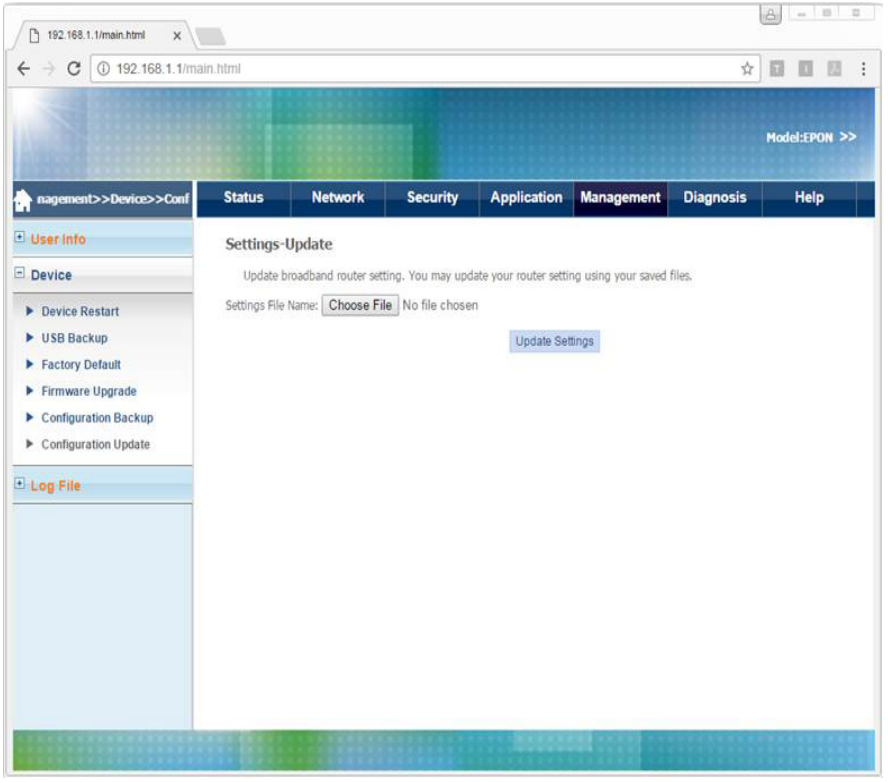
Restoring Configuration Files

Restoring Configuration Files

Follow these steps to restore a configuration file.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Management > Device> Configuration Update.
6. To restore a previously saved configuration file, choose the file, and then click Update Settings.

FIGURE 15-1. Configuration Update



CHAPTER 16

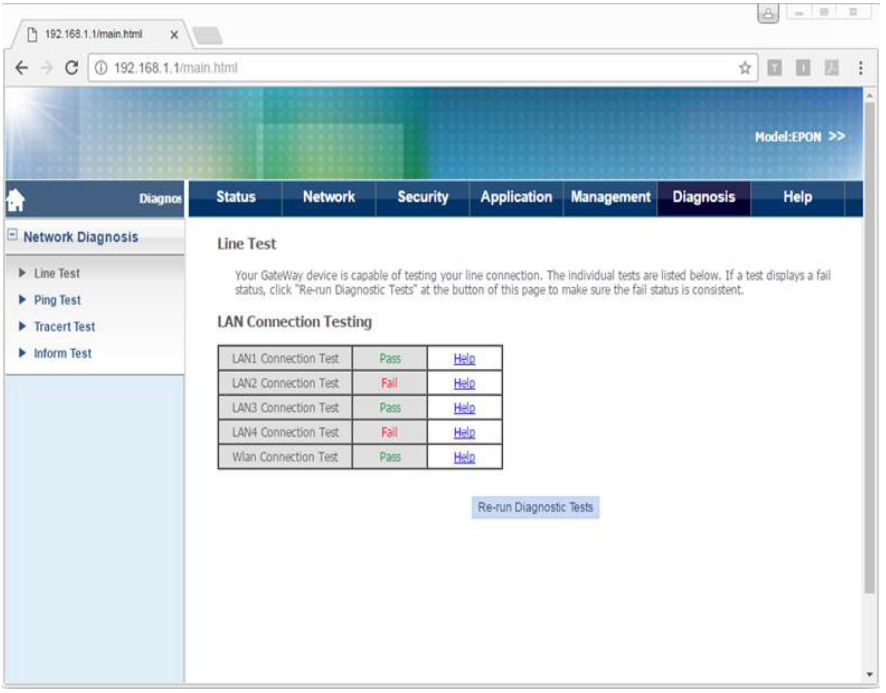
Performing Diagnostics

Performing Diagnostics

Follow these steps to perform diagnostic testing.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Diagnosis> Network Diagnosis> Line Test. You can view the current statuses of LAN and Wi-Fi connections.
6. To refresh, click Re-run Diagnostic Tests.

FIGURE 16-1. Line Test

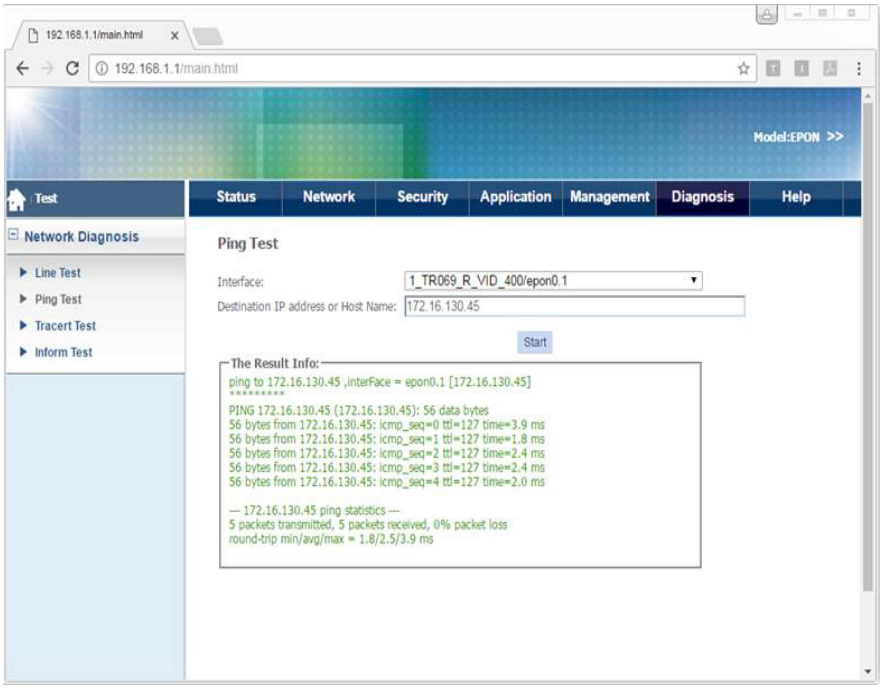


Performing Ping Tests

Follow these steps to perform a ping test.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Diagnosis> Network Diagnosis> Ping Test.
6. Select the Interface.
7. Enter the Destination IP address or Host Name.
8. Click Start.

FIGURE 16-2. Ping Test



Performing Tracert Tests

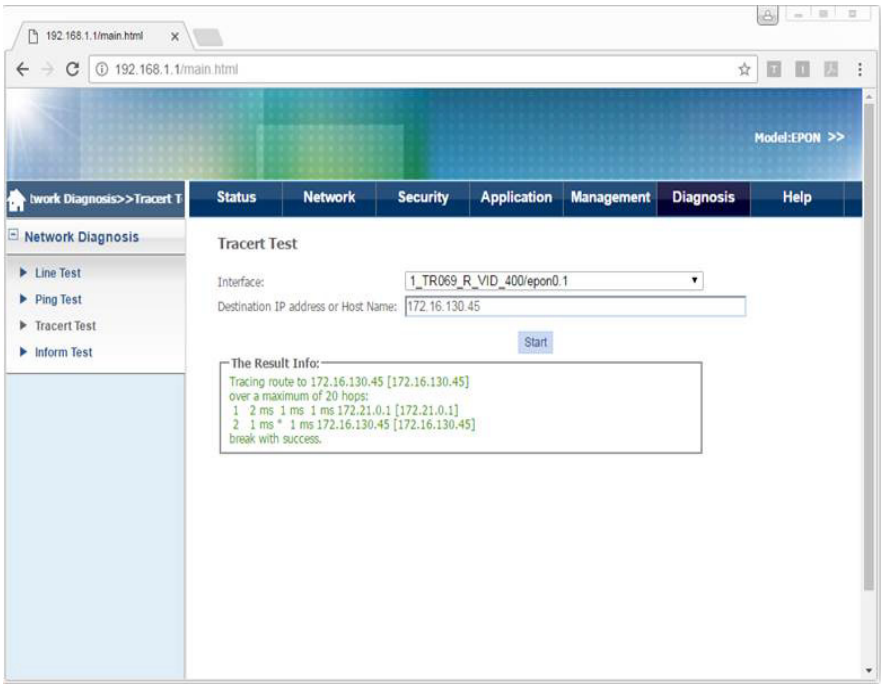
A tracert test traces the route of packets from an interface to the destination host.

Follow these steps to perform a tracert test.

1. Connect your device to LAN 1 or Wireless.
2. Launch a web browser.
3. Connect to 192.168.1.1. A login screen displays.
4. Enter the user name and password. The home screen displays.
5. Select Diagnosis> Network Diagnosis> Tracert Test.
6. Select the Interface.
7. Enter the Destination IP address or Host Name.

8 Click Start.

FIGURE 16-3. Tracert Test



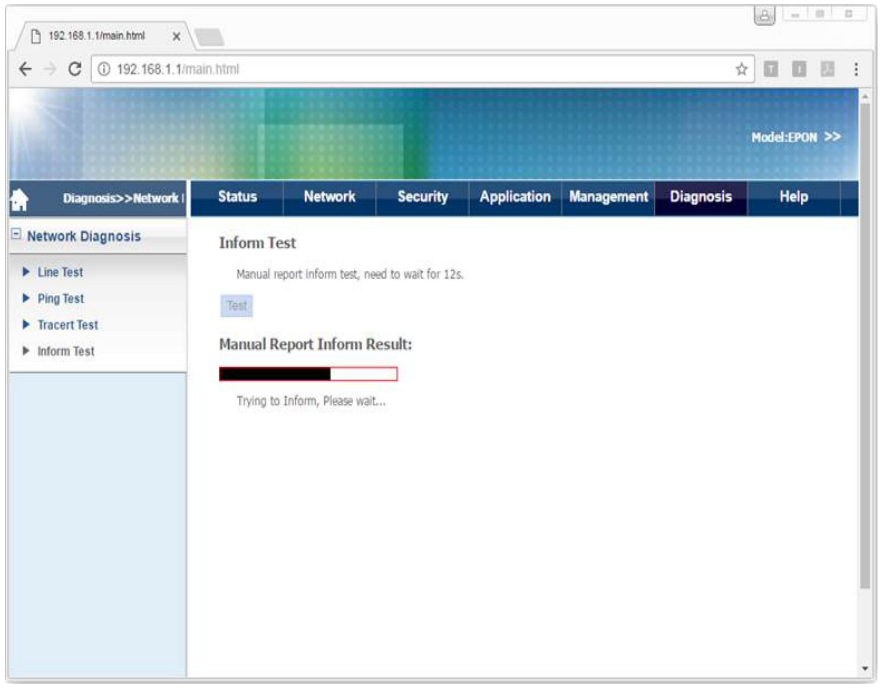
Performing Inform Tests

An inform test sends an inform message to the ACS server.

Follow these steps to perform an inform test.

1 Connect your device to LAN 1 or Wireless.
2 Launch a web browser.
3 Connect to 192.168.1.1. A login screen displays.
4 Enter the user name and password. The home screen displays.
5 Select Diagnosis> Network Diagnosis> Inform Test.
6 Click Test.

FIGURE 16-4. Inform Test



6304W ONU Gateway Installation Guide

Version 1.01

ubiQuoss Inc.
www.ubiQuoss.com
Specifications and product availability are subject to change without notice.

CHAPTER 1

Pre-Installation Considerations

This chapter provides pre-installation considerations that the user should note before installing and using the ONU.

Electric Safety

- Ensure that there are no inflammable, conductive or moist objects near the ONU.
- It is recommended to plug the optical interface into the jacket when it is not in use. Avoid direct eye exposure to the laser emitted from the optical interface. Wear safety glasses to protect your eyes.

Device Position

- A running electric device easily generates heat. Ensure that the device is placed in a well-ventilated environment.
- Keep the device away from heat and water.

- Ensure that the power supply is reliable. The input voltage fluctuation range should be lower than 10%. The power plug should not share one socket with a hair drier, an iron or a refrigerator.

Safety Cautions

- Read the user manual carefully before using the ONU.
- Do not use any accessory that is not shipped with the ONU without prior consent of the manufacturer. This may cause fire or product damage.
- Use the power adapter that is shipped with the ONU.
- Do not place any object on top of the ONU.
- Keep the ONU dry, ventilated, and clean.
- If lightning occurs, unplug the power plug and all connection cables to protect the ONU against lightning effects.
- Clean the ONU using a soft and dry cloth rather than liquid or atomizers. Turn off the ONU before cleaning it.
- Turn off the ONU when it is not in use.
- Keep ventilation holes clean and prevent any object from entering ventilation holes. This may cause short circuit and further cause product damage or fire. Do not spray liquid on the surface of the ONU.
- Do not open the case of the ONU, especially when it is turned on.
- Before plugging or unplugging the ONU, ensure that the power is off. This is to avoid surge.
- Be careful when unplugging the ONU, as the transformer may be very hot.

CHAPTER 2

LED Descriptions

This chapter describes conditions indicated by LEDs on the front panel of the ONU.

FIGURE 2-1. Front Panel

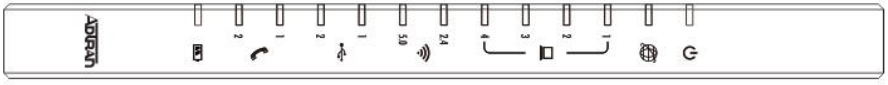


TABLE 2-1. LED Descriptions

LED	Status	Description
Power	On	Power is on and working.
	Off	Power is off or there is a power failure.
BAT	On	Battery is disconnected.
	Off	Battery is connected.
Internet	On	Internet is connected and operational.
	Off	Internet is disconnected.

TABLE 2-1. LED Descriptions

LED	Status	Description
Link 1-4	On	Link is connected and operational.
	Blinking	Data is being transmitted.
	Off	Link is disconnected.
Voice 1-2	On	Voice is connected and operational.
	Blinking	Data is being transmitted.
	Off	Voice is disconnected.
USB	On	USB is connected and operational.
	Blinking	Data is being transmitted.
	Off	USB is disconnected.

CHAPTER 3

Buttons and Interfaces

This chapter describes the buttons and interfaces on the rear panel of the ONU.

FIGURE 3-1. Rear Panel

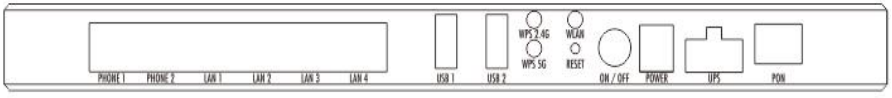


TABLE 3-1. LED Descriptions

Interface/Button	Description
PON	Fiber port.
RESET	Reboots ONU and restores factory default configuration.
POWER	DC power connector.
ON/OFF Switch	Turns power supply on/off.
POTS 1-2	Telephone interface.
GE 1-4	Ethernet interface.
WLAN	Turns WLAN on/off.
WPS-2.4G	Connects to Wi-Fi.

TABLE 3-1. LED Descriptions

Interface/Button	Description
WPS-5G	Connects to Wi-Fi.
USB	USB port.
UPS	UPS port.

CHAPTER 4

Installing the ONU

This chapter provides instructions on how to install the ONU.

Connecting the Fiber

Before connecting the product to the fiber, you need to install the fiber. Follow these steps to install the fiber.

1. Remove the dust cap from the optical interface.
2. Insert the fiber into the flange plate.
3. Connect the fiber from the flange plate to the optical interface on the wall.

Note

- *When a fiber is not in use, cover the optical interface of the ONU and put the dust cap back on the optical fiber. Prevent dust pollution or water immersion, as this may cause damage to the fiber and optical interface of the ONU.*
- *If fibers need to be fixed during parallel cabling, do not fasten the fibers too tightly. Avoid fiber extrusion, as this may cause fiber damage.*

Connecting the Power Adapter and Power Cord

Follow these steps to connect the power adapter to the ONU.

1. Insert one end of the power cord attached with the power adapter into the POWER connector.
2. Press the ON/OFF button to ensure that the power status is ON.
3. Check whether the Power LED is on. If it is on, the power supply is normal. Otherwise, check whether the power cord and the power adapter are correctly connected.

Follow these steps to connect the UPS to the ONU.

1. Insert one end of the power cord attached with the UPS device into the UPS slot.
2. Press the ON/OFF button to ensure that the power status is ON.
3. Check whether the Power LED is on. If it is on, the power supply is normal. Otherwise, check whether the power cord and the UPS device are correctly connected.

Connecting the Ethernet Port

Follow these steps to connect to the Ethernet port.

1. Insert one end of a network cable with an RJ-45 connector into the Ethernet port.
2. Insert the other end of the cable to a PC or Switch.
3. Check whether the Link LED is on. If it is on, the link is connected and operational. Otherwise, check whether the cable is plugged in properly.

Connecting the POTS Port

Follow these steps to connect to the POTS port.

1. Insert one end of a cable with an RJ-11 connector into the POTS port.
2. Insert the other end of the cable to a telephone.

3 Check whether the Voice LED is on. If it is on, voice is connected and operational. Otherwise, check whether the cable is plugged in properly.

CHAPTER 5

Configuring the ONU

This chapter provides instructions on how to configure the ONU.

Accessing the Internet

After you have successfully connected the ONU, you need to configure the ONU so that it can obtain an IP address.

If the ONU only uses a serial number to access the Internet:

- After connecting the fiber to the ONU, wait approximately two minutes for an Internet connection to be established.

If the ONU uses a serial number and EPON password to access the Internet:

1. Type 192.168.1.1 in the address field of a web browser. A login screen appears.
2. Enter the user name and password.
3. Click Network > TR069 > EPON Password. A dialog box appears.
4. Enter your EPON password in the text box and the click SAVE.
5. Wait approximately one minute for an Internet connection to be established.

Setting up WLAN

Follow these steps to set WLAN parameters.

1. Type 192.168.1.1 in the address field of a web browser. A login screen appears.
2. Enter the user name and password.
3. Click Network > WLAN. A dialog box appears.

The following table provides a brief description of WLAN parameters.

TABLE 5-1. WLAN Parameters

Parameter	Description
Select SSID	Select a WLAN you want to modify.
Network Authentication	Select the authentication method. Mixed WPA2/WPA-PSK is recommended.
WPA Pre-shared Key	Enter the WLAN password.
WPA Encryption	Select the encryption method. TKIP+AES is recommended.

Setting Security

Follow these steps to set security.

1. Type 192.168.1.1 in the address field of a web browser. A login screen appears.
2. Enter the user name and password.
3. Click Network > Security. A dialog box appears.

The following table provides a brief description of the available Security features.

TABLE 5-2. Security Features

Feature	Description
URL Filter	Permit or forbid access to specified addresses.
MAC Filter	Permit or forbid access to the Internet.
Firewall Level	Select from low, middle, high.
DDOS Setup	Set up DDOS to enhance security.

Downloading to a USB

Follow these steps to download files to a USB.

1. Type 192.168.1.1 in the address field of a web browser. A login screen appears.
2. Enter the user name and password.
3. Click Network > Family Storage. A dialog box appears.

The following table provides a brief description of the settings required for USB usage.

TABLE 5-3. USB Settings

Setting	Description
User Name	User name authorized by the file server that permits the download of files.
Password	User password.
Port	Port used.
Remote URL	URL that indicates the position of the file.

Managing the ONU

Follow these steps to manage the ONU.

1. Type 192.168.1.1 in the address field of a web browser. A login screen appears.
2. Enter the user name and password.
3. Click Network > Management. A dialog box appears.

The following table provides a brief description of the Management features.

TABLE 5-4. Management Features

Feature	Description
User Info	You can change your password.
Device	You can restart the ONU.

CHAPTER 7

Troubleshooting

This chapter lists some typical symptoms and check points.

[Problem 1] The Power LED does not light.

Check points:

1. Check whether the power cord is properly connected to the POWER connector and the outlet.
2. Check whether the proper power adapter is connected.

[Problem 2] The Link LED does not light.

Check points:

1. Check whether the ONU is authorized by the carrier.
2. Check whether the proper network cables are used.
3. Check whether the network cable connection is working.

[Problem 3] The Voice LED does not light.

Check points:

1. Check whether the telephone line connection is working.
2. Check whether the ONU is on.

APPENDIX A

Product Specifications

TABLE A-1. Physical Dimensions

Description	Specification
Dimensions	1.45 in x 5.58 in x 9.60 in
(H x W x D)	(37 mm x 141.8 mm x 243.9 mm)
Weight	Max. 1.10 lbs (0.5 kg)

TABLE A-2. Electrical Specifications

Specification	Operational
Power Adapter Input	12 V/2A, Output power 24W
Power Consumption	Max. 15 W

TABLE A-3. Environmental Specifications

Specification	Operational
Temperature	-41°F to 113°F (-5° to 45°C)
Humidity	5 to 95% (non-condensing)

TABLE A-4. Interface Specifications

Description	Specification
Interfaces	• One optical interface (SC/APC single mode) • Two RJ-11 interfaces • Four RJ-45 connectors

TABLE A-5. Data Transmission Rates

Feature	Rate
Uplink	1.25 Gbps
Downlink	1.25 Gbps

TABLE A-6. Standard

Feature	Standard
EPON	IEEE 802.3ah

FCC Regulations

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/ TV technician for help.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."