VB204W

User Manual

Table of Contents

1 Safety Precautions

Take the following instructions to prevent the device from risks and damage caused by fire or electric power.

- Use the type of power marked in the volume label.
- Use the power adapter in the product package.
- Pay attention to the power load of the outlet or prolonged lines. An overburden power outlet or damaged lines or plugs may cause electric shock or fire accidents. Check the power cords regularly. If you find any damage, replace it at once.
- Proper space left for heat dissipation is necessary to avoid damage caused by overheating to the device. The long and thin holes on the device are designed for heat dissipation to ensure that the device works normally. Do not cover these heat dissipation holes.
- Do not put this device close to a heat source or under a high temperature occurs. Keep the device away from direct sunshine.
- Do not put this device close to an overdamp or watery place. Do not spill fluid on this device.
- Do not connect this device to a PC or electronic product unless instructed by our customer engineer or your broadband provider. Wrong connection may cause power or fire risk.
- Do not place this device on an unstable surface or support.

2 Overview

The VB204W VDSL Wi-Fi Router integrates 802.11n Wireless, LAN and USB service into one unit. It is designed to provide a simple and cost-effective xDSL Internet connection for a private Ethernet and 802.11g/802.11b/802.11n wireless network. The Router combines a high-speed xDSL Internet connection, IP routing for the LAN, and wireless connectivity in one package.

The Router is easy to install and use. The Router connects to an Ethernet LAN or computers via standard Ethernet ports. The xDSL connection is made using ordinary telephone line with standard connectors. Multiple workstations can be networked and connected to the Internet by a single Wide Area Network (WAN) interface and single global IP address. The advanced security enhancements, packet filtering and port redirection, can help protect your network from potentially devastating intrusions by malicious agents from outside your network.

Network and Router management is done through the web-based management interface accessed through the local Ethernet using any web browser. You may also enable remote management to enable configuration of the Router via the WAN interface.

2.1 Packing List

- 1 x VB204W
- 1 x power adapter
- 1 x telephone cables (RJ-11, more than 1.8m)
- 1 x Ethernet cable (RJ-45, more than 1.8m)

2.2 Application

- Home gateway
- Wireless LAN
- Higher data rate broadband sharing
- Audio and video streaming and transfer
- PC file and application sharing
- Network and online gaming
- USB storage

2.3 Features

- User-friendly GUI for web configuration
- Compatible with all standard Internet applications
- Industry standard and interoperable xDSL interface
- Simple web-based status page displays a snapshot of system configuration, and links to the configuration pages
- Downloadable flash software updates
- Support for up to 8 permanent virtual circuits (PVC)
- Support for up to 8 PPPoE sessions
- Support RIP v1 & RIP v2
- WLAN with high-speed data transfer rates, compatible with IEEE 802.11b/g/n
- IP routing and bridging
- Asynchronous transfer mode (ATM) , PTM (Packet Transfer mode), and digital subscriber line (DSL) support
- Point-to-point protocol (PPP)
- Network/port address translation (NAT/PAT)
- Quality of service (QoS)
- Wireless LAN security: WPA, 802.1x, RADIUS client
- Universal plug-and-play(UPnP)
- Web filtering
- Management and control

  Web-based management (WBM)

  Command line interface (CLI)

  TR-069 WAN management protocol
- Remote update
- System statistics and monitoring
- DSL router is targeted at the following platforms: DSL modems, wireless access points and bridge.
- Multicast listener discovery (MLD)
- Digital living network alliance (DLNA)
- Synergy advanced multipurpose bus arbiter (SAMBA)
- Internet group management protocol (IGMP)
- Application layer gateway (ALG)

2.4 Standards Compatibility and Compliance

- Support application level gateway (ALG)
- ITU G.992.1 (G.dmt)
- ITU G.992.2 (G.lite)
- ITU G.994.1 (G.hs)
- ITU G.992.3 (ADSL2)
- ITU G.992.5 (ADSL2+)
- ITU G.993.1 (VDSL)
- ITU G993.2 (VDSL2)
- ANSI T1.413 Issue 2
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.11n

3 Hardware Description and Installation

3.1 LEDs and Interfaces

Front Panel

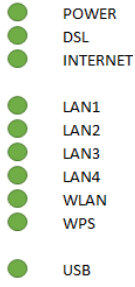


Figure 1 Front panel

The following table describes the indicators on the front panel.

Indicator	Color	Status	Description
Power	Green	On	The device is powered on.
		Off	The device is powered off.
	Red	On	Self-test fails, or failure occurs, or the device is starting.
DSL	Green	On	DSL link is established.
		Slow Blink	The DSL line is attempting to detect signals.
		Fast Blink	Signals have been detected, and the DSL line is attempting to establish link.
Internet	Green	On	Physical layer connection and IP connection is established in routing mode.
		Blink	IP connection is established, and messages are being transmitted.
		Off	IP connection or physical layer link is not established.

Indicator	Color	Status	Description
	Red	On	IP connection fails.
LAN 1/2/3/4	Green	On	Ethernet link is established.
		Blink	Data is being transmitted through a LAN interface.
		Off	Ethernet link is not established.
WLAN	Green	On	WLAN is enabled.
		Blink	Data is being transmitted by the wireless module.
		Off	WLAN is disabled.
WPS	Green	On	Negotiation is successful under Wi-Fi protected setup.
		Blink	Negotiation is in progress under Wi-Fi protected Setup.
		Off	Wi-Fi protected setup is disabled.
USB	Green	On	A 3G network card or USB flash disk is connected.
		Blink	Data is being transmitted.
		Off	No USB connection.

Rear Panel

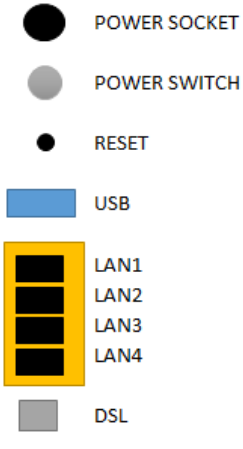
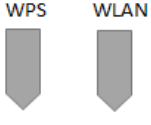


Figure 2 Rear panel

The following table describes the interface of the device.

Interface/Button	Description
Power Socket	Interface connecting to the power adapter. The power adapter output is: 12V DC, 2000mA
Power Switch	Press to turn on or off
Reset	Reset to the factory defaults. To restore factory defaults, keep the device powered on and push a paper clip into the hole. Press down the button for more than 5 seconds and then release.
USB	USB port, for connecting USB storage devices.
LAN1/2/3/4	Ethernet RJ-45 interfaces connecting to the Ethernet interfaces of computers or Ethernet devices
DSL	RJ-11 interface connecting to a telephone set through a telephone cable

Top Panel



Interface/Button	Description
WPS	This button is used for enabling WPS PBC mode. If WPS is enabled, press this button, and then the wireless router starts to accept the negotiation of PBC mode.
WLAN	WLAN switch, for enabling or disabling the WLAN function.

3.2 Hardware Installation

Step 1 Connect the **DSL** port of the device to the socket installed by Chorus

Step 2 Connect a **LAN** port of the device to the network card of the PC through an Ethernet cable.

Note:

If connecting to ADSL service, make sure ADSL Filters are used.

Step 3 Plug one end of the power adapter to the wall outlet and the other end to the **Power** port of the device.

Installing a telephone without using either a Splitter or filter will lead to failure of xDSL connection, or failure of Internet access, or slow connection speed. If you really need to add a telephone set, you must add a microfilter or Central Splitter.

4 PC Network Configuration and Login

4.1 PC Network Configuration

Each network interface on the PC should either be configured with a statically defined IP address and DNS address, or be instructed to automatically obtain an IP address using the network DHCP server. The VB204W provides a DHCP server on its LAN and it is recommended to configure your LAN to automatically obtain its IP address and DNS server IP address.

The configuration principle is identical but should be carried out differently on each operating system.

The following displays the **TCP/IP Properties** dialog box on Windows XP.

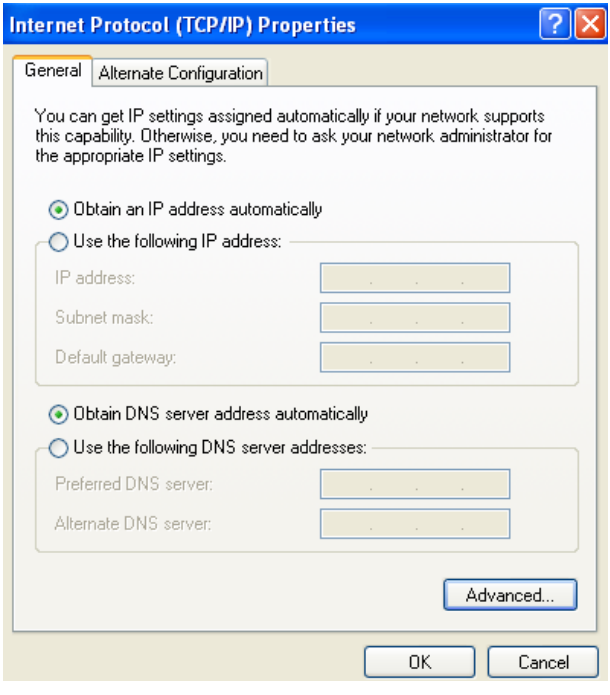


Figure 3 PC Network Configuration

TCP/IP configuration steps for Windows XP are as follows:

Step 1 Choose Start > Control Panel > Network Connections.

Step 1 Right-click the Ethernet connection icon and choose **Properties**.

Step 2 On the **General** tab, select the **Internet Protocol (TCP/IP)** component and click **Properties**. The Internet Protocol (TCP/IP) Properties window appears.

Step 3 Select the **Obtain an IP address automatically** radio button.

Step 4 Select the **Obtain DNS server address automatically** radio button.

Step 5 Click **OK** to save the settings.

4.2 Logging in to the DSL Router

To log in to the DSL router, do as follows.

Step 1 Open a Web browser on your computer.

Step 2 Enter ***http://192.168.1.1*** (default IP address of the DSL router) in the address bar. The login page appears.

Step 3 Enter the user name and the password. The default username and password are **admin** and **admin**. The username and password of the common user are **user** and **user**. You need not enter the username and the password again if you select the option **Remember my password**. It is recommended to change these default values after logging in to the DSL router for the first time.

Step 4 Click **OK** to log in to the Web page. Otherwise, please click **Cancel** to exit the login page.

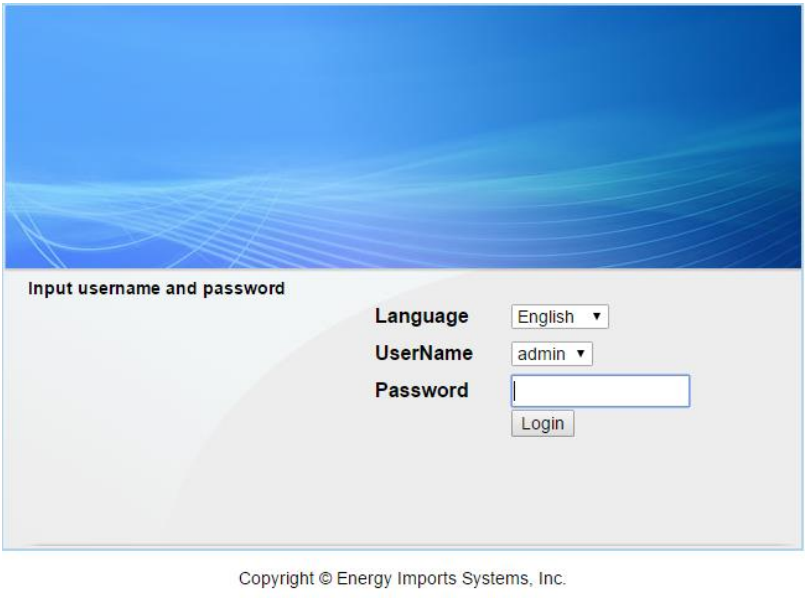


Figure 4 Logging in to the DSL Router

After logging in to the DSL router as a admin user, you can query, configure, and modify all the settings, and diagnose the system.

5 Web-based Management

This chapter describes how to use Web-based management of the VB204W, which allows you to configure and control all of router features and system parameters in a user-friendly GUI.

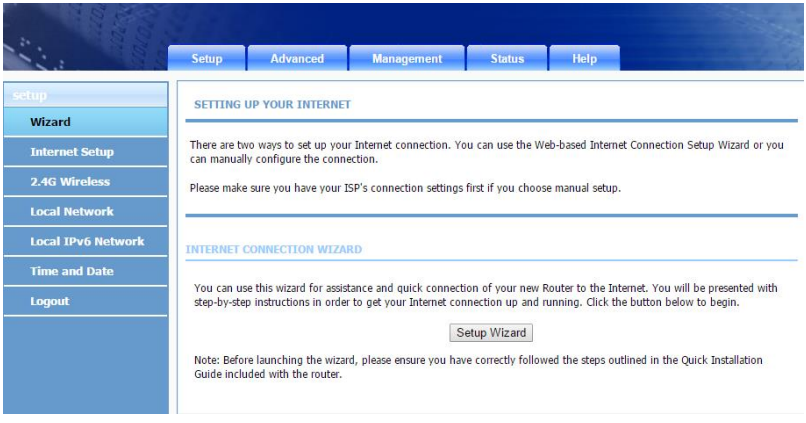
5.1 Setup

In the main interface, click **Setup** tab to enter the **Setup** menu as shown in the following figure. The submenus are **Wizard**, **Internet Setup**, **2.4G Wireless**, **Local Network**, **Local IPv6 Network**, **Time and Date** and **Logout**.

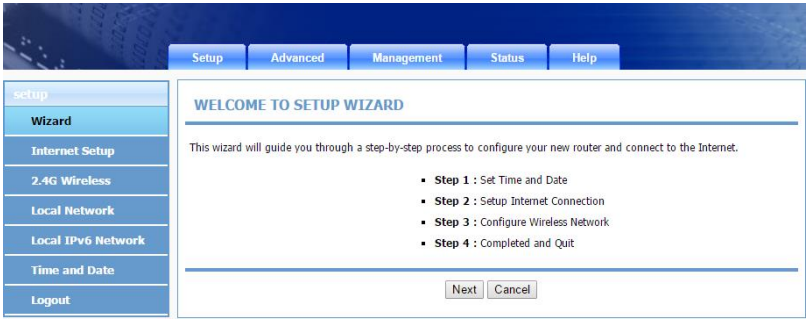
5.1.1 Wizard

Wizard enables fast and accurate configuration of Internet connection and other important parameters. The following sections describe configuration parameters.
When subscribing to a broadband service, you should be aware of the method, by which you are connected to the Internet. Your physical WAN device can be Ethernet, DSL or both. Technical information about the properties of your Internet connection is provided by your Internet service provider (ISP). For example, your ISP should inform you that you are connected to the Internet using a static or dynamic IP address, or the protocol used for communication over the Internet, such as PPPoA or PPPoE,.

Choose **Setup** > **Wizard**. The page shown in the following figure appears.

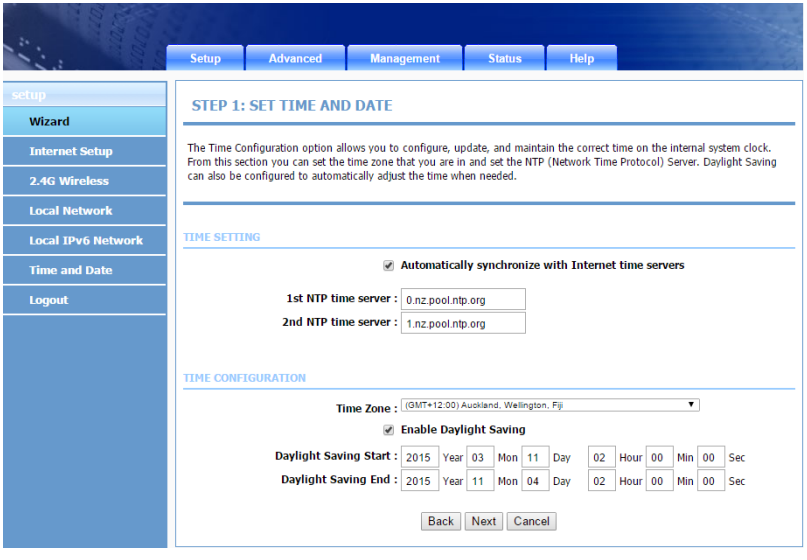


Click **Setup Wizard**. The page shown in the following figure appears.



There are four steps to configure the device. Click **Next** to continue.

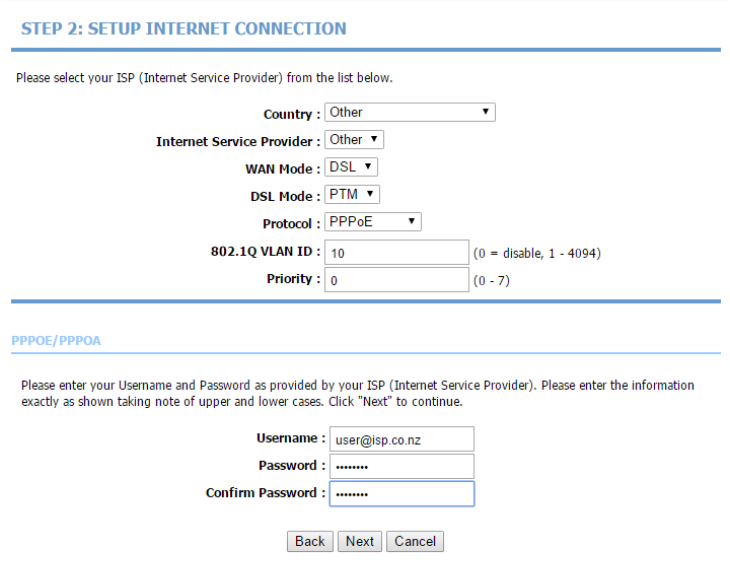
Step 1 Set the time and date.



Step 2 Configure the Internet connection:

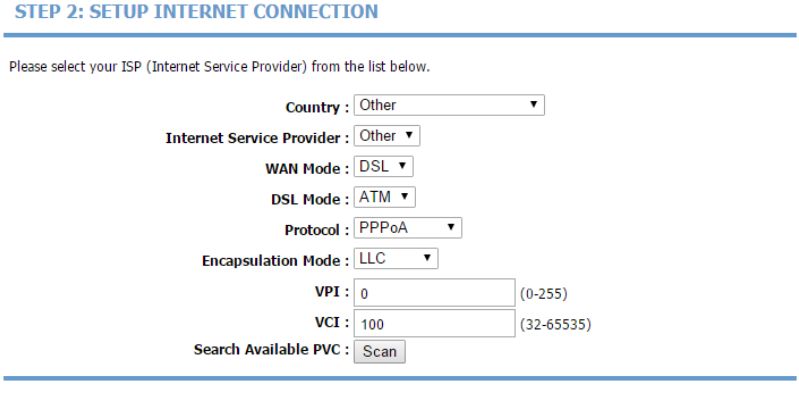
VDSL Connection

Select Other for Country and PTM as DSL Mode, set VLAN ID as 10 and enter the user name and password as provided by your ISP :



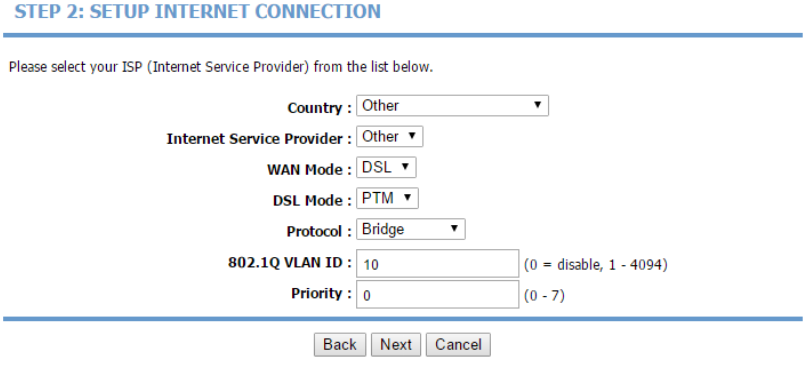
ADSL Connection

Select Other for Country and ATM as DSL Mode, set Protocol as PPPoA, set VPI to 0 and VCI to 100. Finally enter the user name and password as provided by your ISP :



Bridge

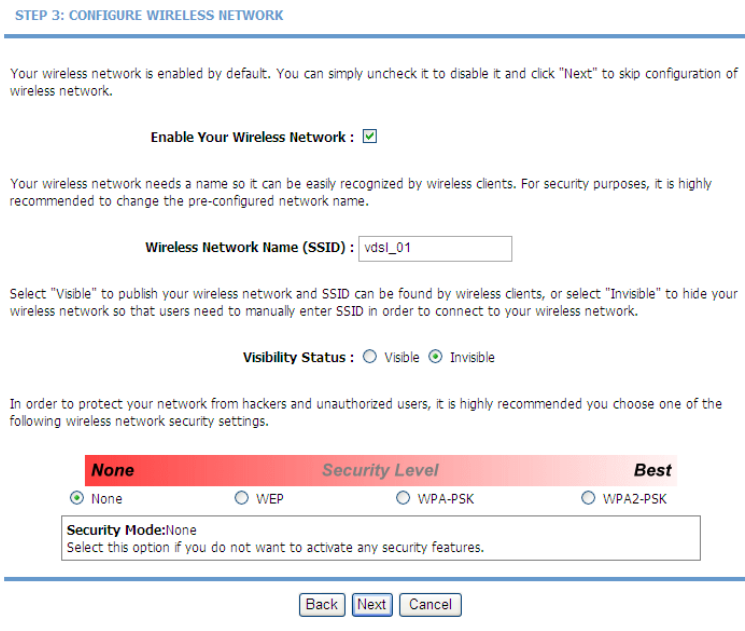
When you choose the **DSL Mode** as **PTM** and the **Protocol** as **Bridge**, the page shown in the following figure appears.



Note:

When you choose the **DSL Mode** as **ATM**, please refer to the configurations under **ATM** mode for corresponding Internet configurations.

Step 3 Configure the wireless network. Enter the information and click **Next**. In this example, the Network name is 'vdsl_01' with no security.



Step 4 Click **Apply** to save the settings.

STEP 4: SAVE AND APPLY CHANGES

Setup complete. Click "Back" to review or modify settings.

If your Internet connection does not work, you can try the Setup Wizard again with alternative settings or use Manual Setup instead if you have your Internet connection details as provided by your ISP.

Below is a detailed summary of your settings. Please print this page out, or write the information on a piece of paper, so you can configure the correct settings on your wireless client adapters.

Time Settings :	1
NTP Server 1 :	0.nz.pool.ntp.org
NTP Server 2 :	1.nz.pool.ntp.org
Time Zone :	NZT
Daylight Saving Time :	1
Protocol :	PPPoE
802.1Q VLAN ID :	10
Priority :	0
Username :	user@isp.co.nz
Password :	****
SSID (2.4G):	vdcl_01
Visibility Status :	Invisible
Encryption :	None
Pre-Shared Key :	N/A
WEP Key :	N/A

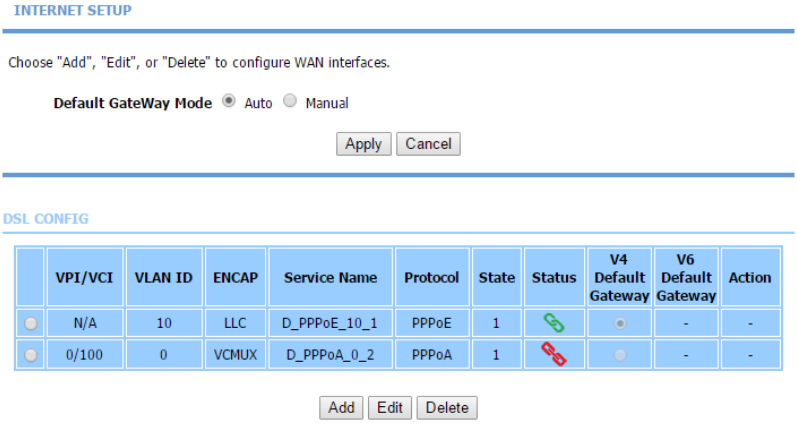
Back Finish Cancel

Note:

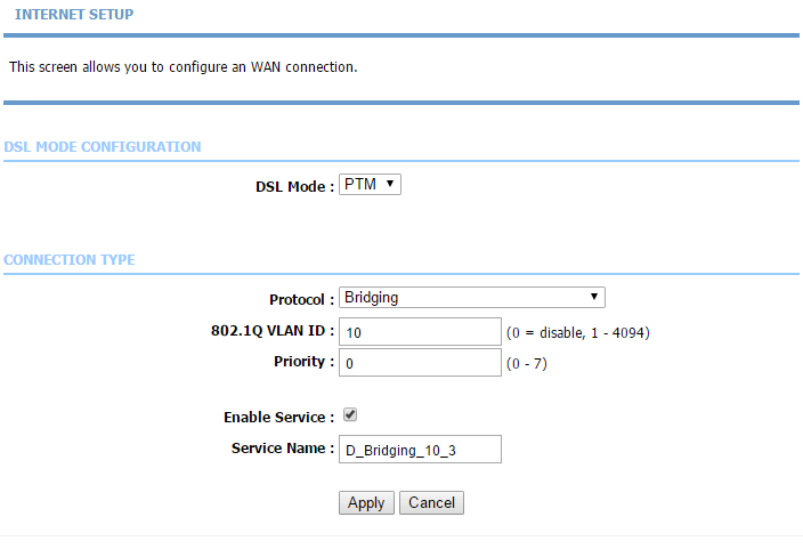
In each step of the Wizard page, you can click **Back** to review or modify the previous settings. Click **Cancel** to exit the wizard page.

5.1.2 Internet Setup

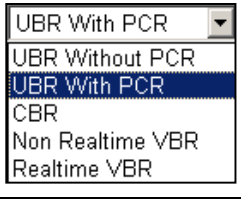
Choose **Setup** > **Internet Setup**. The page shown in the following figure appears. In this page, you can configure the WAN interface of the device.

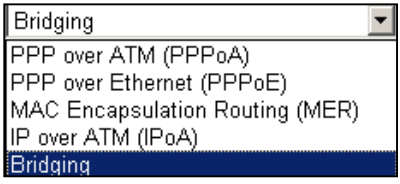


The 2 WAN Configurations that are already set up are the most common in New Zealand. You should only need to edit these to change the PPP Username and password if needed. PPPoE Protocol is the WAN connection required for VDSL, and PPPoA Protocol is the WAN connection required for ADSL connections. To manage the existing WAN connections, select a connection from the list, and then click **Edit** or **Delete**.



The following table describes the parameters in this page.

Field	Description
DSL Mode	You can select **ATM** or **PTM**.
PVC Settings	**VPI**: The virtual path between two points in an ATM network, and its valid value is from **0** to **255**. **VCI**: The virtual channel between two points in an ATM network, ranging from **32** to **65535** (0 to 31 is reserved for local management of ATM traffic).
Service Category	You can select from the drop-down list. 
Protocol	You can select from the drop-down list.

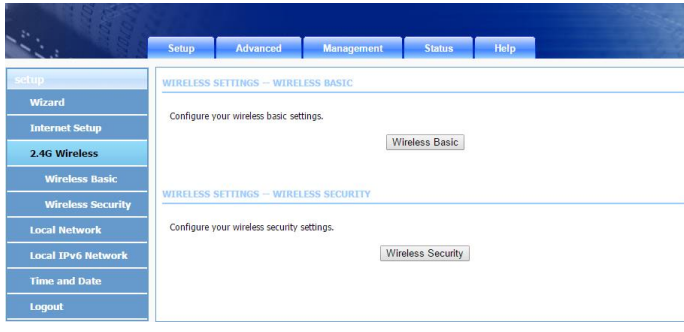
Field	Description
	
Encapsulation Mode	Select the method of encapsulation provided by your ISP. You can select **LLC** or **VCMUX**.

Click **Apply**.

5.1.3 Wireless

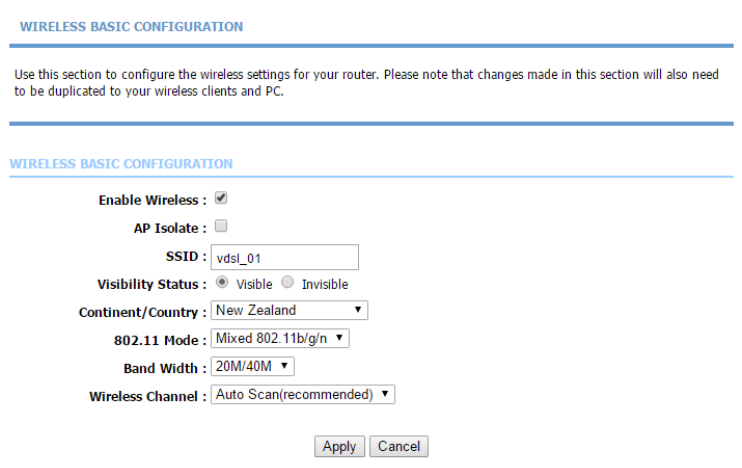
This section describes the wireless LAN and basic configuration. A wireless LAN can be as simple as two computers with wireless LAN cards communicating in a pear-to-pear network or as complex as a number of computers with wireless LAN cards communicating through access points which bridge network traffic to wired LAN.

Choose **Setup** > **Wireless**. The **Wireless** page shown in the following figure appears.



5.1.3.1 Wireless Basic

In the **Wireless** page, click **Wireless Basic**. The page shown in the following figure appears. In this page, you can configure the parameters of wireless LAN clients that may connect to the device.



The following table describes the parameters in this page.

Field	Description
Enable Wireless	Select this to turn Wi-Fi on.
AP Isolate	Select this to turn AP isolation on.
Wireless Network Name (SSID)	The Wireless Network Name is a unique name that identifies a network. All devices on a network must share the same wireless network name in order to communicate on the network. If you decide to change the wireless network name from the default setting, enter your new wireless network name in this field.
Visibility Status	You can select **Visible** or **Invisible**.
Country	Select the country from the drop-down list.
802.11 Mode	Select the appropriate 802.11 mode based on the wireless clients in your network. The drop-down menu options are **802.11b only**, **802.11g only**, **802.11n only**, **Mixed 802.11b/g**, **Mixed 802.11n/g** and **Mixed 802.11b/g/n**.

Field	Description
Band Width	Select the appropriate band as **20M**, **40M**, or **20M/40M** from the pull-down menu.
Wireless Channel	Select the wireless channel from the pull-down menu.
Transmission Rate	Select the transmission rate for the network. The rate of data transmission should be set depending on the speed of your wireless network. You can select from a range of transmission speeds, or you can select **Auto** to have the Router automatically use the fastest possible data rate and enable the Auto-Fallback feature. Auto-Fallback will negotiate the best possible connection speed between the Router and a wireless client. The default is **Auto**.

Click **Apply** to save the settings.

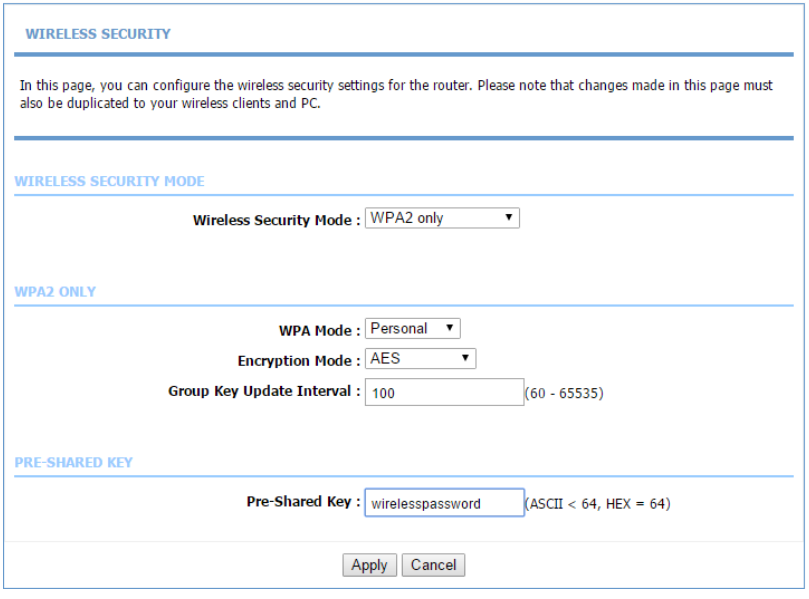
5.1.3.2 Wireless Security

In the **Wireless** page, click **Wireless Security**. The page shown in the following figure appears. Wireless security is vital to your network to protect the wireless communication among wireless stations, access points and wired network.

Note:

Enable Wireless before configuring the wireless security settings in this page. Refer to 5.1.3.1 Wireless Basic.

When the Security Mode is set as **WPA2 or WPA/WPA2 Mixed**, the following figure appears.



The following table describes the parameters in this page.

Field	Description
Wireless Security Mode	Configure the wireless encryption mode. You can choose **None**, **WPA2** or **WPA /WPA2 Mixed**. ● Wi-Fi protected access (WPA) is a subset of the IEEE802.11i security specification draft. ● WPA/WPA2 Mixed is the collection of WPA and WPA2 encryption modes. The wireless client establishes the connection between the modem through WPA or WPA2.
WPA Mode	● Select **Personal**, and then enter the pre-shared key in the **Pre-Shared Key** field. ● Select **Enterprise**, and then enter the port, IP address, and password of the Radius server. You need

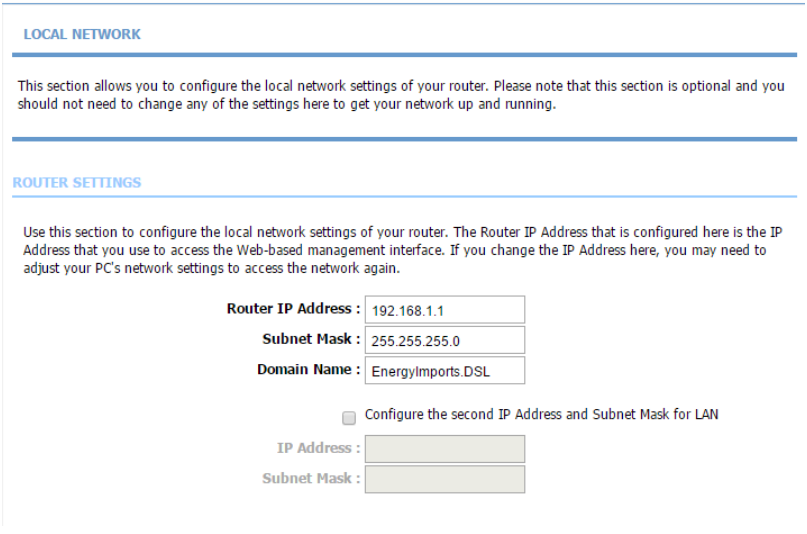
Field	Description
	to enter the password provided by the Radius server when the wireless client connects the modem.
Encryption Mode	When **WPA /WPA2 Mixed** is selected, you can select WPA encryption as **AES**, **TKIP** or **Both**.
Group Key Update Interval	When WPA encryption is applied, messages sent are encrypted with a password. For higher security, WPA password is updated periodically. This value is the update interval of the WPA password.

5.1.4 Local Network

You can configure the LAN IP address according to the actual application. The preset IP address is 192.168.1.1. You can use the default settings and DHCP service to manage the IP settings for the private network. The IP address of the device is the base address used for DHCP. To use the device for DHCP on your LAN, the IP address pool used for DHCP must be compatible with the IP address of the device. The IP address available in the DHCP IP address pool changes automatically if you change the IP address of the device.

You can also enable the secondary LAN IP address. The two LAN IP addresses must be in different networks.

Choose **Setup** > **Local Network**. The **Local Network** page shown in the following figure appears.



By default, **Enable DHCP Server** is selected for the Ethernet LAN interface of the device. DHCP service supplies IP settings to workstations configured to automatically obtain IP settings from a PC connected to the device through the Ethernet port. When the device is used for DHCP, it becomes the default gateway for DHCP clients connected to it. If you change the IP address of the device, you must also change the range of IP addresses in the pool used for DHCP on the LAN. The IP address pool can contain up to 253 IP addresses.

This page is used to configure the DHCP Server and DHCP Relay Settings. The **DHCP Lease Time** is set to **86400** seconds by default. The IP range and lease time can be set in this section:

DHCP SETTINGS (OPTIONAL)

Use this section to configure the DHCP Relay for your network.

Enable DHCP Relay :

Relay IP Address :

Use this section to configure the built-in DHCP Server to assign IP addresses to the computers on your network.

Enable DHCP Server :

DHCP IP Address Range : 192.168.1.10 to 192.168.1.250

DHCP Lease Time : 86400 (seconds [time not allowed less than 600s])

Use the following DNS server addresses:

Enable DNS Relay :

Preferred DNS server :

Alternate DNS server :

Apply Cancel

Click **Apply** to save the settings.

The **DHCP Client Class List** section is shown as below.

DHCP CLIENT CLASS LIST

	Client Class	Min Address	Max Address	DNS Address

Add Edit Delete

Click **Add**, the page shown in the following figure appears.

ADD DHCP CLIENT CLASS(OPTIONAL)

Client Class Name :

Min IP Address :

Max IP Address :

DNS Address :

Apply Cancel

The **DHCP Conditional Option** section is shown as below. Here you can specify the reply message (option **240**~**245**) the modem sends to the client. After **DHCP CLIENT CLASS** is configured, you can configure **DHCP COND OPTION**.

DHCP CONDITIONAL OPTION

	Status	Client Class Name	Option Code	Option Value

Add Edit Delete

Click **Add** to add DHCP option as shown in the following figure.

ADD DHCP OPTION(OPTIONAL)

Conditional Option Enable :

Conditional Option Client Class :

Conditional Option Tag :

Conditional Option Value :

Apply Cancel

Figure 5

Only when this function is enabled, the modem returns the content below to the client.

The **Conditional Option Client Class** is the client class name of DHCP Conditional Option.

The **Conditional Option Tag** is a part of the value in the message sent by the modem to the client. It is between **240** and **245**.

The **Conditional Option Value** is a value in the message sent by the modem to the client. This value can be specified at random.

After setting, click **Apply** to save the settings.

In the **Local Network** page, you can assign IP addresses on the LAN to specific individual computers based on their MAC addresses.

DHCP RESERVATIONS LIST

	Status	Computer Name	MAC Address	IP Address

Add Edit Delete

Click **Add** to add static DHCP (optional). The page shown in the following figure appears.

ADD DHCP RESERVATION (OPTIONAL)

Enable :

Computer Name :

IP Address :

MAC Address :

Apply Cancel

Select **Enable** to reserve the IP address for the designated PC with the configured MAC address. The **Computer Name** helps you to recognize the PC with the MAC address, for example, Father's Laptop. Click **Apply** to save the settings.

After the DHCP reservation is saved, the DHCP reservations list displays the configuration.

The **NUMBER OF DYNAMIC DHCP CLIENTS** page shows the current DHCP clients (PC or Laptop) connected to the device and the detailed information of the connected computer(s).

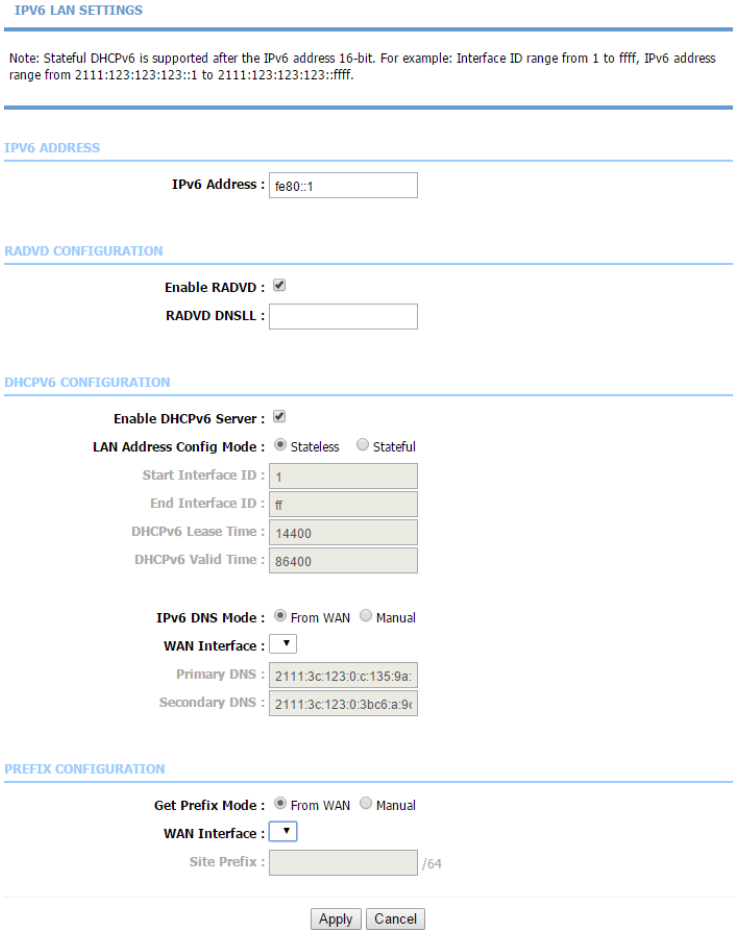
NUMBER OF DYNAMIC DHCP CLIENTS : 0

Computer Name	MAC Address	IP Address	Expire Time

5.1.5 Local IPv6 Network

You can configure the LAN IPv6 address according to the actual application. The preset IPv6 address is fe80::1. You can use the default settings and DHCPv6 service to manage the IPv6 settings for the private network. The IPv6 address of the device is the base address used for DHCPv6. To use the device for DHCPv6 on your LAN, the IPv6 address pool used for DHCPv6 must be compatible with the IPv6 address of the device. The IPv6 address available in the DHCP IPv6 address pool changes automatically if you change the IPv6 address of the device.

Choose **Setup** > **Local IPv6 Network**. The page shown in the following figure appears. In this page, you can configure a static LAN IPv6 address, enable or disable DHCPv6 server and RADVD, and configure site prefix.



The following table describes the parameters in this page.

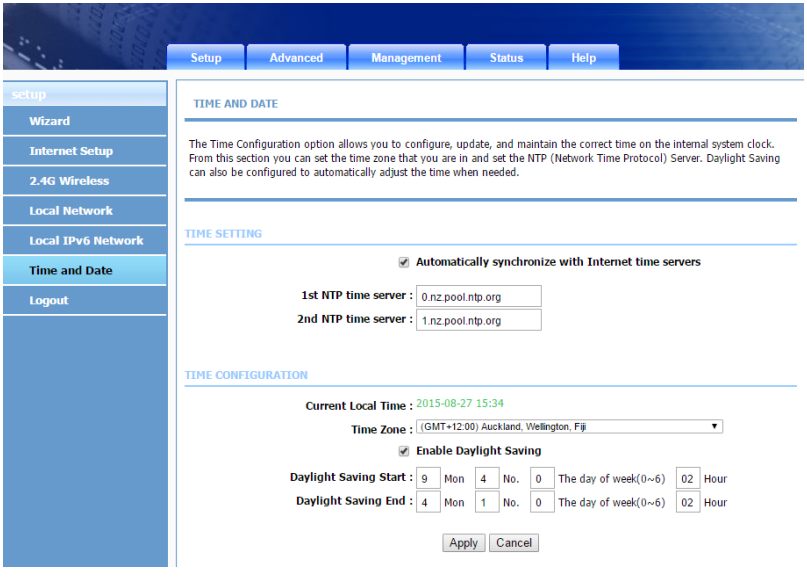
Field	Description
IPv6 Interface Address	The IPv6 address of link local gateway on the LAN side.
Enable DHCPv6 Server	Choose to enable DHCPv6 server.

Field	Description
LAN address config mode	Choose an IPv6 address mode. **Stateless** refers to stateless address auto-configuration (SLAAC) mode, and **Stateful** refers to dynamic host configuration protocol (DHCP) mode.
Start/ End Interface ID	IPv6 address pool range.
DHCPv6 Lease Time	IPv6 lease time.
Get DNS Servers from WAN	You can choose to get the IPv6 DNS server address from the WAN side.
Static DNS Servers	You can manually set the IPv6 DNS server address.
Static IPv6 DNS Servers	Input an IPv6 DNS server address.
Enable RADVD	The router advertisement daemon (RADVD) is run by Linux or BSD systems acting as IPv6 routers. It sends router advertisement messages, specified by RFC2461, to a local Ethernet LAN periodically and when requested by a node sending a router solicitation message. These messages are required for IPv6 stateless auto-configuration.
Auto get prefix from WAN	You can choose to get an IPv6 prefix from the WAN automatically.
WAN interface	You can choose to get an IPv6 prefix from the selected WAN connection.
Static	You can choose to specify an IPv6 prefix.
Site Prefix	Input an IPv6 prefix.

After finishing setting, click the **Apply** button to apply the settings.

5.1.6 Time and Date

Choose **Setup** > **Time and Date**. The page shown in the following figure appears.



In the **Time and Date** page, you can configure, update, and maintain the correct time on the internal system clock. You can set the time zone that you are in and the network time protocol (NTP) server. You can also configure daylight saving to automatically adjust the time when needed.

Select **Automatically synchronize with Internet time servers**.

Select the specific time server and the time zone from the corresponding drop-down lists.

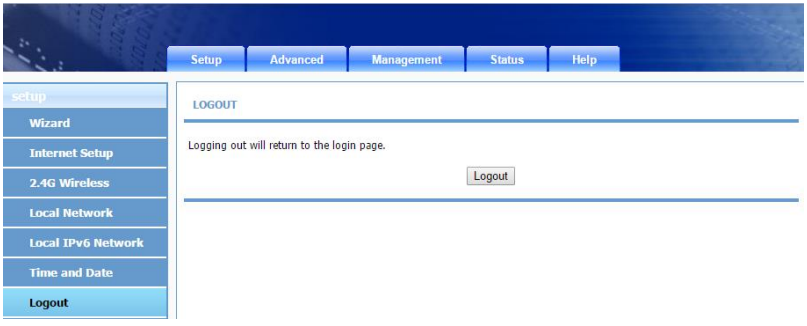
Select **Automatically adjust clock for daylight saving changes** if necessary.

Set the daylight as you want.

Click **Apply** to save the settings.

5.1.7 Logout

Choose **Setup** > **Logout**. The page shown in the following figure appears. In this page, you can log out of the configuration page.


Setup
Advanced
Management
Status
Help
setup
Wizard
Internet Setup
2.4G Wireless
Local Network
Local IPv6 Network
Time and Date
Logout
LOGOUT
Logging out will return to the login page.
Logout

5.2 Advanced

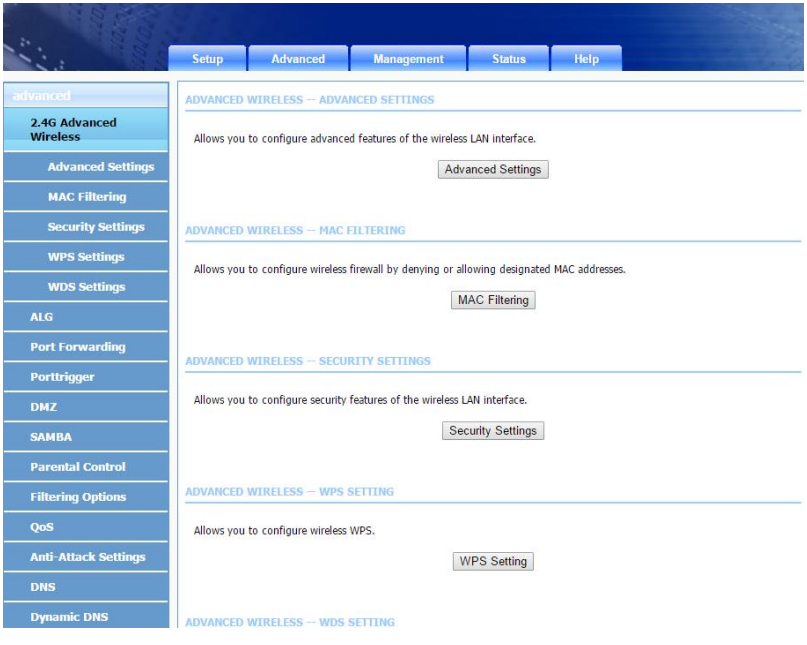
This section includes advanced features for network management, security and administrative tools to manage the device. You can view status and other information used to examine performance and troubleshoot.

In the main interface, click **Advanced** tab to enter the **Advanced** menu as shown in the following figure. The submenus are **Advanced Wireless**, **ALG**, **Port Forwarding**, **Porttrigger, DMZ**, **SAMBA**, **Parental Control**, **Filtering Options**, **QoS Configuration**, **Anti-Attack Settings**, **DNS**, **Dynamic DNS**, **Network Tools**, **Routing**, **NAT**, **FTPD Setting, FTPD Account** and **Logout**.

5.2.1 Advanced Wireless

It is suggested not to change the defaults, as incorrect settings may reduce the performance of your wireless radio. The default settings provide the best wireless radio performance in most environments.

Choose **Advanced** > **Advanced Wireless**. The page shown in the following figure appears.



5.2.1.1 Advanced Settings

Select **Advanced Settings**. The page shown in the following figure appears.

ADVANCED SETTINGS

These options are for users who wish to change the behavior of their 802.11g wireless radio from the standard setting. It is not recommended to modify these settings from the factory defaults. Incorrect settings may affect your wireless performance. The default settings usually provide the best wireless performance in most environments.

WIRELESS ENABLE

Enable Wireless : ☑

ADVANCED WIRELESS SETTINGS

Transmit Power : 100% ▼

Beacon Period : 100 (20 ~ 1023)

RTS Threshold : 2348 (1 ~ 2347)

Fragmentation Threshold : 2346 (256 ~ 2346)

DTIM Interval : 1 (1 ~ 255)

Preamble Type : long ▼

SSID

SSID : vdsl_01

Visibility Status : ◉ Visible ○ Invisible

User Isolation : Off ▼

Disable WMM Advertise : On ▼

Max Clients : 16 (1 ~ 32)

GUEST/VIRTUAL ACCESS POINT-1

Enable : ☐

Guest SSID : Energy Imports VB204W :

Visibility Status : ◉ Visible ○ Invisible

User Isolation : Off ▼

Disable WMM Advertise : On ▼

Max Clients : 32 (1 ~ 32)

GUEST/VIRTUAL ACCESS POINT-2

Enable : ☐

Guest SSID : Energy Imports VB204W :

Visibility Status : ◉ Visible ○ Invisible

User Isolation : Off ▼

Disable WMM Advertise : On ▼

Max Clients : 32 (1 ~ 32)

GUEST/VIRTUAL ACCESS POINT-3

Enable : ☐

Guest SSID : Energy Imports VB204W :

Visibility Status : ◉ Visible ○ Invisible

User Isolation : Off ▼

Disable WMM Advertise : On ▼

Max Clients : 32 (1 ~ 32)

Apply Cancel

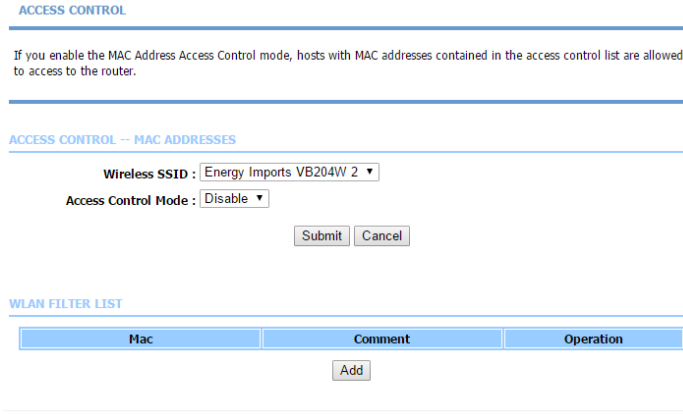
Wireless Network Name (SSID): The Wireless Network Name is a unique name that identifies a network. All devices on a network must share the same wireless network name in order to communicate on the network. If you decide to change the wireless network name from the default setting, enter your new wireless network name in this field.

These settings are only for more technically advanced users who have sufficient knowledge about wireless LAN. Do not change these settings unless you know the effect of changes on the device.

Click **Apply** to save the settings.

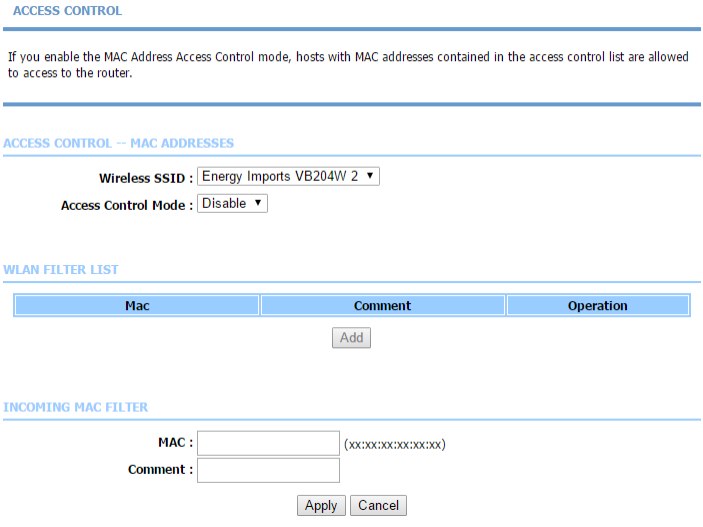
5.2.1.2 MAC Filtering

Select **MAC Filtering**. The page shown in the following figure appears.



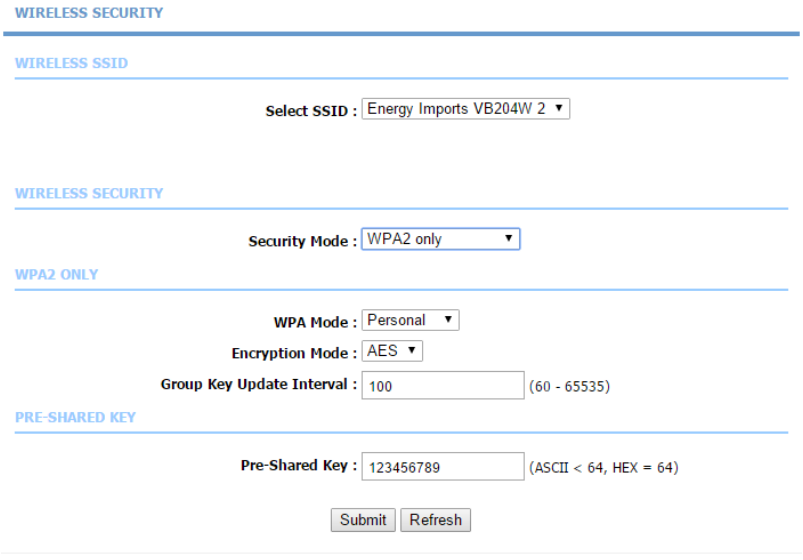
MAC address access control permits access to this route from hosts with MAC addresses contained in the WLAN Filter List.

Choose a wireless SSID, select an access control mode, and then click **Add** to add a MAC Address as shown in the following figure. Click **Apply** to finish. After adding a filter, you can edit or delete it.



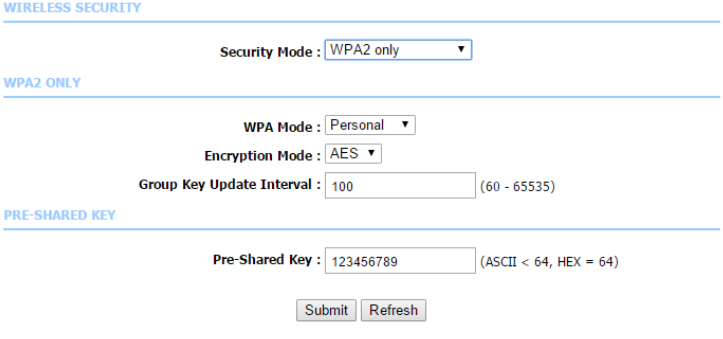
5.2.1.3 Security Settings

Select **Security Settings**. The VAP Configuration page appears.



Select the SSID that you want to configure from the drop-down list. Select the encryption type from the **Security Mode** drop-down list. You can select **WPA2 Only** or **WPA/WPA2 Mixed**. The default mode is **None**.

If you select **WPA Only**, or **WPA/WPA2 Mixed**, the page shown in the following figure appears.



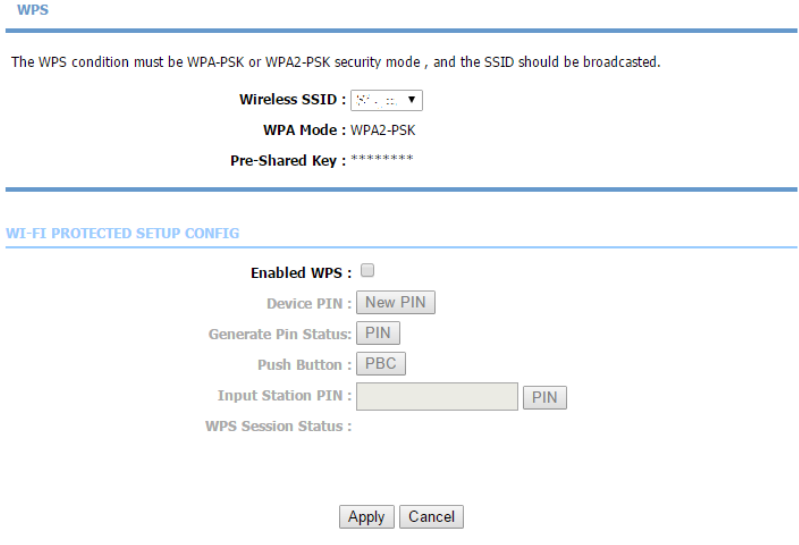
Click **Submit** to save the settings. For detailed configuration, you may refer to 5.1.3.2 Wireless Security.

5.2.1.4 WPS Settings

Select **WPS Settings**. This page is used to config WPS settings.

Note:

To configure WPS, the WLAN security mode must be WPA-PSK or WPA2-PSK mode.



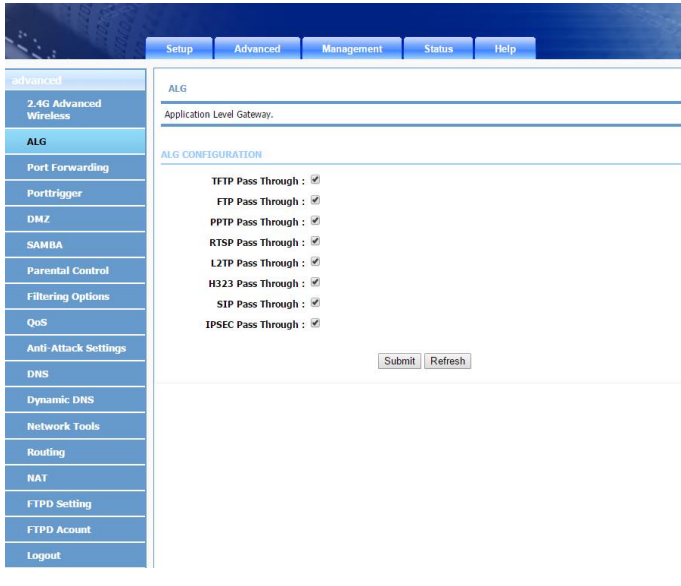
The following table describes the parameters of this page.

Field	Description
Wireless SSID	Select one SSID of the CPE.
Enabled WPS	Choose to enable WPS function to set the following parameters.

Field	Description
Push Button	In this way, the router generates PIN. Click this button, the router will generate a PIN, and meanwhile press the WPS button on the wireless client. The wireless client automatically establishes connection with the router under encryption mode without inputting the key.
Input Station PIN	In this way, the wireless client generates PIN. Enter PIN of the wireless client in the **Input Station PIN** field, and then click **PIN** to establish the connection.
WPS Session Status	Display the session status.

5.2.2 ALG

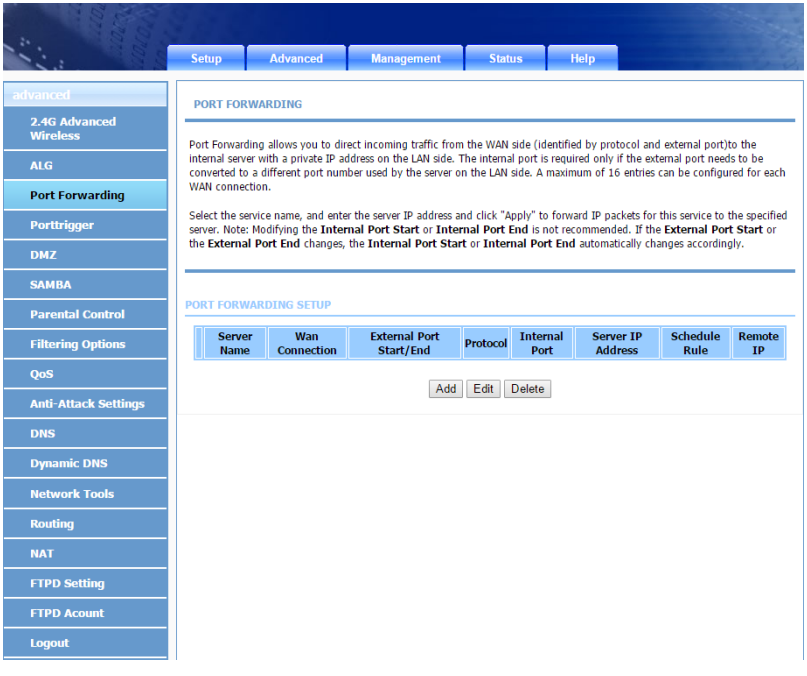
Choose **Advanced** > **ALG**. The page shown in the following figure appears. In this page, you can enable passthrough of TFTP, FTP, PPTP, RTSP, L2TP, H323, SIP and IPSEC.



5.2.3 Port Forwarding

This function is used to open ports in your device and redirect data through those ports to a single PC on your network (WAN-to-LAN traffic). It allows remote users to access services on your LAN, such as FTP for file transfers or SMTP and POP3 for e-mail. The device accepts remote requests for these services at your global IP address. It uses the specified TCP or UDP protocol and port number, and redirects these requests to the server on your LAN with the LAN IP address you specify. Note that the specified private IP address must be within the available range of the subnet where the device is in.

Choose **Advanced** > **Port Forwarding**. The page shown in the following figure appears.



Click **Add** to add a virtual server.

PORT FORWARDING SETUP

WAN Connection(s) : D_PPPoE_10_1

Server Name :

Schedule : always

Server IP Address(Host Name) : 192.168.1.

External Port Start	External Port End	Protocol	Internal Port	Remote Ip
		TCP		
		TCP		
		TCP		
		TCP		

Apply Cancel

Type in a Server name in the **Server name** field.

Enter an IP address in the **Server IP Address** field to appoint the corresponding PC to receive forwarded packets.

Enter a Start and end Port on the **External Port**.

Enter the **Internal Port** you want this traffic directed to.

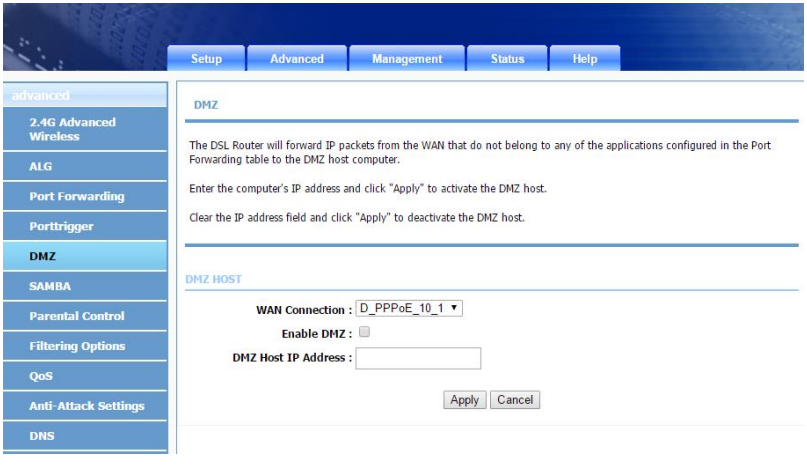
Enter the **Remote IP** of the LAN device you want the traffic directed to.

Click **Apply** to save the settings. The page shown in the following figure appears. A virtual server is added.

5.2.4 DMZ

Since some applications are not compatible with NAT, the device supports the use of a DMZ IP address for a single host on the LAN. This IP address is not protected by NAT and it is visible to agents on the Internet with the correct type of software. Note that any client PC in the DMZ is exposed to various types of security risks. If you use the DMZ, take measures (such as client-based virus protection) to protect the remaining client PCs on your LAN from possible contamination through DMZ.

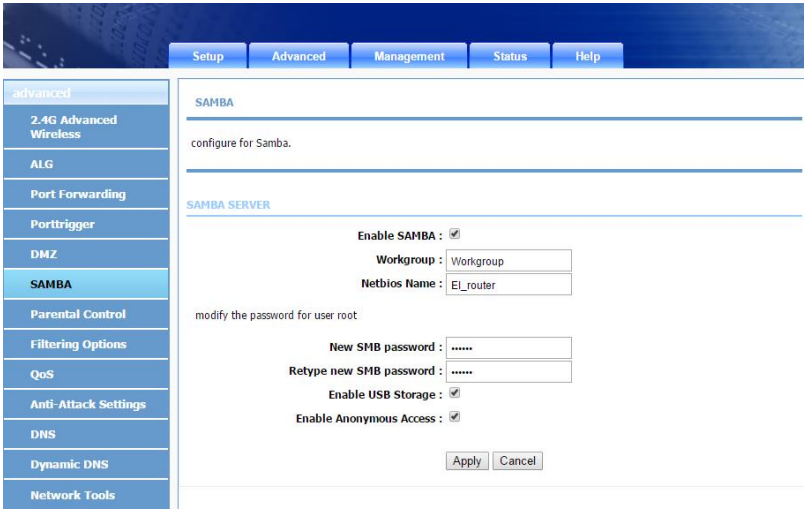
Choose **Advanced** > **DMZ**. The page shown in the following figure appears.



Choose to enable DMZ, input a DMZ host ip address, and click then **Apply** to save the settings.

5.2.5 SAMBA

Select **Advanced** > **SAMBA**. The page shown in the following figure appears.

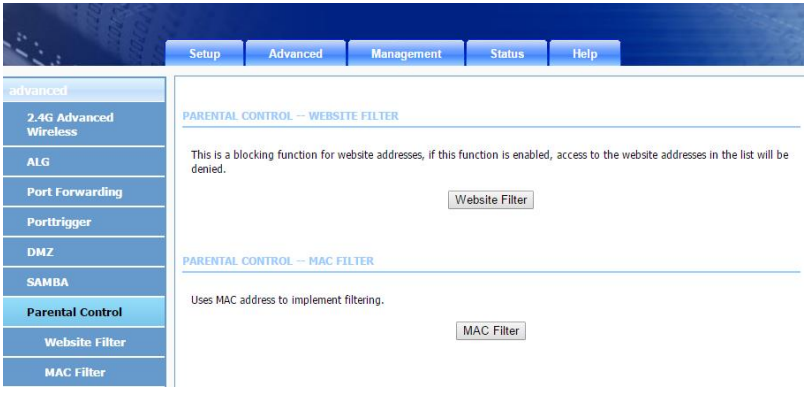


The following table describes the parameters of this page.

Field	Description
Enable SAMBA	Select the check box to enable the samba service
Workgroup	Enter the name of your local area network (LAN).
Netbios Name	Enter your netbios name which is an identifier used by netbios services running on a computer.
New SMB password	Enter your samba password for user root.
Retype new SMB password	Reconfirm your samba password here.
Enable USB Storage	Select the check box to support USB storage.
Enable Anonymous Access	Select the check box to allow anonymous users access.

5.2.6 Parental Control

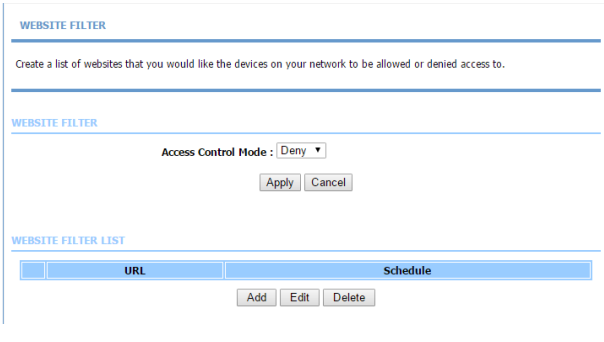
Choose **Advanced** > **Parental Control**. The **Parent Control** page shown in the following figure appears.



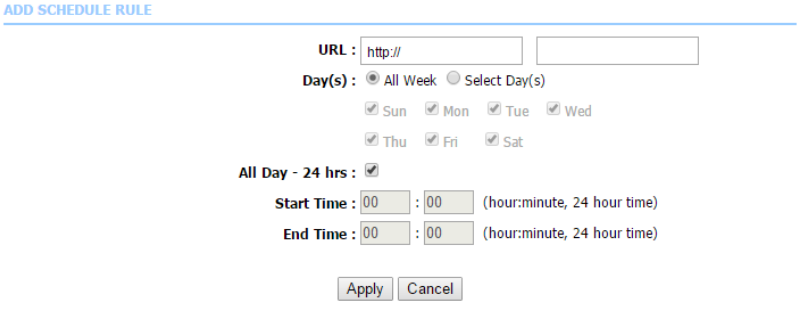
This page provides two useful tools for restricting the Internet access. **Filter Websites** allows you to quickly create a list of all websites that you wish to stop users from accessing. **MAC Filter** allows you to control when clients or PCs connected to the device are allowed to access the Internet.

5.2.6.1 Block Website

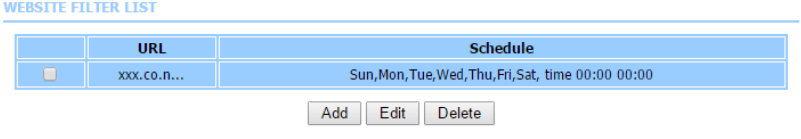
In the **Parental Control** page, click **Website Filter**. The page shown in the following figure appears.



Click **Add**. The page shown in the following figure appears.

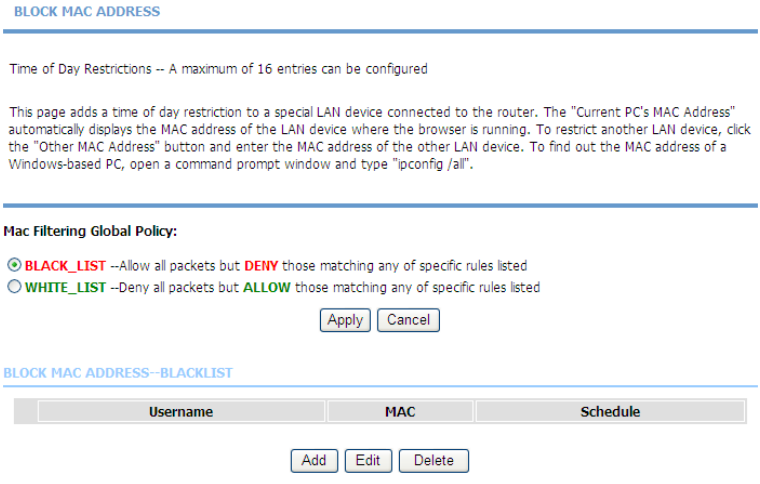


Enter the website in the **URL** field. Select the **Schedule** from the drop-down list, or select **Manual Schedule** and select the corresponding time and days.
Click **Apply** to add the website to the **WEBSITE FILTER** table. The page shown in the following figure appears.

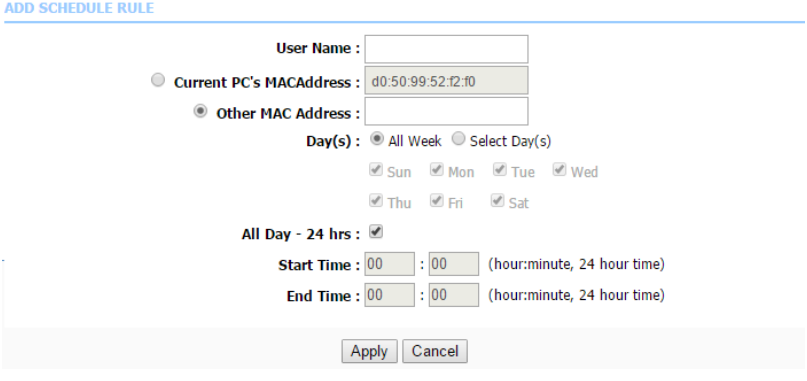


5.2.6.2 MAC Filter

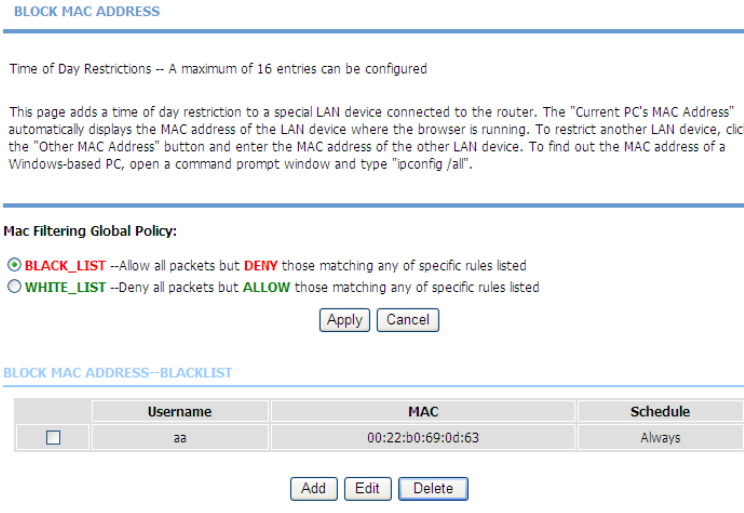
In the **Parental Control** page, click **MAC Filter**. The page shown in the following figure appears.



Choose **BLACK_LIST** or **WHITE_LIST**, and then click **Add**. The page shown in the following figure appears.

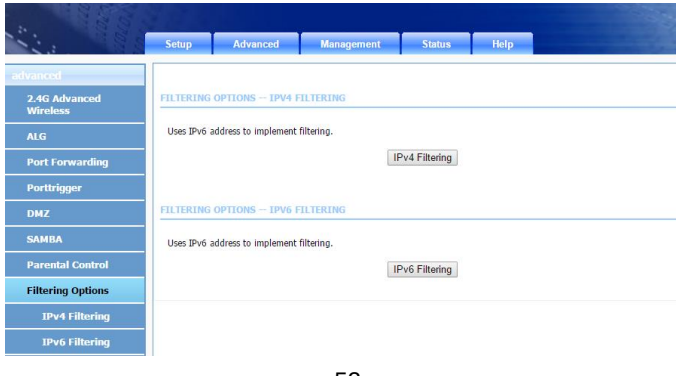


Enter the use name with no spaces and MAC address and select the corresponding time and days. Click **Apply** to add the MAC address to the **BLOCK MAC ADDRESS Table**. The page shown in the following figure appears.



5.2.7 Filtering Options

Choose **Advanced** > **Filtering Options**. The **Filtering Options** page shown in the following figure appears.

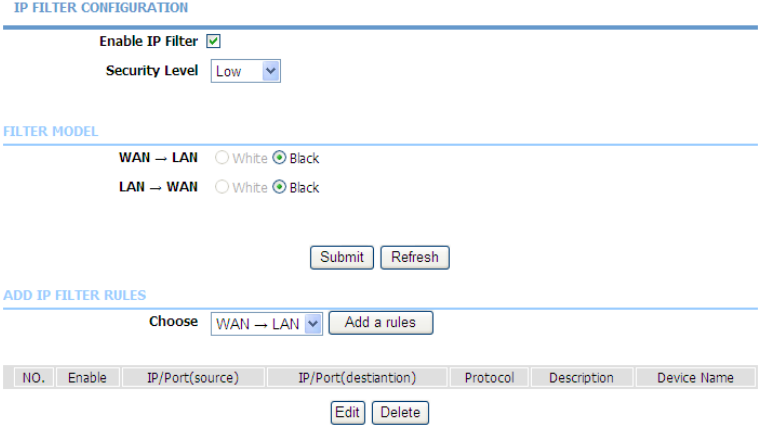


5.2.7.1 IPv4 Filtering

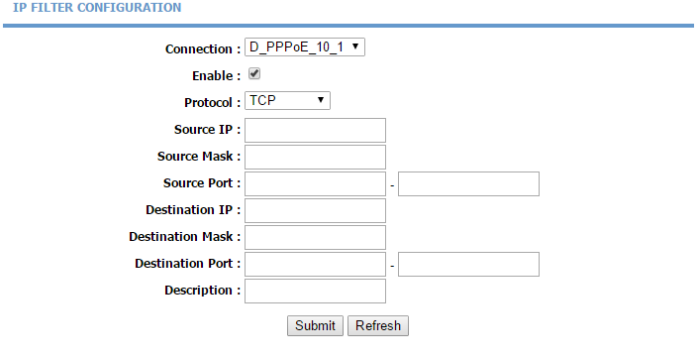
In the **Filtering Options** page, click **IPv4 Filtering**. The page shown in the following figure appears. In this page, you may configure IPv4 firewall function.

Note:

The settings are applicable only when IP filter is enabled.



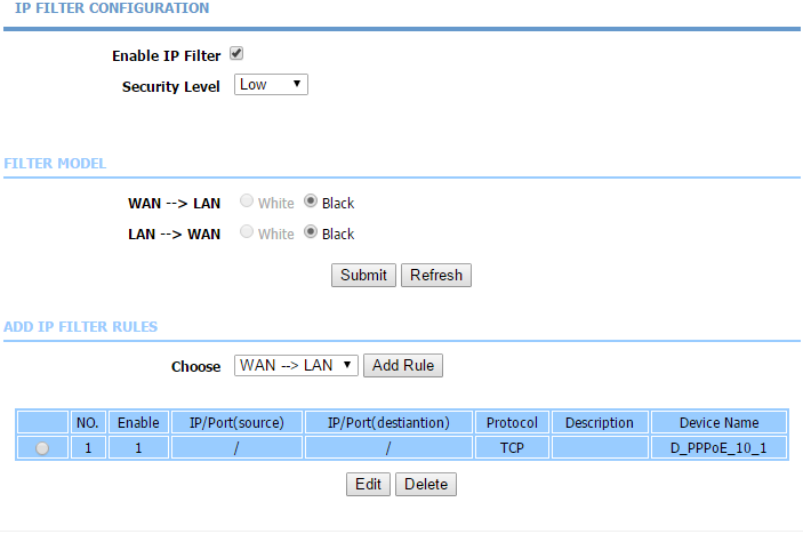
Select a security level, choose a filter direction, and then click **Add a rule** to display the following figure.



The following table describes the parameters of this page.

Field	Description
Connection	Choose an IPv4 WAN connection.
Enable	Tick in the box to enable a filter rule.
Protocol	Choose a protocol corresponding to the rule. You may choose **TCP**, **UDP**, **ICMP** or **TCP/UDP**.
Source/ Destination IP	Original/ destination IP address.
Source/ Destination Mask	Original/ destination mask.
Source/Destination Port	Original/ end port, which is the original port range.
Description	You can describe this IPv4 filter rule.

After setting the parameters, click **Submit**. The page shown in the following figure appears. You can also click **Edit** or **Delete** to manage the rule.

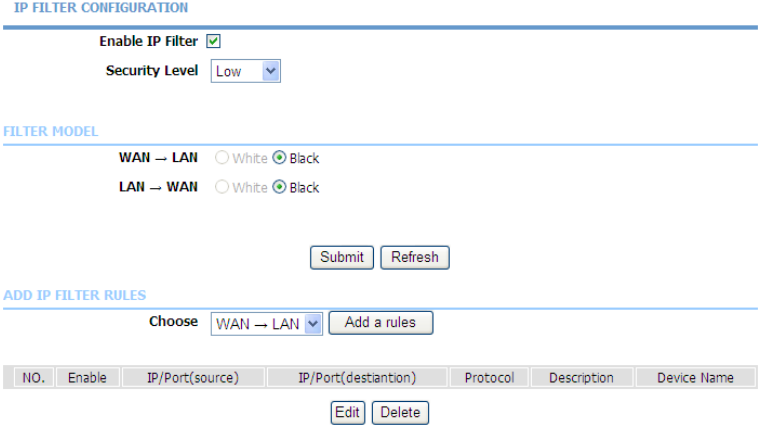


5.2.7.2 IPv6 Filtering

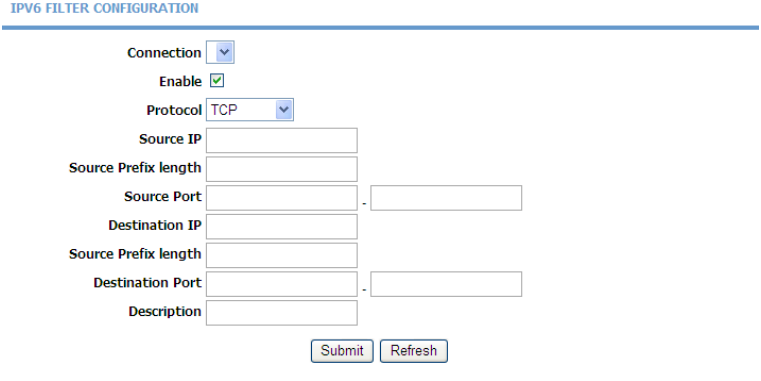
In the **Filtering Options** page, click **IPv6 Filtering**. The page shown in the following figure appears. In this page, you may configure IPv6 firewall function.

Note:

The settings are applicable only when the firewall is enabled.



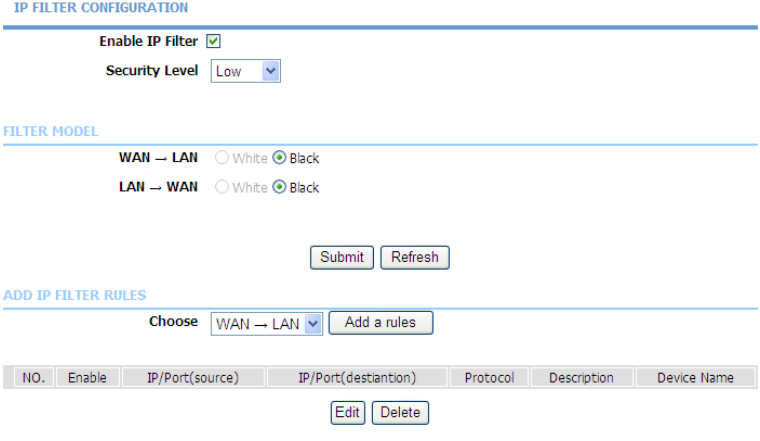
Select a security level, choose a filter direction, and then click **Add a rule** to display the following figure.



The following table describes the parameters of this page.

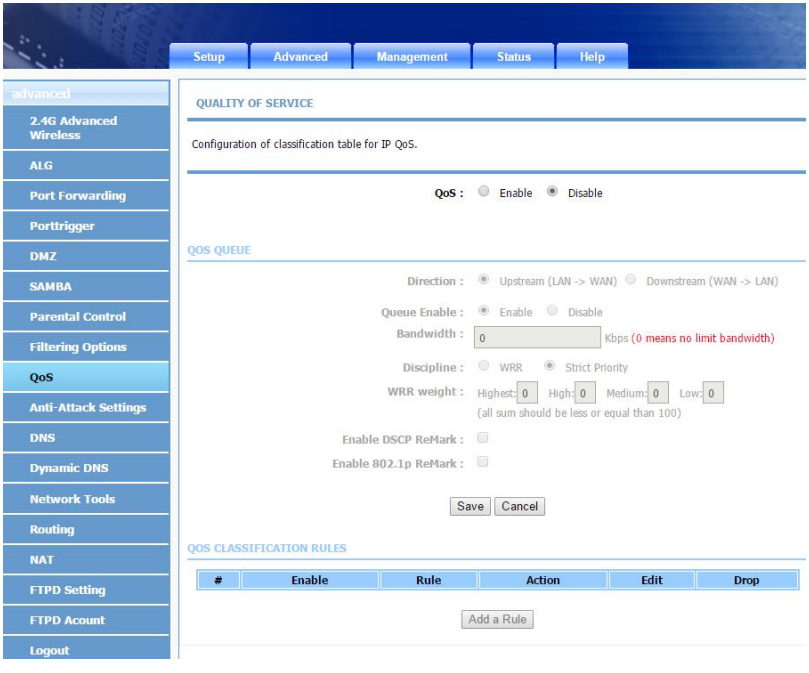
Field	Description
Connection	Choose an IPv6 WAN connection.
Enable	Tick in the box to enable a firewall rule.
Protocol	Choose a protocol corresponding to the rule. You may choose **TCP**, **UDP**, **ICMPv6** or **TCP/UDP**.
Source/ Destination IP	Original/ destination IP address
Source prefix length	Original/ destination mask
Source/Destination Port	Original/ end port, which is the original port range
Description	You can describe this IPv6 filter rule.

After setting the parameters, click **Submit**. The page shown in the following figure appears. You can also click **Edit** or **Delete** to manage the rule.



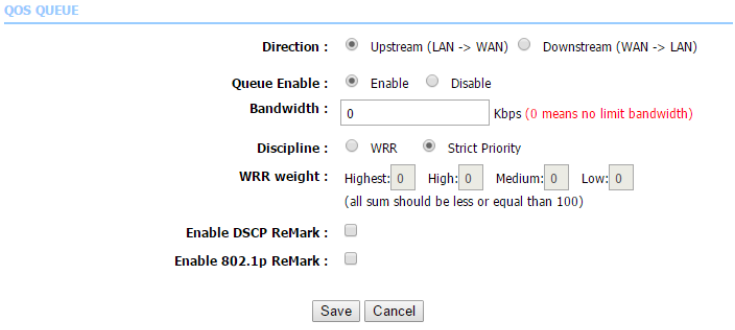
5.2.8 QoS Configuration

Choose **Advanced** > **QoS Configuration**. The **QoS Configuration** page shown in the following figure appears.



5.2.8.1 QoS Queue Config

In the **QoS Configuration** page, click Tick **Enable**.Fill out the details.



The following table describes the parameters of this page.

Field	Description
Direction	Choose **Upstream** queue or **Downstream** queue.
Enable	Tick in the box to enable queue.
Upstream Bandwidth	Total bandwidth for upstream flow
Scheduling Strategy	Scheduling algorithm of QoS queue
Enable DSCP/TC Mark	You may tick in the box to permit DSCP/TC Mark.
Enable 802.1P Mark	You may tick in the box to permit 802.1P Mark.

After setting the parameters, click **Save** to add a queue.

5.2.8.2 QoS Classification

In the **QoS Configuration** page, click **QoS Classification**. The page shown in the following figure appears. You can configure QoS queue rule.

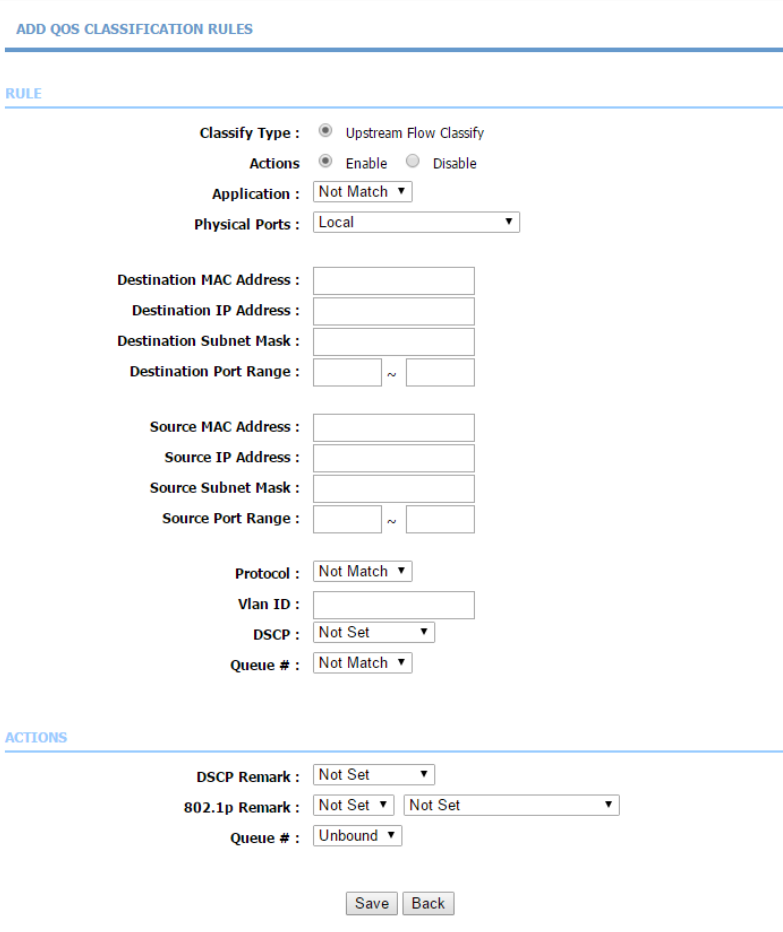
QOS CLASSIFY CONFIG

Add Classification Rule

LIST

Classify Number	Enable	Classify Condition	Classify Mark	Classify Queue	Operation
1	1	Source/Destination MAC address : / Ethernet Type : IPv4 VLANID : -1 802.1P : -1 Source/Destination IP address : /81.47.224.0 Source/Destination Mask : /255.255.252.0 DSCP value : Do not mark Protocol Type : Do not match Source port range : -1--1 Destination port range : -1--1	802.1P: -1 DSCP:	UP_Q_3	Edit Delete

Click **Add Classification Rule**. The page shown in the following figure appears.



The following table describes the parameters of this page.

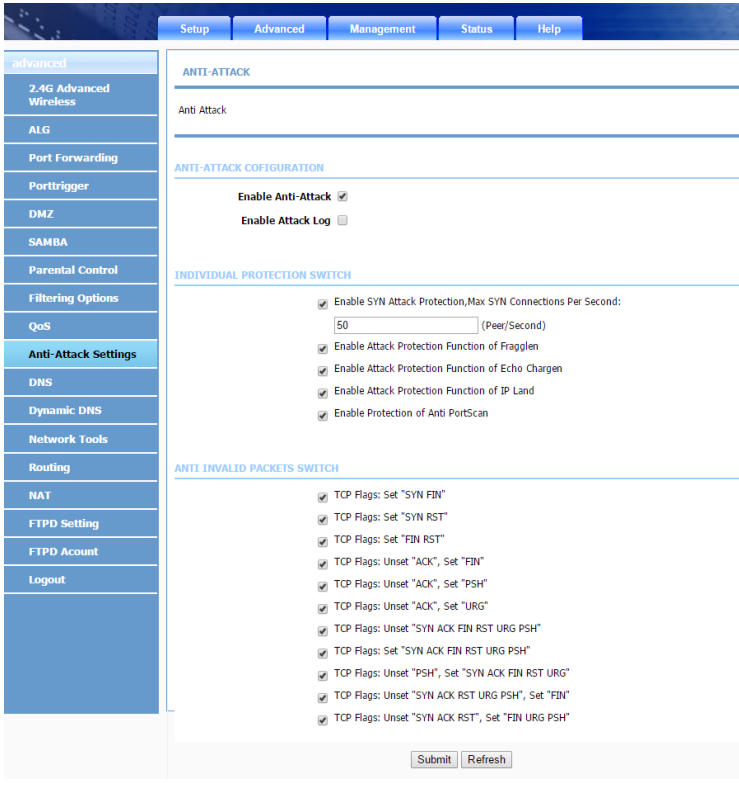
Field	Description
Classify Type	Set the QoS rule type as **Upstream** or **Downstream**.
Enable	Tick in the box to enable this QoS rule.
Ip Protocol Type	Select the protocol type **IPv4** or **IPv6**.

Field	Description
Input Interface	Based on the Classify Type, choose a WAN/LAN interface.
802.1P	Choose a matched 802.1P VLAN priority.
DSCP Check	Choose a matched DSCP type.
Protocol Type	Choose a protocol type matching with the QoS rule.
Source/ Destination port range	Input a source port range and a destination port range. For example, input a UDP/TCP port range.
Classify Queue	Choose a QoS queue for the rule.
DSCP Mark	Set a DSCP Mark for this QoS rule.

Click Submit to add the rule to the list. You may click **Edit** to modify the existing classification rule, or click **Delete** to delete it.

5.2.9 Anti-Attack Settings

Choose **Advanced** > **Anti-Attack Settings**. The **Anti-Attack Configuration** page shown in the following figure appears.



A denial-of-service (DoS) attack is characterized by an explicit attempt by attackers to prevent legitimate users of a service from using that service.

Port scan protection is designed to block attempts to discover vulnerable ports or services that might be exploited in an attack from the WAN.

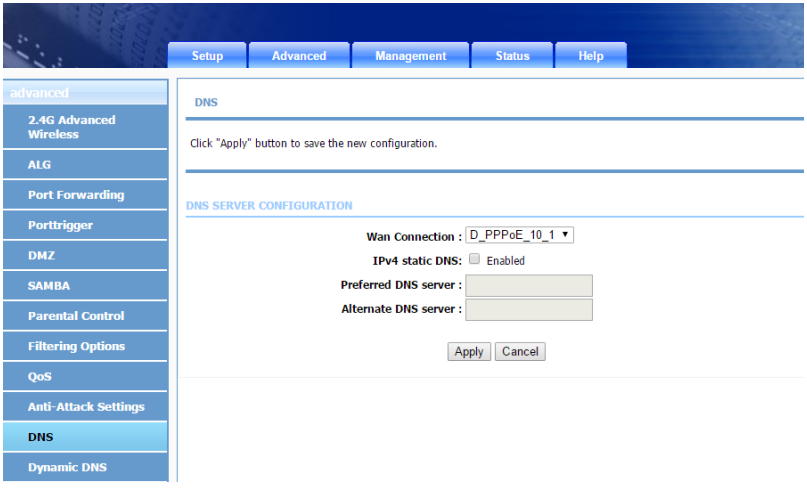
Click **Submit** to save the settings.

5.2.10 DNS

Domain name system (DNS) is an Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they are easier to remember. The Internet, however, is actually based on IP addresses. Each time you use a domain name, a DNS service must translate the name into the corresponding IP address. For example, the domain name www.example.com might be translated to 198.105.232.4.

The DNS system is, in fact, its own network. If one DNS server does not know how to translate a particular domain name, it asks another one, and so on, until the correct IP address is returned.

Choose **Advanced** > **DNS**. The page shown in the folllowing figure appears.



If you are using the device for DHCP service on the LAN or using DNS servers on the ISP network, select **Obtain DNS server address automatically**.

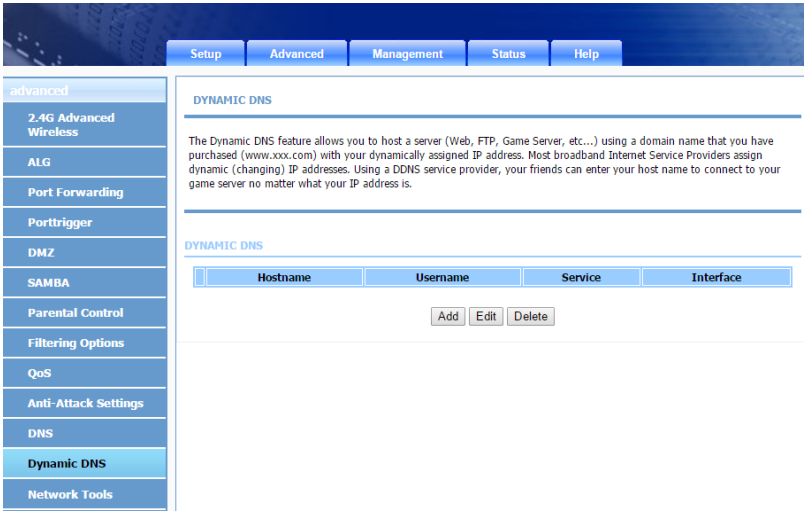
If you have DNS IP addresses provided by your ISP, select **Use the following DNS server addresses**, and enter these IP addresses in the available entry fields for the preferred DNS server and the alternate DNS server.

Click **Apply** to save the settings.

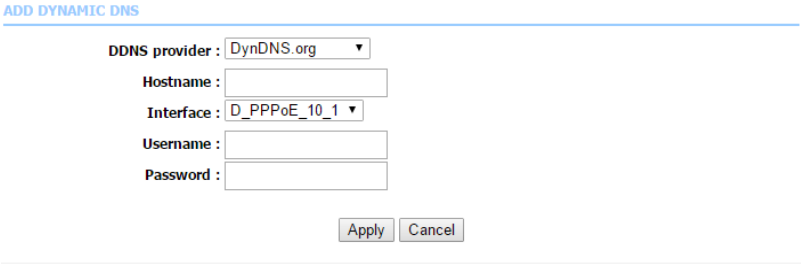
5.2.11 Dynamic DNS

The device supports dynamic domain name service (DDNS). The dynamic DNS service allows a dynamic public IP address to be associated with a static host name in any of the many domains, and allows access to a specified host from various locations on the Internet. Click a hyperlinked URL in the form of hostname.dyndns.org and allow remote access to a host. Many ISPs assign public IP addresses using DHCP, so locating a specific host on the LAN using the standard DNS is difficult. For example, if you are running a public web server or VPN server on your LAN, DDNS ensures that the host can be located from the Internet even if the public IP address changes. DDNS requires that an account be set up with one of the supported DDNS service providers (DyndDNS.org, 3322.org and freedns.afraid.org).

Choose **Advanced** > **Dynamic DNS**. The page shown in the following figure appears.



Click **Add** to add dynamic DNS. The page shown in the following figure appears.



The following table describes the parameters of this page.

Field	Description
DDNS provider	Select one of the DDNS registration organizations from the down-list drop. Available servers include **DynDns.org**, **3322.org** and **freedns.afraid.org**.
Host Name	Enter the host name that you registered with your DDNS service provider.
Username	Enter the user name for your DDNS account.
Password	Enter the password for your DDNS account.

Click **Apply** to save the settings.

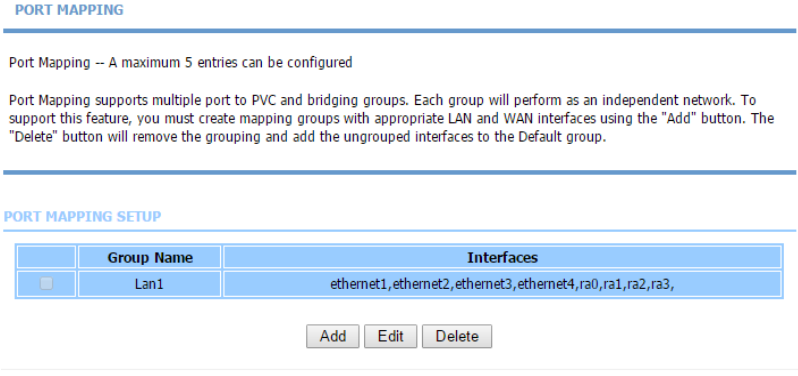
5.2.12 Network Tools

Choose **Advanced** > **Network Tools**. The page shown in the following figure appears.

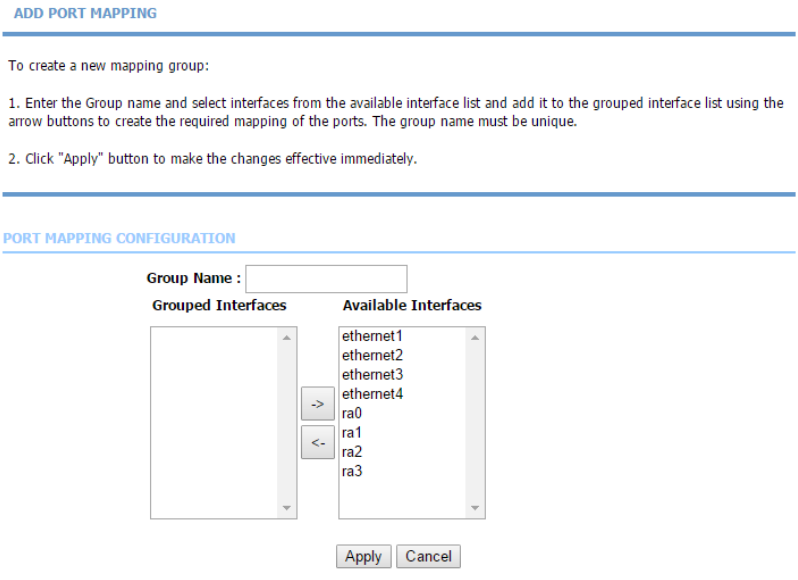
（Network Tools-1）

5.2.12.1 Port Mapping

Choose **Advanced** > **Network Tools** and click **Port Mapping**. The page shown in the following figure appears. In this page, you can bind the WAN interface and the LAN interface to the same group.



Click **Add** to add port mapping. The page shown in the following figure appears.



The procedure for creating a mapping group is as follows:

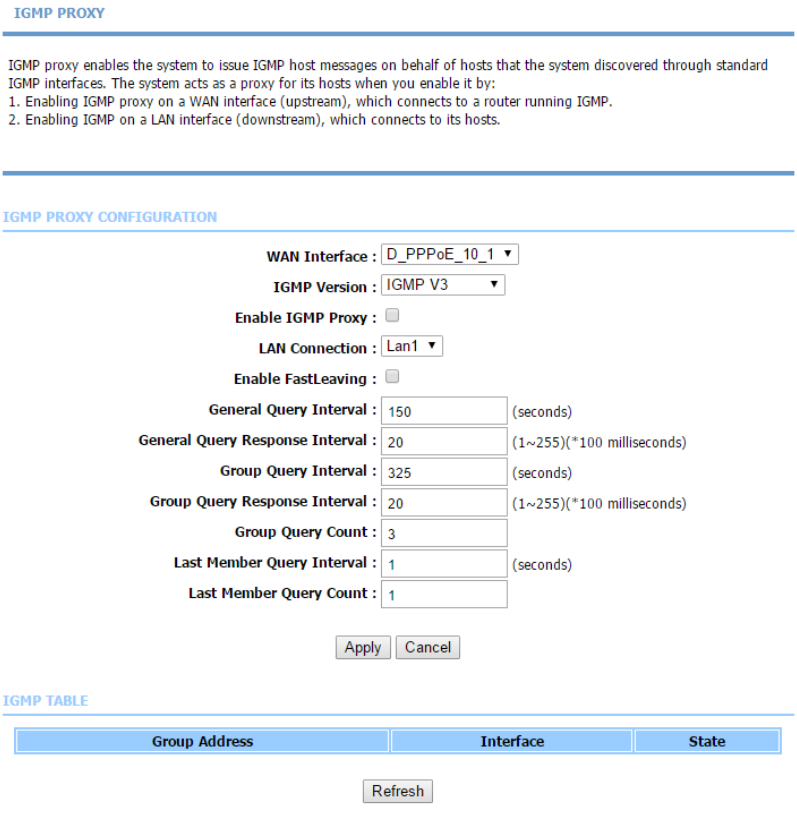
Step 1 Enter the group name.

Step 2 Select interfaces from the **Available Interface** list and click the **<-** arrow button to add them to the grouped interface list, in order to create the required mapping of the ports. The group name must be unique.

Step 3 Click **Apply** to save the settings.

5.2.12.2 IGMP Proxy

Choose **Advanced** > **Network Tools** and click **IGMP Proxy**. The page shown in the following figure appears.

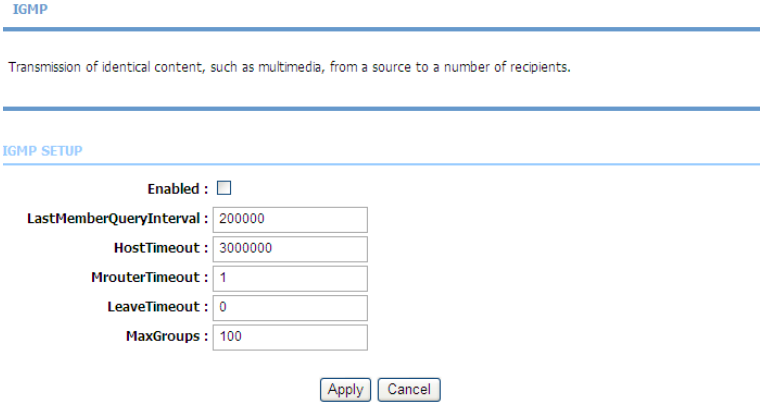


IGMP proxy enables the system to issue IGMP host messages on behalf of hosts that the system discovered through standard IGMP interfaces. The system acts as a proxy for its hosts after you enable it.

Click **Apply** to save the settings.

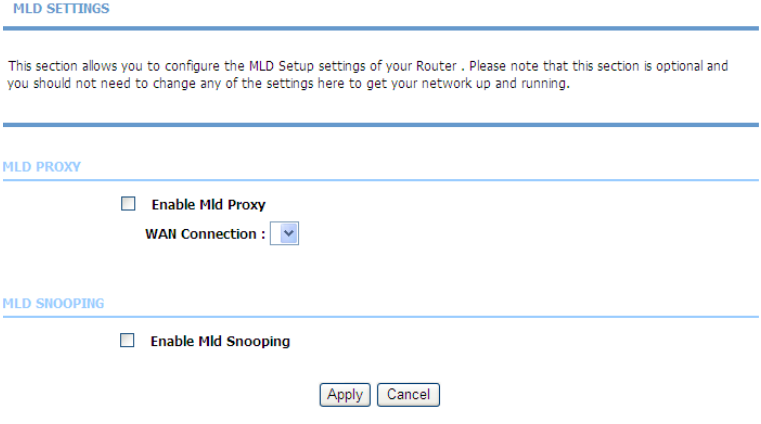
5.2.12.3 IGMP Snooping

Choose **Advanced** > **Network Tools** and click **IGMP Snooping**. The page shown in the following figure appears. When IGMP Snooping is enabled, the multicast data transmits through the specific LAN port which has received the request report.



5.2.12.4 MLD Configuration

Choose **Advanced** > **Network Tools** and click **MLD Configuration**. The page shown in the following figure appears. This section allows you to configure the MLD setup settings of your router.

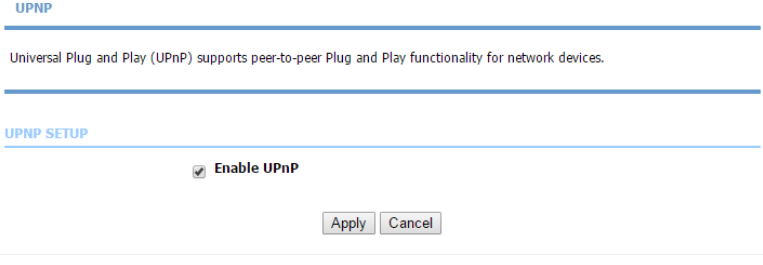


The following table describes the parameters of this page.

Field	Description
Enable Mld Proxy	You can choose to enable MLD proxy.
WAN Connection	Choose an IPv6 WAN connection.
Enable MLD Snooping	Multicast Listener Discovery Snooping (MLD Snooping) is an IPv6 multicast constraining mechanism that runs on Layer 2 devices to manage and control IPv6 multicast groups. By analyzing received MLD messages, a Layer 2 device running MLD Snooping establishes mappings between ports and multicast MAC addresses and forwards IPv6 multicast data based on these mappings.

5.2.12.5 UPnP

Choose **Advanced** > **Network Tools** and click **UPnP**. The page shown in the following figure appears.



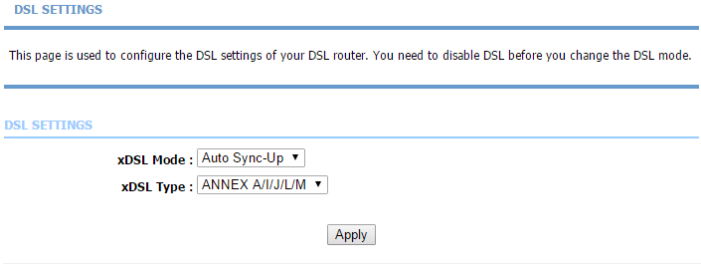
In this page, you can configure universal plug and play (UPnP). The system acts as a daemon after you enable UPnP.

UPnP is used for popular audio visual software. It allows automatic discovery of your device in the network. If you are concerned about UPnP security, you can disable it. Block ICMP ping should be enabled so that the device does not respond to malicious Internet requests.

Click **Apply** to save the settings.

5.2.12.6 DSL

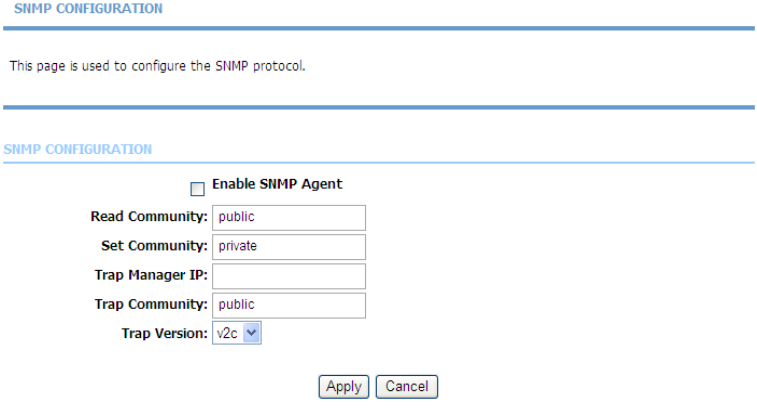
Choose **Advanced** > **Network Tools** and click **DSL**. The page shown in the following figure appears.



In this page, you can select a DSL mode. Normally, you can keep this factory default setting. The device negotiates the modulation mode with DSLAM.
Click **Apply** to save the settings.

5.2.12.7 SNMP

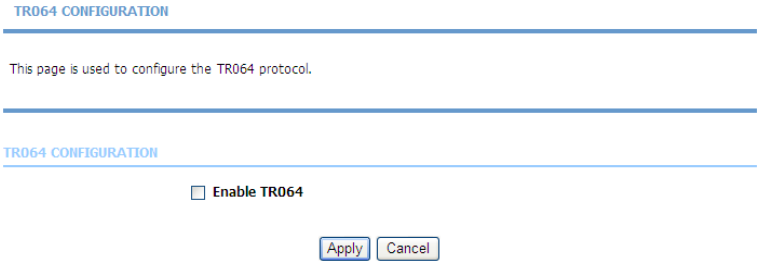
Choose **Advanced** > **Network Tools** and click **SNMP**. The page shown in the following figure appears. In this page, you can set SNMP parameters.



Click **Apply** to save the settings.

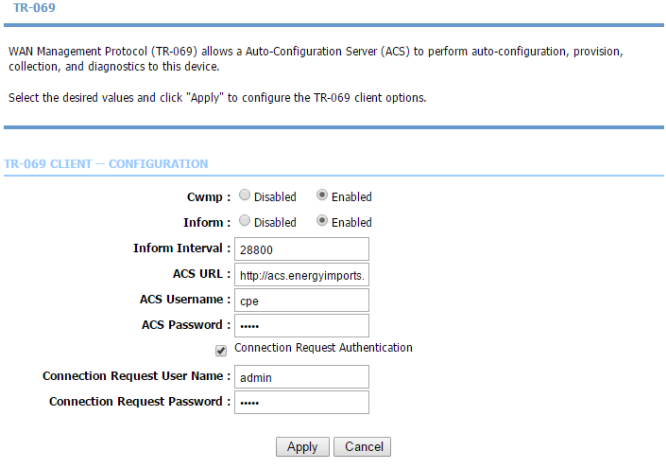
5.2.12.8 TR-064

Choose **Advanced > Network Tools** and click **TR-064.** The page shown in the following figure appears. In this page, you can enable the **TR064** service.



5.2.12.9 TR-069

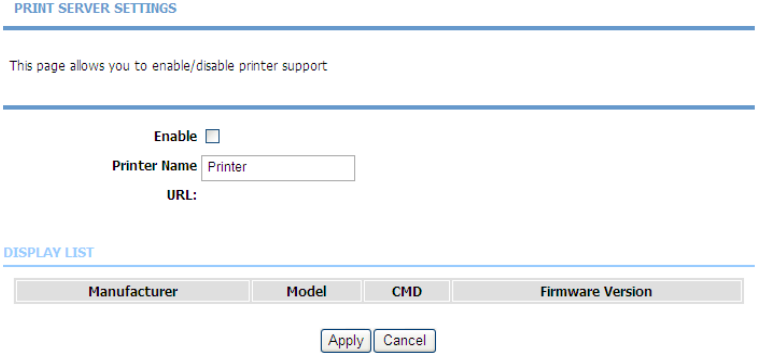
Choose **Advanced** > **Network Tools** and click **TR069**. The page shown in the following figure appears. In this page, you can configure the TR069 CPE.



Click **Apply** to save settings.

5.2.12.10 Printer

Choose **Advanced** > **Network Tools** and click **Printer**. The **Printer** page shown in the following figure appears. In this page, you can enable/disable printer support.

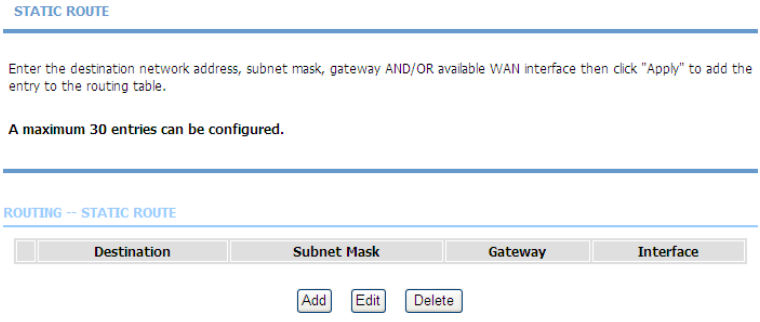


5.2.13 Routing

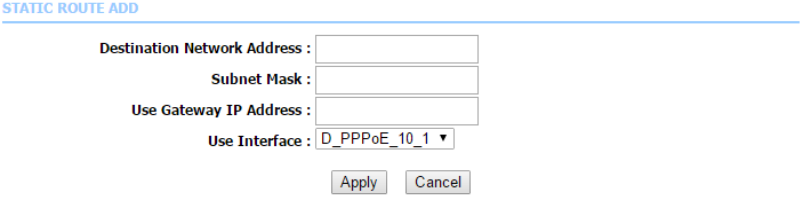
Choose **Advanced** > **Routing**. The page shown in the following figure appears.

5.2.13.1 Static Routing

Choose **Advanced** > **Routing** and click **Static Routing**. The page shown in the following figure appears. This page is used to configure the routing information. In this page, you can add or delete IP routes.



Click **Add** to add a static route. The page shown in the following figure appears.



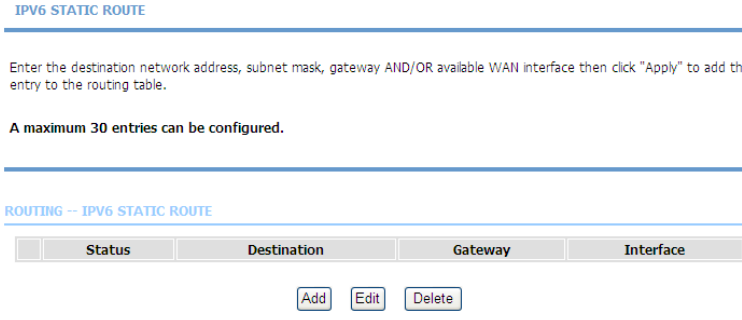
The following table describes the parameters of this page.

Field	Description
Destination Network Address	The destination IP address of the router.
Subnet Mask	The subnet mask of the destination IP
Use Interface	The interface name of the router output port.
Use Gateway IP Address	The gateway IP address of the router.

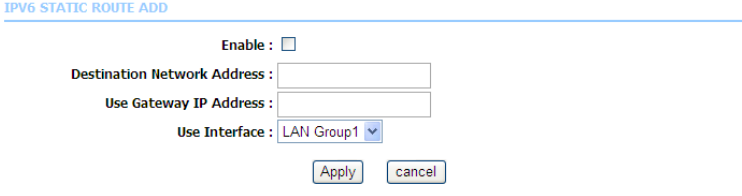
Click **Apply** to save the settings.

5.2.13.2 IPv6 Static Route

Choose **Advanced** > **Routing** and click **IPv6 Static Route**. The page shown in the following figure appears.



Click Add to add an IPv6 static route. The page shown in the following figure appears.

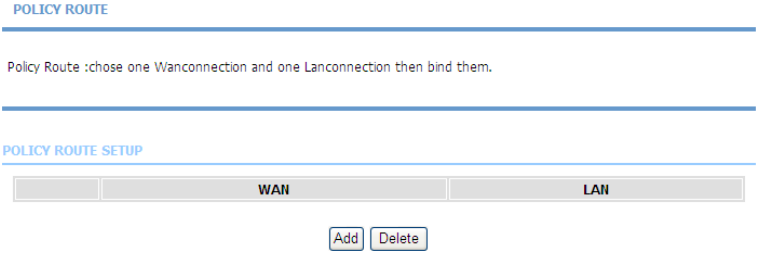


The following table describes the parameters of this page.

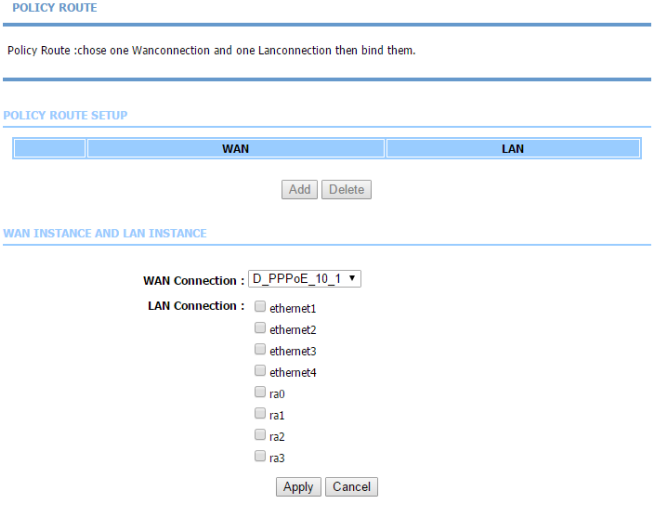
Field	Description
Destination Network Address	The destination IP address of the static route.
Use Gateway IP Address	The gateway IP address of the static route.
Use Interface	The interface name of the static route.

5.2.13.3 Policy Route

Choose **Advanced** > **Routing** and click **Policy Route**. The page shown in the following figure appears. The policy route binds one WAN connection and one LAN interface.



Click **Add**, and the page shown in the following figure appears. Choose one WAN connection and at lease one LAN connection to bind together, and then click **Apply**.



5.2.13.4 RIP

Choose **Advanced** > **Routing** and click **RIP**. The page shown in the following figure appears. This page is used to select the interfaces on your device that use RIP and the version of the protocol used.

RIP CONFIGURATION

To activate RIP for the device, select the "Enabled" checkbox for Global RIP Mode. To configure an individual interface, select the desired RIP version and operation, followed by placing a check in the "Enabled" checkbox for the interface. Click the "Apply" button to save the configuration, and to start or stop RIP based on the Global RIP Mode selected.

RIP

Interface	Dynamic Route	Direction
D_PPPoE_10_1	OFF	Active
D_PPPoA_0_2	OFF	Active
Lan1	OFF	Active

Apply Cancel

If you are using this device as a RIP-enabled device to communicate with others using the routing information protocol, enable RIP and click **Apply** to save the settings.

5.2.13.5 RIPng

Choose **Advanced** > **Routing** and click **RIPng**. The page shown in the following figure appears. You can enable or disable dynamic routing of an IPv6 interface after establishing an IPv6 PVC connection.

RIPNG CONFIGURATION

To activate RIPng for the interface, place a check in the "Enabled" checkbox for the interface. Click the "Apply" button to save the configuration, and to start or stop RIPng based on the configuration.

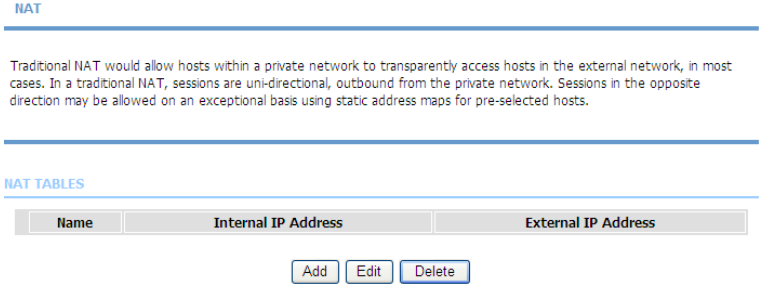
RIPNG

Interface	VPI/VCI	Enabled

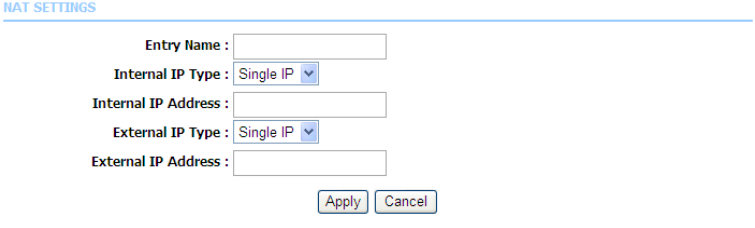
Apply Cancel

5.2.14 NAT

Choose **Advanced** > **NAT**. The page shown in the following figure appears. Traditional NAT would allow hosts within a private network to transparently access hosts in the external network, in most cases. In a traditional NAT, sessions are unidirectional, outbound from the private network. Sessions in the opposite direction may be allowed on an exceptional basis using static address maps for pre-selected hosts

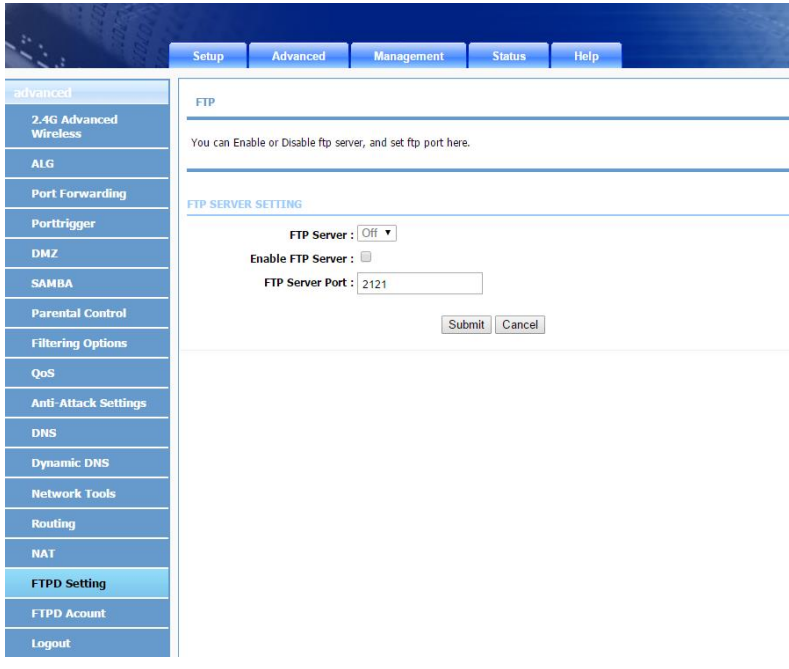


Click **Add** to set a NAT set in the following page. For IP type, you can choose single IP or IP range. Click **Apply** to save and enable the setting.



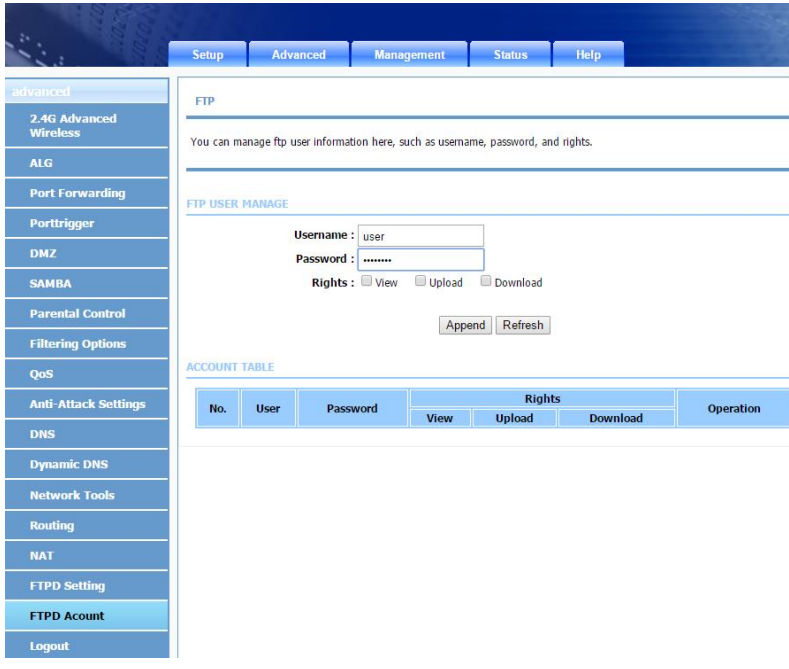
5.2.15 FTPD

Choose **Advanced** > **FTPD Setting**. The page shown in the following figure appears. This page is used to configure the FTP Server and Port for the SAMBA share. Enable the FTP Server and enter the port required



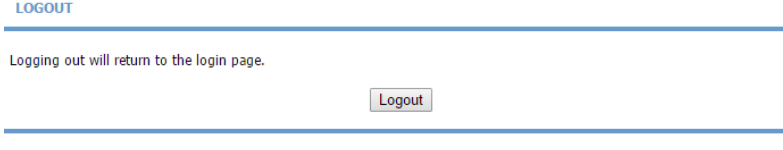
5.2.16 FTPD Account

Choose **Advanced** > **FTPD Account**. The page shown in the following figure appears. This page is used to configure the FTP Server account login details and access restrictions.



5.2.17 Logout

Choose **Advanced** > **Logout**. The page shown in the following figure appears. In this page, you can log out of the configuration page.

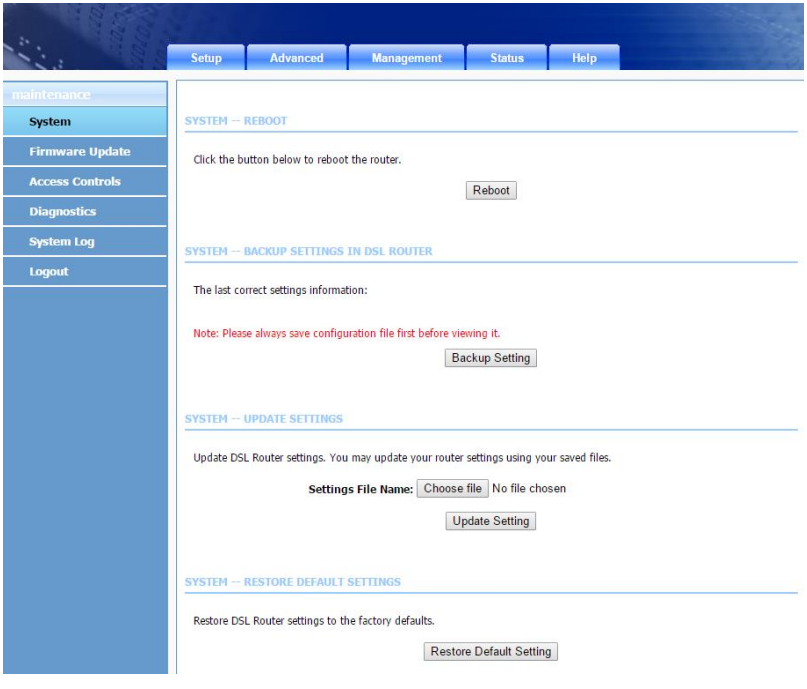


5.3 Management

In the main interface, click **Management** tab to enter the **Management** menu as shown in the following figure. The submenus are **System**, **Firmware Update**, **Access Controls**, **Diagnosis**, **System Log** and **Logout**.

5.3.1 System Management

Choose **Management** > **System Management**. The page shown in the following figure appears.



In this page, you can reboot device, back up the current settings to a file, update settings from the file saved previously and restore the factory defaults.

The buttons in this page are described as follows.

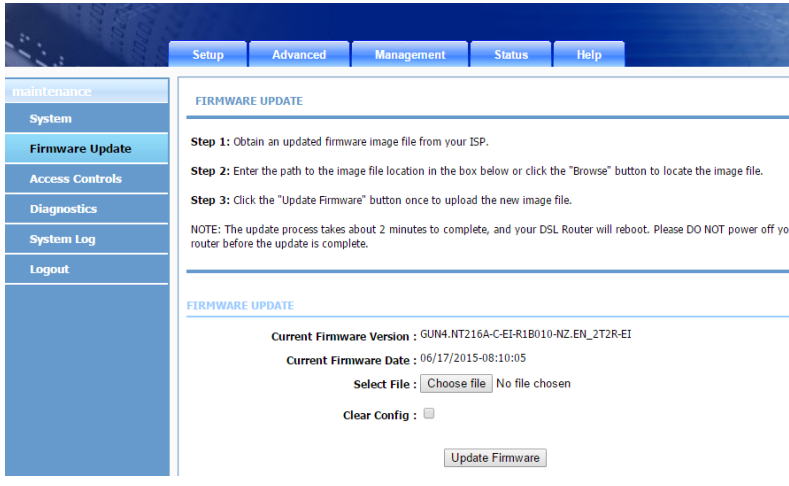
Field	Description
Reboot	Click this button to reboot the device.
Backup Setting	Click this button to save the settings to the local hard drive. Select a location on your computer to back up the file. You can name the configuration file.
Update setting	Click **Browse** to select the configuration file of device and then click **Update Settings** to begin updating the device configuration.
Restore Default Setting	Click this button to reset the device to default settings.

Note:

Do not turn off your device or press the Reset button while an operation in this page is in progress.

5.3.2 Firmware Update

Choose **Management** > **Firmware Update**. The page shown in the following figure appears. In this page, you can upgrade the firmware of the device.



To update the firmware, take the following steps.

Step 1 Click **Browse…**to locate the file.

Step 2 Select **Clear Config** to clear the current configuration and restore the default.

Step 3 Click **Update Firmware** to copy the file.

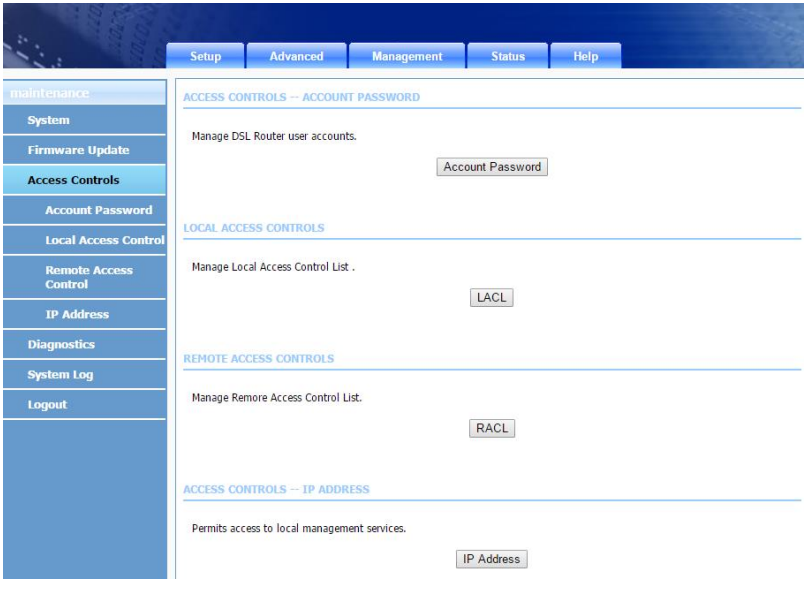
The device loads the file and reboots automatically.

Note:

Do not turn off your device or press the Reset button while an operation in this page is in progress.

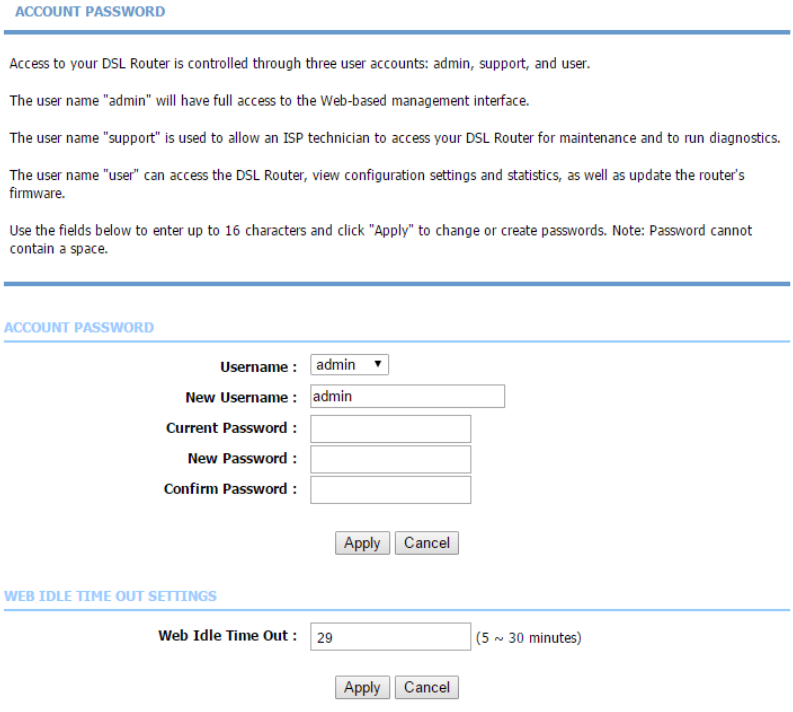
5.3.3 Access Controls

Choose **Management** > **Access Controls**. The **Access Controls** page shown in the following figure appears. The page contains **User Management**, **Local Access Control, Remote Access Control** and **IP Address**.



5.3.3.1 Account Password

In the **Access Controls** page, click **Account Password**. The page shown in the following figure appears. In this page, you can change the password of the user and set time for automatic logout.



You should change the default password to secure your network. Ensure that you remember the new password or write it down and keep it in a safe and separate location for future reference. If you forget the password, you need to reset the device to the factory default settings and all configuration settings of the device are lost.

Select the **Username** from the drop-down list. You can select **admin** or **user**.

Enter the current and new passwords and confirm the new password to change the password. Click **Apply** to apply the settings.

Web Idle Time Out is the idle duration of user interfaces. After this duration, you need to login to the router again for operation.

5.3.3.2 Local Access Control

Under the **Access Controls** menu, click **Local Access Control**. The page shown in the following figure appears. This page allows you to enable or disable LAN management services. For example, if the Telnet service is enabled on port 23, the remote host can access the router by Telnet through port 23.

LOCAL ACCESS CONTROL

You can set a service control list (SCL) to enable or disable services from being used.

LOCAL ACCESS CONTROL -- SERVICES

Enable Local Access : ☑

Choose A Connection : Lan1

IPV4 ACL

Service	Enable	Source IP	Source Mask	Protocol	Port
FTP	☐	0.0.0.0	0.0.0.0	TCP	21
HTTP	☑	0.0.0.0	0.0.0.0	TCP	80
ICMP	☑	0.0.0.0	0.0.0.0	ICMP	-
SNMP	☐	0.0.0.0	0.0.0.0	UDP	161
SSH	☐	0.0.0.0	0.0.0.0	TCP	22
TELNET	☑	0.0.0.0	0.0.0.0	TCP	23
TFTP	☑	0.0.0.0	0.0.0.0	UDP	69
DNS	☑	0.0.0.0	0.0.0.0	UDP	53
TR069	☐	0.0.0.0	0.0.0.0	TCP	7547

IPV6 ACL

Service	Enable	Source IP	Protocol	Port
HTTP	☑	::/0	TCP	80
TR069	☑	::/0	TCP	7547
ICMPv6	☑	::/0	ICMPv6	-

Submit Refresh

5.3.3.3 Remote Access Control

Under the **Access Controls** menu, click **Remote Access Control**. The page shown in the following figure appears. This page allows you to enable or disable WAN management services. You may refer to 5.3.3.22 Local Access Control.

REMOTE ACCESS CONTROL

You can set a service control list (SCL) to enable or disable services from being used.

REMOTE ACCESS CONTROL -- SERVICES

Choose A Connection D_PPPoE_10_1

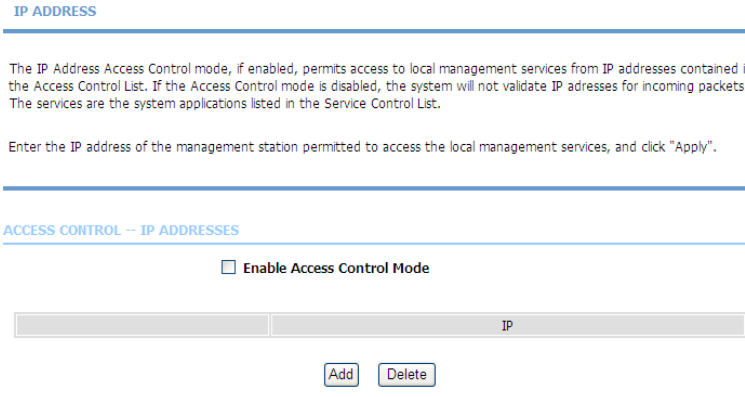
IPV4 ACL

Service	Enable	Source IP	Source Mask	Protocol	Destination Port
FTP	☐	0.0.0.0	0.0.0.0	TCP	21
HTTP	☐	0.0.0.0	0.0.0.0	TCP	80
ICMP	☑	0.0.0.0	0.0.0.0	ICMP	-
SNMP	☐	0.0.0.0	0.0.0.0	UDP	161
SSH	☐	0.0.0.0	0.0.0.0	TCP	22
TELNET	☐	0.0.0.0	0.0.0.0	TCP	23
TFTP	☐	0.0.0.0	0.0.0.0	UDP	69
DNS	☐	0.0.0.0	0.0.0.0	UDP	53
TR069	☑	0.0.0.0	0.0.0.0	TCP	7547

Submit Refresh

5.3.3.4 IP Address

In the **Access Controls** page, click **IP Address**. The page shown in the following figure appears.

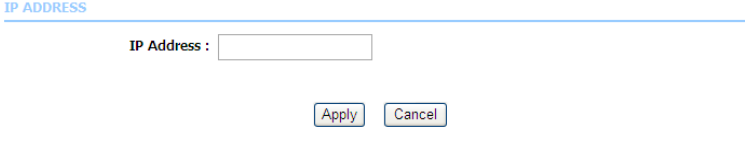


In this page, you can configure the IP address for access control list (ACL). If ACL is enabled, only devices with the specified IP addresses can access the device.

Note:

If you enable the ACL, ensure that IP address of the host is in the ACL list.

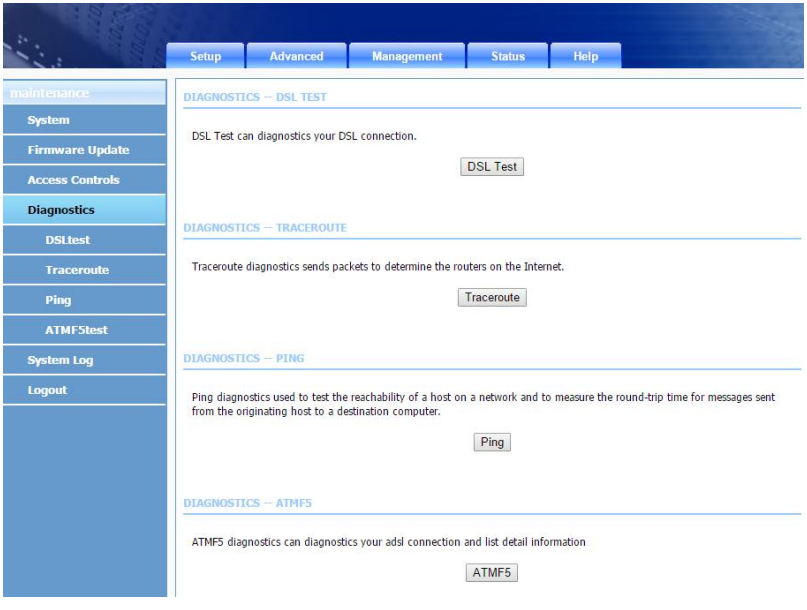
To add an IP address to the IP list, click **Add**. The page shown in the following figure appears.



Click **Apply** to apply the settings, and then choose **Enable Access Control Mode** to enable ACL.

5.3.4 Diagnosis

Choose **Management** > **Diagnosis**. The **Diagnosis** page shown in the following figure appears. The page contains **DSL Test Traceroute, Ping and ATMF5test**.



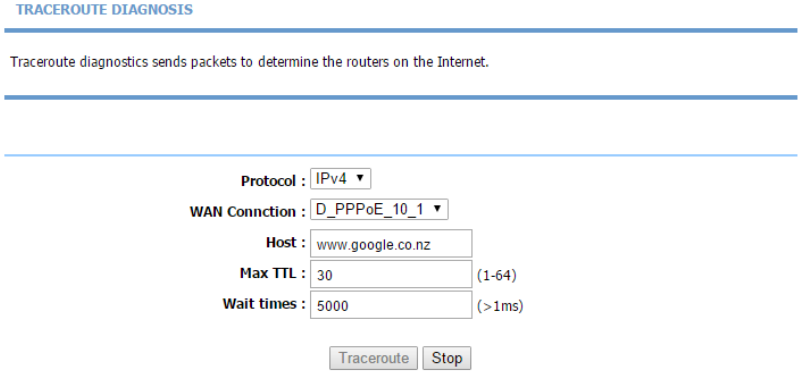
5.3.4.1 DSL Test

In the **Diagnosis** page, click **DSL Test**. The page shown in the following figure appears. In this page, you can test your DSL connection.

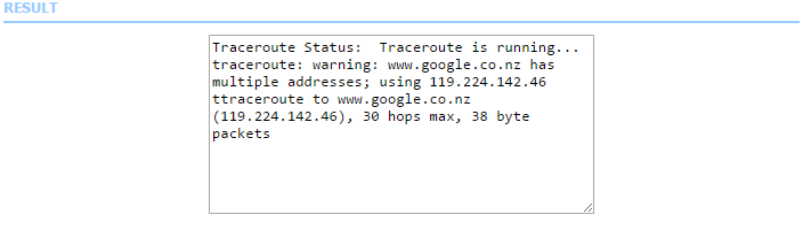
Click **Run Diagnostic Tests**. After testing, the following figure appears.

5.3.4.2 Traceroute

In the **Diagnosis** page, click **Traceroute**. The page shown in the following figure appears. In this page, you can determine the routers on the Internet by sending packets.

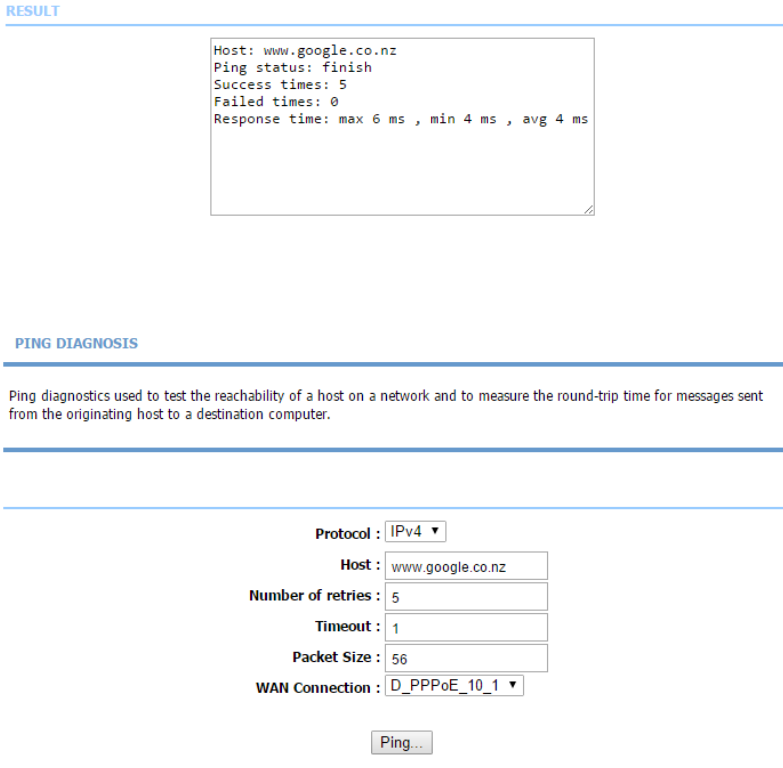


Click **Traceroute** to begin diagnosis. After finish, the page shown in the following figure appears.



5.3.4.3 Ping

In the **Diagnosis** page, click **Ping**. The page shown in the following figure appears. In this page, you can determine if the IP or URL responds on the Internet by sending packets.



5.3.5 System Log

Choose **Management** > **System Log**. The **System Log** page shown in the following figure appears.

This page displays event log data in the chronological manner. You can read the event log from the local host or send it to a system log server. In this page, you can enable or disable the system log function.

To log the events, take the following steps.

Step 1 Select **Enable Log** check box.

Step 2 Select the display mode from the **Mode** drop-down list.

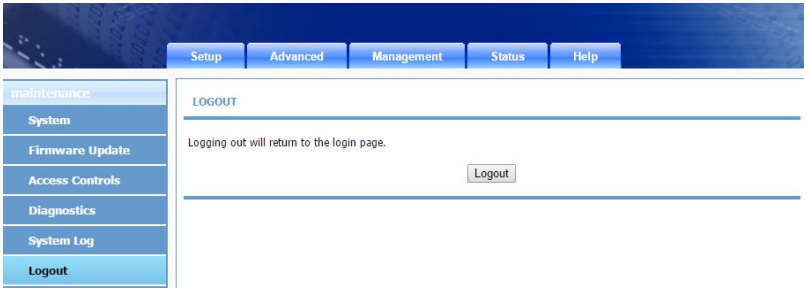
Step 3 Enter the **Server IP Address** and **Server UDP Port** if the **Mode** is set to **Both** or **Remote**.

Step 4 Click **Apply** to apply the settings.

Step 5 Click **View System Log** to view the detail information of system log.

5.3.6 Logout

Choose **Management** > **Logout**. The page shown in the following figure appears. In this page, you can log out of the configuration page.

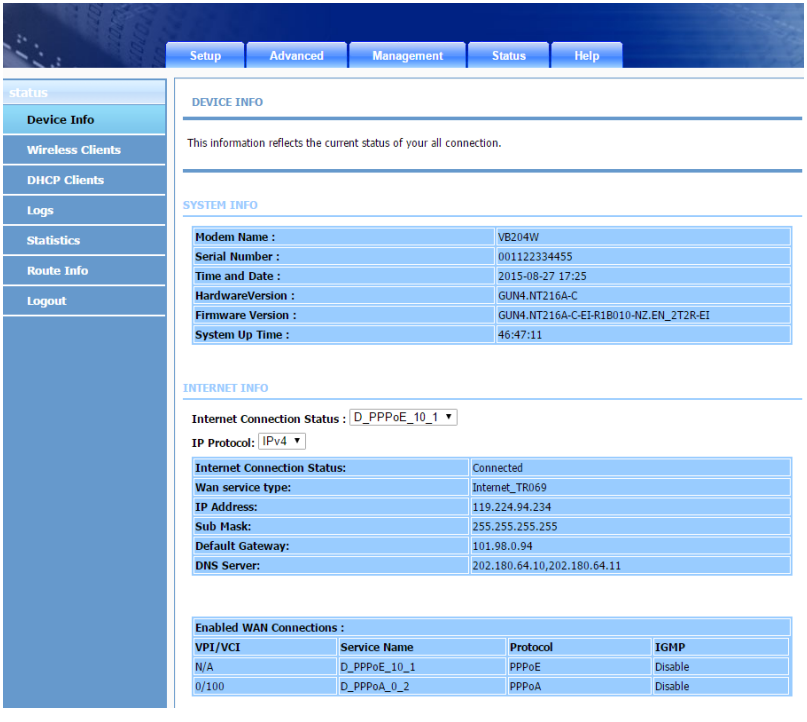


5.4 Status

In the main interface, click **Status** tab to enter the **Status** menu as shown in the following figure. The submenus are **Device Info**, **Wireless Clients**, **DHCP Clients**, **IPv6 Status**, **Logs**, **Statistics**, **Route Info** and **Logout**. You can view the system information and monitor performance.

5.4.1 Device Info

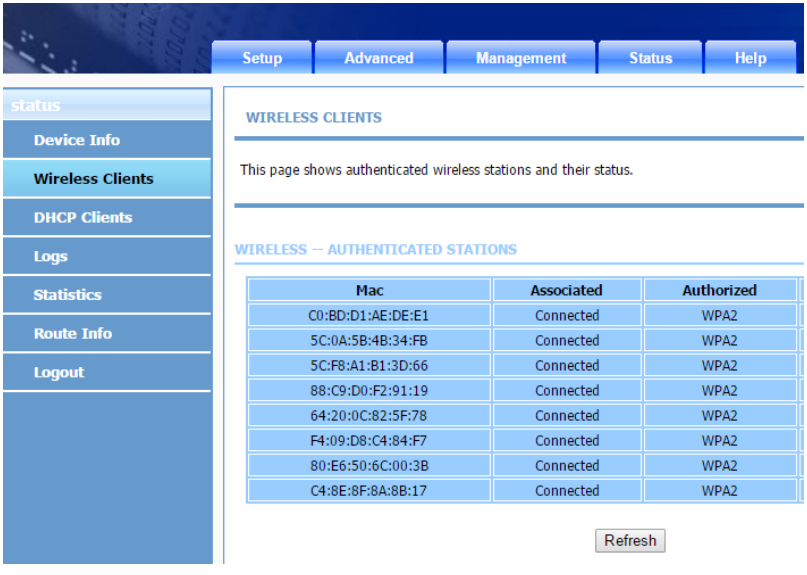
Choose **Status** > **Device Info**. The page shown in the following figure appears.



The page displays the summary of the device status. It includes the information of firmware version, upstream rate, downstream rate, uptime and Internet configuration (both wireless and Ethernet statuses).

5.4.2 Wireless Clients

Choose **Status** > **Wireless Clients**. The page shown in the following figure appears. The page displays authenticated wireless stations and their statuses.

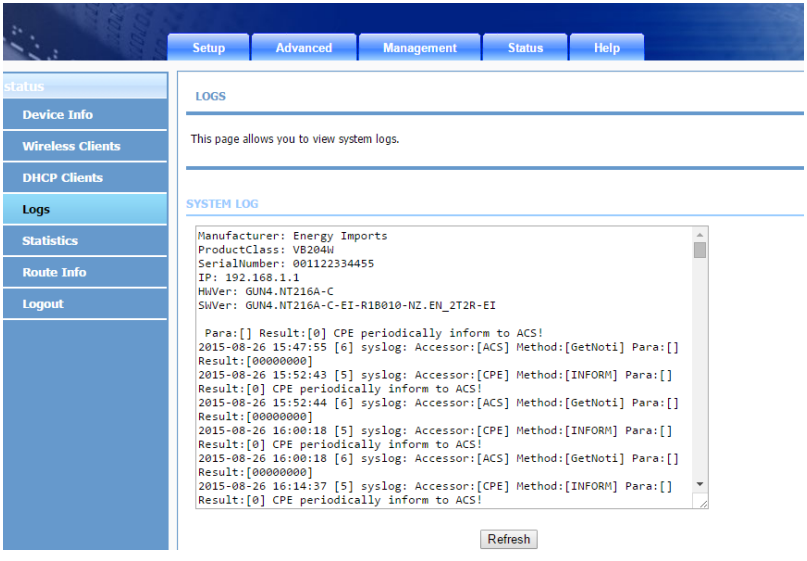


5.4.3 DHCP Clients

Choose **Status** > **DHCP Clients**. The page shown in the following figure appears. This page displays all client devices that obtain IP addresses from the device. You can view the host name, IP address, MAC address and time expired(s).

5.4.4 Logs

Choose **Status** > **Logs**. The page shown in the following figure appears. This page lists the system log. Click **Refresh** to refresh the system log shown in the table.

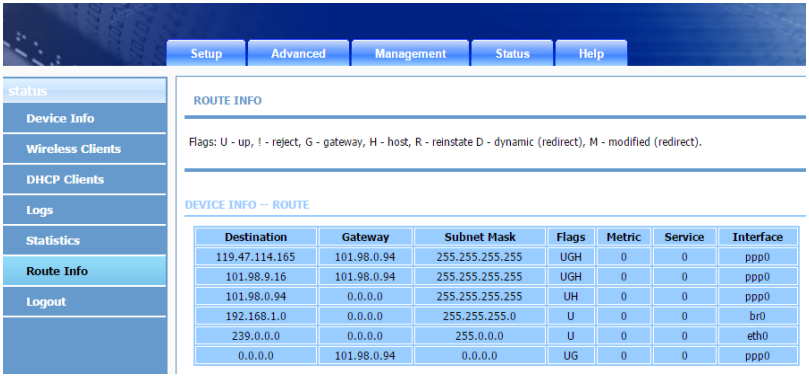


5.4.5 Statistics

Choose **Status** > **Statistics**. The page shown in the following figure appears. This page displays the statistics of the network and data transfer. This information helps technicians to identify if the device is functioning properly. The information does not affect the function of the device.

5.4.6 Route Info

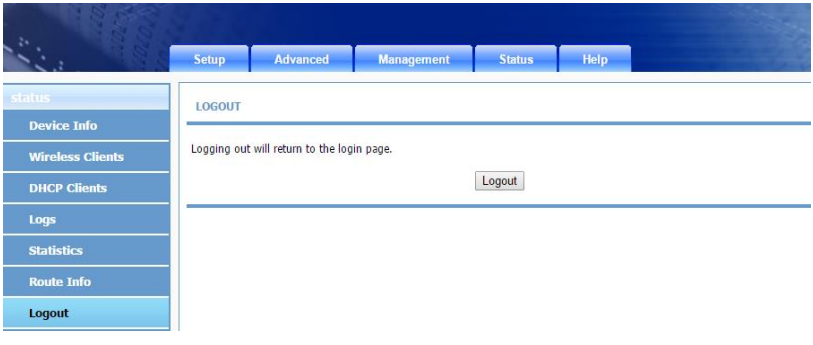
Choose **Status** > **Route Info**. The page shown in the following figure appears. The table shows a list of destination routes commonly accessed by the network.



Destination	Gateway	Subnet Mask	Flags	Metric	Service	Interface
119.47.114.165	101.98.0.94	255.255.255.255	UGH	0	0	ppp0
101.98.9.16	101.98.0.94	255.255.255.255	UGH	0	0	ppp0
101.98.0.94	0.0.0.0	255.255.255.255	UH	0	0	ppp0
192.168.1.0	0.0.0.0	255.255.255.0	U	0	0	br0
239.0.0.0	0.0.0.0	255.0.0.0	U	0	0	eth0
0.0.0.0	101.98.0.94	0.0.0.0	UG	0	0	ppp0

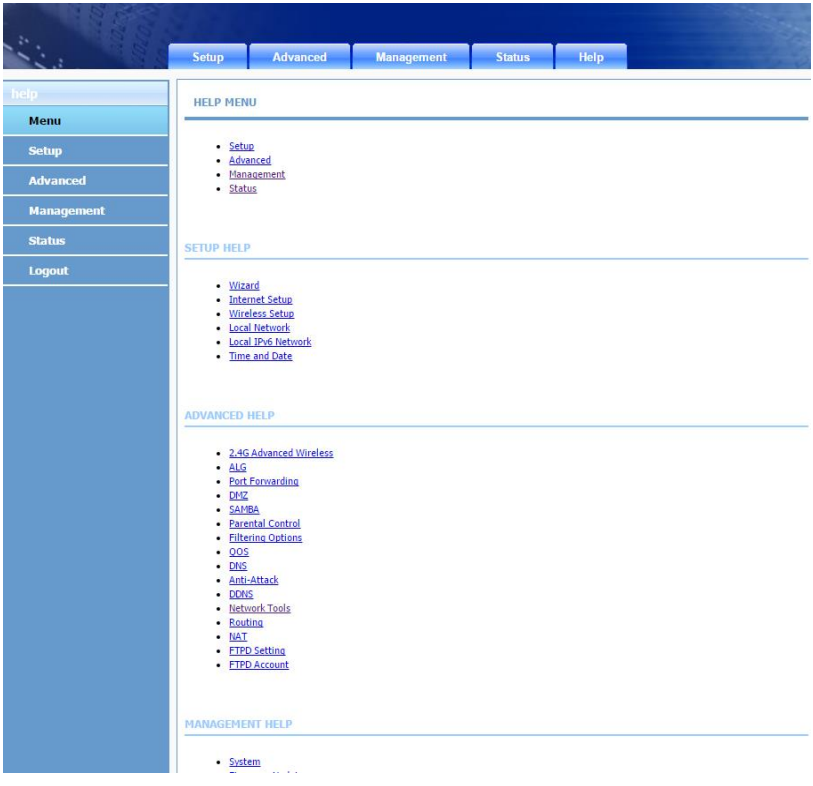
5.4.7 Logout

Choose **Status** > **Logout**. The page shown in the following figure appears. In this page, you can log out of the configuration page.



5.5 Help

In the main interface, click **Help** tab to enter the **Help** menu as shown in the following figure. This section provides detailed configuration information for the device. Click a wanted link to view corresponding information.



6 Trouble Shooting

Question	Answer
Why are all the indicators off?	● Check the connection between the power adapter and the power socket. ● Check whether the power switch is turned on.
Why the **LAN** indicator is off?	Check the following: ● The connection between the device and your PC, hub or switch ● The running status of the computer, hub, or switch
Why is the **DSL** indicator not on?	Check the connection between the **DSL** port of the device and the wall jack.
Why Internet access fails while the DSL indicator is on?	Check whether the VPI, VCI, user name and password are correctly entered.
Why do I fail to access the web configuration page of the DSL router?	Choose **Start** > **Run** from the desktop, and ping ***192.168.1.1*** (IP address of the DSL router). If the DSL router is not reachable, check the type of the network cable, the connection between the DSL router and the PC, and the TCP/IP configuration of the PC.
How to load the default settings after incorrect configuration?	To restore the factory default settings, turn on the device, and press the reset button for about 3 seconds, and then release it. The default IP address and the subnet mask of the DSL router are **192.168.1.1** and **255.255.255.0**, respectively. ● Administrator username/password: **admin/admin** ● Common username/password: **user/user**.