OV501GF

User Manual

VER: 1.0

OvisLink (Canada) INC

Contents

1 Safety Precautions

Read the following information carefully before operating the device. Please follow the following precaution items to protect the device from risks and damage caused by fire and electric power:

- Use volume labels to mark the type of power.
- Use the power adapter that is packed within the device package.
- Pay attention to the power load of the outlet or prolonged lines. An overburden power outlet or damaged lines and plugs may cause electric shock or fire accident. Check the power cords regularly. If you find any damage, replace it at once.
- Proper space left for heat dissipation is necessary to avoid any damage caused by overheating to the device. The 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 place where a heat source exits or high temperature occurs. Avoid the device from direct sunshine.
- Do not put this device close to a place where is over damp or watery. Do not spill any fluid on this device.
- Do not connect this device to any PC or electronic product, unless our customer engineer or your broadband provider instructs you to do this, because any wrong connection may cause any power or fire risk.
- Do not place this device on an unstable surface or support.

2 Overview

The OV501GF is a VDSL modem, which provides a fast Internet access over plain telephone wire.

It also supports Universal Plug and Play (UPnP) where UPnP devices can dynamically join the OV501GF network.

You can use the Web Configurator to view traffic statistics, upload firmware and allow external management of the OV501GF.

Network and Router management is done through the web-based management interface that can be 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 Application

- Home gateway
- SOHOs
- Small enterprises
- Higher data rate broadband sharing
- Audio and video streaming and transfer
- Network and online gaming

2.2 Features

- User-friendly GUI for web configuration
- Several pre-configured popular games. Just enable the game and the port settings are automatically configured.
- 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
- IP routing and bridging
- Asynchronous transfer mode (ATM) and digital subscriber line (DSL) support
- Point-to-point protocol (PPP)
- Network/port address translation (NAT/PAT)
- Quality of service (QoS)
- 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

2.3 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.993.2 (VDSL)
- ITU-T G.9700/ G.9701(G.fast)
- ANSI T1.413 Issue 2
- IEEE 802.3
- IEEE 802.3u

3 Hardware Description and Installation

Note:

The figures in this document are for reference only.

3.1 Hardware Description

3.1.1 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 and the device operates normally.
		Blink	The software is upgrading.
		Off	The device is powered off.
	Red	On	The device is initiating.
		Blink	The software is upgrading.
DSL	Green	On	DSL link has established.
		Blink	The DSL line is training.
		Off	Device is powered off.
Internet	Green	On	Internet is synchronized successfully in the route mode.
		Blink	Internet data is being transmitted.
		Off	Ethernet interface is disconnected.
	Red	On	Authentication has failed.
LAN	Green	On	The Ethernet interface is connected.
		Blink	Data is being transmitted through the Ethernet interface.
		Off	The Ethernet interface is disconnected.

3.1.2 Rear Panel

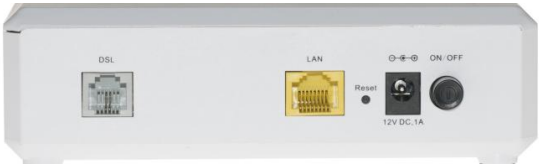


Figure 2 Rear panel

The following table describes the interfaces or the buttons.

Interface	Description
DSL	RJ-11 port: Connect the router to DSL connector or splitter through telephone cable.
LAN	RJ-45 port, for connecting the router to a PC or another network device.
Reset	Press the button for at least 1 second and then release it. System restores the factory default settings.
Power	Power interface, for connecting the power adapter.
On/Off	Power switch.

⚠ **Warning:**

*Do not press the **Reset** button unless you want to clear the current settings. The **Reset** button is in a small circular hole on the rear panel. If you want to restore the default settings, please press the **Reset** button gently for 1 second with a fine needle inserted into the hole and then release the button. The system reboots and returns to the factory defaults.*

3.2 Hardware Installation

3.2.1 Connecting the Device

Step 1 Connect the **DSL** port of the router

The spliiter has 3 ports:

- **Line**: Connect to a wall phone jack (RJ-11 jack)
- **Modem**: Connect to the Line interface of the router

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

Step 3 Plug the power adapter to the wall outlet and then connect the other end of it to the **Power** port of the router.

Step 4 Note:

The following figure displays the connection of the DSL router, PC,

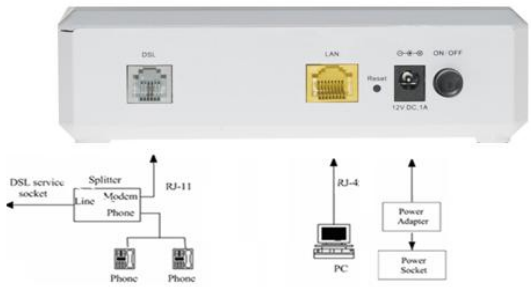


Figure 3 Connecting the DSL router

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. DSL router 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 10.

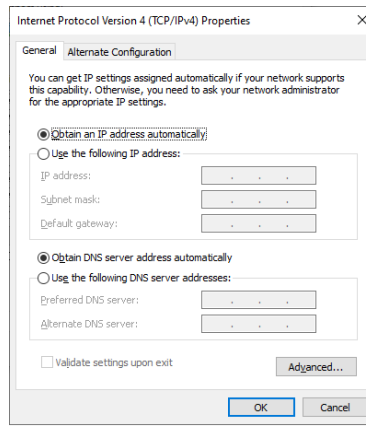


Figure 4 IP and DNS configuration

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

Choose **Start** > **Settings** > **Network & Internet** > **Ethernet** > **Change Adapter Options** > **Local Area Connection**.

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

On the **General** tab, select the **Internet Protocol (TCP/IP)** component and click **Properties**.

The **Internet Protocol (TCP/IP) Properties** window appears.

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

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

Click **OK** to save the settings.

4.2 Logging In to the DSL Router

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

Open a Web browser on your computer.

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

Enter the user name and the password. The default username and password of the super user 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.

Click **Login** to log in to the Web page.

Figure 5

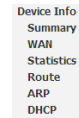
After logging in to the DSL router as a super user, you can query, configure, and modify all the settings, and diagnose the system.

5 Web-Based Management

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

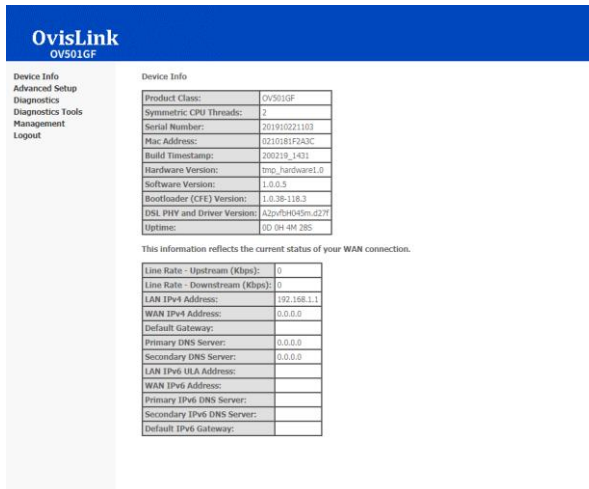
5.1 Device Information

Choose **Device Info**, and the submenus of **Device Info** are shown as below:



5.1.1 Summary

Choose **Device Info > Summary**, and the following page appears.



This page displays the device information such as the board ID, software version, and the information of your WAN connection such as the upstream rate and the LAN address.

5.1.2 WAN

Choose **Device Info > WAN** and the following page appears.

WAN Info

Interface	Description	Type	VlanMuxId	IPv6	Igmp Pxy	Igmp Src Enbl	MLD Pxy	MLD Src Enbl	NAT	Firewall	Status	IPv4 Address	IPv6 Address
atm0.1	ipoe_0_0_35	IPoE	Disabled	Enabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Unconfigured	0.0.0.0	

This page displays the information of the WAN interface, such as the connection status, and the IP address.

5.1.3 Statistics

5.1.4 LAN

Choose **Device Info > Statistics > LAN** and the following page appears.

Statistics -- LAN

Interface	Received								Transmitted							
	Total				Multicast		Unicast	Broadcast	Total				Multicast		Unicast	Broadcast
	Bytes	Pkts	Errs	Drops	Bytes	Pkts	Pkts	Pkts	Bytes	Pkts	Errs	Drops	Bytes	Pkts	Pkts	Pkts
eth0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
eth1	340322	2573	0	0	0	561	1485	527	1164920	1558	0	0	0	40	1517	1

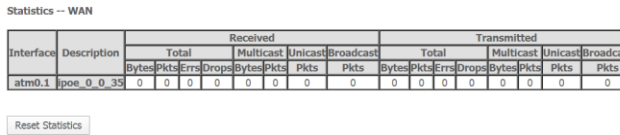
Reset Statistics

In this page, you can view the statistical information about the received and transmitted data packets of the Ethernet and wireless interfaces.

Click **Reset Statistics** to restore the values to zero and recount them.

5.1.5 WAN Service

Choose **Device Info > Statistics > WAN Service** and the following page appears.


Statistics -- WAN

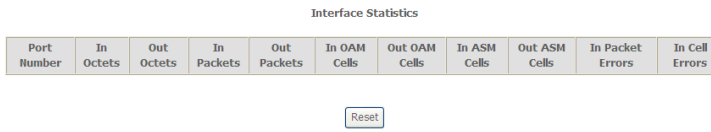
Interface	Description	Received								Transmitted							
		Total				Multicast		Unicast	Broadcast	Total				Multicast		Unicast	Broadcast
		Bytes	Pkts	Errs	Drops	Bytes	Pkts	Pkts	Pkts	Bytes	Pkts	Errs	Drops	Bytes	Pkts	Pkts	Pkts
atm0.1	ipoe_0_0_35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Reset Statistics

In this page, you can view the statistical information about the recevied and transmitted data packets of the WAN interface.
Click **Reset Statistics** to restore the values to zero and recount them.

5.1.6 xTM

Choose **Device Info > Statistics > xTM** and the following page appears.


Interface Statistics

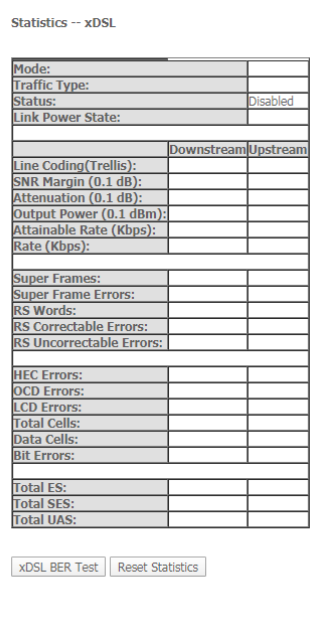
Port Number	In Octets	Out Octets	In Packets	Out Packets	In OAM Cells	Out OAM Cells	In ASM Cells	Out ASM Cells	In Packet Errors	In Cell Errors

Reset

In this page, you can view the statistical information about the recevied and transmitted data packets at the xTM interfaces.
Click the **Reset** button to restore the values to zero and recount them.

5.1.7 xDSL

Choose **Device Info > Statistics** > **xDSL** and the following page appears.



Statistics -- xDSL

Mode:		
Traffic Type:		
Status:		Disabled
Link Power State:		
	Downstream	Upstream
Line Coding(Trellis):		
SNR Margin (0.1 dB):		
Attenuation (0.1 dB):		
Output Power (0.1 dBm):		
Attainable Rate (Kbps):		
Rate (Kbps):		
Super Frames:		
Super Frame Errors:		
RS Words:		
RS Correctable Errors:		
RS Uncorrectable Errors:		
HEC Errors:		
OCD Errors:		
LCD Errors:		
Total Cells:		
Data Cells:		
Bit Errors:		
Total ES:		
Total SES:		
Total UAS:		

xDSL BER Test | Reset Statistics

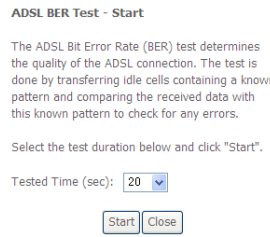
In this page, you can view the statistical information about the recevied and transmitted data packets of the xDSL interfaces.

Click **xDSL BER Test** to test the xDSL Bit Error Rate.

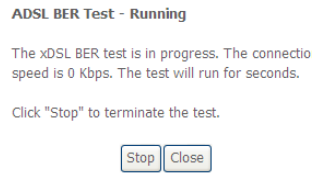
Click **Reset Statistics** to restore the values to zero and recount them.

xDSL BER Test

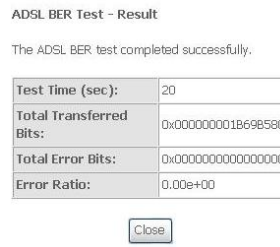
Click **xDSL BER Test** to perform a bit error rate (BER) test on the DSL line. The test page is as follows:



The **Tested Time (sec)** can be 1, 5, 10, 20, 60, 120, 180, 240, 300, or 360. Select a time in the drop-down list and click **Start**. The following pages appear.



When the ADSL BER test completes, the following page appears.



Note:

If the BER reaches e-5, you cannot access the Internet.

5.1.8 Route

Choose **Device Info > Route** and the following page appears.

Device Info -- Route

Flags: U - up, ! - reject, G - gateway, H - host, R - reinstate

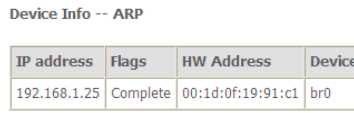
D - dynamic (redirect), M - modified (redirect).

Destination	Destination	Subnet Mask	Flag	Metric	Service	Interface
192.168.1.0	0.0.0.0	255.255.255.0	U	0		br0

In this page, you can view the route table information.

5.1.9 ARP

Choose **Device Info > ARP** and the following page appears.



Device Info -- ARP

IP address	Flags	HW Address	Device
192.168.1.25	Complete	00:1d:0f:19:91:c1	br0

In this page, you can view the MAC address and IP address information of the device connected to the router.

5.1.10 DHCP

Choose **Device Info > DHCP** and the following page appears.

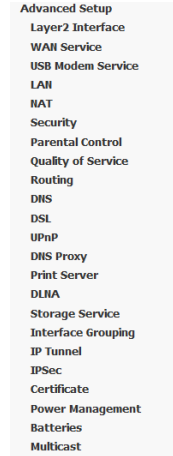
Device Info -- DHCP Leases

Hostname	MAC Address	IP Address	Expires In
gjdoc-d0cf4a448	08:00:27:75:75:2c	192.168.1.2	22 hours, 10 minutes, 8 seconds

In this page, you can view the host name, the IP address assigned by the DHCP server, the MAC address this is corresponding to the IP address, and the DHCP lease time.

5.2 Advanced Setup

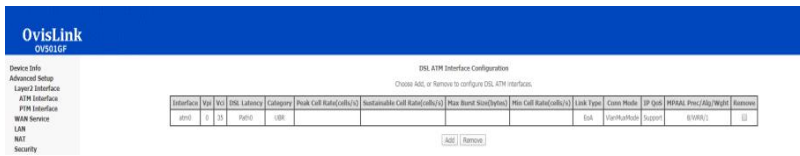
Choose **Advanced Setup** and the submenus of **Advanced Setup** are shown as below:



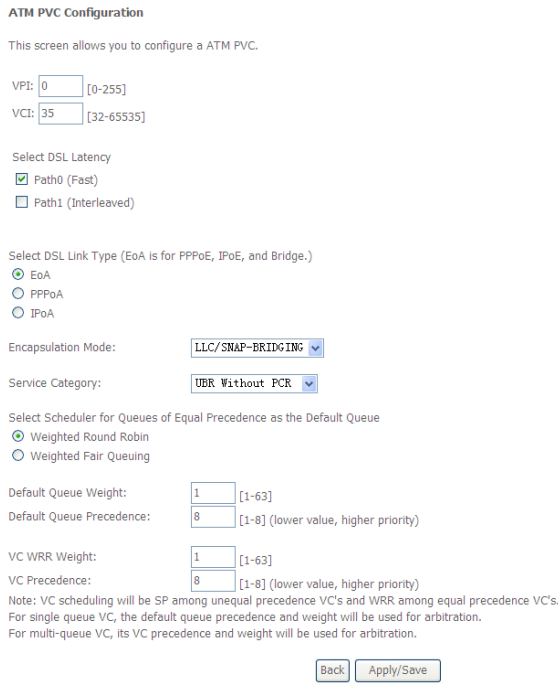
5.2.1 Layer2 Interface

5.2.1.1 ATM Interface

Choose **Advanced Setup** > **Layer2 Interface > ATM Interface** . In this page, you can add or remove to configure DSL ATM Interfaces.



Click **Add** to add ATM Interface and the following page appears.

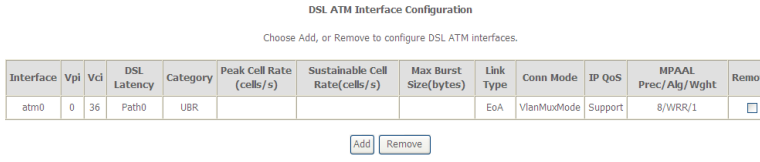


In this page, you can enter this PVC (VPI and VCI) value, and select DSL link type (EoA is for PPPoE, IPoE, and Bridge.), encapsulation mode, service category.

- **VPI (Virtual Path Identifier)**: The virtual path between two points in an ATM network, and its valid value is from 0 to 255.
- **VCI (Virtual Channel Identifier)**: The virtual channel between two points in an ATM network, ranging from 32 to 65535 (1 to 31 are reserved for known protocols).
- **DSL Link Type**: EoA (it is for PPPoE, IPoE, and Bridge), PPPoA, or IPoA

- **Encapsulation Mode**: LLC/SNAP-BRIDGING, or VC/MUX
- **Service Category:** UBR Without PCR, UBR With PCR, CBR, Non Realtime VBR, Realtime VBR.
- **Select Scheduler for Queues of Equal Precedence as the Default Queue**: Weighted Round Robin or Weighted Fair Queuing.

Click **Apply/Save** to save the configuration, and return the following page:

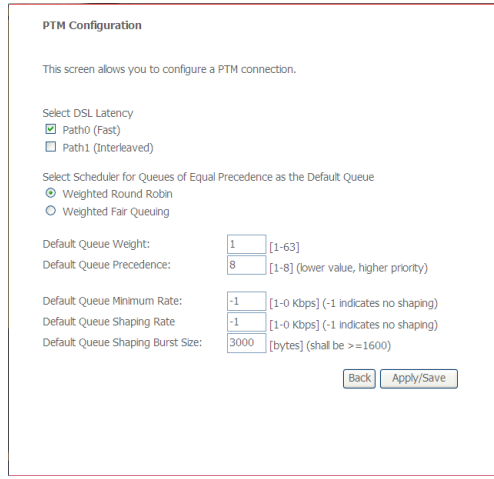


If you want to remove this Interface, please select the **Remove** check box and click **Remove**.

5.2.1.2 PTM Interface

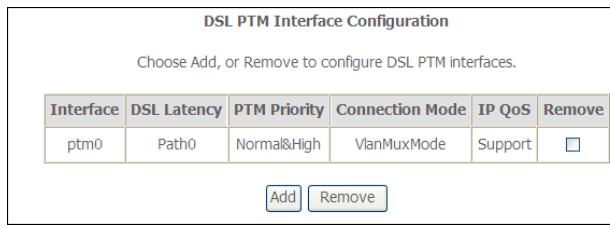
Choose **Advanced Setup** > **Layer2 Interface > PTM Interface** . In this page, you can add or remove to configure DSL PTM Interfaces.

Click **Add** to add PTM Interface and the following page appears.



In this page, you can configuration the PTM interface Click Apply/Save.

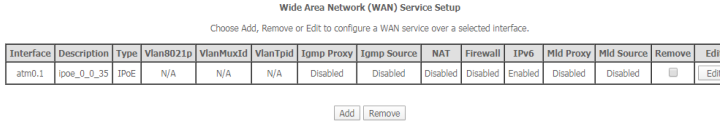
Click **Apply/Save** to save the configuration, and return the following page:



If you want to remove this Interface, please select the **Remove** check box and click **Remove**.

5.2.2 WAN Service

Choose **Advanced Setup** > **WAN Service,** and the following page appears.

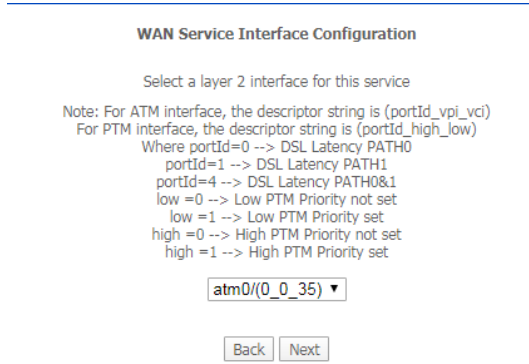


In this page, you are allowed to add, remove, or edit a WAN service.

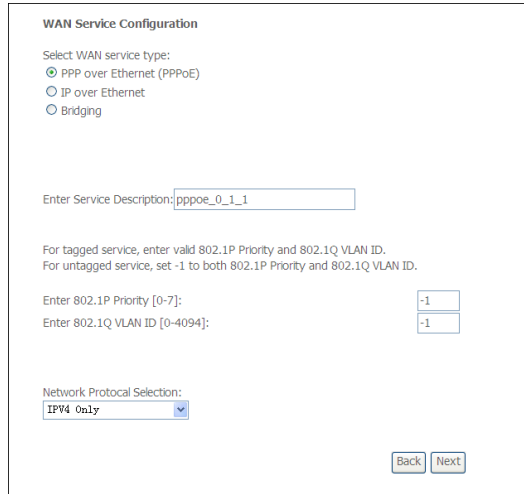
5.2.2.1 Adding a PPPoE WAN Service

This section describes the steps for adding the PPPoE WAN service.

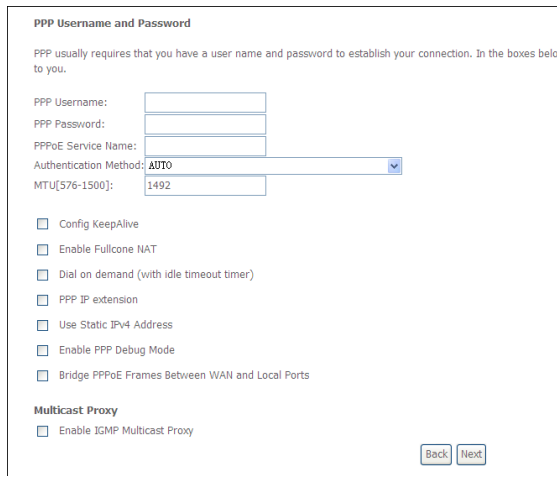
Step1 In the **Wide Area Network (WAN) Service Setup** page, click the **Add** button to display the following page. (At first, you must add a proper ATM interface for this WAN service.)



Step2 In this page, you can select a ATM Interface for the WAN service. After selecting the ATM interface, click **Next** to display the following page.



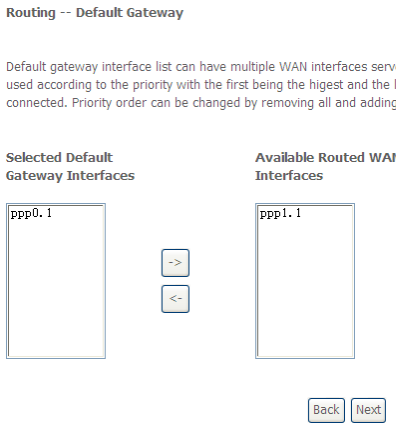
Step3 In this page, select the WAN service type to be **PPP over Ethernet (PPPoE)**. Click **Next** to display the following page.



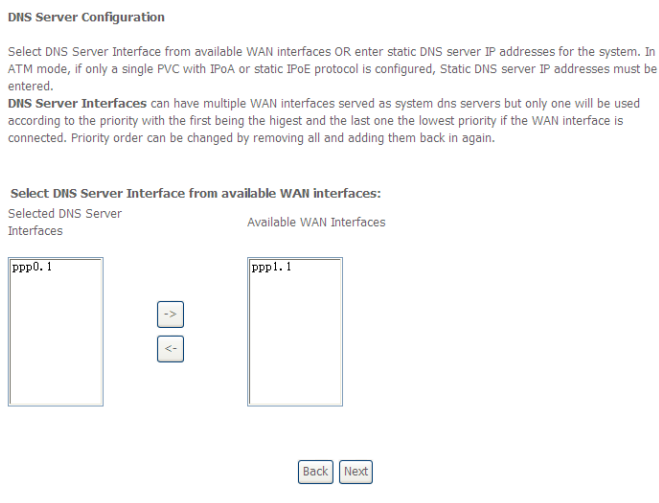
Step4 In this page, you can modify the PPP username, PPP password, PPPoE service name and authentication method.

- **PPP Username:** The correct user name provided by your ISP.
- **PPP Password:** The correct password provided by your ISP.
- **PPPoE Service Name:** If your ISP provides it to you, please enter it. If not, do not enter any information.
- **Authentication Method:** The value can be AUTO, PAP, CHAP, or MSCHAP. Usually, you can select AUTO.
- **Enable Fullcone NAT:**. NAT is one where all requests from the same internal IP address and port are mapped to the same external IP address and port. Furthermore, any external host can send a packet to the internal host, by sending a packet to the mapped external address.
- **Dial on demand (with idle timeout timer):** If this function is enabled, you need to enter the idle timeout time. Within the preset minutes, if the modem does not detect the flow of the user continuously, the modem automatically stops the PPPoE connection. Once it detects the flow (like access to a webpage), the modem restarts the PPPoE dialup. If this function is disabled, the modem performs PPPoE dial-up all the time. The PPPoE connnection does not stop, unless the modem is powered off and DSLAM or uplink equipment is abnormal.
- **PPP IP extension:** If you want to configure DMZ Host, you should enable it first.
- **Use Static IPv4 Address:** If this function is disabled, the modem obtains an IP address assigned by an uplink equipment such as BAS, through PPPoE dial-up. If this function is enabled, the modem uses this IP address as the WAN IP address.
- **Enable PPP Debug Mode:**Enable or disable this function.
- **Bridge PPPoE Frames Between WAN and Local Ports:**Enable or disable this function.
- **Enable IGMP Multicast Proxy:**If you want PPPoE mode to support IPTV, enable it.

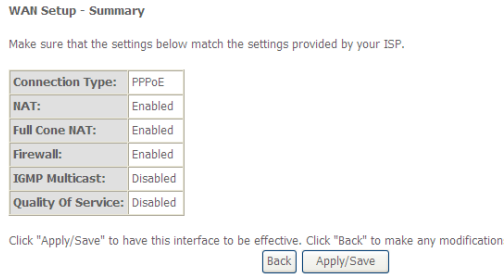
Step5 After setting the parameters, click **Next** to display the following page.



Step6 In this page, select a preferred WAN interface as the system default gateway and then click **Next** to display the following page.



Step7 In this page, you can obtain the DNS server addresses from the selected WAN interface. Click **Next**, and the following page appears.

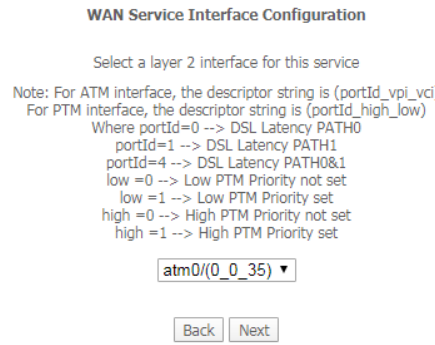


Step8 In this page, it displays the information about the PPPoE settngs. Click **Apply/Save** to save and apply the settings.

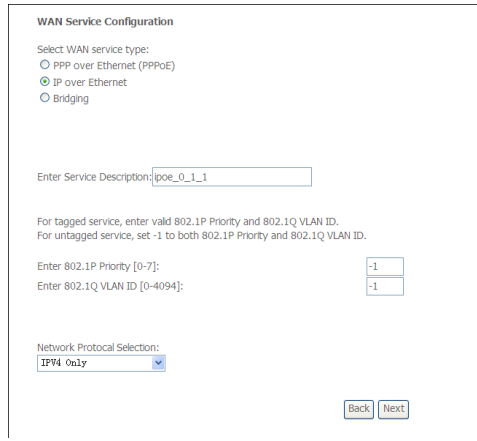
5.2.2.2 Adding a MER (IPoE) WAN service

This section describes the steps for adding the MER WAN service.

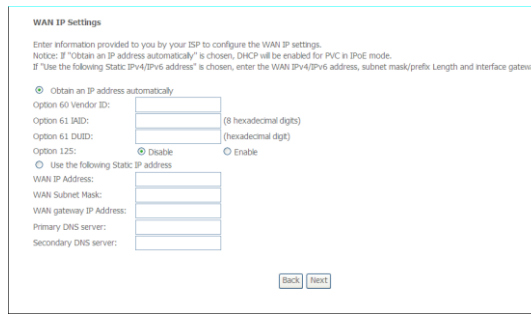
Step1 In the **Wide Area Network (WAN) Service Setup** page, click the **Add** button to display the following page. (At first, you must add a ATM interface for this WAN service.)



Step2 Select an ATM Interface, and then click **Next** to display the following page.



Step3 In this page, select the WAN service type to be IP over Ethernet, enter the service description for this service. After finishing setting, click **Next** to display the following page.

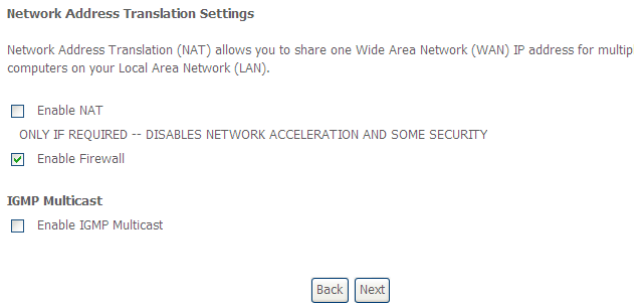


Step4 In this page, you may modify the WAN IP settings. You may select obtain an IP address automatically or manually enter the IP address provided by your ISP. Click **Next** and the following page appears.

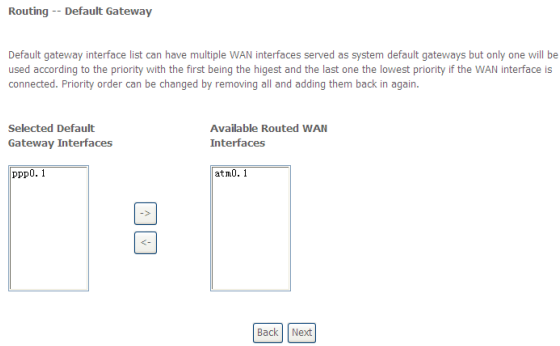
Note:

*If selecting **Obtain an IP address automatically**, DHCP will be enabled for PVC in MER mode.*

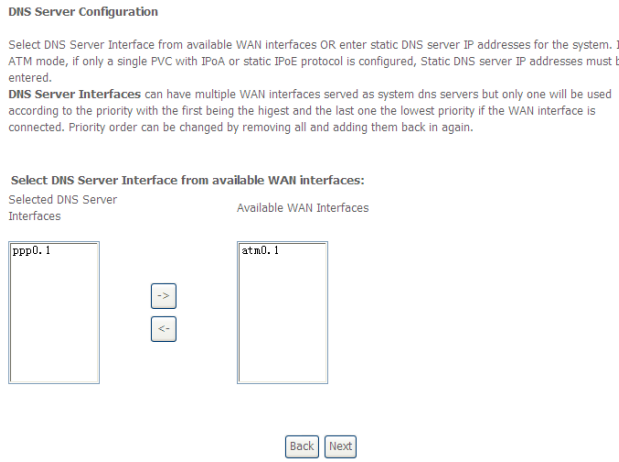
*If selecting **Use the following Static IP address**, please enter the WAN IP address, subnet mask and gateway IP address.*



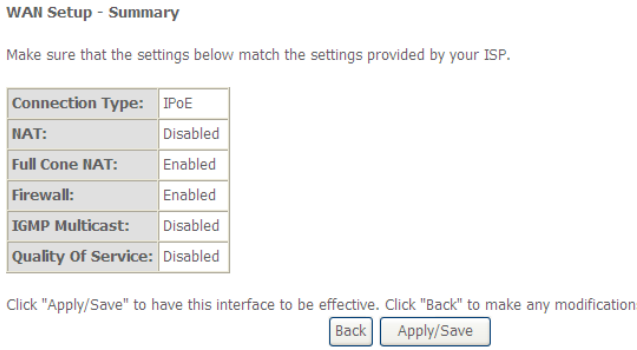
Step5 In this page, you can set the network address translation settings,for example, enabling NAT, enabling firewall, and enabling IGMP multicast. After finishing setting, click **Next** and the following page appears.



Step6 In this page, select a preferred WAN interface as the system default gateway and then click **Next** to display the following page.



Step7 In this page, you can obtain the DNS server addresses from the selected WAN interface. After finishing setting, click **Next** to display the following page.

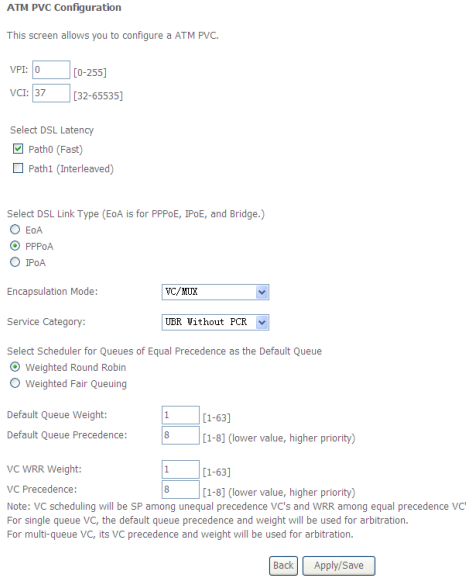


Step8 In this page, it displays the information about the IPoE settngs.Click **Apply/Save** to save and apply the settings.

5.2.2.3 Adding a PPPoA WAN service

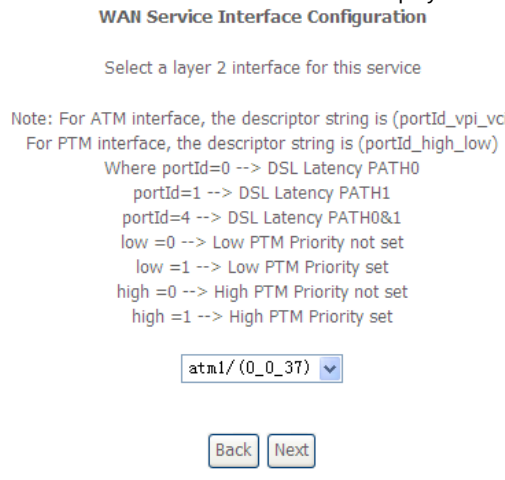
This section describes the steps for adding the PPPoA WAN service.

Step1 Choose **Advanced Setup** > **Layer2 Interface** > **ATM Interface** to dsipaly the **DSL ATM Interface Configuration** page. In this page, you need to add a PVC for PPPoA mode. Click the **Add** button in the **DSL ATM Interface Configuration** page to display the following page.

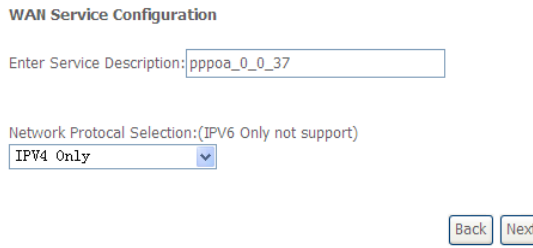


Step2 Select the DSL link type to be **PPPoA**, and select the encapsulation mode to be **VC/MUX** (according to the uplink equipment). After finishing setting, click the **Apply/Save** button to apply the setings.

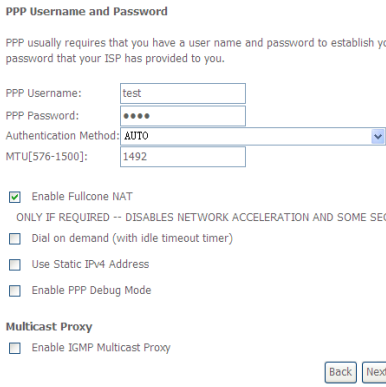
Step3 Choose **WAN Service** and click **Add** to display the following page.



Step4 Select the proper interface for the WAN service, and then click **Next** to display the following page.



Step5 In this page, you may modify the service description. Click **Next** to display the following page.

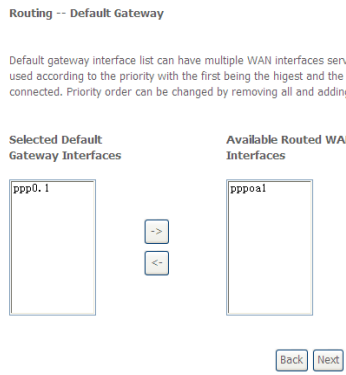


- **PPP Username:** The correct user name provided by your ISP.
- **PPP Password:** The correct password provided by your ISP.
- **Authentication Method:** The value can be AUTO, PAP, CHAP, or MSCHAP. Usually, you can select AUTO.
- **Enable Fullcone NAT:**. NAT is one where all requests from the same internal IP address and port are mapped to the same external IP address and port. Furthermore, any external host can send a packet to the internal host, by sending a packet to the mapped external address.
- **Dial on demand (with idle timeout timer):** If this function is enabled, you need to enter the idle timeout time. Within the preset minutes, if the modem does not detect the flow of the user continuously, the modem automatically stops the PPPoA connection. Once it detects the flow (like access to a webpage), the modem restarts the PPPoA dialup. If this function is disabled, the modem performs PPPoA dial-up all the time. The PPPoA connnection does not stop, unless the modem is powered off and DSLAM or uplink equipment is abnormal.
- **PPP IP extension:** If you want to configure DMZ Host, you should enable it first.
- **Use Static IPv4 Address:** If this function is disabled, the modem obtains an IP address assigned by an uplink equipment such as BAS, through

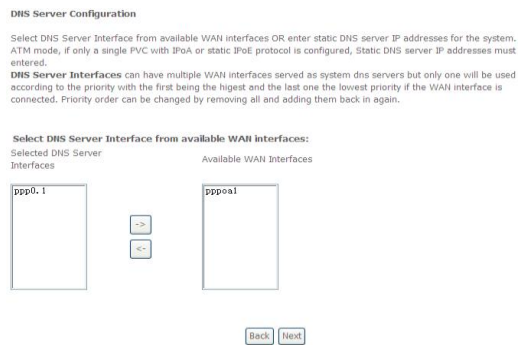
PPPoA dial-up. If this function is enabled, the modem uses this IP address as the WAN IP address.

- **Enable PPP Debug Mode:**Enable or disable this function.
- **Enable IGMP Multicast Proxy:** If you want PPPoE mode to support IPTV, enable it.

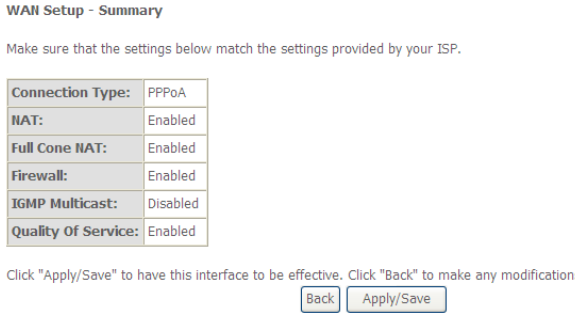
Step6 In this page, you can enter the PPP username and PPP password provided by your ISP. Select the authentication method according to your requirement. After finishing setting, click **Next** to display the following page.



Step7 In this page, select a preferred WAN interface as the system default gateway and then click **Next** to display the following page.



Step8 In this page, you can obtain the DNS server addresses from the selected WAN interface. After finishing setting, click **Next** to display the following page.

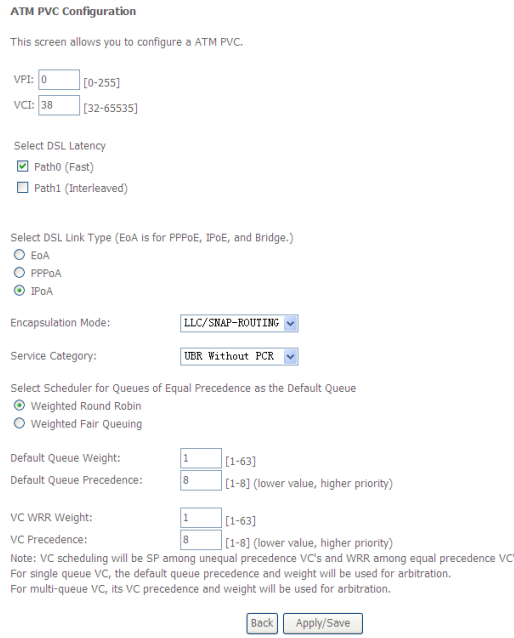


Step9 In this page, it displays the information about the PPPoA settngs.Click **Apply/Save** to apply the settings. You can modify the settings by clicking the **Back** button if necessary.

5.2.2.4 Adding an IPoA WAN service

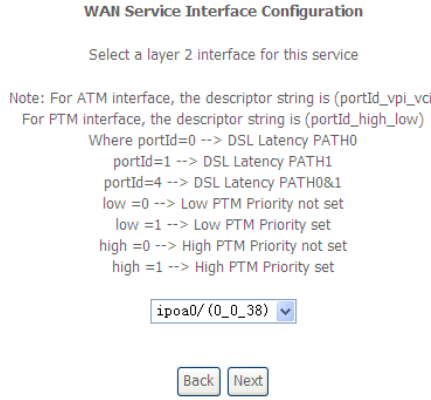
This section describes the steps for adding the IPoA WAN service.

Step1 Choose **Advanced Setup > Layer2 Interface > ATM Interface** to dsipaly the **DSL ATM Interface Configuration** page. In this page, you need to add a PVC for IPoA mode. Click the **Add** button in the **DSL ATM Interface Configuration** page to display the following page.

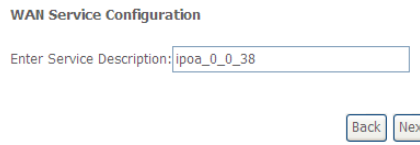


Step2 Select the DSL link type to be **IPoA**, and select the encapsulation mode to be **LLC/SNAP-ROUTING** (according to the uplink equipment). After finishing setting, click the **Apply/Save** button to save the settings.

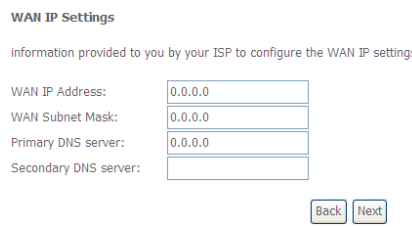
Step3 Choose **WAN Service** and click **Add** to display the following page.



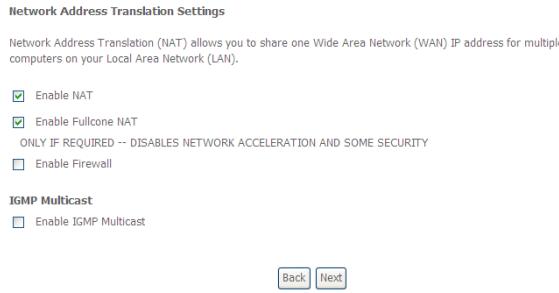
Step4 Select the proper interface for the WAN service ,and then click **Next** to display the following page.



Step5 In this page, you may modify the service description. Click **Next** to display the following page.



Step6 In this page, enter the WAN IP address, the WAN subnet mask, and primary DNS server provided by your ISP and then click **Next** to display the following page.

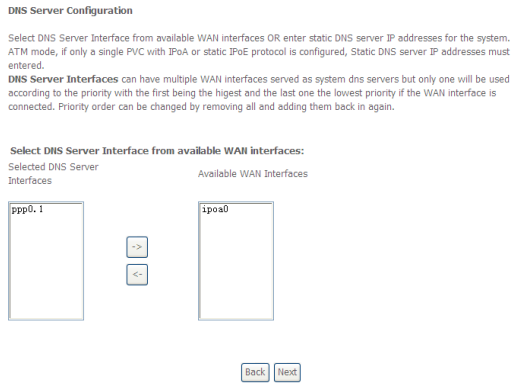


In this page, Network Address Translation (NAT) allows you to share one Wide Area Network (WAN) IP address for multiple computers on your Local Area Network (LAN).

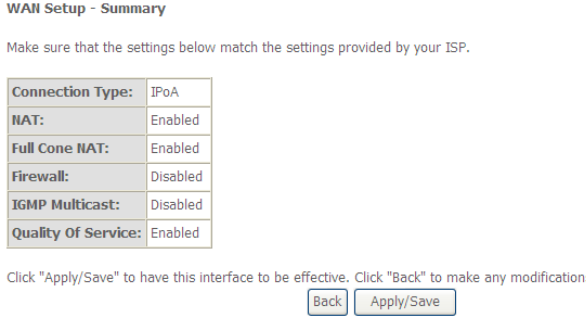
If you do not want to enable NAT, and wish the user of modem to access the Internet normally, you need to add a route on the uplink equipment. Otherwise, the access to the Internet fails. Normally, please enable the NAT function.

Step7 After finishing setting, click **Next** to display the following page.

Step8 In this page, select a preferred WAN interface as the system default gateway and then click **Next** to display the following page.



Step9 In this page, you can obtain the DNS server addresses from the selected WAN interface. After finishing setting, click **Next** to display the following page.

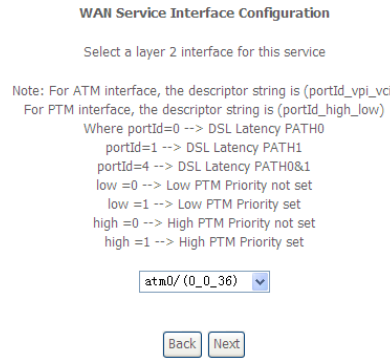


Step10 In this page, it displays the information about the IPoA settngs. Click **Apply/Save** to save and apply the settings. You can modify the settings by clicking the **Back** button if necessary.

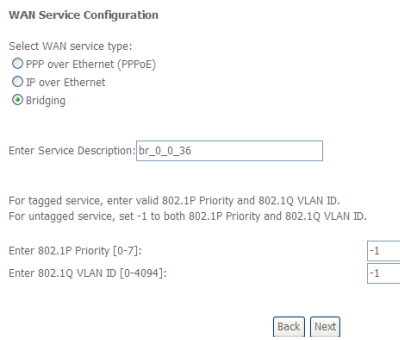
5.2.2.5 Adding a Bridge WAN service

This section describes the steps for adding the Bridge WAN service.

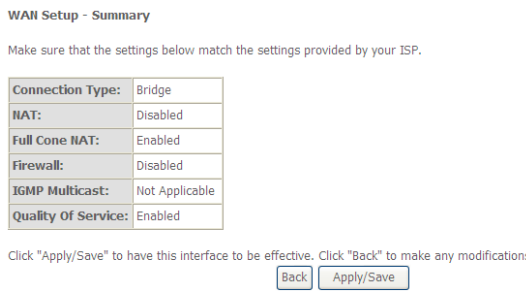
Step1 In the **Wide Area Network (WAN) Service Setup** page, click the **Add** button to display the following page. (At first, you must add a proper ATM interface for this WAN service.) Click the **Add** button to display the following page.



Step2 Select the proper ATM Interface and then click **Next** to display the following page.



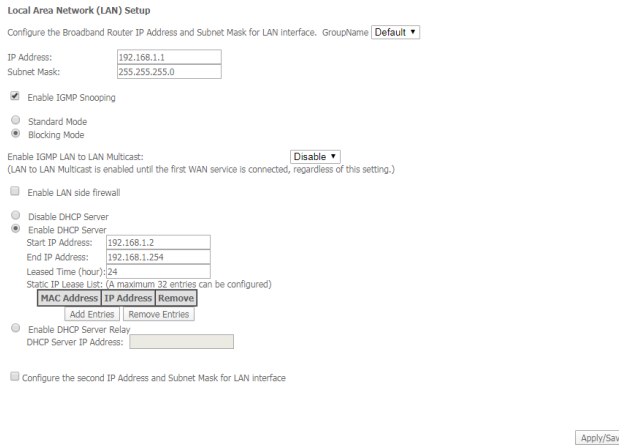
Step3 In this page, you can select the WAN service type, and modify the service description for this service. After finishing setting, click **Next** to display the following page.



Step4 In this page, it displays the information about the bridge settngs. Click **Apply/Save** to save and apply the settings. You can modify the settings by clicking the **Back** button if necessary.

5.2.3 LAN Configuration

Choose **Advanced Setup > LAN**, and the following page appears.



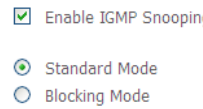
In this page, you can configure an IP address for the DSL router, enable IGMP snooping, enable or disable the DHCP server, edit the DHCP option, configure the DHCP advanced setup and set the binding between a MAC address and an IP address.

Configuring the Private IP Address for the DSL Router

In this page, you can modify the IP address of the device. The preset IP address is 192.168.1.1.

Enabling IGMP Snooping

IGMP snooping enables the router to forward multicast traffic intelligently, instead of flooding all ports in the VLAN. With IGMP snooping, the router listens to IGMP membership reports, queries and leave messages to identify the switch ports that are members of multicast groups. Multicast traffic will only be forwarded to ports identified as members of the specific multicast group or groups.

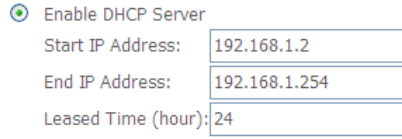


Enabling the LAN Side Firewall

Firewall can prevent unexpected traffic on the Internet from your host in the LAN.

In this page, you can enable or disable the LAN side firewall.

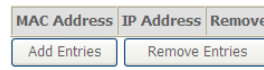
Configuring the DHCP Server



If you enable the DHCP sever, the clients will automatically acquire the IP address from the DHCP server. If the DHCP server is disabled, you need to manually set the start IP address, end IP address and the lease time for the clients in the LAN.

Configuring the DHCP Static IP Lease List

The lease list of static IP address can reserve the static IP addresses for the hosts with the specific MAC addresses. When a host whose MAC address is in the lease list of static IP address requests the DHCP server for an IP address, the DHCP server assigns the reserved IP address to the host.

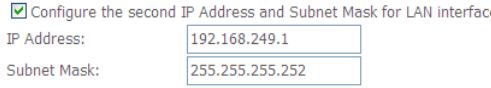


Click the **Add Entries** button in the **Local Area Network (LAN) Setup** page to display the **DHCP Static IP Lease** page.

In this page, enter the MAC address of the LAN host and the static IP address that is reserved for the host, and then click the **Apply/Save** button to apply the settings.

Configuring the Second IP Address and Subnet Mask for a LAN Interface

In the **Local Area Network (LAN) Setup** page, you are allowed to set the second IP address and the subnet mask for a LAN interface.

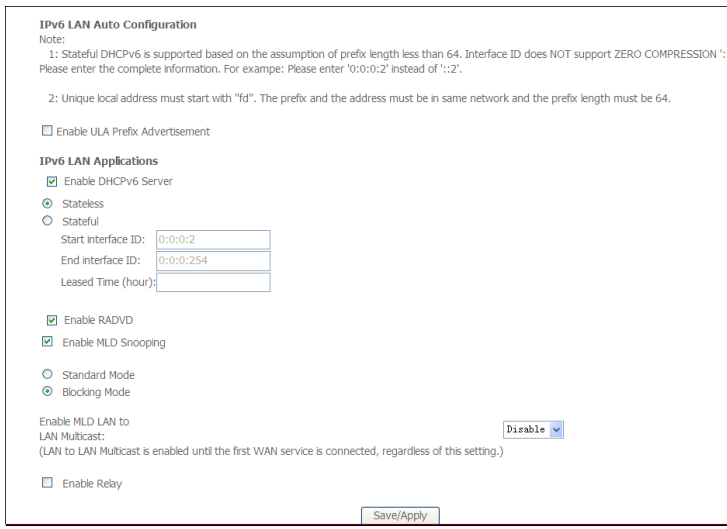


After enabling **Configure the second IP Address and Subnet Mask for LAN interface**, enter an IP address and a subnet mask for the LAN interface.

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

5.2.3.1 IPv6 Auto-configuration

Click **Advanced Setup > LAN >IPv6 Autoconfig**, and the following page appears.



In this page, you can set an IP address for the DSL IPv6 router, enable the DHCPv6 server, enable RADVD and enable the MLD snooping function.

- **Enable DHCPv6 Server:** WIDE-DHCPv6 is an open-source implementation of dynamic host configuration protocol for IPv6 (DHCPv6) originally developed by the KAME project. The implementation mainly complies with the following standards: RFC3315, RFC3319, RFC3633, RFC3646, RFC4075, RFC 4272 etc.
- **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.
- **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.

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

5.2.4 NAT

5.2.4.1 Virtual Servers

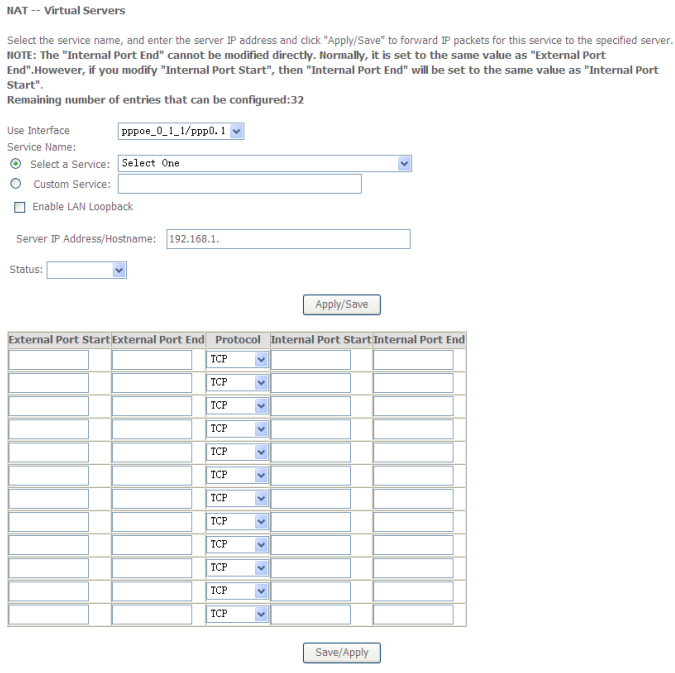
Firewall can prevent unexpected traffic on the Internet from your host on the LAN. The virtual server can create a channel that can pass through the firewall. In that case, the host on the Internet can communicate with a host on your LAN within certain port range.

Choose **Advanced Setup > NAT > Virtual Servers**, and the following page appears.

In this page, you are allowed to add or remove a virtual server entry.

To add a virtual server, do as follows:

Step 1 Click the **Add** button to display the following page.



- **Use interface**: Select an interface that you want to configure.
- **Select a Service**: Select a proper service in the drop-down list.

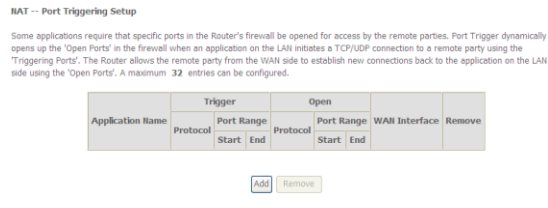
- **Custom Server**: Enter a new service name to establish a user service type.
- **Server IP Address**: Assign an IP address to virtual server.
- **External Port Start**: When selecting a service, the port number will automatically be displayed. You can modify it if necessary.
- **External Port End**: When selecting a service, the port number will automatically be displayed. You can modify it if necessary.
- **Protocol**: You may select TCP/UDP, TCP, or UDP in the drop-down list.
- **Internal Port Start**: When selecting a service, the port number will automatically be displayed. You can modify it if necessary.
- **Internal Port End**: When selecting a service, the port number will automatically be displayed. You can modify it if necessary.

Step 2 After finishing setting, click **Save/Apply** to save and apply the settings.

5.2.4.2 Port Triggering

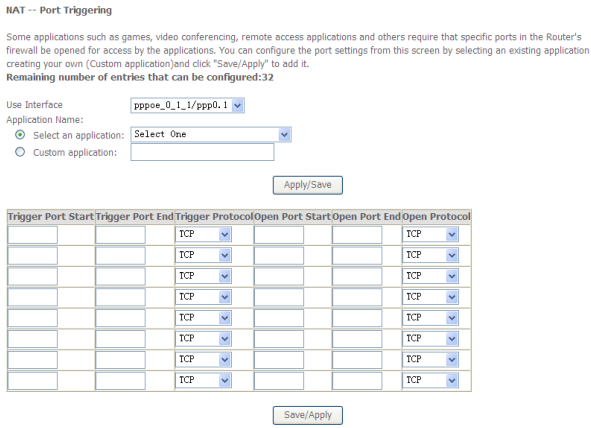
Some applications need some ports to be opened in the firewall for the remote access. When an application initializes a TCP/UDP to connect to a remote user, port triggering dynamically opens the open ports of the firewall.

Choose **Advanced Settings > NAT > Port Triggering**, and the following page appears.



In this page, you may add or remove an entry of port triggering.

Click the **Add** button to display the following page.



- **Use interface**: Select an interface that you want to configure.
- **Select an application:** Select a proper application in the drop-down list.
- **Custom application:** Manually define an application.
- **Trigger port Start:** The start port number that LAN uses to trigger the open port.
- **Trigger port End:** The end port number that LAN uses to trigger the open port.
- **Trigger Protocol:** Select the application protocol. You may select TCP/UDP, TCP, or UDP.
- **Open Port Start:** The start port number that is opened to WAN.
- **Open Port End:** The end port number that is opened to WAN.
- **Open Protocol:** Select the proper protocol that is opened to WAN. You may select TCP/UDP, TCP, or UDP.

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

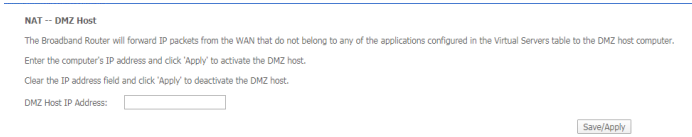
Note:

You can use a single port number, several port numbers separated by commas, port blocks consisting of two port numbers separated by a dash, or any combination of these, for example 80, 90-140, 180.

5.2.4.3 DMZ Host

DMZ allows all the ports of a PC on your LAN to be exposed to the Internet. Set the IP address of the PC to be DMZ host, so that the DMZ host will not be blocked by firewall.

Choose **Advanced Setup > NAT > DMZ host** to display the following page.



In this page, enter the IP address of the DMZ host.

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

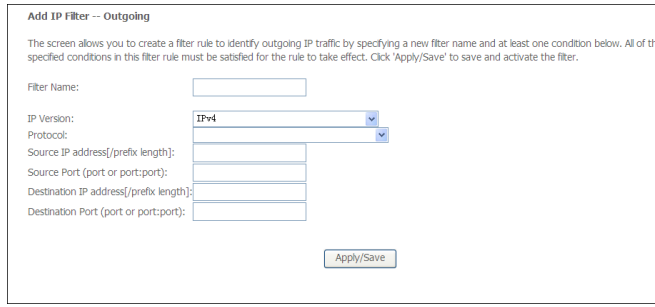
If you want to clear the DMZ function of the host, please delete the IP address of the host in the field of **DMZ Host IP Address**, and then click the **Apply/Save** button.

5.2.5 Security

Firewall

Choose **Security** > **IP Filtering** and the following page appears.

Click **Modify Firewall** or **Remove Firewall** to modify or remove the firewall. And click **Modify Rule** or **Remove Rule** to modify or remove the rule. Click **Add Firewall**, and the following page appears.



- **name**: The name of firewall.
- **interface**: You can select **LAN** or **WAN** from the drop-down list.
- **type**: You can select **IN** or **OUT** from the drop-down list.
- **defaultaction**: You can select **Permit** or **Drop** from the drop-down list.

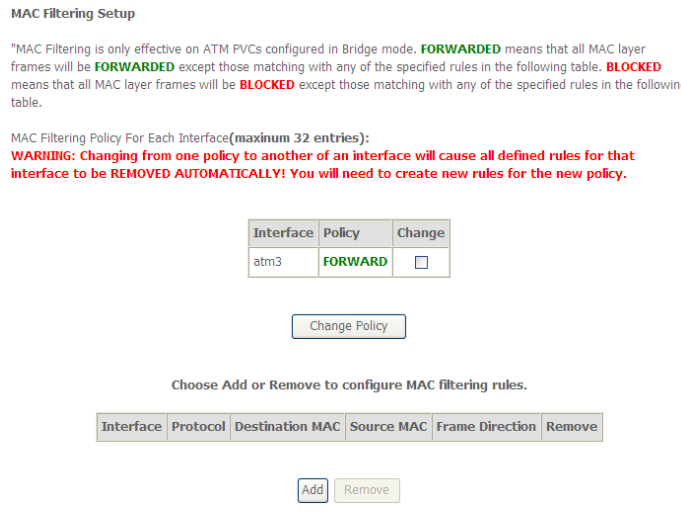
MAC Filtering Setup

In some cases, you may want to manage Layer2 MAC address to block or permit a computer within the home network. When you enable MAC filter rules, the DSL router serves as a firewall that works at layer 2.

Note:

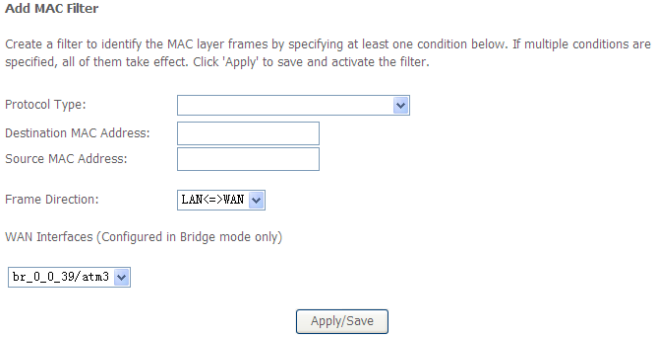
MAC filtering is only effective on ATM PVCs configured in bridge mode.

Choose **Security** > **MAC Filtering** and the following page appears.



In this page, you can add or remove the MAC filtering rule. You may change the MAC filtering policy from **FORWARDED** to **BLOCKED** by clicking the **Change Policy** button.

Click the **Add** button to display the following page.



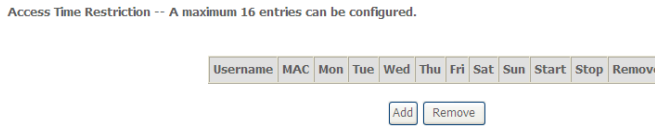
- **Protocol Type**: Select the proper protocol type.
- **Destination MAC Address**: Enter the destination MAC address.
- **Source MAC Address**: Enter the source MAC address.
- **Frame Direction**: The direction of transmission frame.
- **WAN Interface (Configured in bridge mode only)**: Select the proper WAN interface in the drop-down list.

After finishing setting, click **Apply/Save** to save and apply the filtering rule.

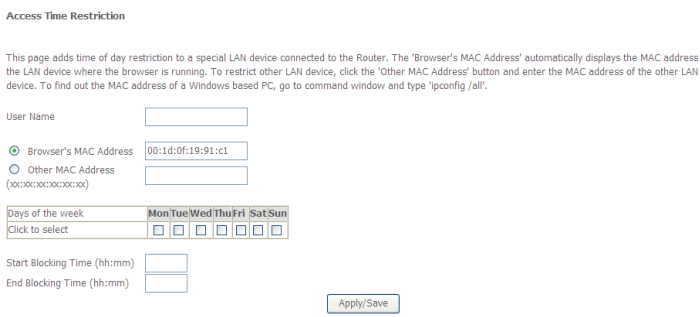
5.2.6 Parental Control

Time Restriction

Choose **Advanced Setup** > **Parental Control** > **Time Restriction**, and the following page appears.



Click the **Add** button to display the following page.

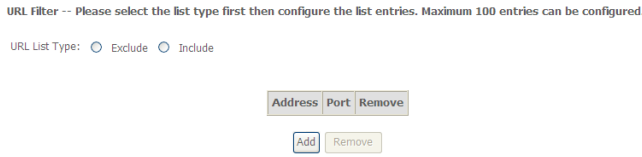


This page is used to control the time restriction to a special LAN device that connects to the DSL router. In this page, se the user name and configure the time settings.

After finishing setting, click the **Apply/Save** button to save and apply the settings.

Url Filter

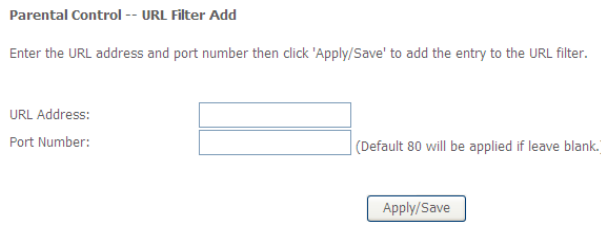
Click **Advanced Setup** > **Parental Contr**ol > **Url Filter**, and the following page appears.



Thisp age is used to prevent the LAN users from accessing some Websites in the WAN.

In this page, you may select the **Exclude** URL list type or the **Include** URL list type. If you select the **Exclude** URL list type, it means that the URLs in the list are not accessible. If you select the select the **Include** URL list type, you are allowed to access the the URLs in the list.

Click the **Add** button to display the following page.

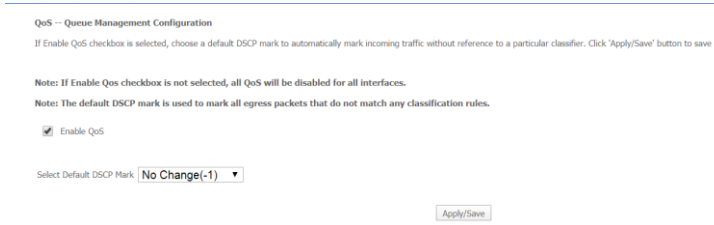


In this page, enter the URL address and its corresponding port number. For example, enter the URL address ***http://www.google.com*** and the port number **80**, and then click the **Apply/Save** button. See the following figure:

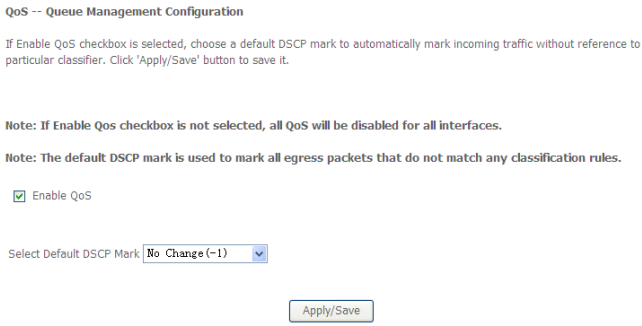
5.2.7 Quality of Service

Enabling QoS

Choose **Advance Setup > Quality of Service** and the following page appears.



Select **Enable QoS** to enable QoS and configure the default DSCP mark.



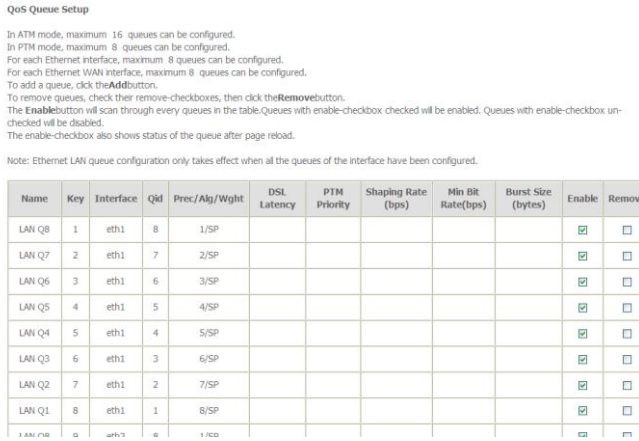
In this page, enable the QoS function and select the default DSCP mark. After finishing setting, click **Apply/Save** to save and apply the settings.

Note:

If the **Enable Qos** checkbox is not selected, all QoS will be disabled for all interfaces. The default DSCP mark is used to mark all egress packets that do not match any classification rules.

Queue Configuration

Choose **Advanced Setup** > **Quality of Service** > **QoS Queue**, and the following page appears.



QoS Queue Setup

In ATM mode, maximum 16 queues can be configured.
In PTM mode, maximum 8 queues can be configured.
For each Ethernet interface, maximum 8 queues can be configured.
For each Ethernet WAN interface, maximum 8 queues can be configured.
To add a queue, click the **Add** button.
To remove queues, check their remove-checkboxes, then click the **Remove** button.
The **Enable** button will scan through every queues in the table.Queues with enable-checkbox checked will be enabled. Queues with enable-checkbox un-checked will be disabled.
The enable-checkbox also shows status of the queue after page reload.

Note: Ethernet LAN queue configuration only takes effect when all the queues of the interface have been configured.

Name	Key	Interface	Qid	Prec/Alg/Wght	DSL Latency	PTM Priority	Shaping Rate (bps)	Min Bit Rate(bps)	Burst Size (bytes)	Enable	Remove
LAN Q8	1	eth1	8	1/SP						☑	☐
LAN Q7	2	eth1	7	2/SP						☑	☐
LAN Q6	3	eth1	6	3/SP						☑	☐
LAN Q5	4	eth1	5	4/SP						☑	☐
LAN Q4	5	eth1	4	5/SP						☑	☐
LAN Q3	6	eth1	3	6/SP						☑	☐
LAN Q2	7	eth1	2	7/SP						☑	☐
LAN Q1	8	eth1	1	8/SP						☑	☐

In this page, you can enable, add or remove a QoS rule.

Note:

The lower integer value for precedence indicates the higher priority.

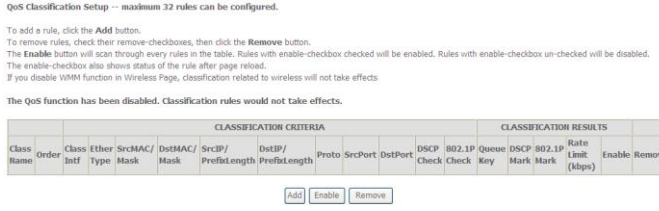
Click the **Add** button to display the following page.

- **Name:** Enter the name of QoS queue.
- **Enable:** Enable or disable the QoS queue.
- **Interface:** Select the proper interface for the QoS queue.

After finishing setting, click **Apply/Save** to save and apply the settings.

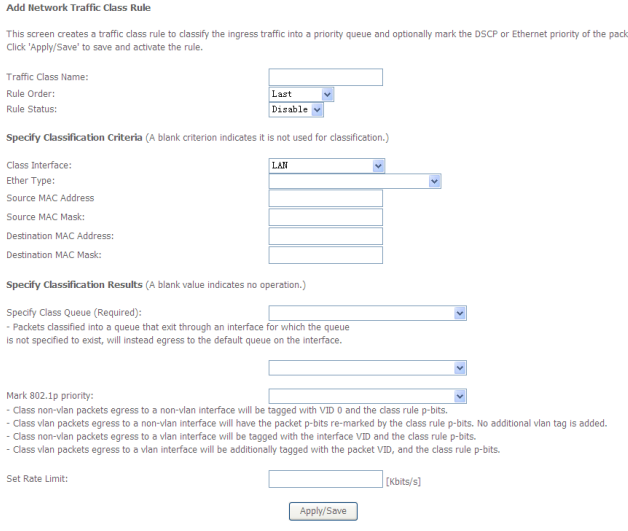
QoS Classification

Choose **Advanced Setup** > **Quality of Service** > **Qos Classification** and the following page appears.



In this page, you can enable, add or remove a QoS classification rule.

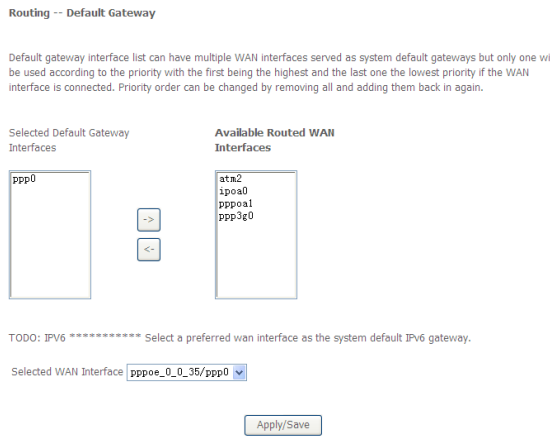
Click the **Add** button to display the following page.



5.2.8 Routing

Default Gateway

Choose **Advanced Setup** > **Routing** > **Default Gateway**, and the following page appears.



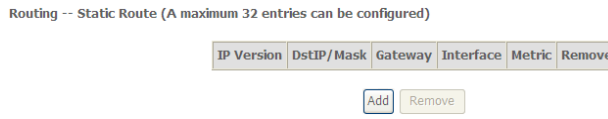
In this page, you can modify the default gateway settings.

Select a proper WAN interface in the drop-down list of **Selected WAN Interface** as the system default gateway.

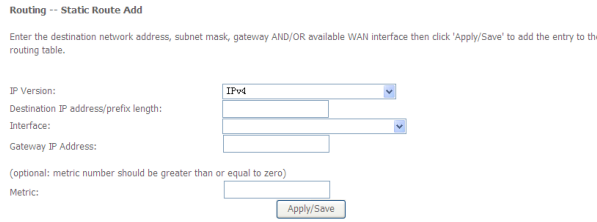
After finishing setting, click **Apply/Save** to save and apply the settings.

Static Route

Choose **Advanced Setup** > **Routing** > **Static Route** and the following page appears.



In this page, you can add or remove a static routing rule.
Click the **Add** button to display the following page.

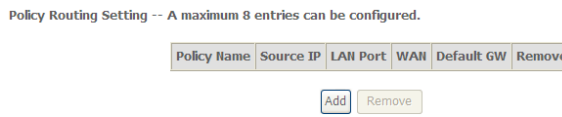


- **IP Version:** Select the IP version.
- **Destination IP address/prefix length:** Enter the destination IP address.
- **Interface:** select the proper interface for the rule.
- **Gateway IP Address:** The next-hop IP address.
- **Metric:** The metric value of routing.

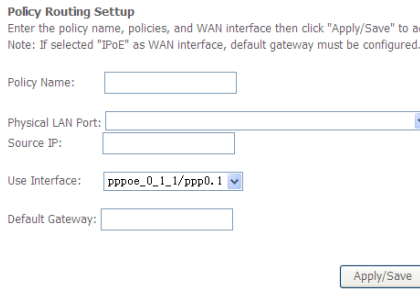
After finishing setting, click **Apply/Save** to save and apply the settings.

Policy Routing

Choose **Advanced Setup** > **Routing** > **Policy Routing** and the following page appears.



In this page, you can add or remove a static policy rule.
Click the **Add** button to display the following page.

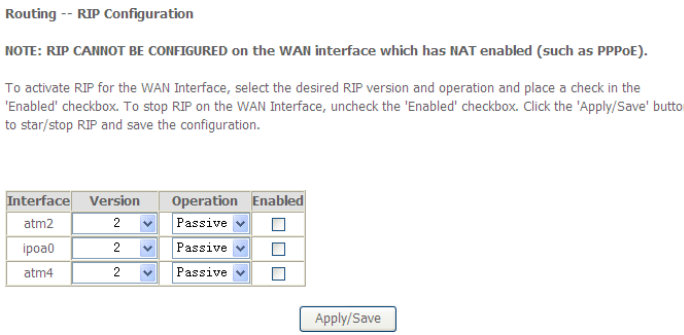


In this page, enter the policy name, source IP and default gateway, and select the physical LAN port and interface.

After finishing setting, click **Apply/Save** to save and apply the settings.

RIP

Choose **Advanced Setup > Routing > RIP** and the following page appears.



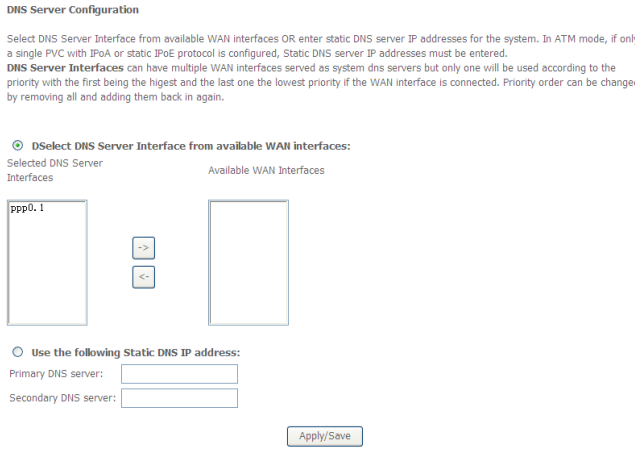
In this page, if you want to configure an individual interface, select the desired RIP version and operation, and then select the **Enabled** checkbox for the interface.

After finishing setting, click **Apply/Save** to save and apply the settings.

5.2.9 DNS

DNS Server

Choose **Advanced Setup > DNS > DNS Server** and the following page appears.



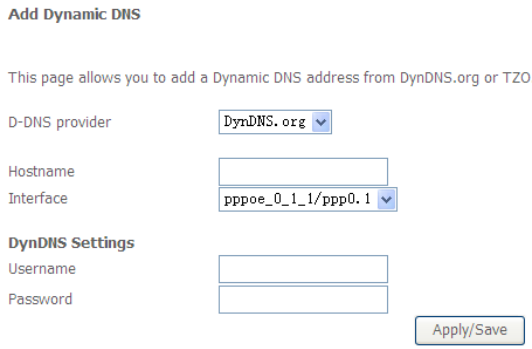
In this page, you can select a DNS server interface from the available interfaces, manually enter the DNS server addresses, or obtain the DNS address from a WAN interface.

After finishing setting, click **Apply/Save** to save and apply the settings.

Dynamic DNS

Choose **Advanced Setup > DNS > Dynamic DNS** and the following page appears.

In this page, you are allowed to modify the DDNS settings.
Click the **Add** button to display the following page.

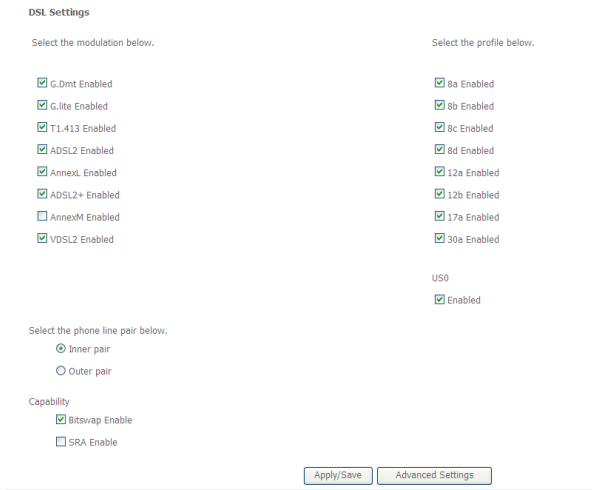


- **D-DNS provider:** Select a proper DDNS server in the drop-down list.
- **Hostname:** It is the domain name and it can be modified.
- **Interface:** The interface that the packets pass through on the DSL router.
- **Username:** Enter the username for accessing the DDNS management interface.
- **Password:** Enter the password for accessing the DDNS management interface.

After finishing setting, click **Apply/Save** to save and apply the settings.

5.2.10 DSL

Choose **Advanced Setup** > **DSL** and the following page appears. In this page, you can view the DSL settings. Usually, you can keep this factory default setting. The modem negotiates the modulation mode with the DSLAM.

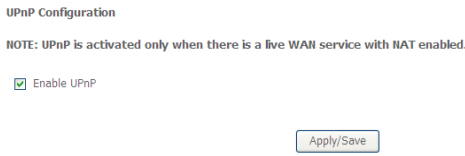


In this page, you can set the DSL settings. Usually, you do not need to modify the factory default settings.

After finishing setting, click **Apply/Save** to save and apply the settings.

5.2.11 UPnP

Choose **Advanced Setup > UPnP** and the following page appears.

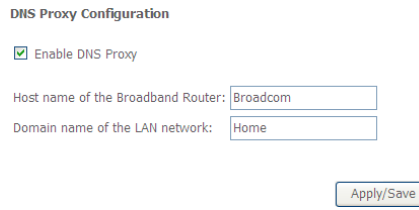


In this page, you can enable or disable the UPnP function.

After finishing setting, click **Apply/Save** to save and apply the settings.

5.2.12 DNS Proxy

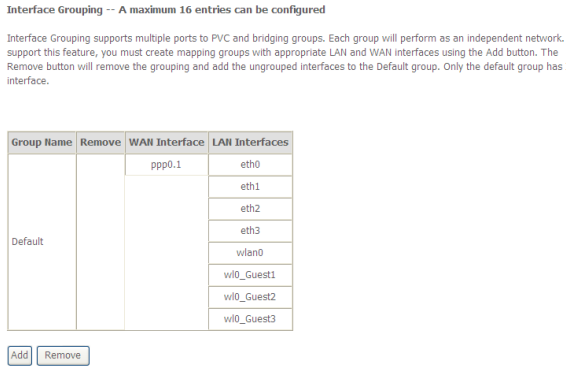
Choose **Advanced Setup > DNS Proxy** and the following page appears.



In this page, you can enable or disable the DNS proxy function.
After enabling the DNS proxy function, enter the host name of the broadband router and the domain name of the LAN network, and then click **Apply/Save** to save and apply the settings.

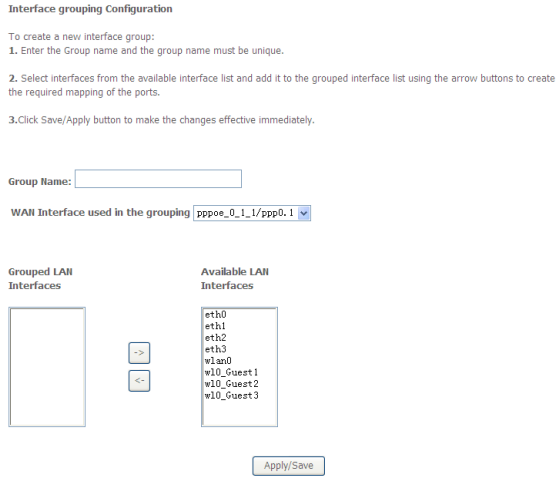
5.2.13 Interface Grouping

Choose **Interface Grouping** and the following page appears.



Interface grouping supports multiple ports to PVC and bridging groups. Each group will perform as an independent network. To support this feature, you must create mapping groups with the appropriate LAN and WAN interfaces using the **Add** button. The **Remove** button will remove the grouping and add the ungrouped interfaces to the default group. Only the default group has IP interface.

Click the **Add** button to display the following page.



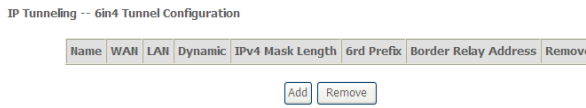
In this page, please follow the on-screen configuration steps to configure the parameters of the interface grouping.

After finishing setting, click **Apply/Save** to save and apply the settings.

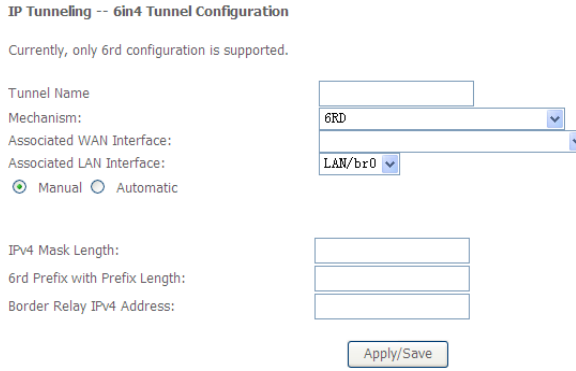
5.2.14 IP Tunnel

5.2.14.1 IPv6 in IPv4

Choose **Advanced Setup > IP Tunnel** > **IPv6inIPv4** and the following page appears. The default value is IPv6 in IPv4 information.

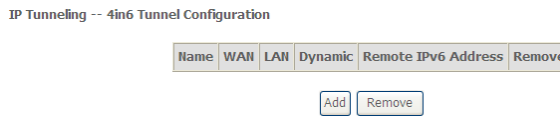


Click **Add** and the following page appears. In this page, you can add a new tunnel.

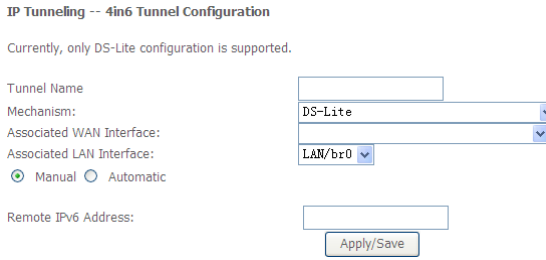


5.2.14.2 IPv4 in IPv6

Choose **Advanced Setup > IP Tunnel** > **IPv4inIPv6** and the following page appears.

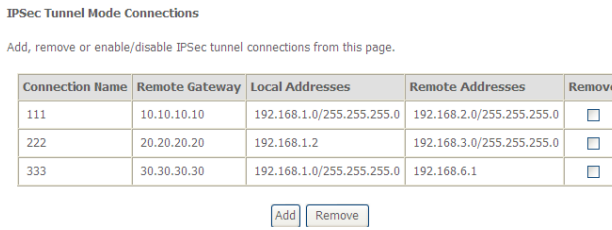


Click **Add** and the following page appears. In this page, you can add a new tunnel of IPv4 in IPv6.

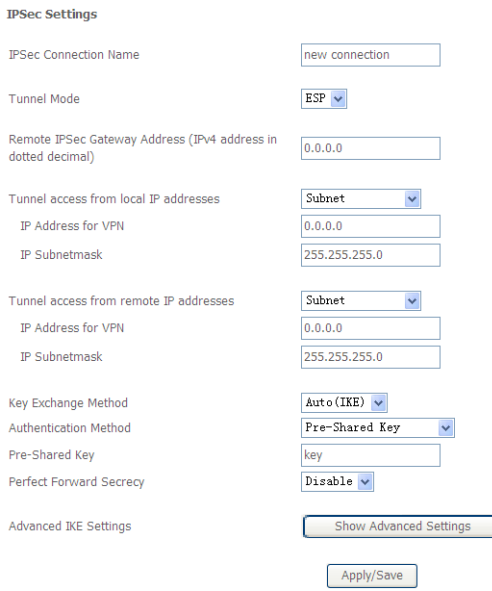


5.2.15 IPSec

Choose **Advanced Setup > IPSec** and the following page appears.



In this page, you can add or remove the IPSec tunnel connections. Click the **Add** button to display the following page.



In this page, set the parameters such as the IPSec connection name, tunnel mode, and remote IPSec gateway address.

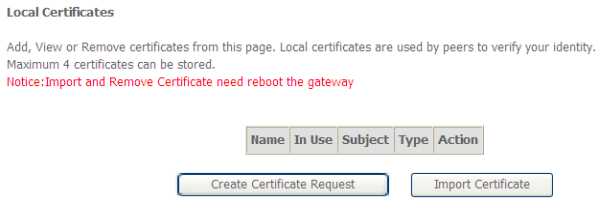
If you need to configure the advanced settings of this IPSec tunnel connection, please click the **Show Advanced Settings** button to display the other parameters.

After finishing setting, click **Apply/Save** to save and apply the settings.

5.2.16 Certificate

Local

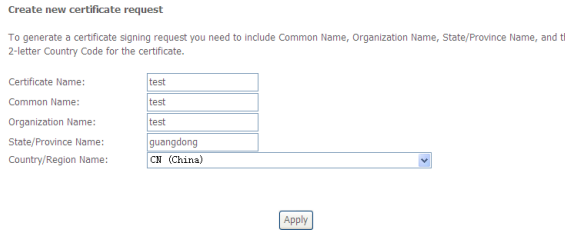
Choose **Advanced Setup > Certificate > local** and the following page appears.



In this page, you can acquire the local certificate by creating a certificate request or importing a certificate. You may also create or remove a certificate.

- **Creating a New Certificate Request**

Click the **Create Certificate Request** button to display the following page.

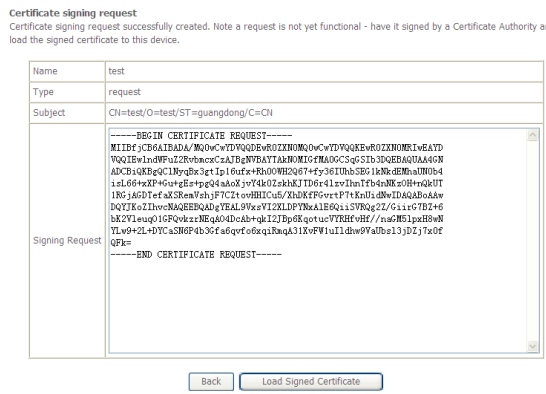


In this page, please set the following parameters.

- **Certificate name:** Set the certificate name.
- **Common Name:** The common name is the "fully qualified domain name," (or FQDN) used for DNS lookups of your server (for example, www.mydomain.com). Browsers use this information to identify your Web site. Some browsers will refuse to establish a secure connection with your site if the server name does not match the common name in the certificate. Please do not include the protocol symbol "http://" or any port numbers or pathnames in the common name. Do not use wildcard characters such as * or ?, and do not use an IP address.
- **Organization Name:** The name of the organization to which the entity belongs (such as the name of a company).

- **State/Province Name:** This is the name of the state or province where your organization's head office is located. Please enter the full name of the state or province.
- **Country/Region Name:** This is the two-letter ISO abbreviation for your country (for example, GB for the United Kingdom).

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



The certificate request needs to be submitted to a certificate authority, which will sign the request. Then the signed certificate needs to be loaded to the DSL router. Click **Load Signed Certificate** in this page, and the following page appears.

In this page, paste the signed certificate, and then click the **Apply** button. A new certificate is created.

- **Importing an Existing Local Certificate**

To import an existing certificate, click the **Import Certificate** button to display the following page.

In this page, paste the certificate and the private key. Finally, click the **Apply** button to import the certificate.

Trusted CA

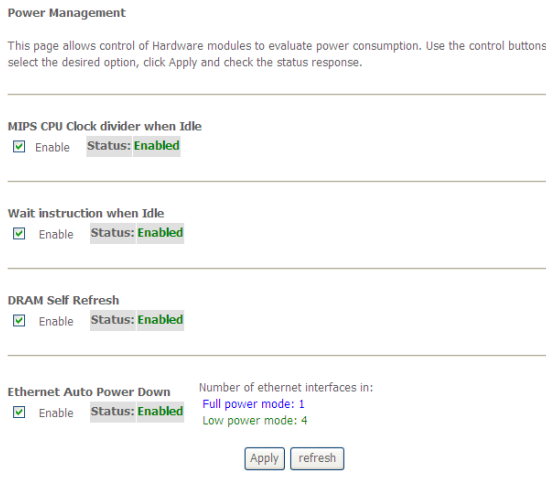
Choose **Advanced Setup > Certificate > Trusted CA** and the following page appears.

In this page, you may import or remove a CA certificate.
Click the **Import Certificate** button to display the following page.

In this page, enter the certificate name and paste the certificate content. Finally, click the **Apply** button to import the certificate.

5.2.17 Power Management

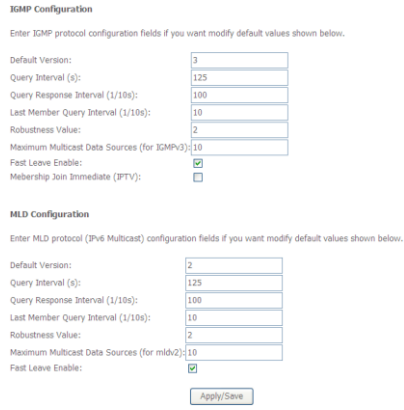
Choose **Advanced Setup** > **Power Management** and the following page appears. This page allows control of Hardware modules to evaluate power consumption. Use the control buttons to select the desired option.



After proper configurations, click **Apply** to take the configurations effect

5.2.18 Multicast

Choose **Advanced Setup > Multicast** and the following page appears.

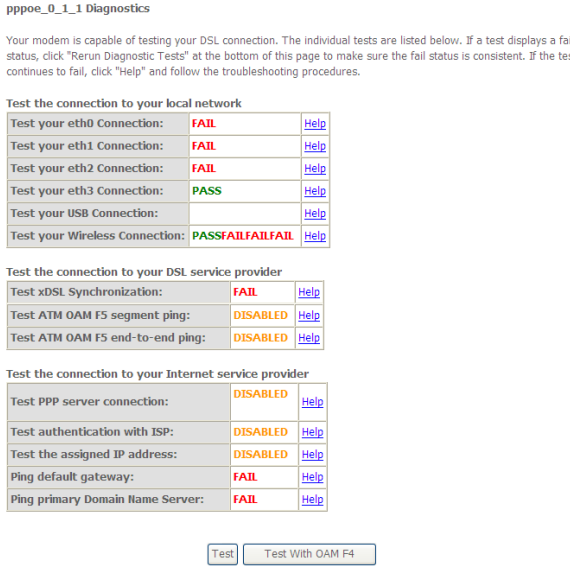


In this page, you can configure the multicast parameters.
After finishing setting, click **Apply/Save** to save and apply the settings.

5.3 Diagnostics

5.3.1 Diagnostics

Click **Diagnostics** > **Diagnostics**, and the following page appears.
This page is used to test the connection to your local network, the connection to your DSL service provider, and the connection to your Internet service provider. You may diagnose the connection by clicking the **Test** button or click the **Test With OAM F4** button. If the test continues to fail, click **Help** and follow the troubleshooting procedures.


pppoe_0_1_1 Diagnostics

Your modem is capable of testing your DSL connection. The individual tests are listed below. If a test displays a fail status, click "Rerun Diagnostic Tests" at the bottom of this page to make sure the fail status is consistent. If the test continues to fail, click "Help" and follow the troubleshooting procedures.

Test the connection to your local network

Test your eth0 Connection:	FAIL	Help
Test your eth1 Connection:	FAIL	Help
Test your eth2 Connection:	FAIL	Help
Test your eth3 Connection:	PASS	Help
Test your USB Connection:		Help
Test your Wireless Connection:	PASSFAILFAILFAIL	Help

Test the connection to your DSL service provider

Test xDSL Synchronization:	FAIL	Help
Test ATM OAM F5 segment ping:	DISABLED	Help
Test ATM OAM F5 end-to-end ping:	DISABLED	Help

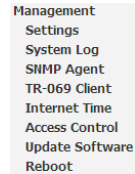
Test the connection to your Internet service provider

Test PPP server connection:	DISABLED	Help
Test authentication with ISP:	DISABLED	Help
Test the assigned IP address:	DISABLED	Help
Ping default gateway:	FAIL	Help
Ping primary Domain Name Server:	FAIL	Help

Test | Test With OAM F4

5.4 Management

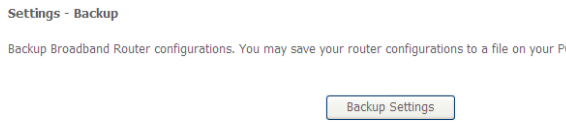
Choose **Management** and the submenus of **Management** are shown as below:



5.4.1 Settings

Backup

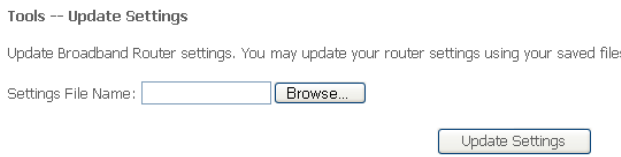
Choose **Management > Settings > Backup** to display the following page.



In this page, click the **Backup Settings** button to save your router's settings to your local PC.

Update

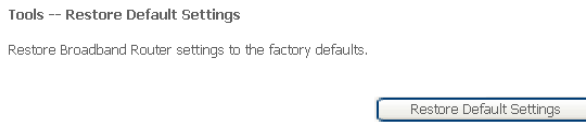
Choose **Management > Settings > Update**, and the following page appears.



In this page, click the **Browse…** button to select the correct new settings file, and then click the **Update Settings** button to update the router's settings.

Restore Default

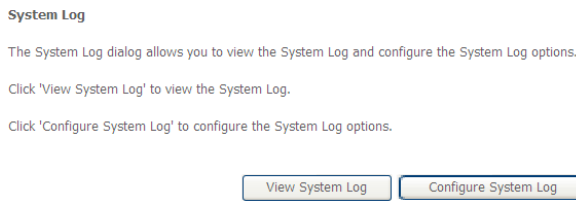
Choose **Management > Settings > Restore Default** to display the following page.



In this page, click the **Restore default settings** button, and then system returns to the default settings.

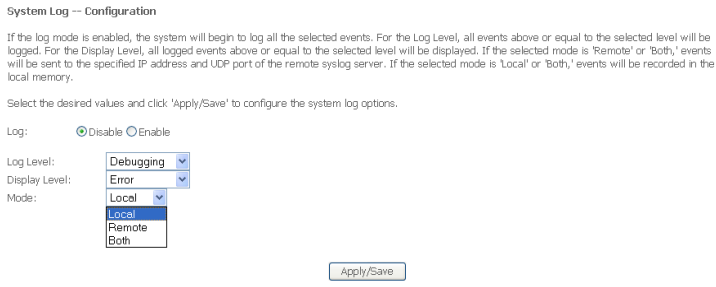
5.4.2 System Log

Choose **Management > System Log** to display the following page.



In this page, you are allowed to configure the system log and view the security log.

- **Configuring the System Log:** Click the **Configure System Log** button to display the following page.



In this page, you can set 3 types of system log modes, including **Local**, **Remote**, and **Both**.

- **Local:** When selecting **Local**, the events are recorded in the local memory.
- **Remote:** When selecting **Remote**, the events are sent to the specified IP address and UDP port of the remote system log server.
- **Both:** When selecting **Both**, the events are recorded in the local memory or sent to the specified IP address and UDP port of the remote system log server.

After finishing setting, click the **Apply/Save** button to save and apply the settings.

Note:

*If you want to log all the events, you need to select the **Debugging** log level.*

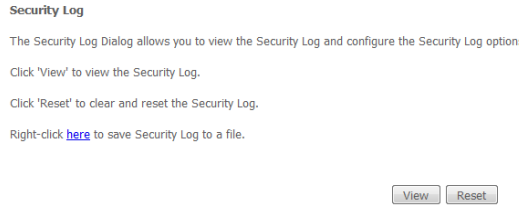
- **View System Log:** Click the **View System Log** button to display the following page.

In this page, you can view the system log.

Click the **Refresh** button to refresh the system log. Click the **Close** button to exit.

5.4.3 Security Log

Choose **Management > Security Log** to display the following page.

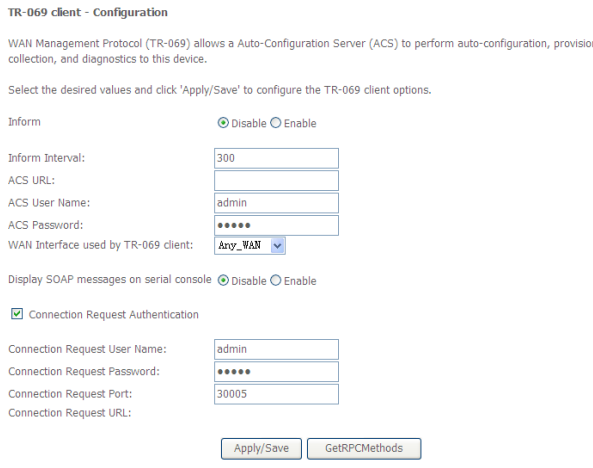


In this page, you are allowed to configure the system log and view the security log.

- **View:** Click the **view** button to view the Security Log.
- **Reset:** Click the **Reset** button to clean the log

5.4.4 TR-69 Client

Choose **Management > TR-069Client** to display the following page.



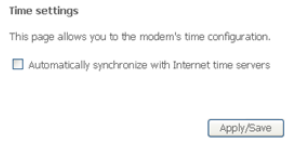
WAN Management Protocol (TR-069) allows an Auto-Configuration Server (ACS) to perform auto-configuration, provision, collection, and diagnostics to this device.

In this page, you may configure the parameters such as the ACS URL, ACS password, and connection request user name.

After finishing setting, click the **Apply/Save** button to save and apply the settings.

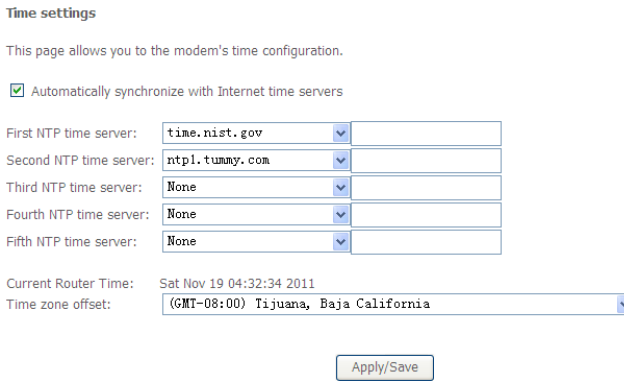
5.4.5 Internet Time

Choose **Management > Internet Time** to display the following page.



In this page, you may configure the router to synchronize its time with the Internet time servers.

After enabling **Automatically synchronize with Internet time servers**, the following page appears.

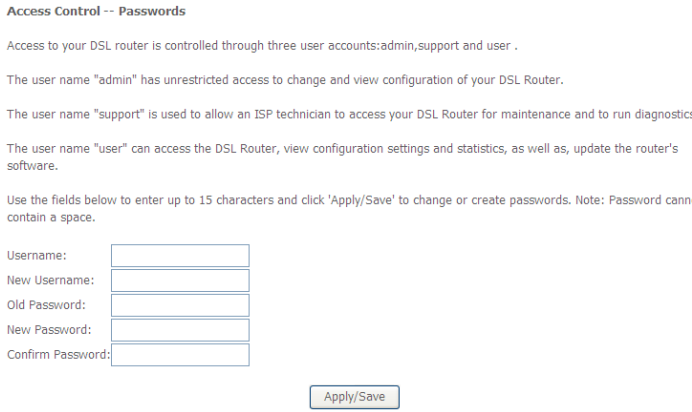


In this page, set the proper time servers, and then click the **Apply/Save** button to save and apply the settings.

5.4.6 Access Control

Passwords

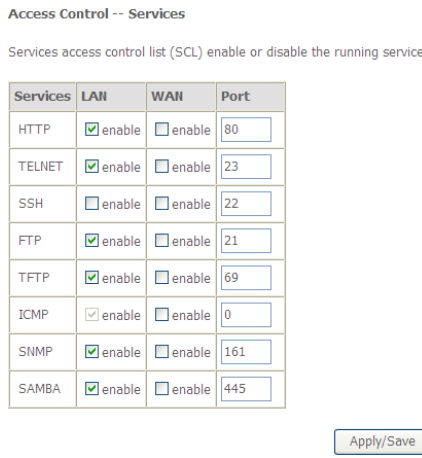
Choose **Management > Access Control > Passwords**, and the following page appears.



In the page, you can modify the username and password of different users. After finishing setting, click the **Apply/Save** button to save and apply the settings.

Services

Choose **Management > Access Control > Services Control** and the following page appears.

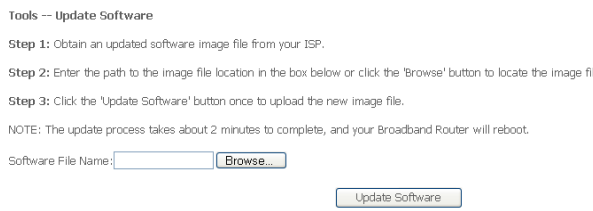


In this page, you can enable or disable the different types of services.

After finishing setting, click the **Apply/Save** button to save and apply the settings.

5.4.7 Update Software

Choose **Management > Update Software**, and the following page appears.



If you want to upload the software, click the **Browse…** button to choose the new software, and then click the **Update Software** button.

Note:

When software update is in progress, do not shut down the router. After software update completes, the router automatically reboots.

Please make sure that the new software for updating is correct, and do not use other software to update the router.

5.4.8 Reboot

Choose **Management > Reboot** and the following page appears.

In this page, click the **Reboot** button, and then the router reboots.

6 Q&A

(1) **Q**: Why all the indicators are off?

A: Check the following:

- The connection between the power adaptor and the power socket.
- The status of the power switch.

(2) **Q**: Why the **LAN** indicator is off?

A: Check the following:

- The connection between the ADSL router and your computer, hub, or switch.
- The running status of your PC, hub, or switch.

(3) **Q**: Why the **DSL** indicator is off?

A: Check the connection between the "DSL" port of router and the wall jack.

(4) **Q**: Why Internet access fails while the **DSL** indicator is on?

A: Check whether the VPI, VCI, user name, and password are correctly entered.

(5) **Q**: Why I fail to access the web configuration page of the DSL router?

A: 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.

(6) **Q**: How to load the default settings after incorrect configuration?

A: To restore the factory default settings, turn on the device, and press the reset button for about 1 second, 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.

- User/password of super user: **admin**/**admin**
- User/password of common user: **user**/**user**