

# Tenda

## User Guide

[www.tendacn.com](http://www.tendacn.com)



Wireless N300 ADSL2+ High Power Modem Router

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# Chapter 1 Get to Know Your Router

## 1.1 What it does

The Wireless N300 ADSL2+ High Power Modem Router provides you with an easy and secure way to set up a wireless home network with fast access to the Internet over a high-speed digital subscriber line (DSL). Complete with a built-in ADSL modem, it is compatible with all major ADSL Internet service providers. It offers wireless speeds of up to 300Mbps needed for demanding applications, such as large file transfers, streaming HD video, and multiplayer gaming. The unit comes with a wide range of premium features and applications such as IPv6, SNMP, Multicast, IP tunnel, ready share USB, IPTV service and parental controls, etc. Plus, with the router, you can access the Internet via the ATM interface or Ethernet interface.

## 1.2 Product Features

**Wireless N** speeds up to 300 Mbps for streaming HD videos and online gaming in addition to basic Internet applications

**All-in-one device** combines a built-in ADSL2+ modem, wired router, wireless router and switch

**Sharable USB** lets you access and share files on an attached USB hard drive

**Sharable Printer** lets you print from your Windows computer to a connected USB printer

**Advanced QoS** helps prioritize media streaming and gaming applications for best entertainment experience

**Parental Control** keeps your kids Internet experience safe using flexible and customizable filter settings

**One-touch WPS** ensures a quick and secure network connection

**WEP and WPA/WPA2** are supported for advanced encryptions

**Compatibility:** Works with all major ADSL Internet service providers (ISPs); backward compatible with 802.11b/g WiFi devices

**Interchangeable LAN/WAN** ports to schedule the Ethernet port to function either as a LAN or a WAN port

**Interchangeable LAN/IPTV** to schedule the Ethernet port to function either as a LAN or an IPTV port

**Optional Ethernet and ADSL Uplinks:** Access the Internet via ADSL2+ Broadband Internet Service or an interchangeable LAN/WAN RJ45 port

**Multiple Internet Connection Types:** Bridging, PPPoE, IPoE, PPPoA, IPoA, dynamic IP and static IP

**IPTV Service** lets your surf the Internet while watching online TV

**6000V lightning—proof** design fits into lightning-intensive environment

**Strong driving capability** up to 6.5Km transmission distance

**High ADSL speed** up to 24Mbps downstream 1Mbps upstream

**Built-in firewall** prevents hacker attacks

**Channel auto-select** for optimum performance

**FDM** technology enables telephoning, faxing and surfing activities to proceed simultaneously without mutual interference

**Other Advanced Features:** IPv6, DDNS, virtual server, DMZ, port triggering, IP filter, MAC filter and UPnP, etc.

**Tenda Setup Wizard** for easy and fast installation and configuration

**Tenda Green:** Use hardware Power On/Off and software WiFi On/Off buttons to turn on and off power and WiFi to save energy when not in use

## 1.3 Package Contents

Your box should contain the following items:

- Wireless N300 ADSL2+ High Power Modem Router
- Telephone Line
- Ethernet Cable
- ADSL Splitter
- Install Guide
- Power Adapter
- Resource CD

If any of the parts are incorrect, missing, or damaged, keep the carton, including the original packing materials and contact the dealer for immediate replacement.

# Chapter 2 Hardware Install

If you have not set up your new router using the Install Guide that comes in the box, this chapter walks you through the hardware install. To set up your Internet connection, see [Chapter 3 Quick Internet Setup](#).

## 2.1 LED Indicators, Buttons and Interfaces

### Front Panel



LED	Status	Description
PWR	Solid	Power is supplied to the device.
	Off	Power is not supplied to the device.
SYS	Blinking	System is functioning correctly.
	Solid/Off	System is functioning incorrectly.
WLAN	Blinking	Transmitting data via wireless
	Off	Wireless is disabled.
	Solid	Wireless is enabled.
DSL	Slow Blinking	Physical connection failure.
	Fast Blinking	Synchronizing...
	Solid	ADSL connection is established.

4/iTV 3/2 1/WAN	Off	No connection established
	Blinking	Transmitting data
	Solid	Connection is established.
WPS	Solid	Client connected successfully.
	Blinking	WPS LED starts blinking if you press the WPS button on the device or interface.
	Off	No wireless clients are connected. WPS LED turns off after blinking for 2 minutes.
USB	Solid	Connection is successfully established on the USB port.
	Off	Connection is not established on the USB port.
INTERNET	Solid	Current client is connecting to the Internet; no data is transmitted via the Internet.
	Blinking	Current client is connecting to the Internet; data is transmitted via the Internet.
	Off	Current Internet client is not connecting to the Internet.

## Back Panel

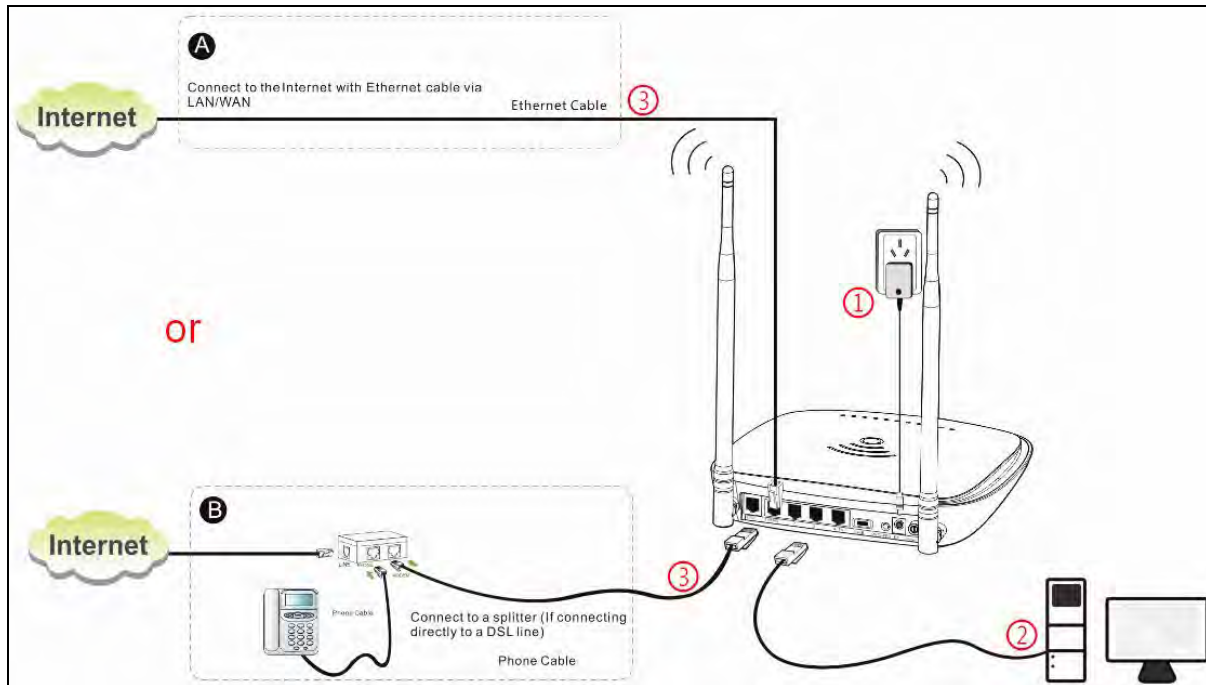


Button & Interface	Description
DSL	For connecting the router to the Internet via a phone cable provided by your ISP.
1/WAN	LAN port or WAN port. When you access the Internet via the DSL, this port works as a LAN port which can be used to connect to a PC, switch, or a router; when you access the Internet via an Ethernet cable from your ISP directly, this port works as a WAN port. <b>Note:</b> It works as a LAN port by default.
2/3	LAN port, used to cable the device to the local network devices such as computers.
4/iTV	LAN port or IPTV port. When IPTV feature is disabled, it works as a LAN port which can be used to connect to a PC, switch or a router; when IPTV feature is enabled, it works as an IPTV port, and it can only be connected to a set-top box. <b>Note:</b> IPTV feature is disabled by default.
USB	Used to connect a USB device, such as a 3G USB modem, USB print server or storage service.
RST/WPS	Press it for 1-3 seconds to enable WPS-PBC feature; Press it for about 10 seconds to restore all configurations to factory defaults.



DC	Used to connect to the power adapter, which is included in the package.
ON/OFF	Power switch to turn the router on or off.

## 2.2 Install the Device



- ① Connect the included power adapter to your router and turn on the router.
- ② Connect your computer to your router.
- ③ Connect your router to the Internet. Choose **ADSL Mode** or **ETH Mode** according to your actual Internet service type.

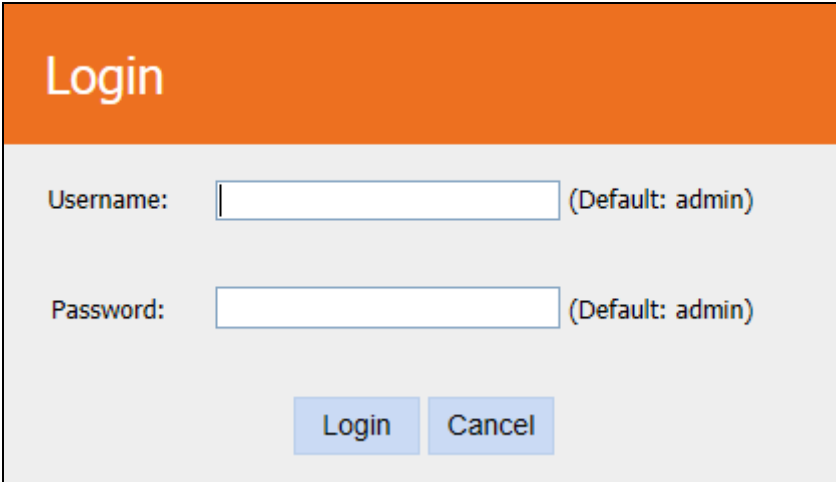
<b>ADSL Mode</b> (Phone cable access)	With a telephone	Simply connect the DSL line to the DSL port of your router.
	Without a telephone	Use the splitter as a medium: 1) Connect the DSL line from the Internet side to the LINE port of the splitter; 2) Connect the telephone with a phone cable to the PHONE port of the splitter; 3) Connect the MODEM port of the splitter and DSL port of your router via another phone cable.
<b>ETH Mode</b> (Ethernet cable access)	Do not go to <b>Step 3</b> (connect the Ethernet cable to the LAN/WAN port) until you finish the Primary Setup of Internet connection type on the Web Management Homepage, i.e., finish settings in <b>Ethernet Mode</b> in <a href="#">Chapter 3 Quick Internet Setup &gt;3.2 Internet Setup</a> .	

# Chapter 3 Quick Internet Setup

This chapter instructs you to quickly set up your Internet connection.

## 3.1 Log in to Web Manager

1. Set your PC to **Obtain an IP address automatically**. For more information, see [Appendix 1 Configure Your PC](#).
2. Launch a web browser and enter **192.168.1.1** to display the login window.



Username:  (Default: admin)

Password:  (Default: admin)

Login Cancel

3. Enter **admin** in both the Login Username and Password fields if you access the router for the first time and then click **Login** to enter the home page.

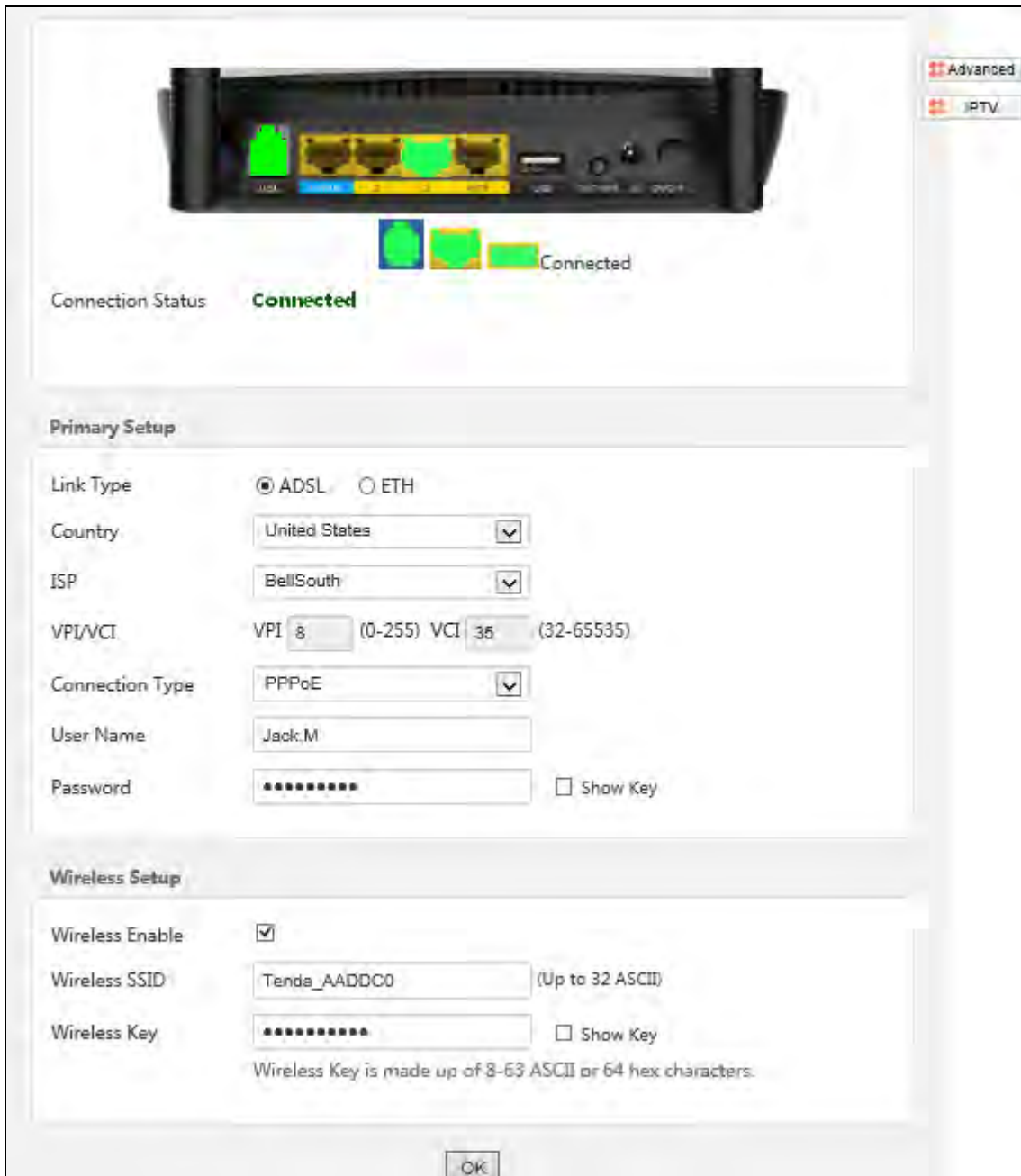


If you change the login username and password and forget them, press the RST/WPS button on the device for about 10 seconds to reset the router, and then enter the home page with the default username and password “admin”.

## 3.2 Internet Setup

### 3.2.1 ADSL Mode

1. **Link Type:** Select ADSL.
2. Select your country.
3. Select your ISP.
4. VPI/VCI fields will be populated automatically if you select a correct country and ISP.
5. Select your **Connection Type**, and fill the relevant Internet information.
6. Secure your wireless network. (Strongly Recommended)
7. Click **OK** to apply your configurations.



Depending on the type of connection, you are prompted to enter your ISP settings, as shown in the following table:

Connection Type		Description
PPPoE/PPPoA		Enter the ISP user name and password. If you cannot locate this information, ask your ISP to provide it.
IPoE	Dynamic IP	No entries are needed.
	Static IP	Enter the assigned IP address, subnet mask, and the IP address of your ISP's primary DNS server. This information should have been provided to you by your ISP. If a secondary DNS server address is available, enter it also.
IPoA	Static IP	Enter the assigned IP address, subnet mask, and the IP address of your ISP's primary DNS server. This information should have been provided to you by your ISP. If a secondary DNS server address is available, enter it also.

Bridge	When Bridge mode is enabled, this device works as a modem. If you wish to initiate a dialup directly from your PC for Internet access or enjoy the entire Internet connection by yourself (instead of sharing it with others), you can select <b>Bridge</b> .
--------	---

 **Note**

If your country and/or your ISP are not covered on the home page, select **Other** country and ISP, and set VCI and VPI value manually. If you cannot locate this information, refer to [Appendix 4 VPI/VCI List](#) or ask your ISP to provide it. For more information, see [To Set up the ATM interface](#) and [To Set up WAN Service for ATM Interface](#).

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## 3.2.2 Ethernet Mode

1. **Link Type:** Select **ETH**.
  2. Select your **Connection Type** according to your accessing method.
  3. Secure your wireless network. (Strongly Recommended)
  4. Click **OK** to apply your configurations.
- 

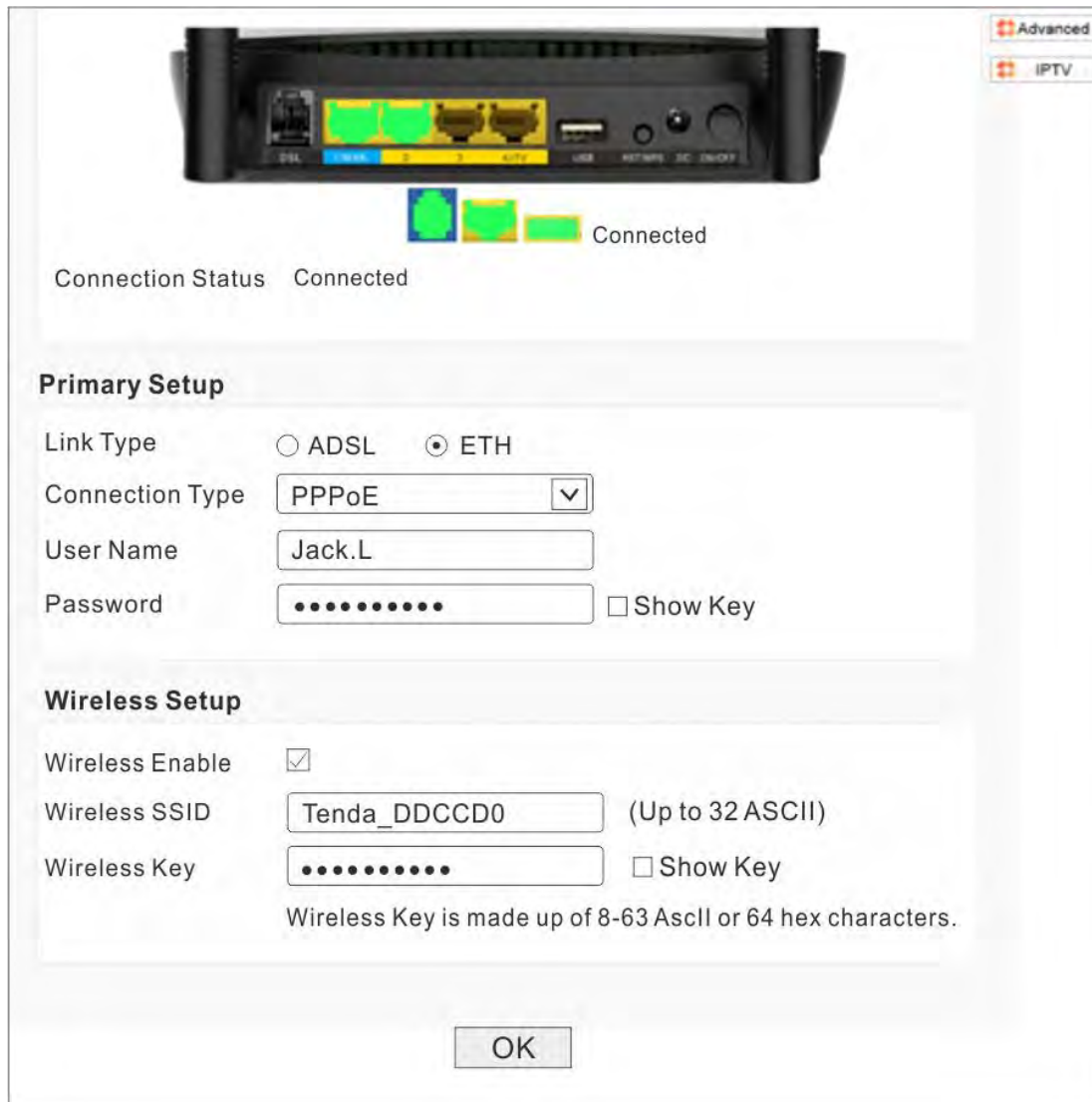
 **Note**

After saving the Ethernet mode settings, you will see the following prompt:

Connection Status	Disconnected
There is no Ethernet cable inserting to WAN port, and please insert Ethernet cable to Wan/Lan1 port	

And then you need to connect the Ethernet cable from the Internet side provided by your ISP to the LAN/WAN port, i.e. to finish **Step 3** of Ethernet Mode in [Chapter 2 Hardware Install-> 2.2 Install the Device](#).

---



The screenshot shows the Tenda router's web interface. At the top, there is a photo of the router and a status bar with 'Advanced' and 'IPTV' tabs. Below the photo, the connection status is shown as 'Connected' with three colored signal strength indicators. The 'Primary Setup' section includes:
 

- Link Type:  ADSL,  ETH
- Connection Type: PPPoE (dropdown menu)
- User Name: Jack.L
- Password: [masked] with a 'Show Key' checkbox.

 The 'Wireless Setup' section includes:
 

- Wireless Enable:
- Wireless SSID: Tenda\_DDCCD0 (Up to 32 ASCII)
- Wireless Key: [masked] with a 'Show Key' checkbox.
- Wireless Key is made up of 8-63 ASCII or 64 hex characters.

 An 'OK' button is located at the bottom of the form.

Depending on the type of connection, you are prompted to enter your ISP settings, as shown in the following table:

Connection Type		ISP Information
PPPoE		No entries are needed.
IPoE	Static IP	Enter the assigned IP address, subnet mask, and the IP address of your ISP's primary DNS server provided by your ISP. If a secondary DNS server address is available, enter it also.
	Dynamic IP	Enter the user name and password provided by your ISP.

### 3.2.3 Test Internet Connectivity

If **Connection Status** shows **Connected** shown as below, you access the Internet now.

Connection Status **Connected**

Try to launch a web browser and enter [www.tendacn.com](http://www.tendacn.com). If the webpage displays properly, you are connected to the Internet.

## Chapter 4 Advanced Settings

If you prefer configuring your router for unique situations, consult this chapter to know advanced features.

Click **Advanced** on the home page to enter the screen below.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Device Info', 'Advanced Setup', 'Wireless', 'Diagnostics', and 'Management'. The 'Advanced Setup' section is active, displaying WAN connection details. Below this, the 'xDSL status' section contains a table with various parameters.

**WAN Connection Status:** This information reflects the current status of your WAN connection.

- Internet Connection Status: Connected
- Internet Connection Type: PPPoE
- WAN IP: 0.0.0.0
- WAN MAC: C8:3A:35:DD:CC:D3
- Subnet Mask: 255.255.255.255
- Gateway: 0.0.0.0
- Primary DNS Server: 172.16.100.205
- Secondary DNS Server: 211.136.192.6
- Connection Duration: 00 0H 29M 57S

**xDSL status**

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):		

## 4.1 Device Info

### 4.1.1 Summary

Here you can view system information and current status of your WAN connection as seen in the screenshot.

The screenshot shows the Tenda router's web interface. The top navigation bar is orange with the 'Tenda' logo. On the left, a sidebar menu lists various settings: Device Info (selected), Summary (highlighted in red), WAN, Statistics, Route, ARP, DHCP, Advanced Setup, Wireless, Diagnostics, and Management. The main content area is titled 'Device Info' and contains a sub-section for 'Summary'. A note states: 'This information reflects the current status of your WAN connection.' Below this, the WAN connection details are listed:

- Internet Connection Status: Connected
- Internet Connection Type: PPPoE
- WAN IP: 0.0.0.0
- WAN MAC: C8:3A:35:DD:CC:D3
- Subnet Mask: 255.255.255.255
- Gateway: 0.0.0.0
- Primary DNS Server: 172.16.100.205
- Secondary DNS Server: 211.136.192.6
- Connection Duration: 00 0H 31M 24S

Below the WAN details is the 'xDSL status' section, which includes a table with the following data:

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):		



### 4.1.2 WAN

Here you can view the WAN Information including Interface, Description, Type, IGMP, NAT, Firewall, Status, IPv4 Address, etc.

**Tenda**

Device Info  
Summary  
**WAN**  
Statistics  
Route  
ARP  
DHCP  
Advanced Setup  
Wireless  
Diagnostics  
Management

WAN Info

Interface	Description	Type	VlanMuxId	IPv6	Igmp	MLD	NAT	Firewall	Status	IPv4 Address	IPv6 Address
eth0.1	ipoe_eth3	IPoE	Disabled	Disabled	Disabled	Disabled	Enabled	Enabled	Connected	192.168.100.58	

### 4.1.3 Statistics

Here you can view the packets received and transmitted on LAN and WAN ports.

**Statistics--LAN:** Displays the packets received and transmitted on the LAN ports as seen in the screenshot below.

**Tenda**

Device Info  
Summary  
WAN  
Statistics  
**LAN**  
WAN  
xDSL  
Route  
ARP  
DHCP  
Advanced Setup  
Wireless  
Diagnostics  
Management

Statistics -- LAN

Interface	Received				Transmitted			
	Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops
LAN2	0	0	0	0	0	0	0	0
LAN3	1012247	7035	0	0	1837244	4144	0	0
4/TV	0	0	0	0	0	0	0	0
2.4GHz	0	0	0	0	8787	81	0	0

Reset Statistics

**Statistics--WAN:** Displays the packets received and transmitted on the WAN port as seen in the screenshot below.



The screenshot shows the Tenda router's web interface. The top navigation bar is orange with the 'Tenda' logo. On the left, a sidebar menu lists 'Device Info', 'Summary', 'WAN', 'Statistics', 'LAN', 'WAN' (highlighted in red), 'xDSL', 'Route', and 'ARP'. The main content area is titled 'Statistics -- WAN' and contains a table with the following data:

Interface	Description	Received				Transmitted			
		Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops
eth0.1	ipoe_eth3	1257257	8445	0	0	452138	2430	0	0

Below the table is a 'Reset Statistics' button.

Statistics-xDSL: Display the packets received and transmitted on the DSL port.

The screenshot shows the Tenda router's web interface. The top navigation bar is orange with the 'Tenda' logo. On the left, a sidebar menu lists 'Device Info', 'Summary', 'WAN', 'Statistics', 'LAN', 'WAN', 'xDSL' (highlighted in red), 'Route', 'ARP', 'DHCP', 'Advanced Setup', 'Wireless', 'Diagnostics', and 'Management'. The main content area is titled 'Statistics -- xDSL' and contains a table with the following data:

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):		

## 4.1.4 Route

Here you can view the route table as seen in the screenshot:

The screenshot shows the Tenda router's web interface. The top navigation bar is orange with the Tenda logo. On the left, there is a sidebar menu with options: Device Info, Summary, WAN, Statistics, Route (highlighted in red), ARP, DHCP, Advanced Setup, Wireless, Diagnostics, and Management. The main content area is titled "Device Info -- Route". Below the title, there is a legend for flags: U - up, I - reject, G - gateway, H - host, R - reinstate, D - dynamic (redirect), M - modified (redirect). Below the legend is a table with the following data:

Destination	Gateway	Subnet Mask	Flag	Metric	Service	Interface
172.16.100.205	192.168.100.1	255.255.255.255	UGH	0	ipoe_eth3	eth0.1
192.168.100.0	0.0.0.0	255.255.255.0	U	0	ipoe_eth3	eth0.1
192.168.100.0	192.168.100.1	255.255.255.0	UG	1	ipoe_eth3	eth0.1
192.168.1.0	0.0.0.0	255.255.255.0	U	0		br0
0.0.0.0	192.168.100.1	0.0.0.0	UG	0	ipoe_eth3	eth0.1

## 4.1.5 ARP

Here you can view the IP and MAC addresses of the PCs that attach to the device either via a wired or wireless connection as seen in the screenshot:

The screenshot shows the Tenda router's web interface. The top navigation bar is orange with the Tenda logo. On the left, there is a sidebar menu with options: Device Info, Summary, WAN, Statistics, Route, ARP (highlighted in red), DHCP, Advanced Setup, Wireless, Diagnostics, and Management. The main content area is titled "Device Info -- ARP". Below the title is a table with the following data:

IP address	Flags	HW Address	Device
192.168.100.1	Complete	e4:68:a3:93:00:4b	eth0.1
192.168.1.2	Complete	44:37:a6:36:fb:25	br0

## 4.1.6 DHCP

Here you can view the DHCP leases, including IP and MAC addresses of the PCs, hostnames and remaining lease time as seen in the screenshot:

The screenshot shows the Tenda router's web interface. On the left is a navigation menu with options: Device Info, Summary, WAN, Statistics, Route, ARP, **DHCP**, Advanced Setup, Wireless, Diagnostics, and Management. The main content area is titled "Device Info -- DHCP Leases" and contains a table with the following data:

Hostname	MAC Address	IP Address	Expires In
VitaPC	44:37:e6:36:fb:25	192.168.1.2	23 hours, 48 minutes, 25 seconds
idrac-3ZT463X	78:2b:cb:47:aa:26	192.168.1.3	46 minutes, 19 seconds

## 4.2 Advanced Setup

### 4.2.1 Layer2 Interface

Click **Advanced Setup** > **Layer2 Interface** to enter the Layer2 Interface screen.

The screenshot shows the Tenda router's web interface for "DSL ATM Interface Configuration". The left navigation menu includes: Device Info, Advanced Setup, **Layer2 Interface**, ATM Interface, ETH Interface, WAN Service, LAN, NAT, and Security. The main content area has the title "DSL ATM Interface Configuration" and a sub-header "Choose Add, or Remove to configure DSL ATM interfaces." Below this is a table with the following columns:

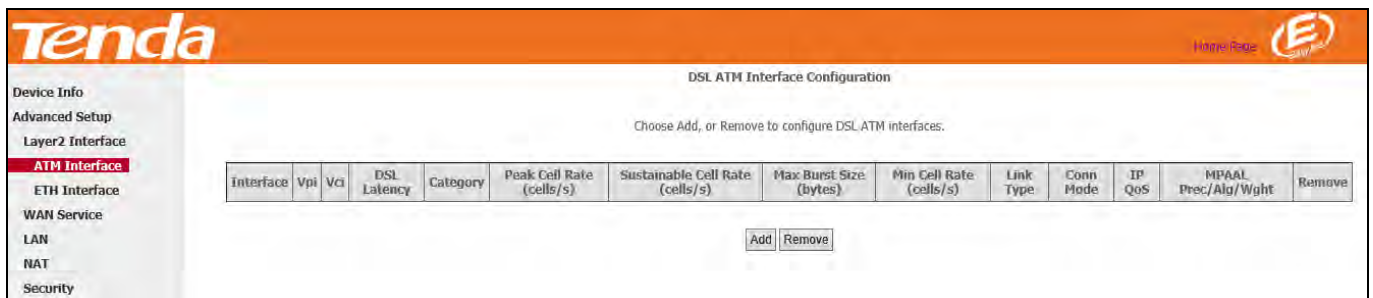
Interface	Vpi	Vci	DSL Latency	Category	Peak Cell Rate (cells/s)	Sustainable Cell Rate (cells/s)	Max Burst Size (bytes)	Min Cell Rate (cells/s)	Link Type	Conn Mode	IP QoS	MPAAL Prec/Alg/Wght	Remove
<input type="button" value="Add"/> <input type="button" value="Remove"/>													

This router provides two Layer2 Interfaces:

- **ATM Interface** for ADSL broadband Internet service. (By default, system applies the ATM Interface [ADSL uplink].)
- **ETH Interface** for connecting to the Internet via an Ethernet cable.
  - If you directly connect to the ADSL line via a phone cable, first refer to [To Set up the ATM interface](#) and then skip to [To Set up WAN Service for ATM Interface](#).
  - If you connect to the Internet via a fiber/cable modem using an Ethernet cable, first refer to [To Set up the ETH interface](#) and then skip to [To Set up WAN Service for ETH Interface](#).

## To set up the ATM interface

**Step 1:** Select **ATM Interface** and click **Add** to configure it.



**Step 2:** Enter the **VPI** and **VCI** values. Select a **DSL Link Type** (Internet connection type): EoA, PPPoA or IPoA. Leave other options unchanged from factory defaults. Click **Apply/Save**.



Go to [To Set up WAN Service for ATM Interface](#) to configure the WAN service for Internet access.



**Tip**

If you are unsure about the VPI/VCI parameters, see [Appendix 4 VPI/VCI List](#), or ask your ISP to provide it.

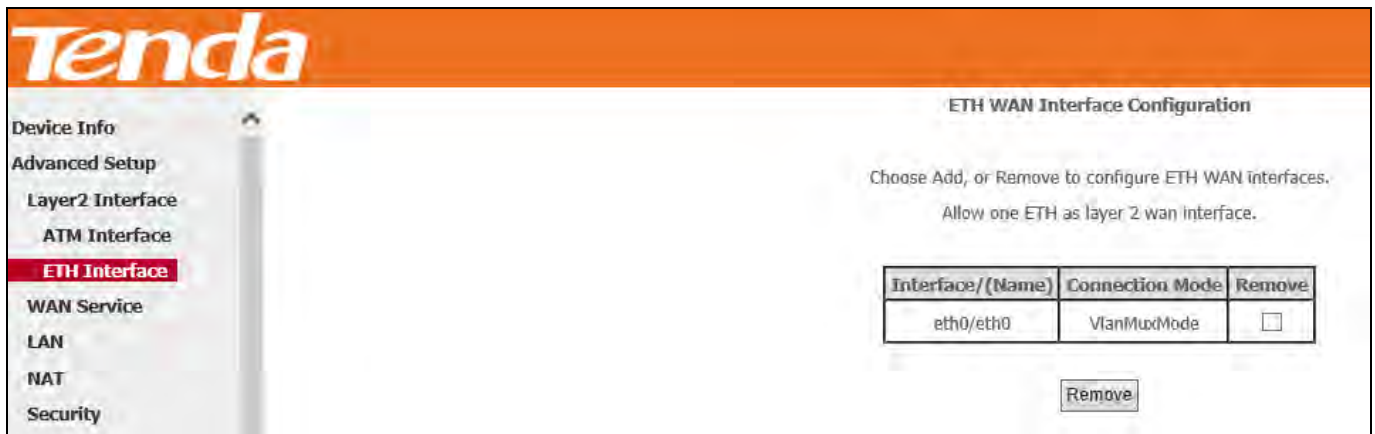
## To set up the ETH interface

**Step 1:** Select **ETH Interface** and click **Add**.

**Step 2:** Select **eth0/eth0** in the box to function as a WAN port. Only one LAN port can be configured as the WAN port at a time. Click **Apply/Save** to take the settings into effect.







Go to [To Set up WAN Service for ETH Interface](#) to configure the WAN service for Internet access.

## 4.2.2 WAN Service

This router provides two WAN services:

- WAN Service for ATM Interface (ADSL uplink)
- WAN Service for ETH Interface (Ethernet uplink)

### To Set up WAN Service for ATM Interface

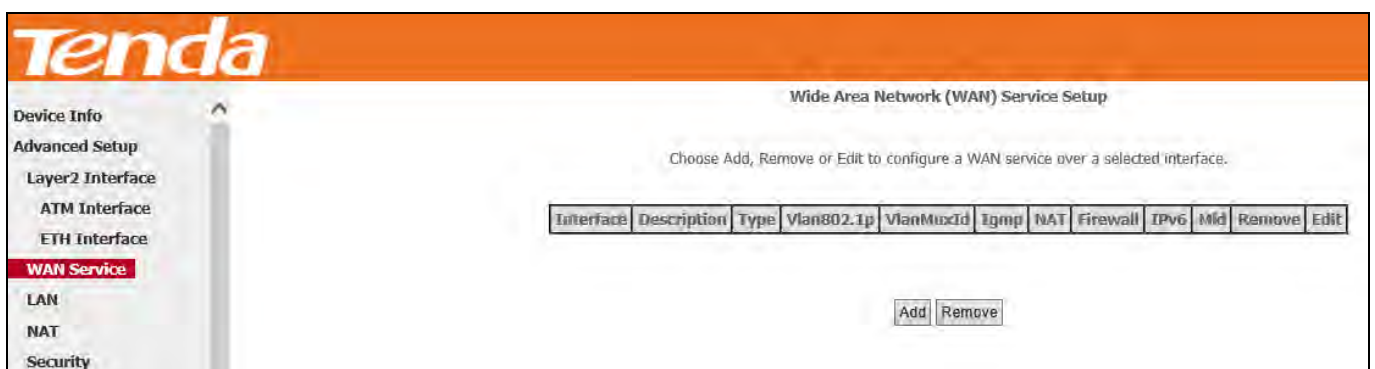
#### EoA (PPPoE, IPoE and Bridge)

If you configured the **ATM Interface** (ADSL uplink) and select **EoA** as the DSL link type, follow below steps to configure the WAN service:

#### PPPoE

#### IPv4 Only

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.

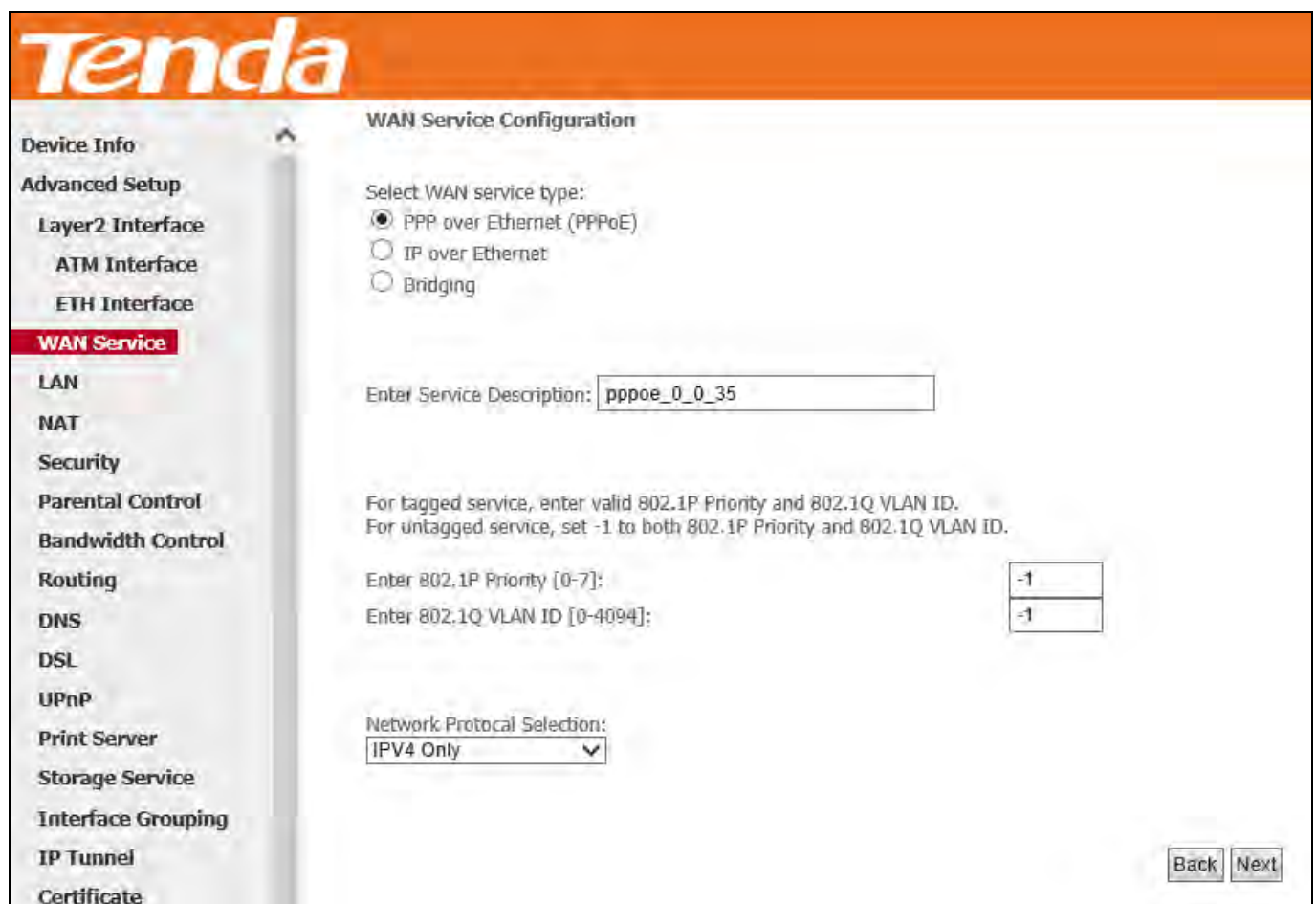


**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.



The screenshot shows the Tenda router's web interface. The left sidebar contains a navigation menu with the following items: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted in red), LAN, NAT, Security, Parental Control, Bandwidth Control, Routing, DNS, DSL, UPnP, Print Server, and Storage Service. The main content area is titled "WAN Service Interface Configuration". It includes instructions: "Select a layer 2 interface for this service", "Note: For ATM interface, the descriptor string is (portId\_vpi\_vci)", and "For PTM interface, the descriptor string is (portId\_high\_low)". Below these are examples: "Where portId=0 --> DSL Latency PATH0", "portId=1 --> DSL Latency PATH1", "portId=4 --> DSL Latency PATH0&1", "low =0 --> Low PTM Priority not set", "low =1 --> Low PTM Priority set", "high =0 --> High PTM Priority not set", and "high =1 --> High PTM Priority set". A dropdown menu is set to "atm0/(0\_0\_35)". At the bottom are "Back" and "Next" buttons.

**Step 3:** Select **PPP over Ethernet (PPPoE)**. Edit the **Enter Service Description** field which is optional. Suggest you keep the default. Select a network protocol: **IPv4 Only**. Click **Next**.



The screenshot shows the Tenda router's web interface. The left sidebar contains a navigation menu with the following items: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted in red), LAN, NAT, Security, Parental Control, Bandwidth Control, Routing, DNS, DSL, UPnP, Print Server, Storage Service, Interface Grouping, IP Tunnel, and Certificate. The main content area is titled "WAN Service Configuration". It includes instructions: "Select WAN service type:", "For tagged service, enter valid 802.1P Priority and 802.1Q VLAN ID.", and "For untagged service, set -1 to both 802.1P Priority and 802.1Q VLAN ID.". Below these are radio buttons for "PPP over Ethernet (PPPoE)", "IP over Ethernet", and "Bridging". The "Enter Service Description" field contains "pppoe\_0\_0\_35". There are two input fields for "Enter 802.1P Priority [0-7]" and "Enter 802.1Q VLAN ID [0-4094]", both containing "-1". A "Network Protocol Selection" dropdown menu is set to "IPV4 Only". At the bottom are "Back" and "Next" buttons.

**Step 4:** Finish PPP Username and Password and other settings on the figure below. Click **Next**.

**PPP Username/Password:** For logging in to your ISP. If you cannot locate this information, ask your ISP to provide it.

**PPPoE Service Name:** Provided by your ISP. Only enter it if instructed by your ISP.

**Authentication Method:** Used by ISP to authenticate the client that attempts to connect. If you are not sure, consult your ISP or select **AUTO**.

**MAC Clone:** When you cannot access the Internet after finishing other settings here except this option, consider whether it's the matter of the MAC address of your computer. Clicking **Clone MAC** button copies the MAC address of your computer to the router.

**MTU:** Keep the default value unless you are sure it is necessary for your ISP connection.

**Dial on demand:** Connect to ISP only when there is traffic transmission. This saves your broadband Internet service bill.

**PPP IP extension:** If enabled, all the IP addresses in outgoing packets including management packets on the WAN port will be changed to the device's WAN IP address. Only change the default settings if necessary.

**Enable PPP Debug Mode:** Only enable this feature if supported by your ISP.

**Bridge PPPoE Frames Between WAN and Local Ports:** If enabled, PPPoE dialup frame from LAN side will directly egress the WAN port without modification.

**Multicast Proxy:** If enabled, the router will use multicast proxy.



### Knowledge Expansion

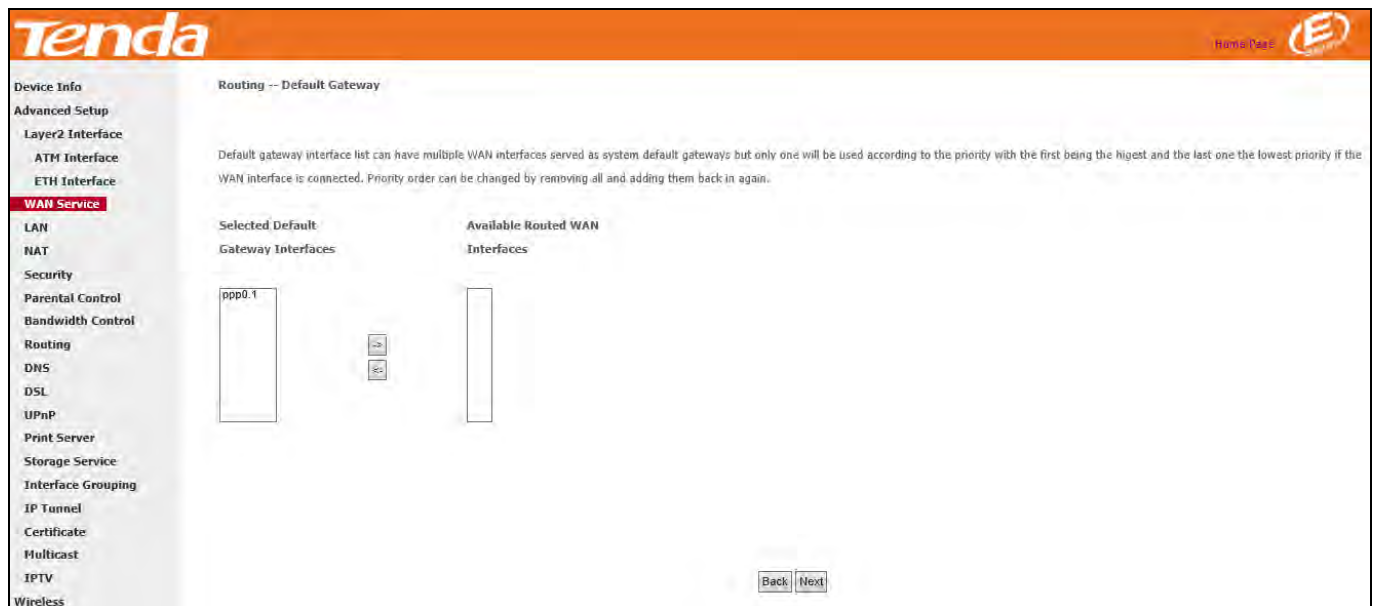
1. **MAC Clone:** Many broadband ISPs restrict access by allowing traffic only from the MAC address of your broadband modem, but some ISPs additionally register the MAC address of your computer when your account is first opened. If so,



only by cloning the MAC address of your computer can you access the Internet through the router.

2. **MTU**: Short for *Maximum Transmission Unit*, the largest physical packet size, measured in bytes, which a network can transmit. Any messages larger than the MTU are divided into smaller packets before being sent. The default MTU is 1492 bytes. For some ISPs, you might need to change the MTU. This is rarely required, and should not be done unless you are sure it is necessary for your ISP connection.

**Step 5:** To configure the Default Gateway interface, select the interface that you want to configure with the WAN gateway address in **Available Routed WAN Interfaces** box and move it into **Selected Default Gateway Interfaces** box. The default setting is recommended. Then click **Next**.



**Step 6:** To configure the WAN DNS address, click the **Select DNS Server Interface from available WAN interfaces** option, or select the **Use the following Static DNS IP address** option and enter the static DNS server IP addresses provided by your ISP. At last, click **Next**.



**Step 7:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

Connection Type:	PPPoE
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Enabled



When the PPPoE connection is successful, you can access the Internet.

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.Ip	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
ppp0.1	pppoe_0_0_35	PPPoE	N/A	N/A	Disabled	Enabled	Enabled	Disabled	Disabled	<input type="checkbox"/>	Edit

Add Remove

## IPv4 & IPv6 (Dual Stack)

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.Ip	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
-----------	-------------	------	------------	-----------	------	-----	----------	------	-----	--------	------

Add Remove

**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.

WAN Service Interface Configuration

Select a layer 2 interface for this service

Note: For ATM interface, the descriptor string is {portId\_vpi\_vci}  
For PTM interface, the descriptor string is {portId\_high\_low}

Where portId=0 --> DSL Latency PATH0  
portId=1 --> DSL Latency PATH1  
portId=4 --> DSL Latency PATH0&1  
low =0 --> Low PTM Priority not set  
low =1 --> Low PTM Priority set  
high =0 --> High PTM Priority not set  
high =1 --> High PTM Priority set

atm0/(0\_0\_35) v

Back Next

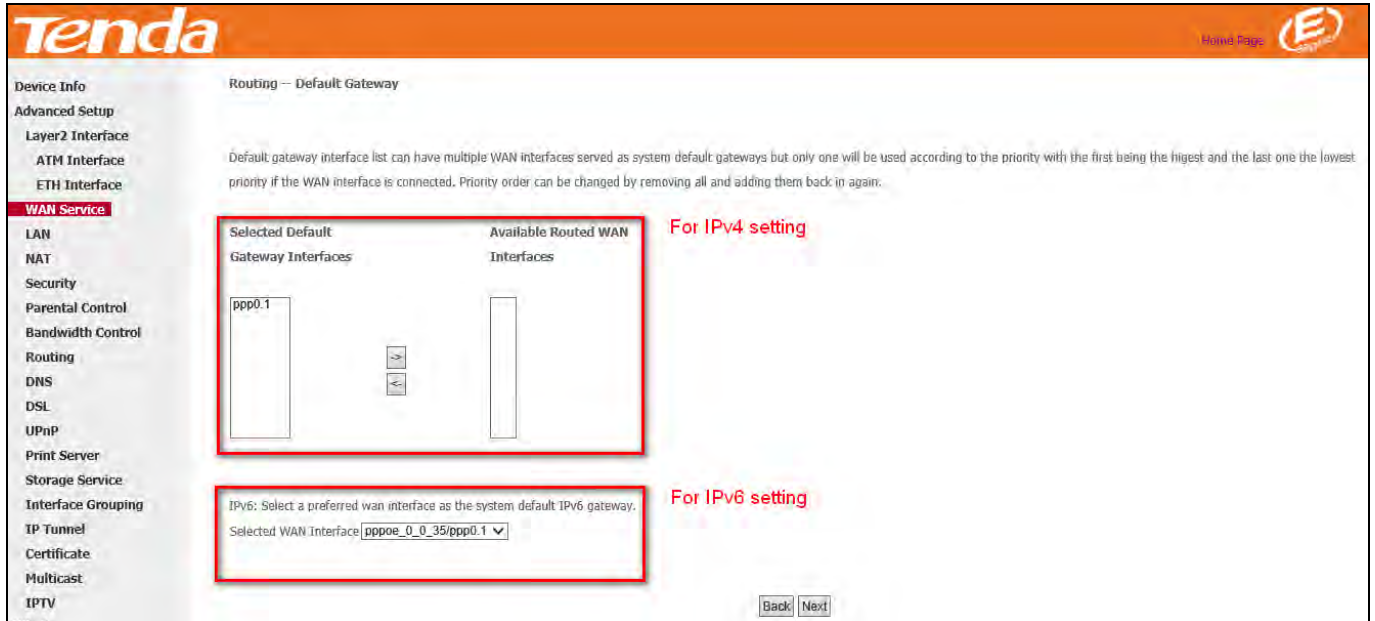
**Step 3:** Select **PPP over Ethernet (PPPoE)**. Edit the **Enter Service Description** field which is optional. Suggest you keep the default. Select a network protocol: **IPv4&IPv6 (Dual Stack)**. Click **Next**.

**Step 4:** Configure PPP Username and Password and other settings on the figure below. Each field with its indication is mentioned above in **IPv4 Only (PPPoE)** section. Check **Launch Dhcp6c for Prefix Delegation (IAPD)**. Click **Next**.

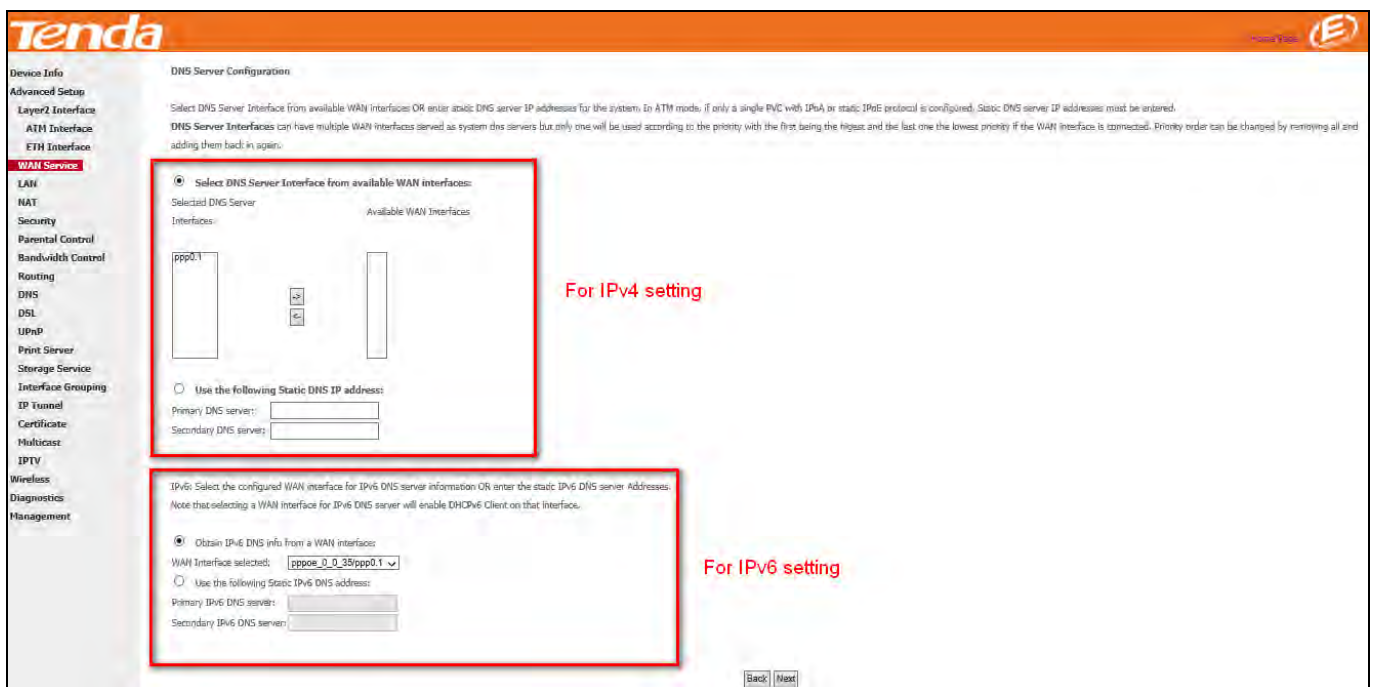


If your ISP is using static DHCPv6, check **Launch Dhcp6c for Address Assignment (IANA)** also, or configure a static IP address by checking **Use Static IPv6 Address** and enter the static IPv6 address.

**Step 5:** To configure the Default Gateway interface when using IPv6, select the interface that you want to configure with the WAN gateway address in **Selected WAN Interface** box. Then click **Next**.



**Step 6:** To configure the WAN DNS address, check the **Obtain IPv6 DNS info from a WAN interface** option, or select the **Use the following Static IPv6 DNS address** option to enter the static DNS server IPv6 addresses provided by your ISP. At last, click **Next**.



**Step 7:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

**WAN Setup - Summary**

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	PPPoE
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Enabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

[Back](#) [Apply/Save](#)



When the PPPoE connection is successful, you can access the Internet.

**Wide Area Network (WAN) Service Setup**

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
ppp0.1	pppoe_0_0_35	PPPoE	N/A	N/A	Disabled	Enabled	Enabled	Enabled	Disabled	<input type="checkbox"/>	<a href="#">Edit</a>

[Add](#) [Remove](#)

## IPv6 Only

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.

**Wide Area Network (WAN) Service Setup**

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
-----------	-------------	------	------------	-----------	------	-----	----------	------	-----	--------	------

[Add](#) [Remove](#)

**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.

**Step 3:** Select **PPP over Ethernet (PPPoE)**. Edit the **Enter Service Description** field which is optional. Suggest you keep the default. Select a network protocol you need: **IPv6 Only**. Click **Next**.

**Step 4:** Configure PPP Username and Password and other settings on the figure below. Each field with its indication is mentioned above in **IPv4 Only (PPPoE)** section.

If ISP provides you no static IPv6 address, you just keep the default settings for it's by default the DHCP mode. Check **Launch Dhcp6c for Prefix Delegation (IAPD)**. If your ISP is using stateful DHCPv6, check **Launch Dhcp6c for Address Assignment (IANA)** also. Click **Next**.

**Tenda**

Device Info

Advanced Setup

Layer2 Interface

ATM Interface

ETH Interface

**WAN Service**

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

DSL

UPnP

Print Server

Storage Service

Interface Grouping

IP Tunnel

Certificate

Multicast

IPTV

Wireless

Diagnostics

Management

PPP Username and Password

PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that your ISP has provided to you.

PPP Username:

PPP Password:

PPPoE Service Name:

Authentication Method:

MAC Clone:

MTU:  (576-1492, default: 1492)

Enable Fullcone NAT

Dial on demand (with idle timeout timer)

PPP IP extension

Enable Firewall

Use Static IPv4 Address

Use Static IPv6 Address

Enable IPv6 Unnumbered Model

Launch Dhcp6c for Address Assignment (IANA)

Launch Dhcp6c for Prefix Delegation (IAPD)

Enable PPP Debug Mode

Bridge PPPoE Frames Between WAN and Local Ports

Multicast Proxy

Enable IGMP Multicast Proxy

Enable MLD Multicast Proxy

If ISP provides you with the static IPv6 address, configure a static IP address by checking **Use Static IPv6 Address** and enter the static IPv6 address.

**WAN Service**

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

DSL

UPnP

Print Server

Storage Service

Interface Grouping

IP Tunnel

Certificate

Multicast

Dial on demand (with idle timeout timer)

PPP IP extension

Enable Firewall

Use Static IPv4 Address

Use Static IPv6 Address

IPv6 Address:

Enable IPv6 Unnumbered Model

Launch Dhcp6c for Address Assignment (IANA)

Launch Dhcp6c for Prefix Delegation (IAPD)

Enable PPP Debug Mode

Bridge PPPoE Frames Between WAN and Local Ports

Multicast Proxy

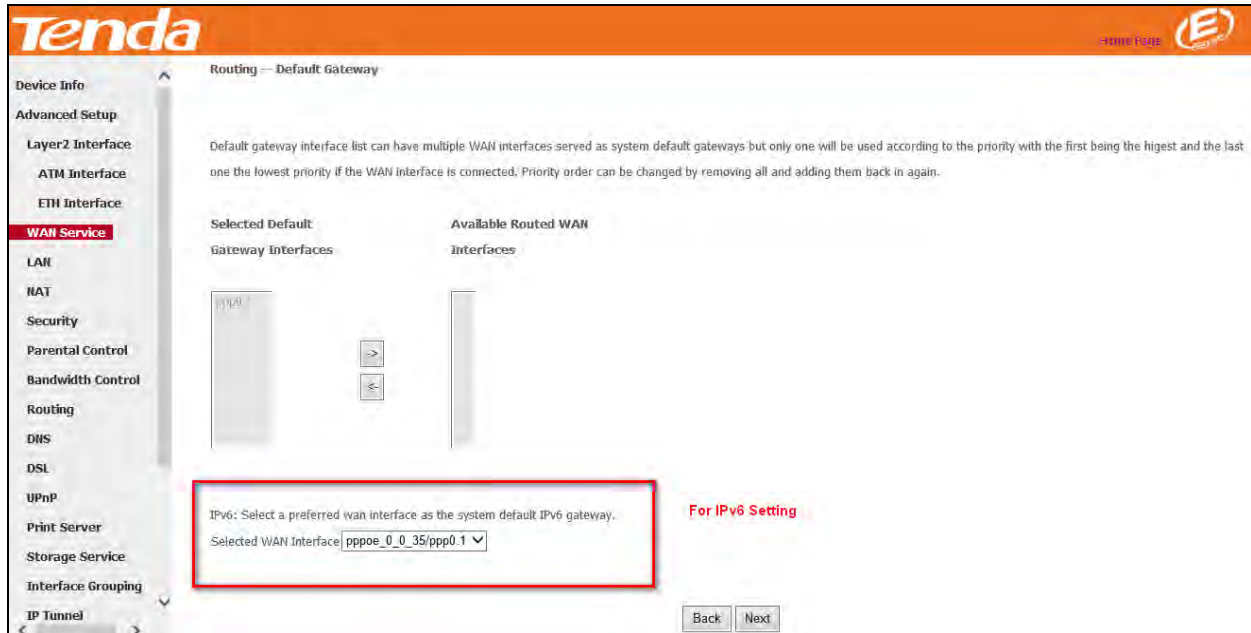
Enable IGMP Multicast Proxy

Enable MLD Multicast Proxy

**For IPv6 Setting**

**Step 5:** To configure the Default Gateway interface when using IPv6, select the interface that you want to configure with the WAN gateway address in **Selected WAN Interface** box. Then click **Next**.





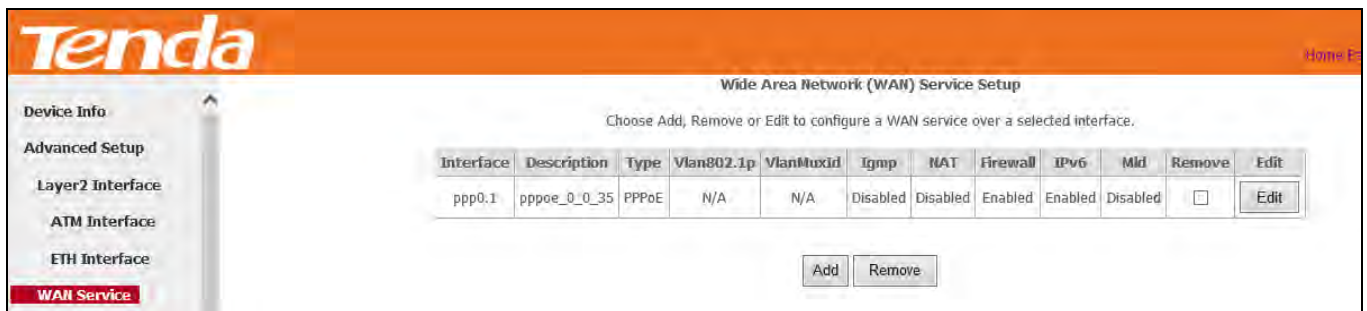
**Step 6:** To configure the WAN DNS address, check the **Obtain IPv6 DNS info from a WAN interface** option, or select the **Use the following Static IPv6 DNS address** option to enter the static DNS server IPv6 addresses provided by your ISP. At last, click **Next**.



**Step 7:** Here you can view your configurations. Click **Apply/Save** to take this interface into effect.



When the PPPoE connection is successful, you can access the Internet.

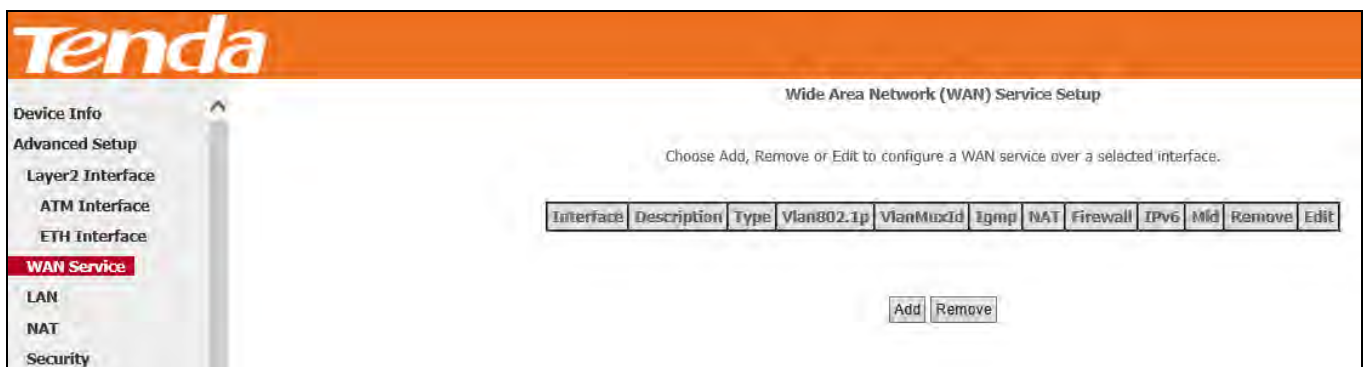


## IPoE

### IPv4 Only

If your ISP uses DHCP to assign your IP address or if your ISP assigns you a static (fixed) IP address, IP subnet mask and the gateway IP address, you need to select the IP over Ethernet (IPoE).

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.



**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.

**Tenda**

Device Info

Advanced Setup

- Layer2 Interface
  - ATM Interface
  - ETH Interface
- WAN Service**
- LAN
- NAT
- Security
- Parental Control
- Bandwidth Control
- Routing
- DNS
- DSL
- UPnP
- Print Server
- Storage Service

**WAN Service Interface Configuration**

Select a layer 2 interface for this service

Note: For ATM interface, the descriptor string is (portId\_vpi\_vc)

For PTM interface, the descriptor string is (portId\_high\_low)

Where portId=0 --> DSL Latency PATH0  
 portId=1 --> DSL Latency PATH1  
 portId=4 --> DSL Latency PATH0&1  
 low =0 --> Low PTM Priority not set  
 low =1 --> Low PTM Priority set  
 high =0 --> High PTM Priority not set  
 high =1 --> High PTM Priority set

atm0/(0\_0\_35) ▼

Back Next

**Step 3:** Select **IP over Ethernet**. Edit the **Enter Service Description** which is optional. Suggest you keep the default.

Select a network protocol: **IPv4 Only**. Click **Next**.

**Tenda**

Device Info

Advanced Setup

- Layer2 Interface
  - ATM Interface
  - ETH Interface
- WAN Service**
- LAN
- NAT
- Security
- Parental Control
- Bandwidth Control
- Routing
- DNS
- DSL
- UPnP
- Print Server
- Storage Service
- Interface Grouping
- IP Tunnel
- Certificate

**WAN Service Configuration**

Select WAN service type:

PPP over Ethernet (PPPoE)

IP over Ethernet

Bridging

Enter Service Description: ipoe\_0\_0\_35

For tagged service, enter valid 802.1P Priority and 802.1Q VLAN ID.  
 For untagged service, set -1 to both 802.1P Priority and 802.1Q VLAN ID.

Enter 802.1P Priority [0-7]: -1

Enter 802.1Q VLAN ID [0-4094]: -1

Network Protocol Selection:  
 IPv4 Only ▼

Back Next

**Step 4:** Finish **WAN IP Settings** on the figure below. Click **Next**.

**WAN IP Settings**

Enter information provided to you by your ISP to configure the WAN IP settings.

Notice: If "Obtain an IP address automatically" is chosen, DHCP will be enabled for PVC in IPoE mode.

If "Use the following Static IP address" is chosen, enter the WAN IP address, subnet mask and interface gateway.

Obtain an IP address automatically

Option 60 Vendor ID:

Option 61 IAID:  (8 hexadecimal digits)

Option 61 DUID:  (hexadecimal digit)

Option 125:  Disable  Enable

Use the following Static IP address:

WAN IP Address:

WAN Subnet Mask:

WAN gateway IP Address:

[Back](#) [Next](#)

**Obtain an IP address automatically:** This allows the router to automatically acquire IP information from your ISP or your existing networking equipment.

**Use the following Static IP address:** This allows you to specify the Static IP information provided by your ISP or that corresponds with your existing networking equipment.

**WAN IP Address:** The Internet IP address provided by your ISP for accessing the Internet.

**WAN Subnet Mask:** The subnet mask address provided by your ISP for accessing the Internet.

**WAN gateway IP Address:** The gateway IP address provided by your ISP for accessing the Internet.

**Step 5:** Finish Network Address Translation Settings. Suggest keep the default settings. Click **Next**.

**Network Address Translation Settings**

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

Enable NAT

Enable Fullcone NAT

Enable Firewall

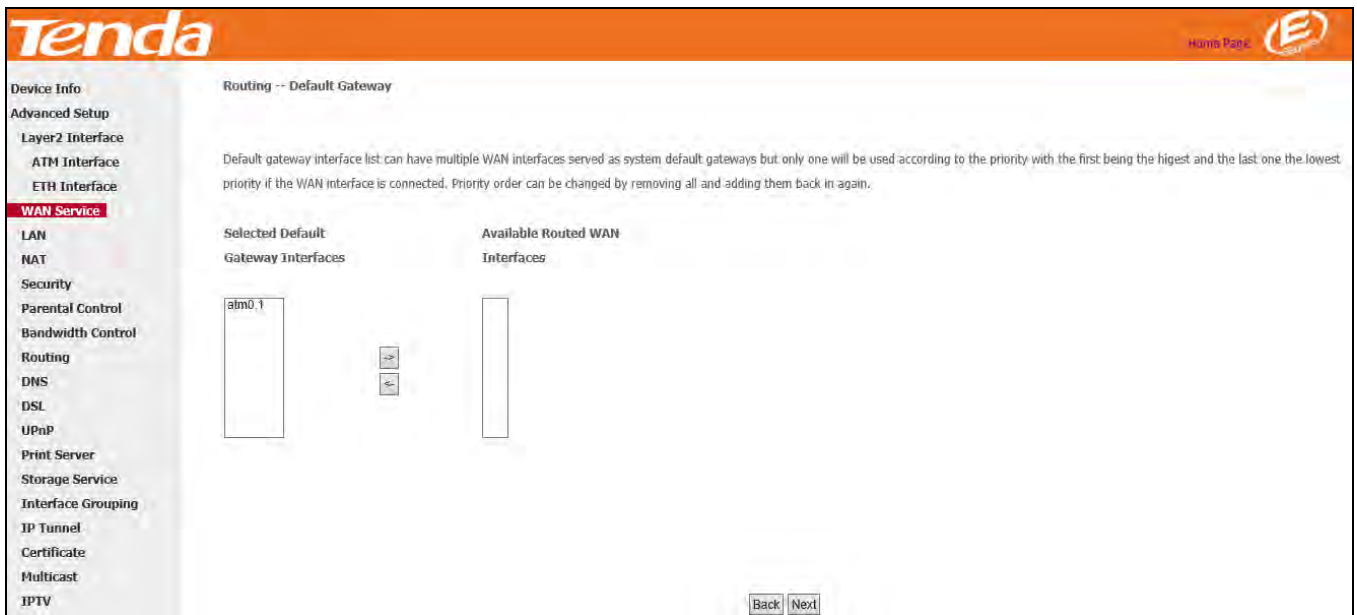
**IGMP Multicast**

Enable IGMP Multicast

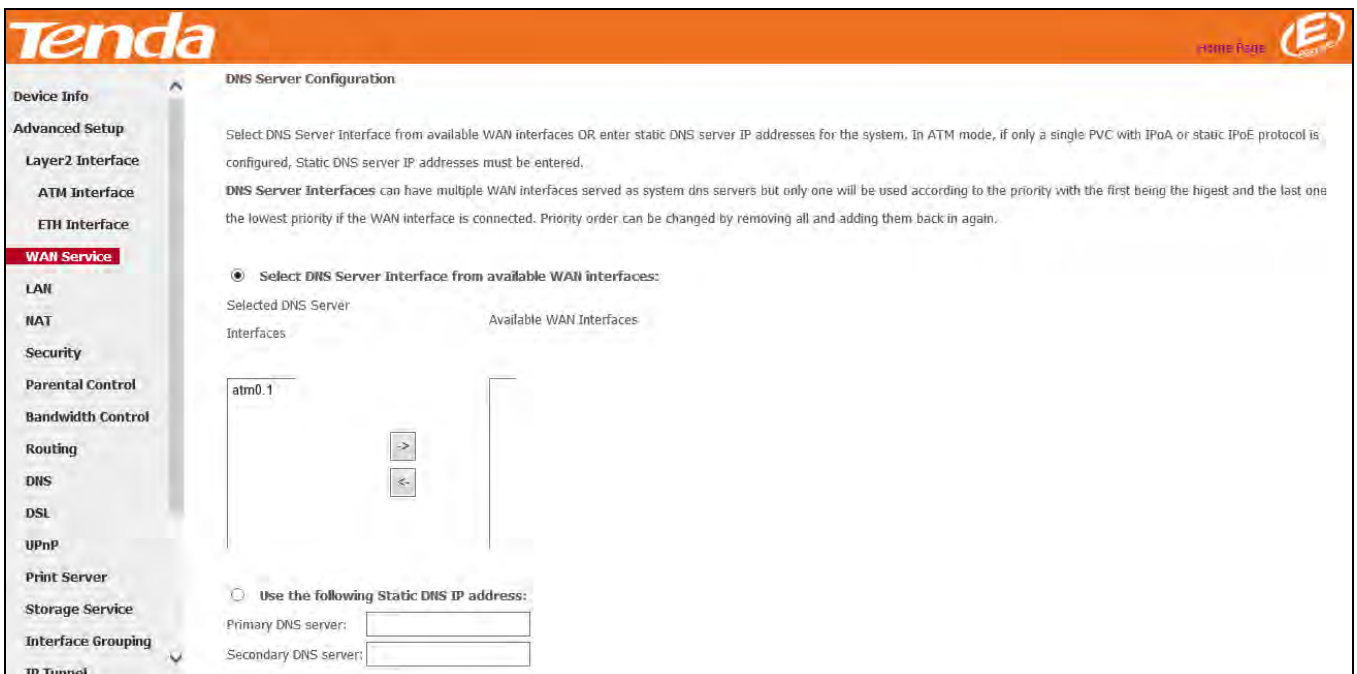
[Back](#) [Next](#)



**Step 6:** To configure the Default Gateway interface, select the interface that you want to configure with the WAN gateway address in **Available Routed WAN Interfaces** box and move it into **Selected Default Gateway Interfaces** box. The default setting is recommended. Then click **Next**.



**Step 7:** To finish DNS Server Configuration, click the **Select DNS Server Interface from available WAN interfaces** option, or select the **Use the following Static DNS IP address** option and enter the static DNS server IP addresses provided by your ISP. At last, click **Next**.



**Step 8:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

**WAN Setup - Summary**

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	IPoE
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Enabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

[Back](#) [Apply/Save](#)



When the IPoE connection is successful, you can access the Internet.

**Wide Area Network (WAN) Service Setup**

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Icmp	NAT	Firewall	IPv6	Mld	Remove	Edit
atm0.1	ipoe_0_0_35	IPoE	N/A	N/A	Disabled	Enabled	Enabled	Disabled	Disabled	<input type="checkbox"/>	<a href="#">Edit</a>

[Add](#) [Remove](#)

### IPv4 & IPv6 (Dual Stack)

**Step 1:** Click **Advanced Setup > WAN Service** and then click the **Add** button.

**Wide Area Network (WAN) Service Setup**

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Icmp	NAT	Firewall	IPv6	Mld	Remove	Edit
-----------	-------------	------	------------	-----------	------	-----	----------	------	-----	--------	------

[Add](#) [Remove](#)

**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.

**Step 3:** Select **IP over Ethernet**. Edit the **Enter Service Description** which is optional. Suggest you keep the default. Select a network protocol: **IPv4&IPv6 (Dual Stack)**. Click **Next**.

**Step 4:** To finish WAN IP Settings, select **Obtain an IPv6 address automatically**, check **Dhcpv6 Prefix Delegation (IAPD)**. If your ISP is using stateful DHCPv6, check **Dhcpv6 Address Assignment (IANA)** also. Or select **Use the following Static IP address** if your ISP provides you with an IPv6 address. Click **Next**.

**Tenda**

Device Info

Advanced Setup

Layer2 Interface

ATM Interface

ETH Interface

**WAN Service**

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

DSL

UPnP

Print Server

Storage Service

Interface Grouping

IP Tunnel

Certificate

Multicast

IPTV

Wireless

Diagnostics

Management

Enter information provided to you by your ISP to configure the WAN IP settings.

Notice: If "Obtain an IP address automatically" is chosen, DHCP will be enabled for PVC in IPv4 mode.

If "Use the following Static IP address" is chosen, enter the WAN IP address, subnet mask and interface gateway.

Obtain an IP address automatically

Option 60 Vendor ID:

Option 61 IADID:  (8 hexadecimal digits)

Option 61 OUIID:  (hexadecimal digit)

Option 125:  Disable  Enable

Use the following Static IP address:

WAN IP Address:

WAN Subnet Mask:

WAN gateway IP Address:

**For IPv4 Setting**

Enter information provided to you by your ISP to configure the WAN IPv6 settings.

Notice:

If "Obtain an IPv6 address automatically" is chosen, DHCPv6 Client will be enabled on this WAN interface.

If "Use the following Static IPv6 address" is chosen, enter the static WAN IPv6 address. If the address prefix (length) is not specified, it will be default to /64.

Obtain an IPv6 address automatically

Dhcpv6 Address Assignment (IANA)

Dhcpv6 Prefix Delegation (IAPD)

Use the following Static IPv6 address:

WAN IPv6 Address/Prefix Length:

Specify the Next-Hop IPv6 address for this WAN interface.

Notice: This address can be either a link local or a global unicast IPv6 address.

WAN Next-Hop IPv6 Address:

**For IPv6 Setting**

http://192.168.1.1/info.html

Back Next

If ISP provides you with the static IPv6 address, configure a static IP address by checking **Use the following Static IPv6 address** and enter the static IPv6 address.

Obtain an IPv6 address automatically

Dhcpv6 Address Assignment (IANA)

Dhcpv6 Prefix Delegation (IAPD)

Use the following Static IPv6 address:

WAN IPv6 Address/Prefix Length:

Specify the Next-Hop IPv6 address for this WAN interface.

Notice: This address can be either a link local or a global unicast IPv6 address.

WAN Next-Hop IPv6 Address:

Back Next

**Step 5:** Configure NAT settings. If you are unsure about the options, please keep the default settings and then click **Next**.





**Step 6:** Configure the WAN gateway address. Default gateway interface list can have multiple WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

If you are unsure about the options, please keep the default settings and then click **Next**.



If you are using static IPv6 DNS address, select **Use the following Static IPv6 DNS address** and manually enter the DNS server address. If you have two DNS server addresses, enter the secondary also. And click **Next**.

IPv6: Select the configured WAN interface for IPv6 DNS server information OR enter the static IPv6 DNS server Addresses.  
 Note that selecting a WAN interface for IPv6 DNS server will enable DHCPv6 Client on that interface.

Obtain IPv6 DNS info from a WAN interface:

WAN Interface selected:

Use the following Static IPv6 DNS address:

Primary IPv6 DNS server:

Secondary IPv6 DNS server:

**Step 7:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

**Tenda**

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	Bridge
NAT:	Disabled
Full Cone NAT:	Disabled
Firewall:	Disabled
IGMP Multicast:	Not Applicable
Quality Of Service:	Disabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

When the IPoE connection is successful, you can access the Internet.

**Tenda**

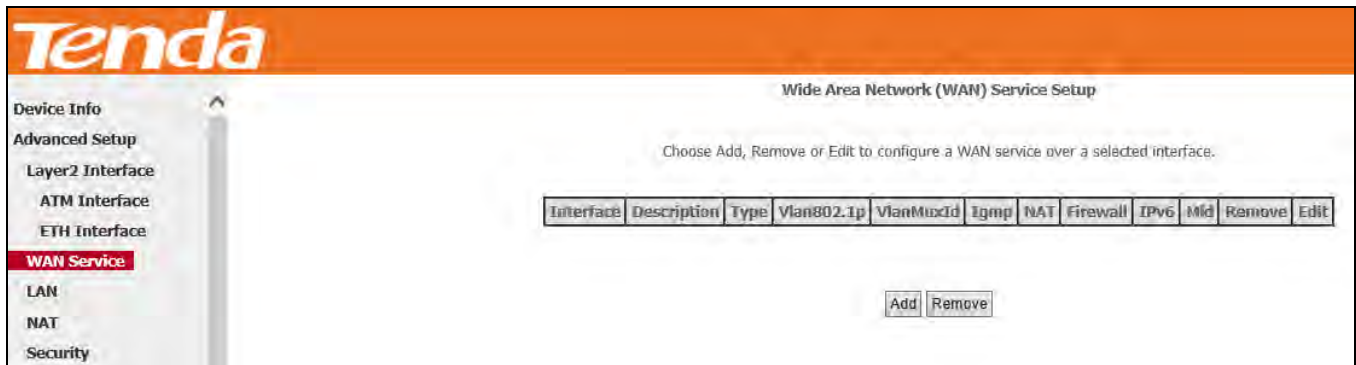
Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
atm0.1	ipoe_0_0_35	IPoE	N/A	N/A	Disabled	Enabled	Enabled	Enabled	Disabled	<input type="checkbox"/>	<input type="button" value="Edit"/>

## IPv6 Only

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.



**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.



**Step 3:** Select **IP over Ethernet (IPoE)**. Edit the **Enter Service Description** field which is optional. Suggest you keep the default. Select a network protocol you need: **IPv6 Only**. Click **Next**.

**Step 4:** Enter the WAN information provided by your ISP to configure the WAN IPv6 settings.

To obtain an IP address automatically:

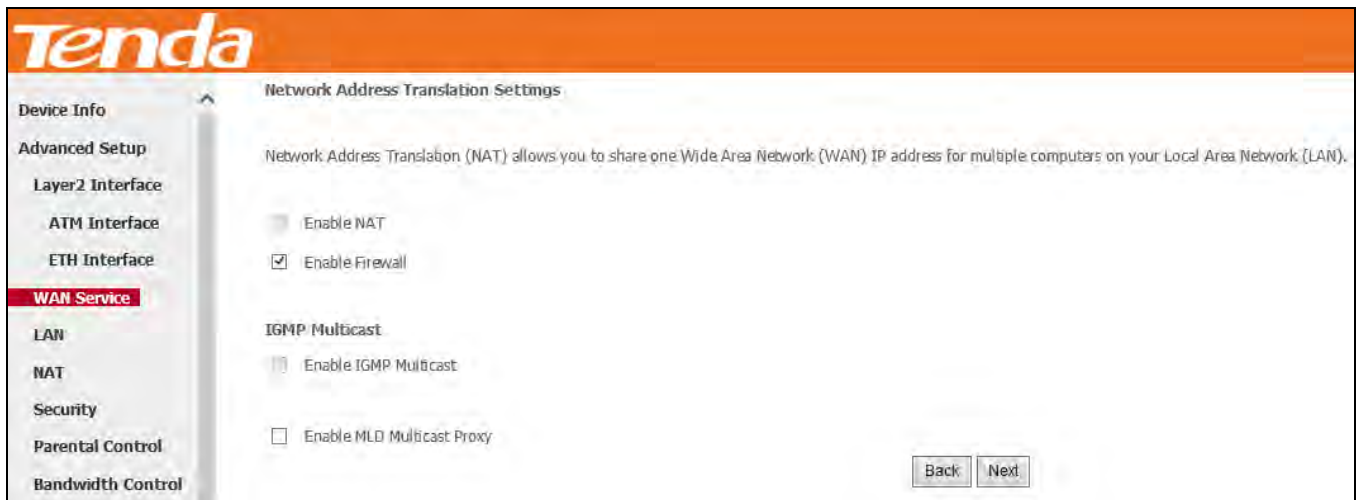
Select **Obtain an IPv6 address automatically**.

Check **Dhcp6c Prefix Delegation (IAPD)**.

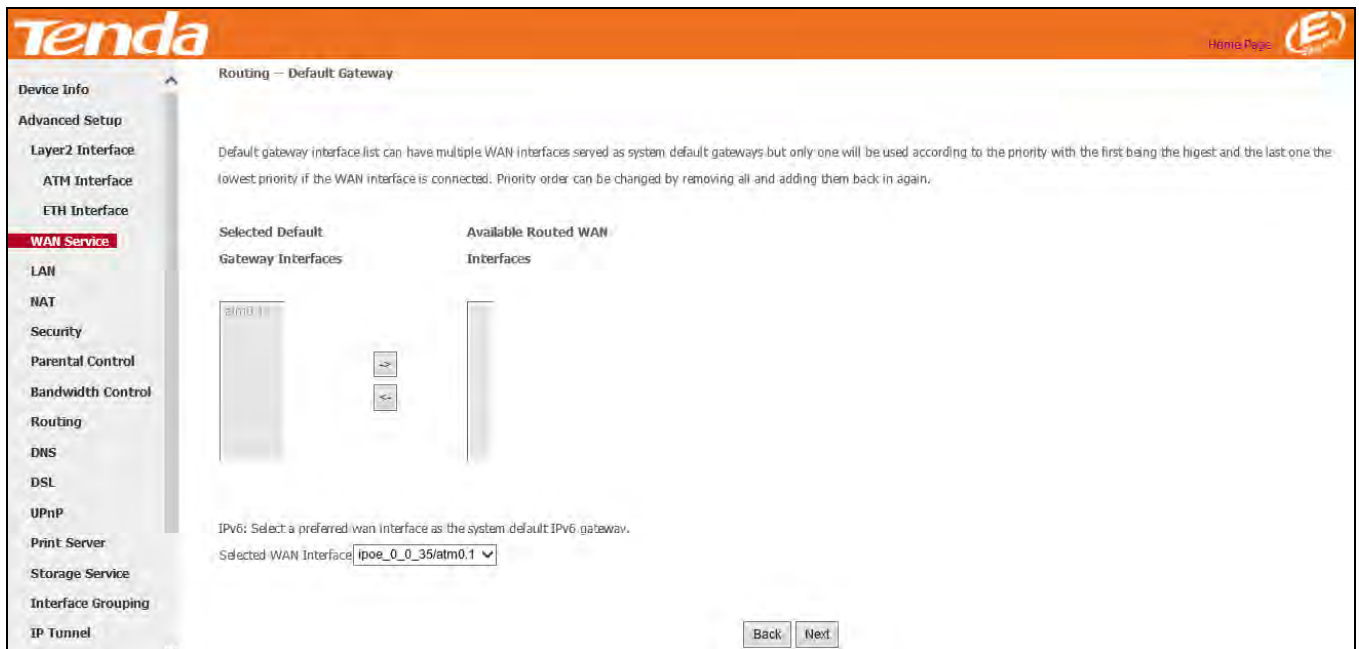
If your ISP is using stateful DHCPv6, check **Dhcp6c Address Assignment (IANA)** also.

Click **Next** to go forwards.

**Step 5:** Finish Network Address Translation Settings. Suggest keep the default settings. Click **Next**.

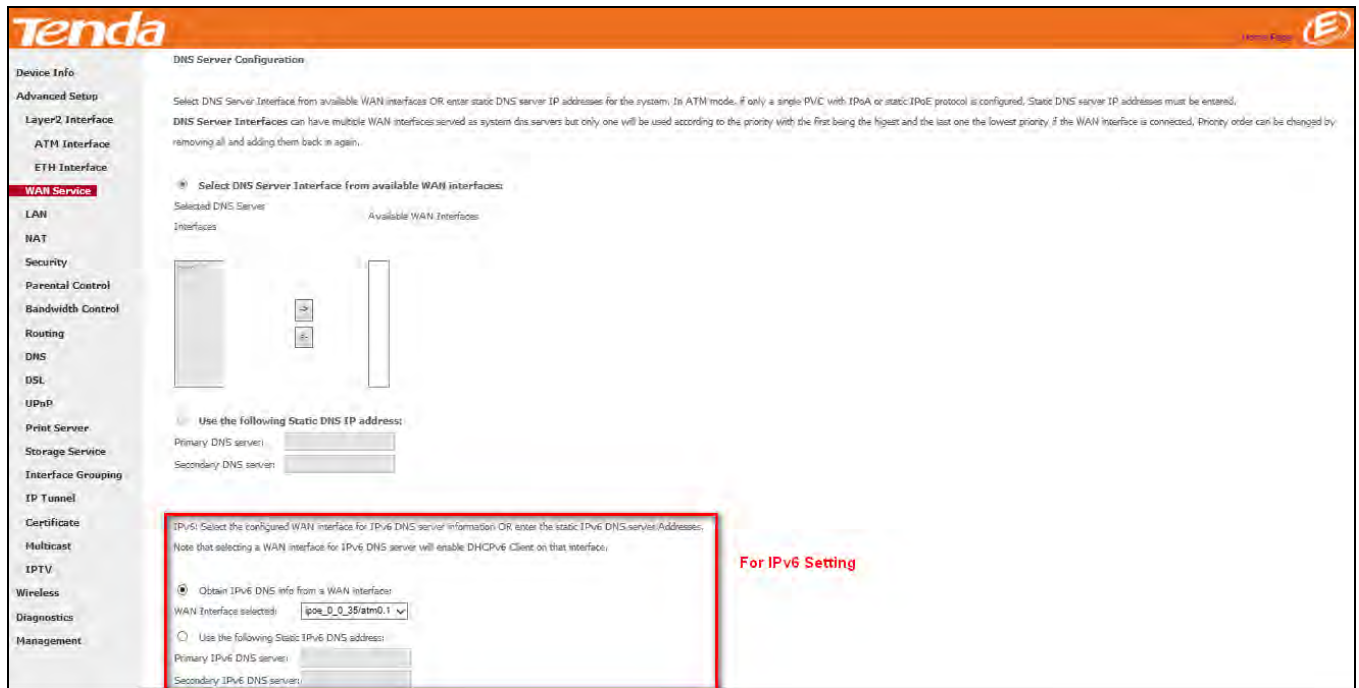


**Step 6:** To configure the Default Gateway interface when using IPv6, select the interface that you want to configure with the WAN gateway address in **Selected WAN Interface** box. Then click **Next**.

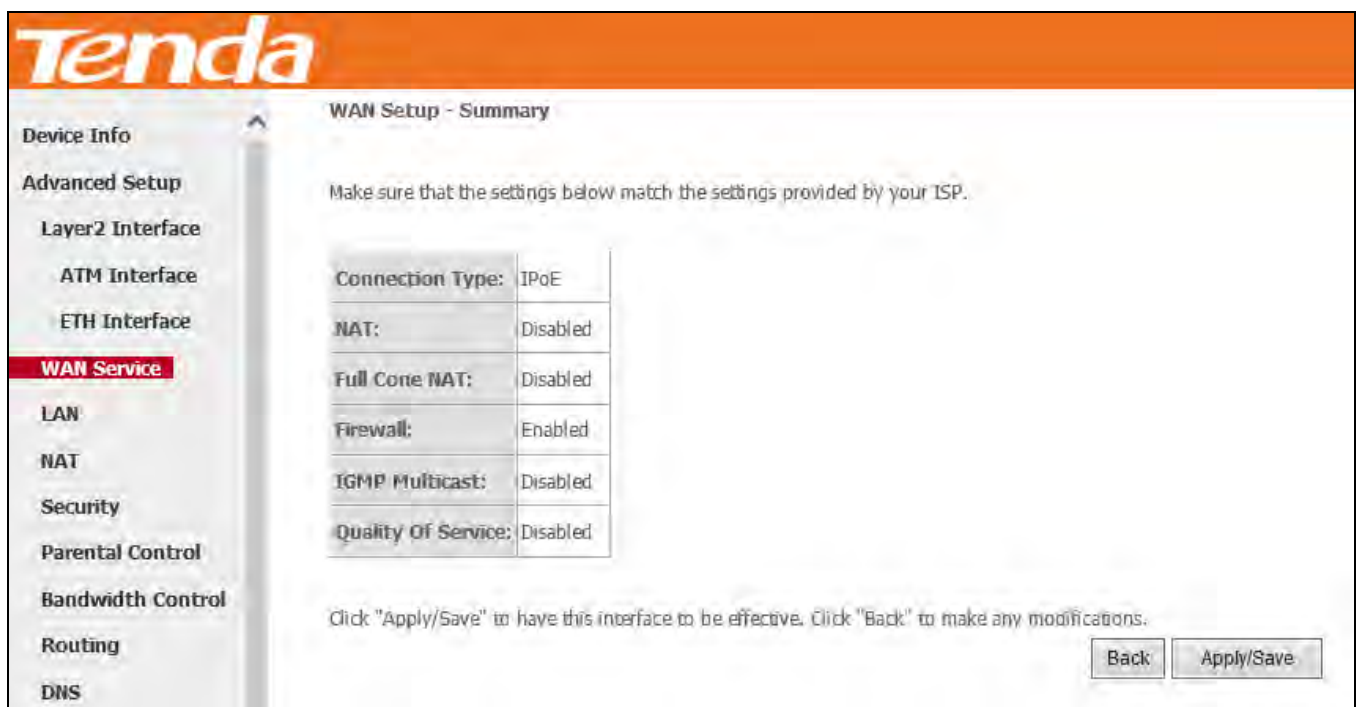


**Step 7:** To configure the WAN DNS address, check the **Obtain IPv6 DNS info from a WAN interface** option, or select the **Use the following Static IPv6 DNS address** option to enter the static DNS server IPv6 addresses provided by your ISP. At last, click **Next**.

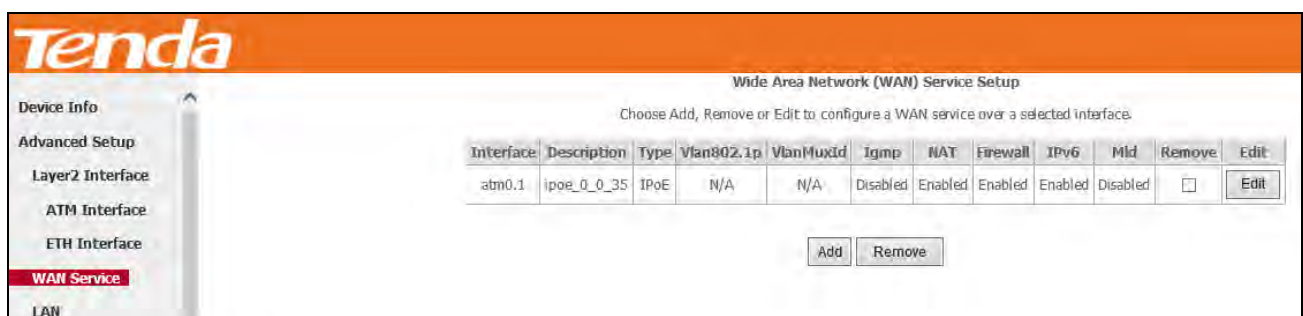




**Step 8:** Here you can view your configurations. Click **Apply/Save** to have this interface to be effective.



When the IPoE connection is successful, you can access the Internet.

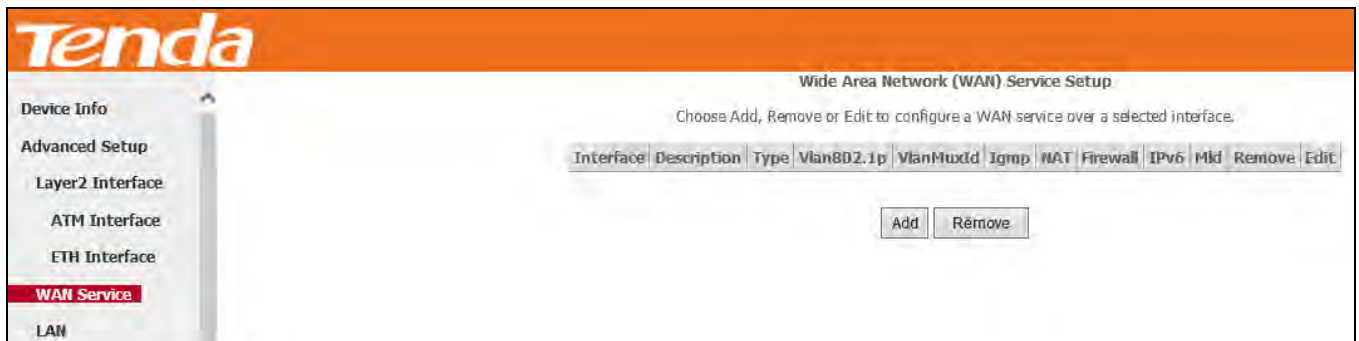




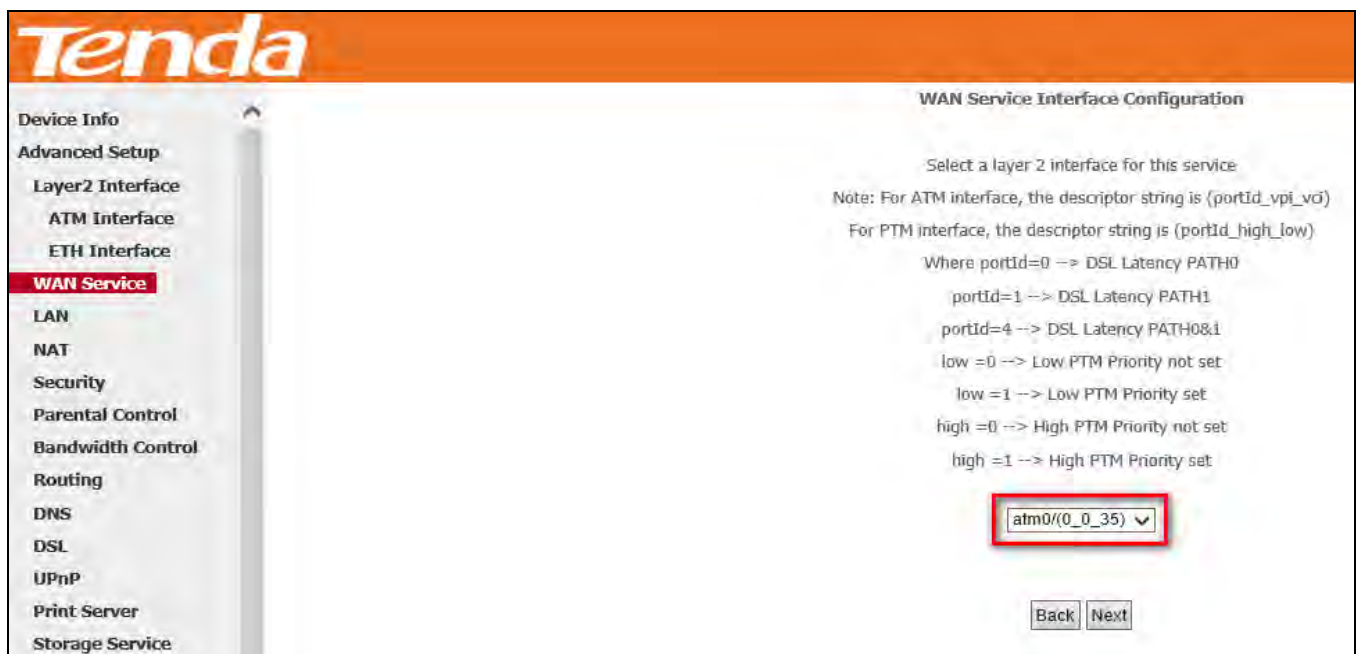
## Bridge

If you wish to initiate a dialup directly from your PC for Internet access or enjoy the entire Internet connection (instead of sharing it with others), you can use the Bridging DSL link type and create a dialup program on your PC.

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.



**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.



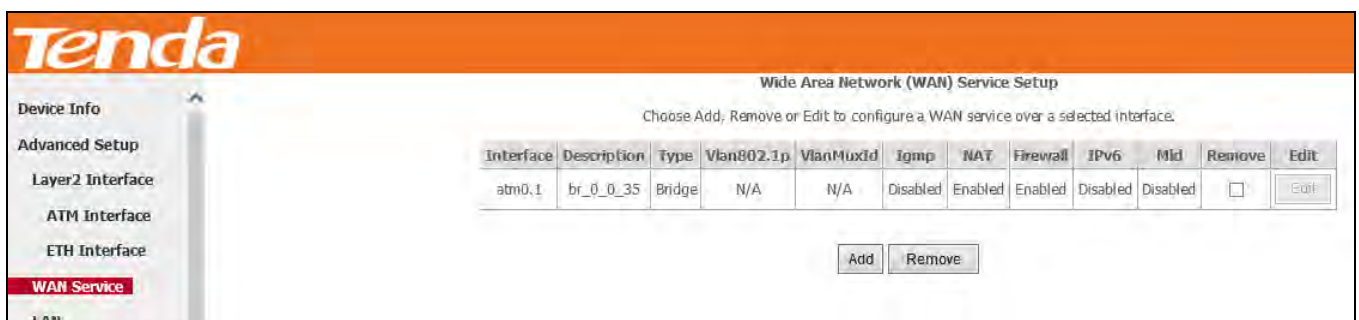
**Step 3:** Select **Bridging**. Edit the **Enter Service Description** which is optional. Suggest you keep the default. Click **Next**.



**Step 4:** Here you can view your configurations. Click **Apply/Save** to have this interface to be effective.



After the bridging connection is successful, initiate a dialup directly from your PC for Internet access.



## ⚠ Note

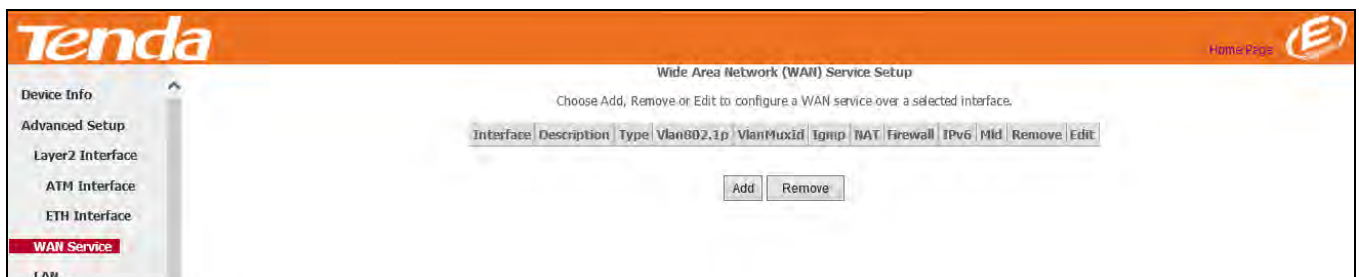
To configure multiple WAN connections, simply configure multiple ATM interfaces and then follow the instructions above.

## PPPoA

If you have selected the **PPPoA** from the **ATM Interface** screen in **Layer2 Interface**, you will see the screen below when you click the **WAN Service** tab, select the configured interface and click **Next**.

## IPv4 Only

**Step 1:** Click **Advanced Setup > WAN Service** and then click the **Add** button.



**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.



**Step 3:** Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default.

Select a network protocol: **IPv4 Only**, **IPv6 Only** or **IPv4 & IPv6 (Dual Stack)**. Click **Next**.

**Step 4:** Enter PPP username and its password provided by your ISP. Click **Next**.

**PPP Username:** This is for logging in to your ISP. If you cannot locate this information, ask your ISP to provide it.

**PPP Password:** This is for logging in to your ISP. If you cannot locate this information, ask your ISP to provide it.

**Authentication Method:** This is used by ISP to authenticate the client that attempts to connect. If you are not sure, consult your ISP or select **AUTO**.

**Dial on demand:** Connect to ISP only when there is traffic transmission. This saves your broadband Internet service bill.

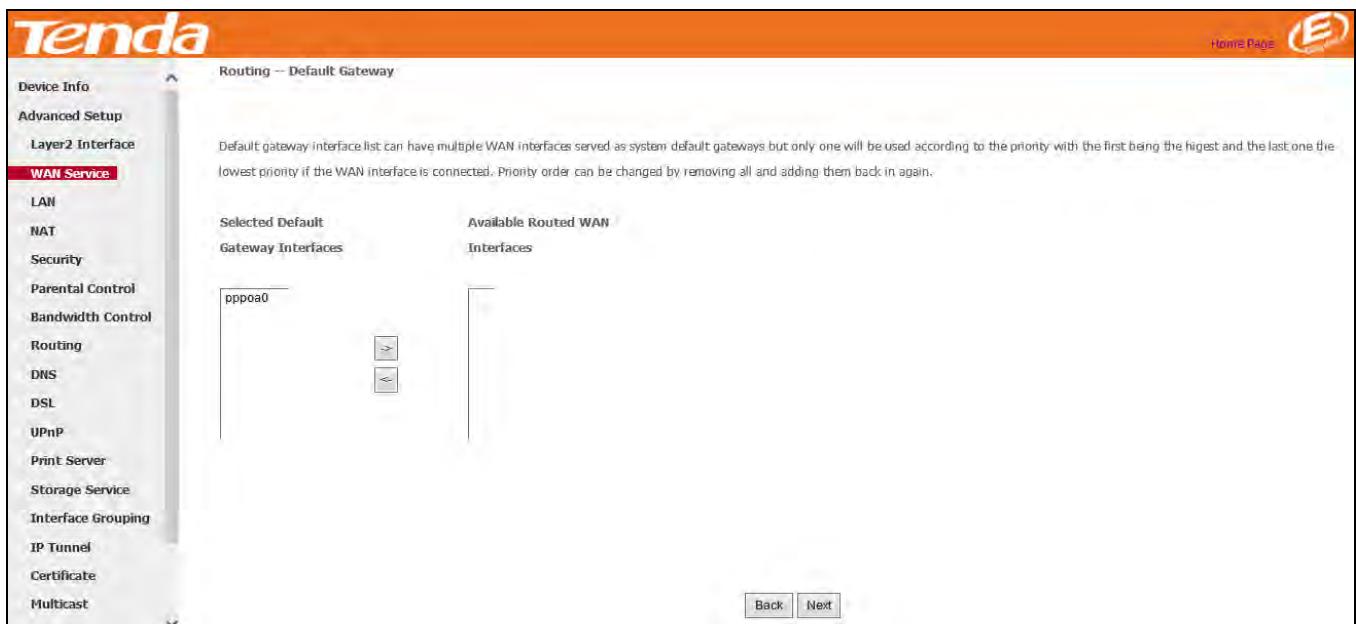
**Enable PPP Debug Mode:** Only enable this feature if supported by your ISP.

**Multicast Proxy:** If enabled, the router will use multicast proxy.

If you are not sure about the options on this screen, simply enter your ISP user name and password and leave the other options unchanged from defaults. Click **Next** to enter the following screen.



**Step 5:** To configure the WAN gateway address. After you configure it click **Next**. The default setting is recommended.

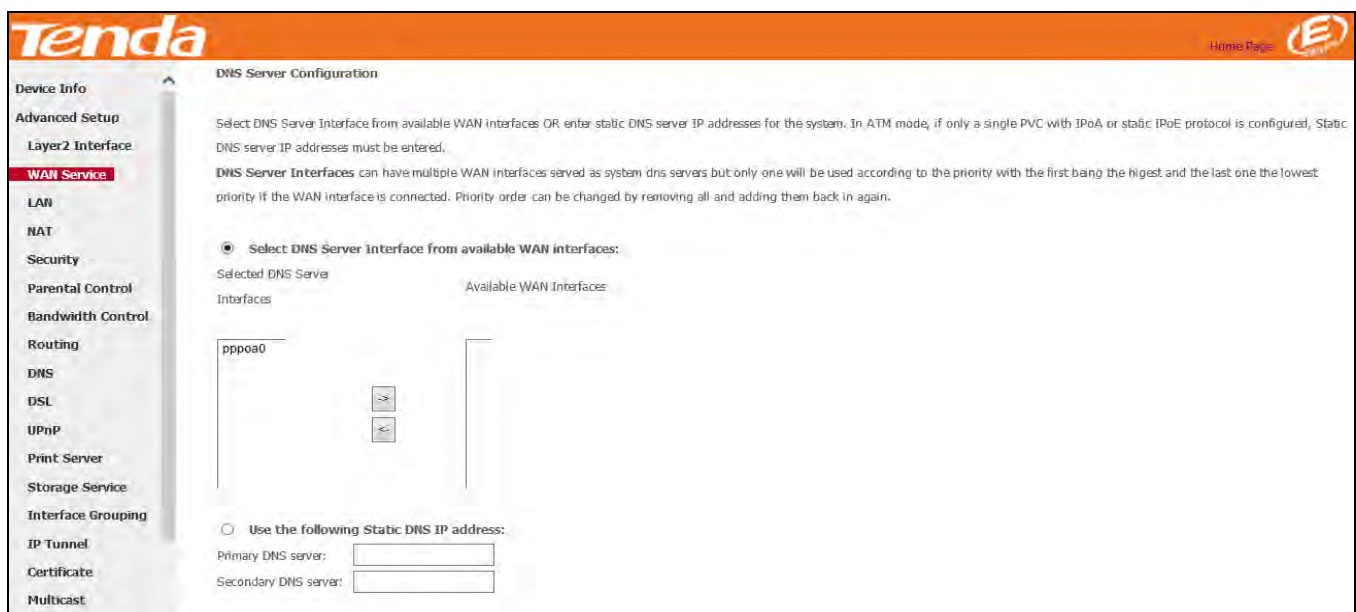


**Step 6:** To configure the WAN DNS address. Choose a way to get DNS server according to what your ISP has provided.

-Click the Select DNS Server Interface from available WAN interfaces option.

-Select the **Use the following Static DNS IP address** option and enter static DNS server IP addresses for the system.

And then click **Next**.



### Note

1. DNS Server Interfaces can have multiple WAN interfaces served as system DNS servers but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

2. In ATM mode, if only a single PVC with IPoA or static IPoE protocol is configured, Static DNS server IP addresses must be entered.



3. If you cannot locate the static DNS server IP information, ask your ISP to provide it.

**Step 7:** Here you can view your configurations. Click **Apply/Save** to have this interface to be effective.

**Tenda**

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	Bridge
NAT:	Disabled
Full Cone NAT:	Disabled
Firewall:	Disabled
IGMP Multicast:	Not Applicable
Quality Of Service:	Disabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

Back Apply/Save

**Step 8:** When the PPPoA connection is successful, you can access the Internet.

**Tenda** Home Page

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
ppp0a0	ppp0a_0_0_35	PPPoA	N/A	N/A	Disabled	Enabled	Enabled	Disabled	Disabled	<input type="checkbox"/>	Edit

Add Remove

## IPv4 & IPv6 (Dual Stack)

**Step 1:** Click **Advanced Setup > WAN Service** and then click the **Add** button.

**Tenda** Home Page

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
-----------	-------------	------	------------	-----------	------	-----	----------	------	-----	--------	------

Add Remove

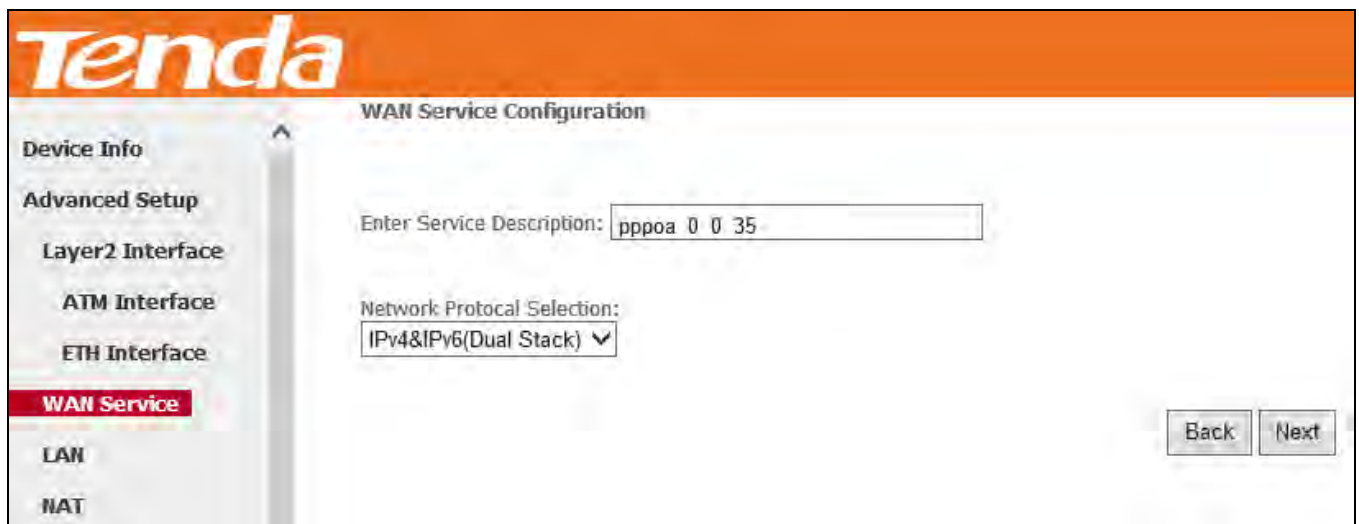
**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.



The screenshot shows the Tenda router's configuration interface. On the left is a navigation menu with categories: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted), LAN, NAT, Security, Parental Control, Bandwidth Control, Routing, DNS, DSL, UPnP, Print Server, and Storage Service. The main content area is titled 'WAN Service Interface Configuration'. It contains instructions: 'Select a layer 2 interface for this service', a note about ATM interface descriptors, and a note about PTM interface descriptors. Below these are several options for portId, low, and high priority. A dropdown menu is set to 'atm0/(0\_0\_35)'. At the bottom are 'Back' and 'Next' buttons.

**Step 3:** Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default.

Select a network protocol: **IPv4 & IPv6 (Dual Stack)**. Click **Next**.



The screenshot shows the Tenda router's configuration interface. On the left is a navigation menu with categories: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted), LAN, and NAT. The main content area is titled 'WAN Service Configuration'. It contains an 'Enter Service Description' field with the value 'pppoa 0 0 35'. Below it is a 'Network Protocol Selection' dropdown menu set to 'IPv4&IPv6(Dual Stack)'. At the bottom are 'Back' and 'Next' buttons.

**Step 4:** Enter PPP username and its password provided by your ISP. Click **Next**.

**PPP Username and Password**

PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that your ISP has provided to you.

PPP Username:

PPP Password:

Authentication Method: **AUTO** ▼

Enable Fullcone NAT

Dial on demand (with idle timeout timer)

Enable Firewall

Use Static IPv4 Address

Use Static IPv6 Address

Enable IPv6 Unnumbered Model

Launch Dhcp6c for Address Assignment (IANA)

Launch Dhcp6c for Prefix Delegation (IAPD)

Enable PPP Debug Mode

**Multicast Proxy**

Enable IGMP Multicast Proxy

Enable MLD Multicast Proxy

**Step 5:** To configure the WAN gateway address. After you configure it click **Next**. The default setting is recommended.

**Routing -- Default Gateway**

Default gateway interface list can have multiple WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Selected Default Gateway Interfaces	Available Routed WAN Interfaces
pppoa0	

**For IPv4 Setting**

**For IPv6 Setting**

IPv6: Select a preferred wan interface as the system default IPv6 gateway.

Selected WAN Interface: **pppoa\_0\_0\_35/pppoa0** ▼

### Note

Default gateway interface list can have multiple WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

**Step 6:** To configure the WAN DNS address

Select DNS Server Interface from available WAN interfaces OR enter static DNS server IP addresses for the system. And then click **Next**.

**For IPv4 Setting**

**For IPv6 Setting**

**Note**

1. DNS Server Interfaces can have multiple WAN interfaces served as system DNS servers but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.
2. In ATM mode, if only a single PVC with IPoA or static IPoE protocol is configured, Static DNS server IP addresses must be entered.
3. If you cannot locate the static DNS server IP information, ask your ISP to provide it.

**Step 7:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

**Tenda**

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP:

Connection Type:	PPPoA
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Enabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

Back Apply/Save

**Step 8:** When the PPPoA connection is successful, you can access the Internet.

**Tenda**

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
ppp0a0	ppp0a_0_0_35	PPPoA	N/A	N/A	Disabled	Enabled	Enabled	Enabled	Disabled	<input type="checkbox"/>	Edit

Add Remove

## IPv6 Only

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.

**Tenda**

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
-----------	-------------	------	------------	-----------	------	-----	----------	------	-----	--------	------

Add Remove

**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.

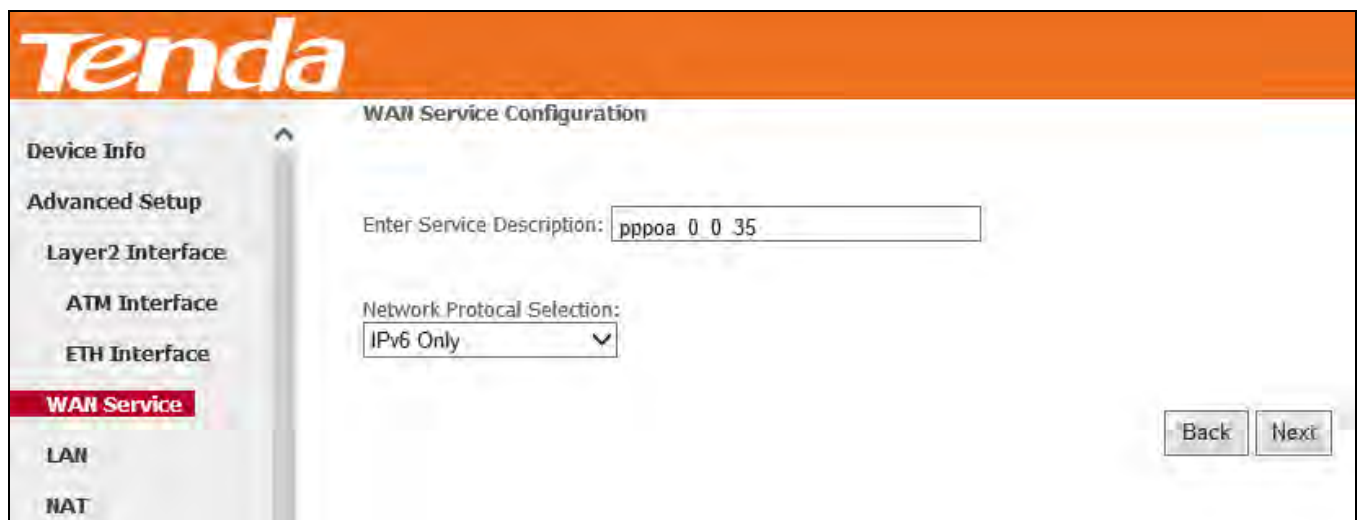




The screenshot shows the Tenda router's configuration interface. On the left is a navigation menu with categories: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted), LAN, NAT, Security, Parental Control, Bandwidth Control, Routing, DNS, DSL, UPnP, Print Server, and Storage Service. The main content area is titled "WAN Service Interface Configuration". It contains instructions: "Select a layer 2 interface for this service", "Note: For ATM interface, the descriptor string is (portid\_vpi\_vci)", and "For PTM interface, the descriptor string is (portid\_high\_low)". Below this, it lists options for portid (0, 1, 4) and low/high priority settings. A dropdown menu is set to "atm0/(0\_0\_35)". At the bottom are "Back" and "Next" buttons.

**Step 3:** Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default.

Select a network protocol: **IPv6 Only**. Click **Next**.



The screenshot shows the Tenda router's configuration interface. On the left is a navigation menu with categories: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted), LAN, and NAT. The main content area is titled "WAN Service Configuration". It contains a text input field for "Enter Service Description:" with the value "pppoe 0 0 35". Below it is a "Network Protocol Selection:" dropdown menu set to "IPv6 Only". At the bottom right are "Back" and "Next" buttons.

**Step 4:** Enter PPP username and its password provided by your ISP. Click **Next**.

**Device Info**

**Advanced Setup**

Layer2 Interface

ATM Interface

ETH Interface

**WAN Service**

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

DSL

UPnP

Print Server

Storage Service

Interface Grouping

IP Tunnel

Certificate

Multicast

IPTV

Wireless

**PPP Username and Password**

PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that your ISP has provided to you.

PPP Username:

PPP Password:

Authentication Method:

Enable Fullcone NAT

Dial on demand (with idle timeout timer)

Enable Firewall

Use Static IPv4 Address

Use Static IPv6 Address

Enable IPv6 Unnumbered Model

Launch Dhcp6c for Address Assignment (IANA)

Launch Dhcp6c for Prefix Delegation (IAPD)

Enable PPP Debug Mode

**Multicast Proxy**

Enable IGMP Multicast Proxy

Enable MLD Multicast Proxy

**Step 5:** Select a preferred wan interface as the system default IPv6 gateway. Click **Next**.

**Device Info**

**Advanced Setup**

Layer2 Interface

ATM Interface

ETH Interface

**WAN Service**

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

DSL

UPnP

Print Server

Storage Service

Interface Grouping

IP Tunnel

**Routing -- Default Gateway**

Default gateway interface list can have multiple WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Selected Default Gateway Interfaces

Available Routed WAN Interfaces

IPv6: Select a preferred wan interface as the system default IPv6 gateway.

Selected WAN interface: ppp0a\_0\_0\_35/ppp0a0

**For IPv6 Setting**

**Step 6:** To configure the WAN DNS address, select the configured WAN interface for IPv6 DNS server information or enter the static IPv6 DNS server addresses. And then click **Next**.

**DNS Server Configuration**

Select DNS Server Interfaces from available WAN interfaces OR enter static DNS server IP addresses for the system. In ATM mode, if only a single PVC with IPoA or static IPoE protocol is configured, Static DNS server IP addresses must be entered.

DNS Server Interfaces can have multiple WAN interfaces served as system dns servers but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Select DNS Server Interface from available WAN interfaces:

Selected DNS Server Interfaces: [Empty]

Available WAN Interfaces: [pppoe0]

Use the following Static DNS IP address:

Primary DNS server: [192.168.0.1]

Secondary DNS server: [Empty]

**IPv6:** Select the configured WAN interface for IPv6 DNS server information OR enter the static IPv6 DNS server Address.  
Note that selecting a WAN interface for IPv6 DNS server will enable DHCPv6 Client on that interface.

Obtain IPv6 DNS info from a WAN interface:

WAN Interface selected: [pppoe\_0\_35/pppoe0]

Use the following Static IPv6 DNS address:

Primary IPv6 DNS server: [Empty]

Secondary IPv6 DNS server: [Empty]

**For IPv6 Setting**



**Note**

Selecting a WAN interface for IPv6 DNS server will enable DHCPv6 Client on that interface.

**Step 7:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

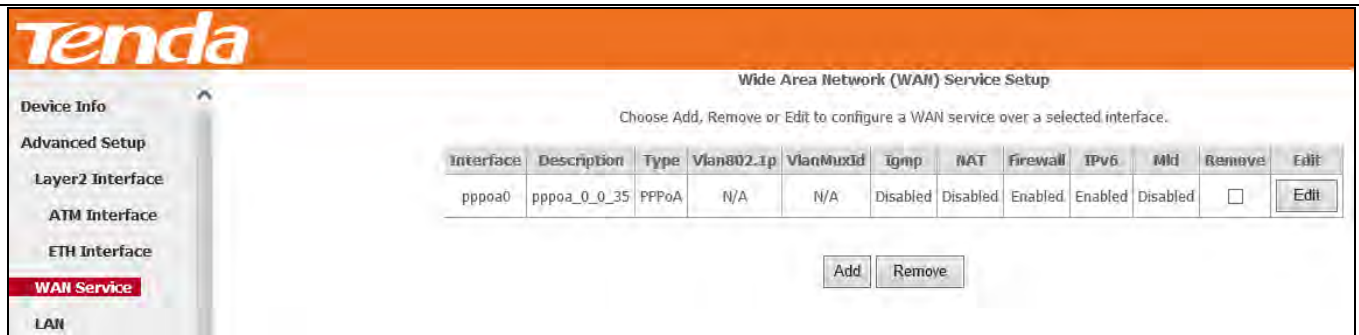
**WAN Setup - Summary**

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	PPPoA
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality of Service:	Enabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

**Step 8:** When the PPPoA connection is successful, you can access the Internet.



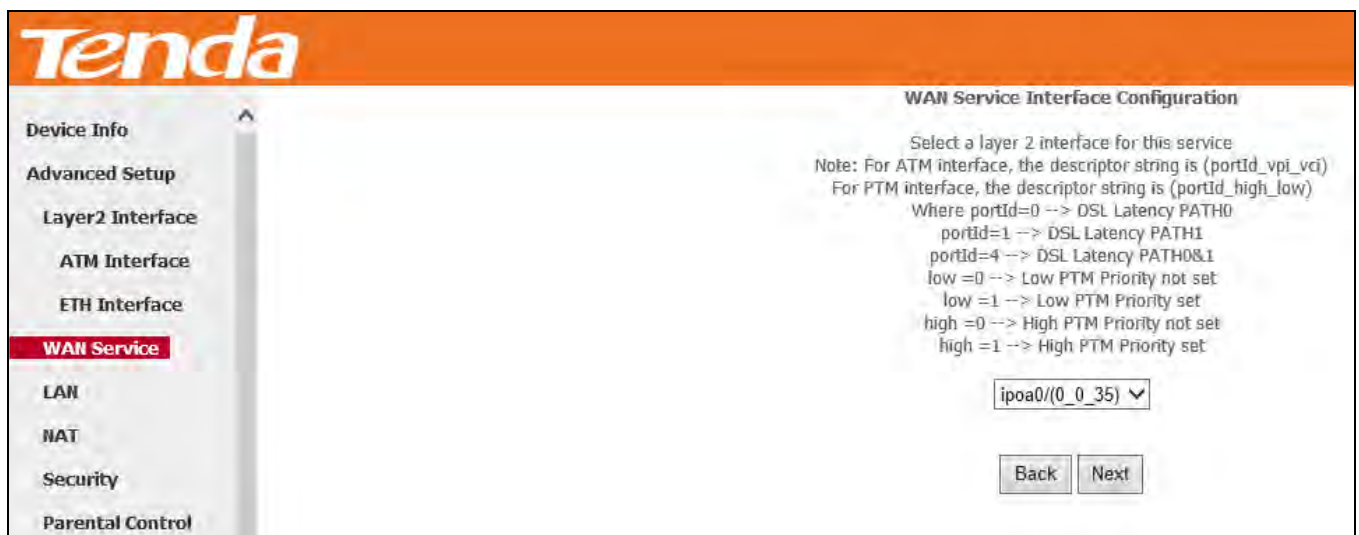
## IPoA

If you have selected the **IPoA** from the **ATM Interface** screen in **Layer2 Interface**, you will see the screen above when you click the **WAN Service** tab, select the configured interface and click **Next**.

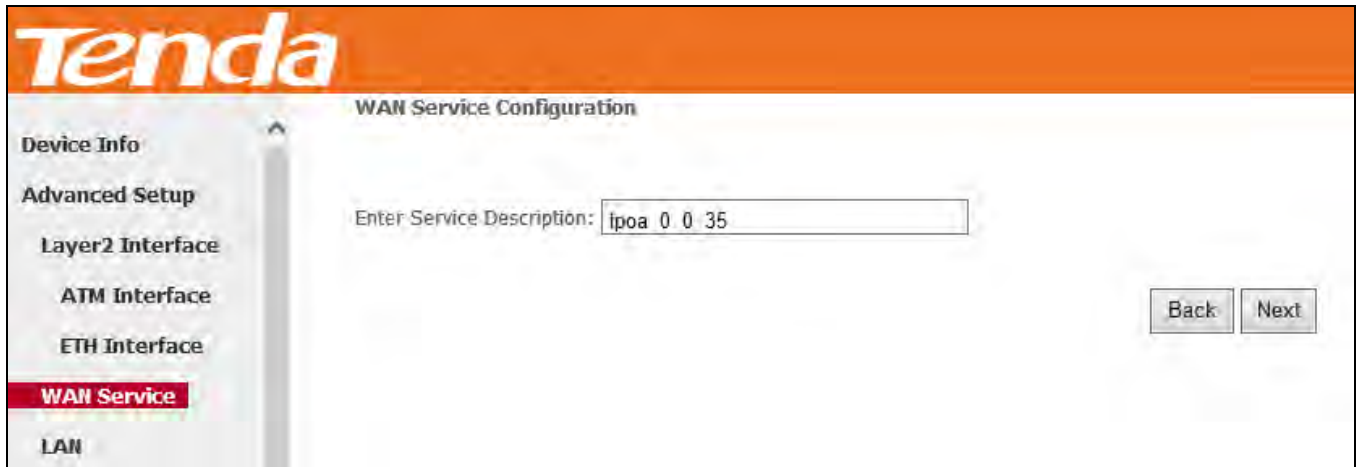
**Step 1:** Click **Advanced Setup > WAN Service** and then click the **Add** button.



**Step 2:** Select the ATM interface you added just now from the pull-down menu in the figure below. Click **Next**.



**Step 3:** Edit the Enter Service Description. This field is optional. We recommend that you keep the default. Click **Next**.



The screenshot shows the Tenda web interface for WAN Service Configuration. The left sidebar contains a menu with items: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted in red), and LAN. The main content area is titled "WAN Service Configuration" and features a text input field labeled "Enter Service Description:" containing the text "lpoa 0 0 35". To the right of the input field are two buttons: "Back" and "Next".

**Step 4:** Enter the WAN IP address and subnet mask which should have been provided to you by your ISP. If you cannot locate this information, ask your ISP to provide it. And then click **Next**.

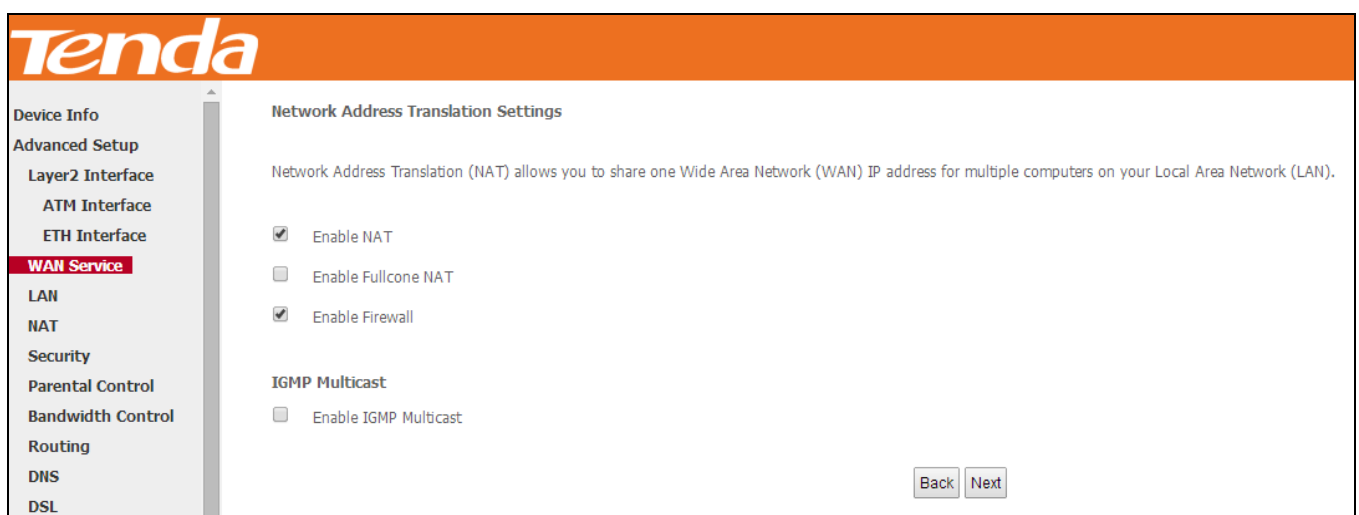


The screenshot shows the Tenda web interface for WAN IP Settings. The left sidebar contains a menu with items: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted in red), LAN, and NAT. The main content area is titled "WAN IP Settings" and includes the instruction "Enter information provided to you by your ISP to configure the WAN IP settings." Below this are two input fields: "WAN IP Address:" with the value "192.168.100.58" and "WAN Subnet Mask:" with the value "255.255.255.0". To the right of the input fields are two buttons: "Back" and "Next".

**WAN IP Address:** The Internet IP address provided by your ISP for accessing the Internet.

**WAN Subnet Mask:** The subnet mask address provided by your ISP for accessing the Internet.

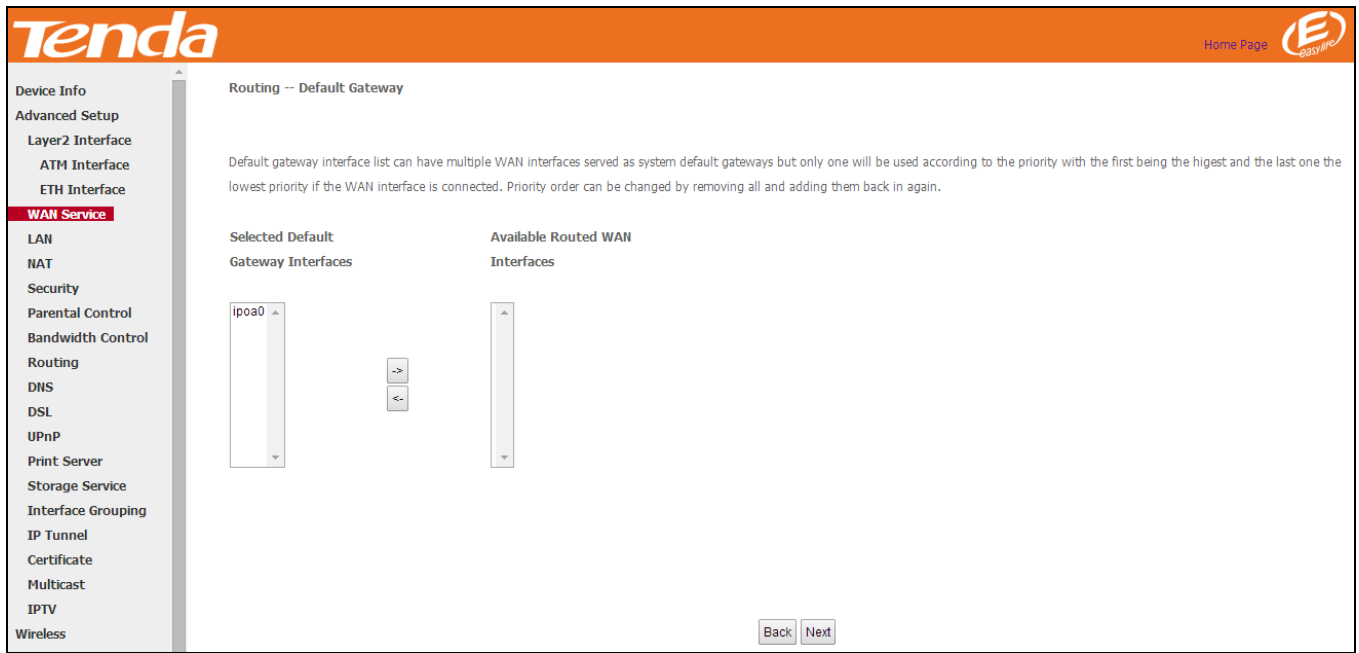
**Step 5:** Keep the defaults if you are unsure about the options on the screen below and click **Next**.



The screenshot shows the Tenda web interface for Network Address Translation Settings. The left sidebar contains a menu with items: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted in red), LAN, NAT, Security, Parental Control, Bandwidth Control, Routing, DNS, and DSL. The main content area is titled "Network Address Translation Settings" and includes the text "Network Address Translation (NAT) allows you to share one Wide Area Network (WAN) IP address for multiple computers on your Local Area Network (LAN)." Below this are three checkboxes: "Enable NAT" (checked), "Enable Fullcone NAT" (unchecked), and "Enable Firewall" (checked). Under the heading "IGMP Multicast", there is one checkbox: "Enable IGMP Multicast" (unchecked). To the right of the checkboxes are two buttons: "Back" and "Next".



**Step 6:** To configure the WAN gateway address. After you configure it click **Next**. The default setting is recommended.



 **Note**

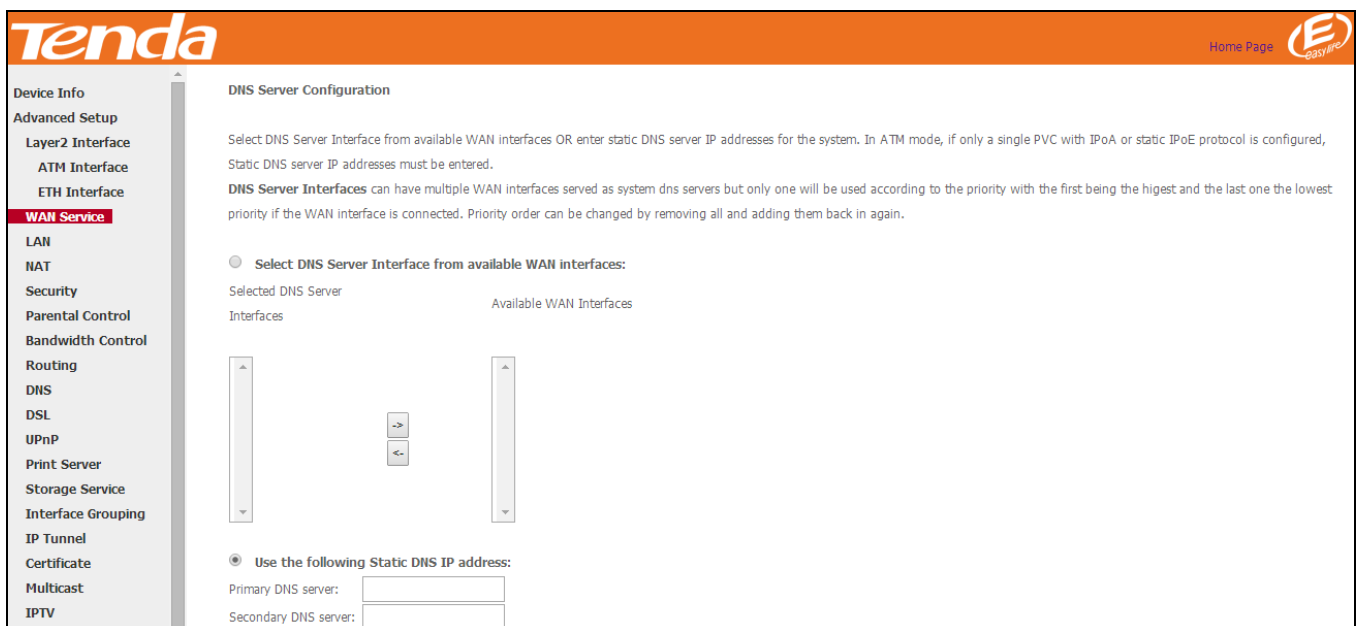
Default gateway interface list can have multiple WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

**Step 7:** Configure the WAN DNS Server configuration according to your ISP.

-Click the **Select DNS Server Interface** from available WAN interfaces option;

-Or select the **Use the following Static DNS IP address** option and enter static DNS server IP addresses for the system.

And then click **Next**.



**Step 8:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

**Tenda**

Device Info  
Advanced Setup  
Layer2 Interface  
ATM Interface  
ETH Interface  
**WAN Service**  
LAN  
NAT  
Security  
Parental Control  
Bandwidth Control  
Routing  
DNS  
DSL  
UPnP  
Print Server

**WAN Setup - Summary**

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	IPoA
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Enabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

Back Apply/Save

**Step 9:** IPoA WAN service setup parameter is shown as below.

**Tenda**

Device Info  
Advanced Setup  
Layer2 Interface  
ATM Interface  
ETH Interface  
**WAN Service**  
LAN  
NAT  
Security  
Parental Control

**Wide Area Network (WAN) Service Setup**

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
ipoa0	ipoa_0_0_35	IPoA	N/A	N/A	Disabled	Enabled	Enabled	Disabled	Disabled	<input type="checkbox"/>	Edit

Add Remove

## To Set up WAN Service for ETH Interface

Three Internet connections: PPP over Ethernet (PPPoE), IP over Ethernet (IPoE) and Bridging are available in the Ethernet uplink mode.

If you selected and configured the **ETH Interface** (Ethernet uplink), follow steps below to configure the WAN service:



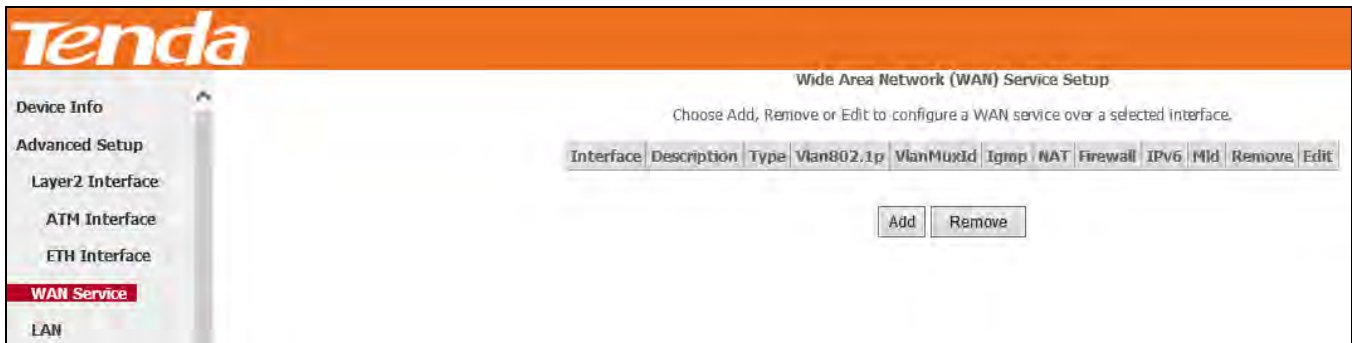
**Tip**

eth0, eth1, eth2 and eth3 respectively represent the LAN port1, LAN port2, LAN port3 and LAN port4 of the device.

## PPP over Ethernet (PPPoE)

### IPv4

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.



**Step 2:** Select the ETH interface you added just now from the pull-down menu in the figure below. Click **Next**.



**Step 3:** Select **PPP over Ethernet**. Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default. Select a network protocol: **IPv4 Only**. And click **Next**.

**Step 4:** Enter the PPP username and password provided by your ISP. If you are not sure about other options, just leave them unchanged from defaults. And click **Next**.

**PPP Username:** This is for logging in to your ISP. If you cannot locate this information, ask your ISP to provide it.

**PPP Password:** This is for logging in to your ISP. If you cannot locate this information, ask your ISP to provide it.

**PPPoE Service Name:** This information is provided by your ISP. Only enter it if instructed by your ISP.

**Authentication Method:** This is used by ISP to authenticate the client that attempts to connect. If you are not sure, consult your ISP or select **Auto**.

**MAC Clone:** Clicking **Clone MAC** button copies the MAC address of your PC to the router. Many broadband ISPs restrict access by allowing traffic only from the MAC address of your broadband modem, but some ISPs additionally register the MAC address of the network interface card in your computer when your account is first opened. They then accept traffic only from the MAC address of that computer. If so, configure your router to “clone” the MAC address from the authorized computer.

**MTU:** Short for *Maximum Transmission Unit*, the largest physical packet size, measured in bytes, which a network can transmit. Any messages larger than the MTU are divided into smaller packets before being sent. The default MTU is 1492 bytes. For some ISPs, you might need to change the MTU. This is rarely required, and should not be done unless you are sure it is necessary for your ISP connection.

**Dial on demand:** Connect to ISP only when there is traffic transmission. This saves your broadband Internet service bill.

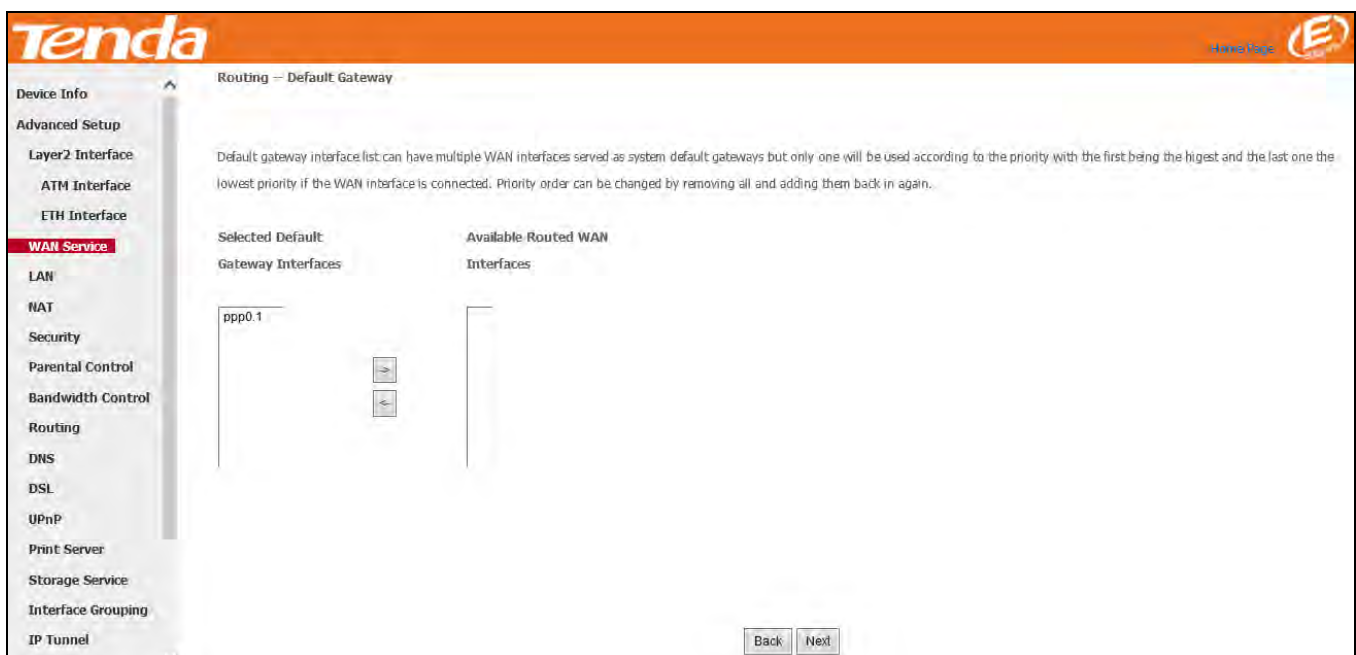
**PPP IP extension:** If enabled, all the IP addresses in outgoing packets including management packets on the WAN port will be changed to the device's WAN IP address. Only change the default settings if necessary.

**Enable PPP Debug Mode:** Only enable this feature if supported by your ISP.

**Bridge PPPoE Frames Between WAN and Local Ports:** If enabled, PPPoE dialup frame from LAN side will directly egress the WAN port without modification.

**Multicast Proxy:** If enabled, the router will use multicast proxy.

**Step 5:** Configure the WAN gateway address. After you configure it click **Next**. The default setting is recommended.





**Step 6:** Configure the WAN DNS address according to your ISP.

-Click the **Select DNS Server Interface** from available WAN interfaces option;

-Or select the **Use the following Static DNS IP address** option and enter static DNS server IP addresses for the system.

And then click **Next**.

**Tenda** DNS Server Configuration

Select DNS Server Interface from available WAN interfaces OR enter static DNS server IP addresses for the system. In ATM mode, if only a single PVC with IPoA, or static IPoE protocol is configured, Static DNS server IP addresses must be entered.

DNS Server Interfaces can have multiple WAN interfaces served as system dns servers but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Select DNS Server Interface from available WAN interfaces:

Selected DNS Server Interfaces Available WAN Interfaces

Use the following Static DNS IP address:

Primary DNS server:

Secondary DNS server:

**Step 7:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

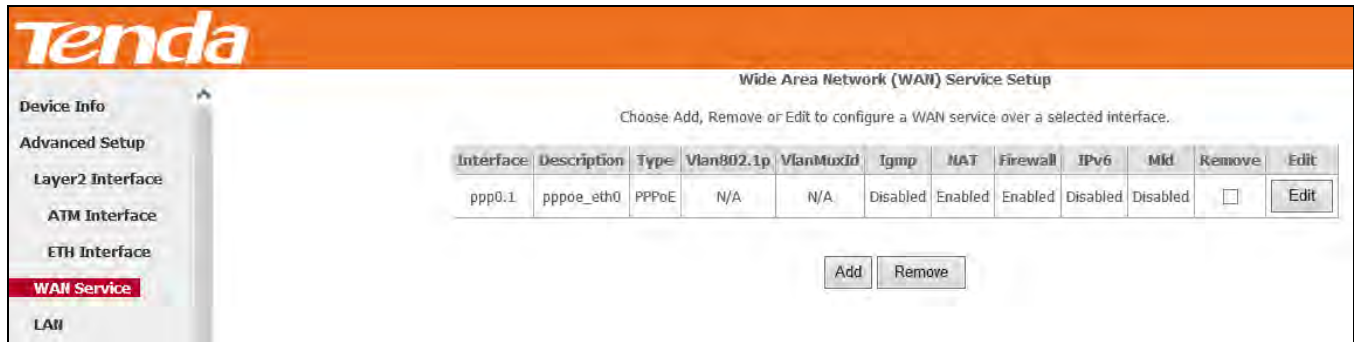
**Tenda** WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	PPPoE
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Disabled

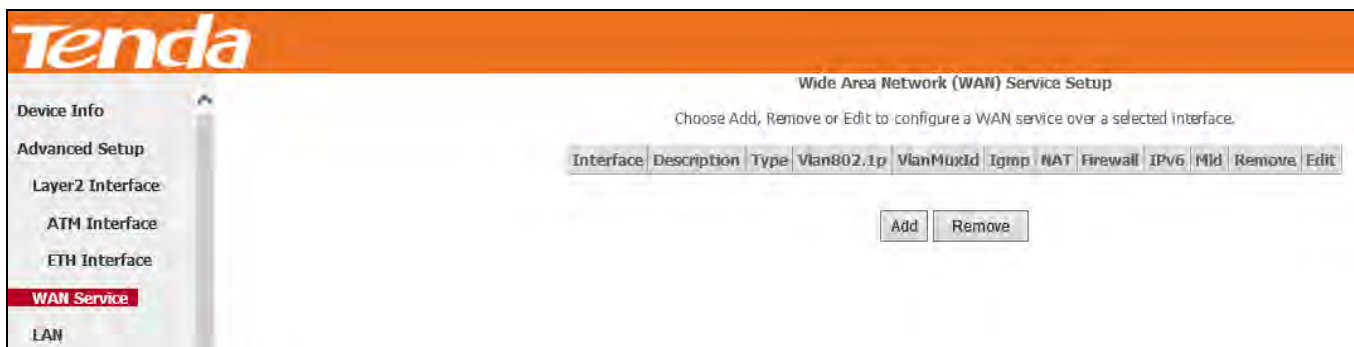
Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

When the PPPoE connection is successful, you can access the Internet.



## IPv4 & IPv6 (Dual Stack)

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.



**Step 2:** Select the ETH interface you added just now from the pull-down menu in the figure below. Click **Next**.



**Step 3:** Select **PPP over Ethernet**. Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default. Select a network protocol: **IPv4&IPv6 (Dual Stack)**. And click **Next**.

**Step 4:** Enter PPP username and PPP password provided by your ISP. Check **Launch Dhcp6c for Prefix Delegation (IAPD)**. If your ISP is using stateful DHCPv6, check **Launch Dhcp6c for Address Assignment (IANA)** also. Or configure a static IP address.

**Step 5:** Select a available WAN interface as the system default gateway. Then click **Next**.

**Routing - Default Gateway**

Default gateway interface list can have multiple WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

**Selected Default Gateway Interfaces**

ppp0.1

**Available Routed WAN Interfaces**

For IPv4 Setting

IPv6: Select a preferred wan interface as the system default IPv6 gateway.

Selected WAN Interface: pppoe\_eth0/ppp0.1

For IPv6 Setting

Back Next

**Step 6:** Configure DNS server (Select an available DNS server interface or use a specified DNS server); configure IPv6 DNS server (Obtain IPv6 DNS info from a WAN interface or use a specified DNS server), and then click **Next**.

**DNS Server Configuration**

Select DNS Server Interface from available WAN interfaces OR enter static DNS server IP addresses for the system. In ATM mode, if only a single PVC with IPoA or static IPoE protocol is configured, Static DNS server IP addresses must be entered.

DNS Server Interfaces can have multiple WAN interfaces served as system dns servers but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Select DNS Server Interface from available WAN interfaces:

Selected DNS Server Interfaces: Available WAN Interfaces

ppp0.1

For IPv4 Setting

Use the following Static DNS IP address:

Primary DNS server: 192.168.100.1

Secondary DNS server:

IPv6: Select the configured WAN interface for IPv6 DNS server information OR enter the static IPv6 DNS server Address.

Note that selecting a WAN interface for IPv6 DNS server will enable DHCPv6 Client on that interface.

Obtain IPv6 DNS info from a WAN interface:

WAN interface selected: pppoe\_eth0/ppp0.1

Use the following Static IPv6 DNS address:

Primary IPv6 DNS server:

Secondary IPv6 DNS server:

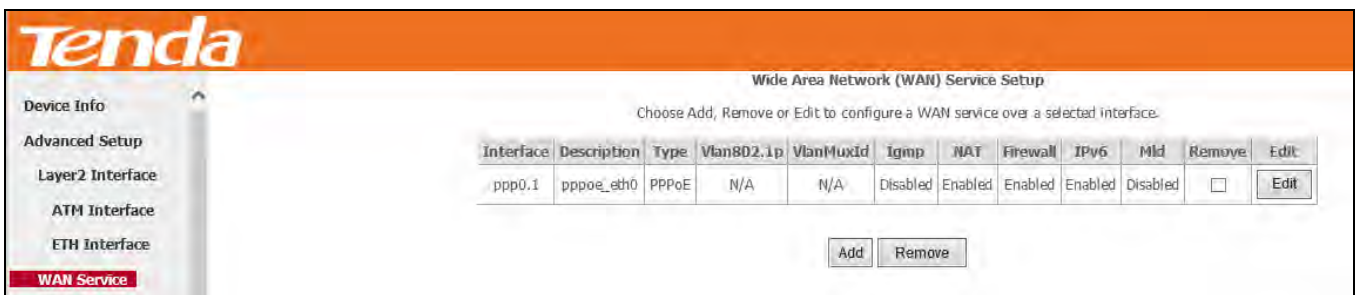
For IPv6 Setting

**Step 7:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.



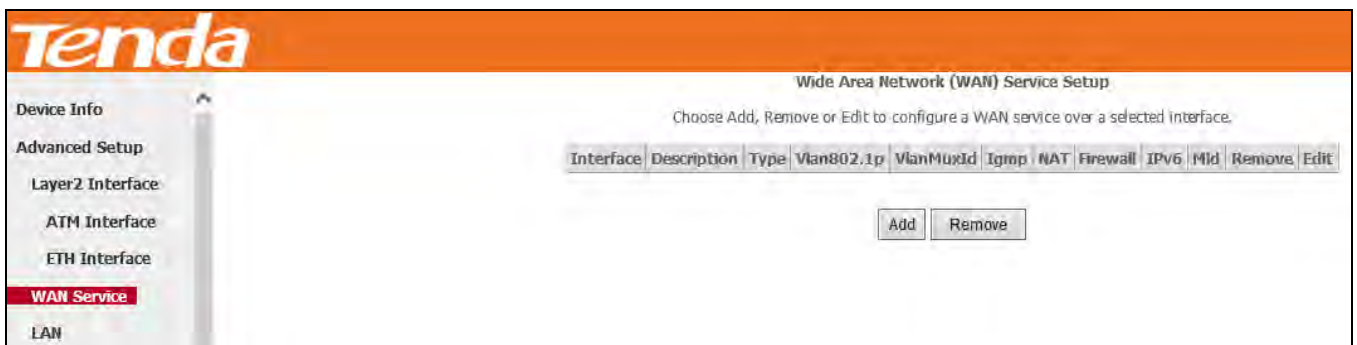


When the PPPoE connection is successful, you can access the Internet.



## IPv6

**Step 1:** Click **Advanced Setup > WAN Service** and then click the **Add** button.



**Step 2:** Select the ETH interface you added just now from the pull-down menu in the figure below. Click **Next**.



**Tenda**

WAN Service Interface Configuration

Select a layer 2 interface for this service  
 Note: For ATM interface, the descriptor string is (portid\_vpi\_vc)  
 For PTM interface, the descriptor string is (portid\_high\_low)  
 Where portid=0 -> DSL Latency PATH0  
 portid=1 -> DSL Latency PATH1  
 portid=4 -> DSL Latency PATH0&1  
 low =0 -> Low PTM Priority not set  
 low =1 -> Low PTM Priority set  
 high =0 -> High PTM Priority not set  
 high =1 -> High PTM Priority set

eth0/eth0

Back Next

**Step 3:** Select **PPP over Ethernet**. Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default. Select a network protocol: **IPv6 Only**. And click **Next**.

**Tenda**

WAN Service Configuration

Select WAN service type:

PPP over Ethernet (PPPoE)  
 IP over Ethernet  
 Bridging

Enter Service Description: pppoe\_eth0

For tagged service, enter valid 802.1P Priority and 802.1Q VLAN ID.  
 For untagged service, set -1 to both 802.1P Priority and 802.1Q VLAN ID:

Enter 802.1P Priority [0-7]: -1

Enter 802.1Q VLAN ID [0-4094]: -1

Network Protocol Selection:  
 IPv6 Only

Back Next

**Step 4:** Enter PPP username and PPP password provided by your ISP. Check **Launch Dhcp6c for Prefix Delegation (IAPD)**. If your ISP is using stateful DHCPv6, check **Launch Dhcp6c for Address Assignment (IANA)** also. Or configure a static IP address.

**PPP Username and Password**

PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that your ISP has provided to you.

PPP Username:

PPP Password:

PPPoE Service Name:

Authentication Method:

MAC Clone:

MTU:  (576-1452, default: 1452)

Enable Fullcone NAT

Dial on demand (with idle timeout timer)

PPP IP extension

Enable Firewall

Use Static IPv4 Address

Use Static IPv6 Address

Enable IPv6 Unnumbered Model

Launch Dhcp6c for Address Assignment (IANA)

Launch Dhcp6c for Prefix Delegation (IAPD)

Enable PPP Debug Mode

Bridge PPPoE Frames Between WAN and Local Ports

**Multicast Proxy**

Enable IGMP Multicast Proxy

Enable MLD Multicast Proxy

**Step 5:** Select a preferred WAN interface from the WAN interface list as the system default IPv6 gateway. Click **Next**.

**Routing -- Default Gateway**

Default gateway interface list can have multiple WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Selected Default Gateway Interfaces

Available Routed WAN Interfaces

IPv6: Select a preferred wan interface as the system default IPv6 gateway.

Selected WAN interface:

For IPv6 Setting

**Step 6:** Select the configured WAN interface for IPv6 DNS server information or use a static IPv6 DNS server address. Note that selecting a WAN interface for IPv6 DNS server will enable DHCPv6 Client on that interface. And then click **Next**.

**Device Info** | **DNS Server Configuration**

Select DNS Server Interface from available WAN interfaces OR enter static DNS server IP addresses for the system. In ATM mode, if only a single PVC with IPoA or static IPoE protocol is configured, Static DNS server IP addresses must be entered. DNS Server Interfaces can have multiple WAN interfaces served as system dns servers but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Select DNS Server Interface from available WAN interfaces:

Selected DNS Server Interface	Available WAN Interfaces
	ppp0.1

\* Use the following Static DNS IP address:

Primary DNS server:

Secondary DNS server:

IPv6: Select the configured WAN interface for IPv6 DNS server information OR enter the static IPv6 DNS server Addresses. Note that selecting a WAN interface for IPv6 DNS server will enable DHCPv6 Client on that interface.

Obtain IPv6 DNS info from a WAN interfaces:  
 WAN Interface selected:

Use the following Static IPv6 DNS address:  
 Primary IPv6 DNS server:   
 Secondary IPv6 DNS server:

For IPv6 Setting

**Step 7:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

**Device Info** | **WAN Setup - Summary**

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	PPPoE
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Disabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

When the PPPoE connection is successful, you can access the Internet.

**Device Info** | **Wide Area Network (WAN) Service Setup**

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

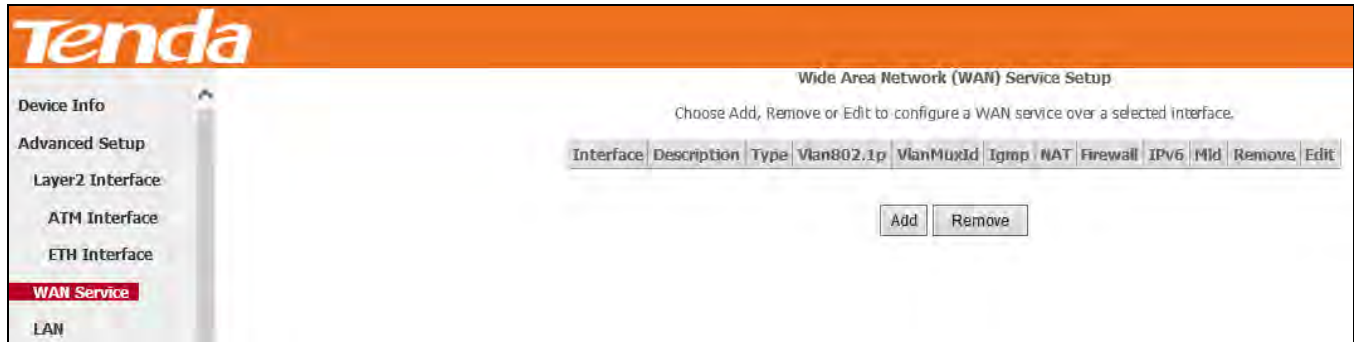
Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
ppp0.1	ppp0e_eth0	PPPoE	N/A	N/A	Disabled	Disabled	Enabled	Enabled	Disabled	<input type="checkbox"/>	Edit

## IP over Ethernet (IPoE)

If your ISP uses DHCP to assign your IP address or if your ISP assigns you a static (fixed) IP address, IP subnet mask and the gateway IP address, you need to select the IP over Ethernet (IPoE).

### IPv4

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.



**Step 2:** Select the ETH interface you added just now from the pull-down menu in the figure below. Click **Next**.



**Step 3:** Select **IP over Ethernet** as WAN service type. Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default. Select a network protocol: **IPv4 Only**. And then click **Next**.



**Step 4:** Enter the IP address/subnet mask/gateway IP address provided by your ISP or select **Obtain an IP address automatically** and then click the **Next** button.

**Obtain an IP address automatically:** This allows the router to automatically acquire IP information from your ISP or your existing networking equipment.

**Use the following Static IP address:** This allows you to specify the Static IP information provided by your ISP or that



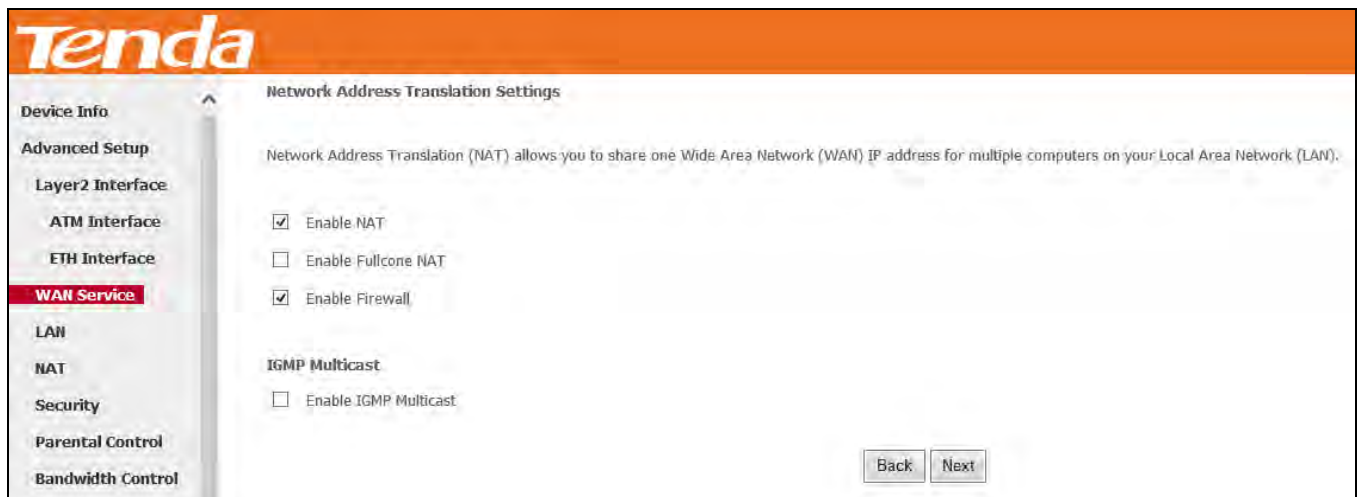
corresponds with your existing networking equipment.

**WAN IP Address:** The Internet IP address provided by your ISP for accessing the Internet.

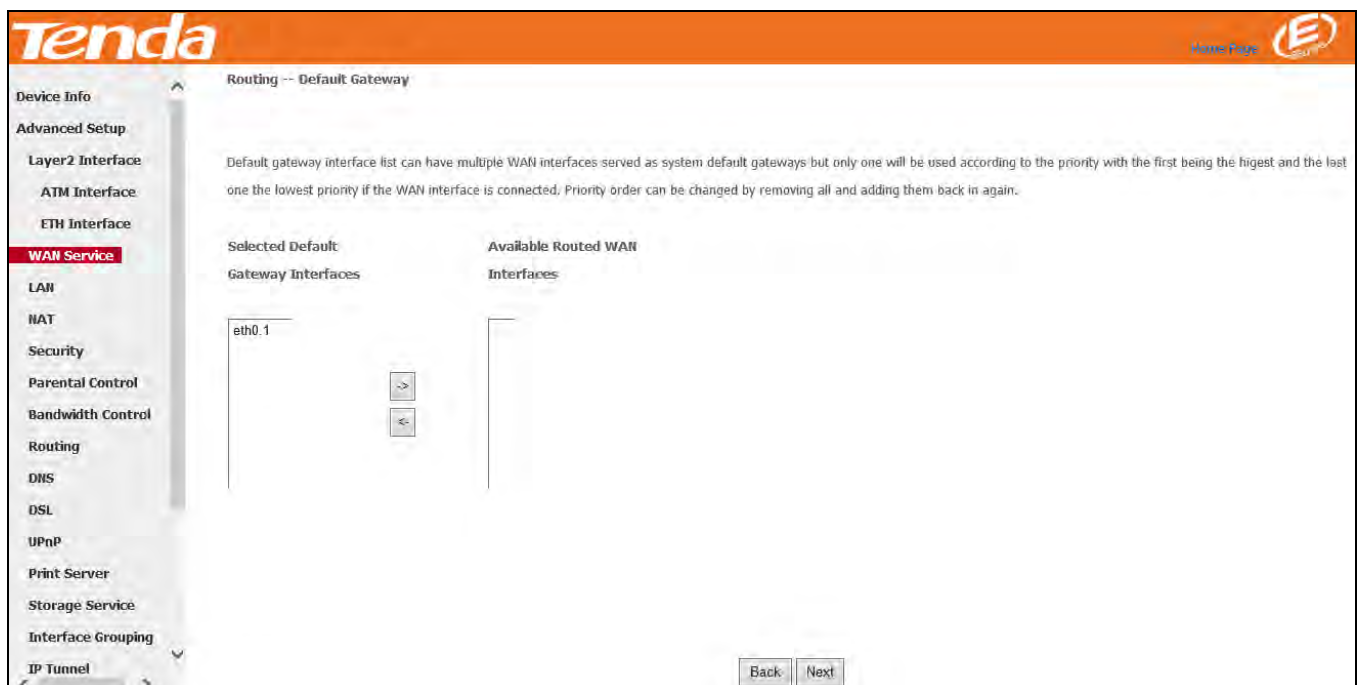
**WAN Subnet Mask:** The subnet mask address provided by your ISP for accessing the Internet.

**WAN gateway IP Address:** The gateway IP address provided by your ISP for accessing the Internet.

**Step 5:** Here you can configure the NAT. If you are not an advanced user we recommend you to keep the default settings and then click **Next**.



**Step 6:** Here you can configure the WAN gateway address. After you configure it click **Next**. The default setting is recommended.



**Step 7:** Here you can configure the WAN DNS address.

-Click the **Select DNS Server Interface** from available WAN interfaces option;

-Or select the **Use the following Static DNS IP address** option and enter static DNS server IP addresses for the system.

And then click **Next**.

**Tenda** Home Page

**DNS Server Configuration**

Select DNS Server Interface from available WAN interfaces; OR enter static DNS server IP addresses for the system. In ATM mode, if only a single PVC with IPoA or static IPoE protocol is configured, Static DNS server IP addresses must be entered.

DNS Server Interfaces can have multiple WAN interfaces served as system dns servers but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Select DNS Server Interface from available WAN interfaces:

Selected DNS Server Interfaces: Available WAN Interfaces:

Use the following Static DNS IP address:

Primary DNS server:

Secondary DNS server:

**Step 8:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

**Tenda**

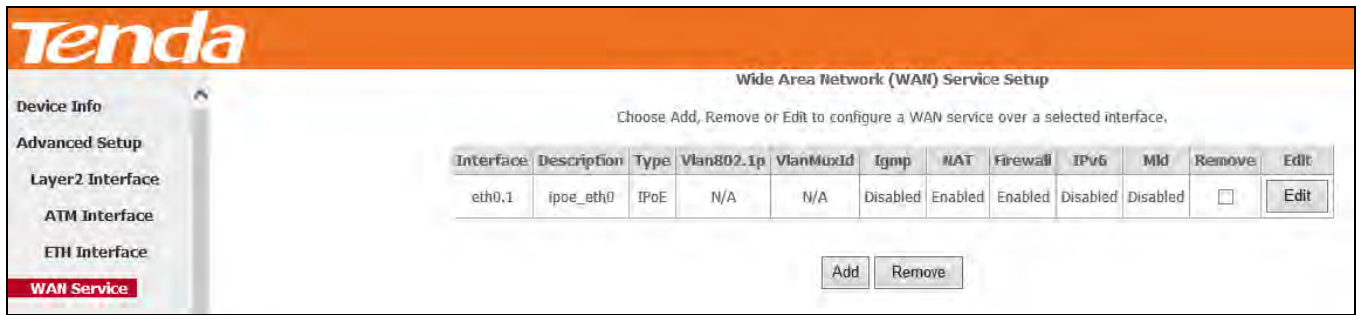
**WAN Setup - Summary**

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	IPoE
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Disabled

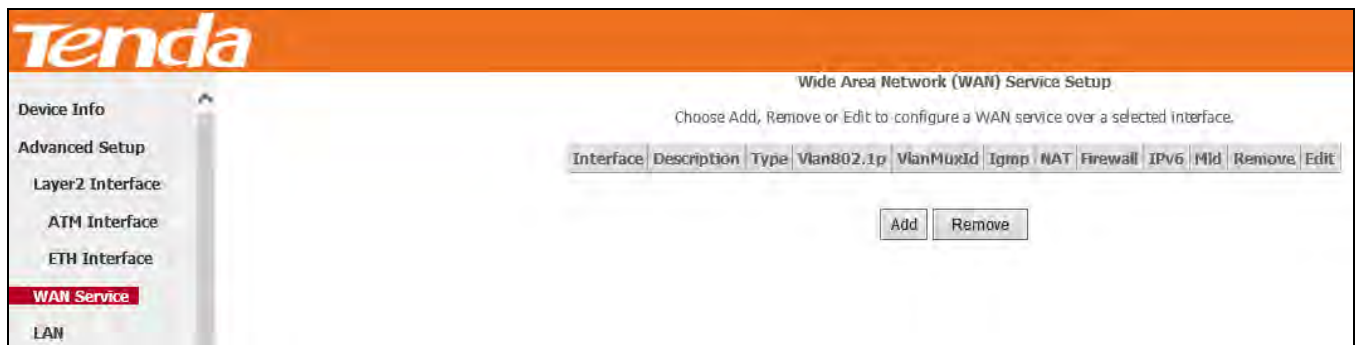
Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

When the IPoE connection is successful, you can access the Internet.



## IPv4 & IPv6 (Dual Stack)

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.



**Step 2:** Select the ETH interface you added just now from the pull-down menu in the figure below. Click **Next**.

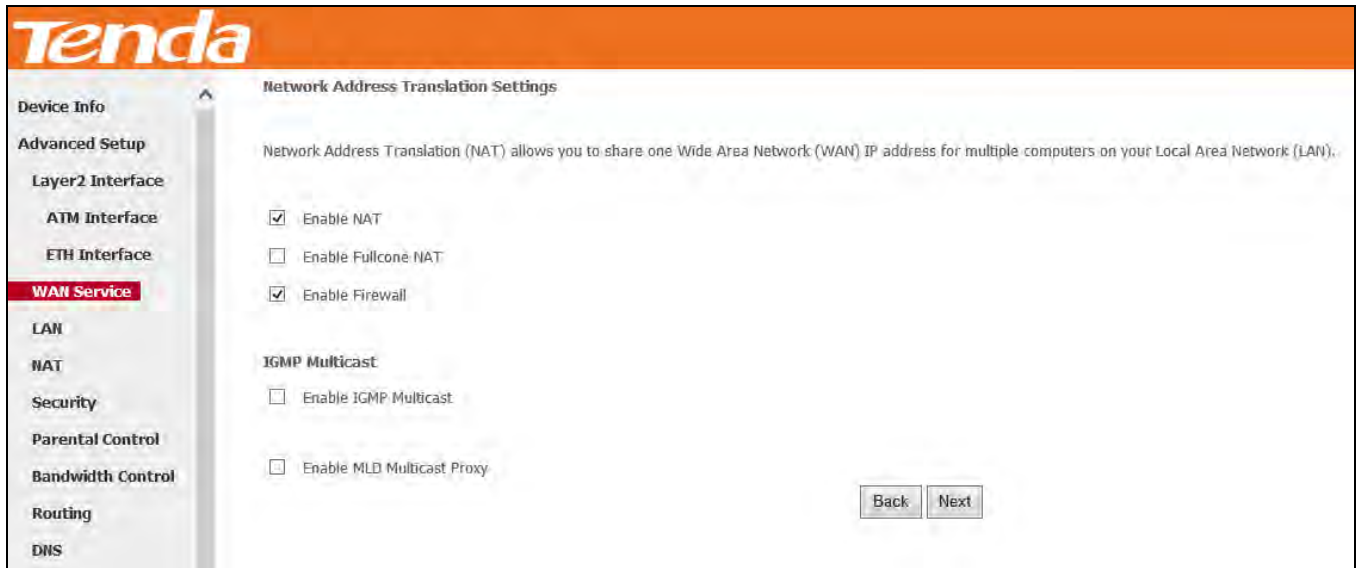


**Step 3:** Select **IP over Ethernet** as WAN service type. Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default. Select a network protocol: **IPv4&IPv6 (Dual Stack)**. And then click **Next**.

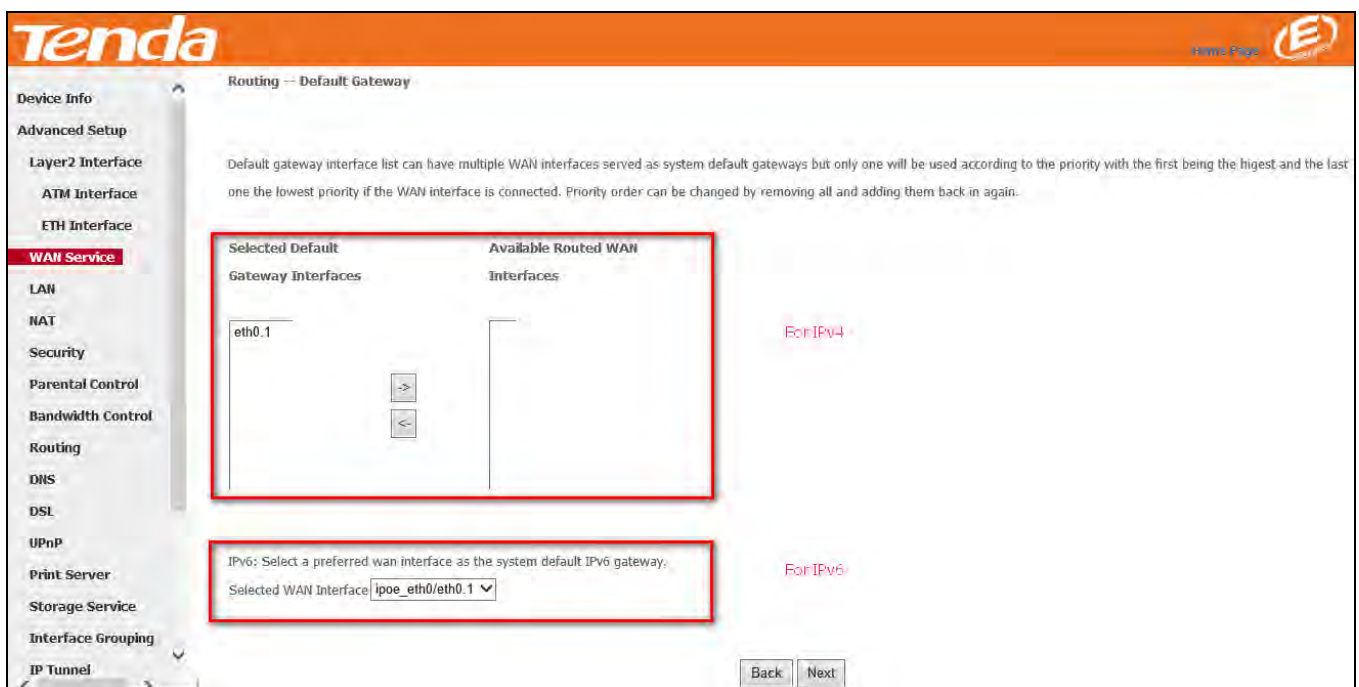
Step 4: Enter information provided by your ISP to configure the WAN IP settings.



**Step 5:** Here you can configure the NAT. If you are not an advanced user we recommend you to keep the default settings and then click **Next**.



**Step 6:** Configure a WAN interface as the default gateway.



**Step 7:** Configure DNS server (Select an available DNS server interface or use a specified DNS server); configure IPv6 DNS server (Obtain IPv6 DNS info from a WAN interface or use a specified DNS server), and then click **Next**.



**For IPv4**

**For IPv6**

**Step 8:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

**WAN Setup - Summary**

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	IPoE
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Disabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

Back Apply/Save

When the IPoE connection is successful, you can access the Internet.

**Wide Area Network (WAN) Service Setup**

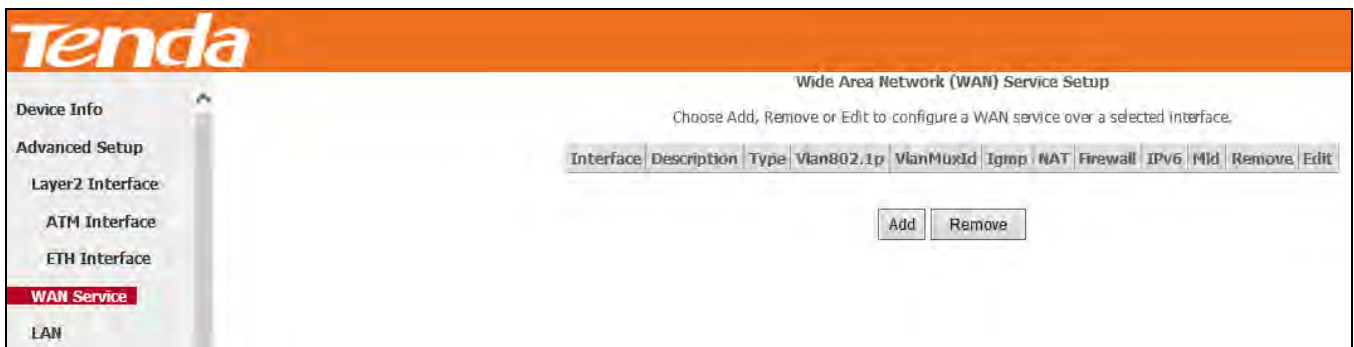
Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Remove	Edit
eth0.1	ipoe_eth0	IPoE	N/A	N/A	Disabled	Enabled	Enabled	Enabled	Disabled	<input type="checkbox"/>	Edit

Add Remove

## IPv6

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.



**Step 2:** Select the ETH interface you added just now from the pull-down menu in the figure below. Click **Next**.



**Step 3:** Select **IP over Ethernet** as WAN service type. Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default. Select a network protocol: **IPv6 Only**. And then click **Next**.

**Tenda**

Device Info

Advanced Setup

Layer2 Interface

**WAN Service**

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

DSL

UPnP

Print Server

Storage Service

Interface Grouping

IP Tunnel

Certificate

Multicast

IPTV

### WAN Service Configuration

Select WAN service type:

PPP over Ethernet (PPPoE)

IP over Ethernet

Bridging

Enter Service Description:

For tagged service, enter valid 802.1P Priority and 802.1Q VLAN ID.  
For untagged service, set -1 to both 802.1P Priority and 802.1Q VLAN ID.

Enter 802.1P Priority [0-7]:

Enter 802.1Q VLAN ID [0-4094]:

Network Protocol Selection:

▼

**Step 4:** Enter the WAN information provided by your ISP to configure the WAN IPv6 settings.

To obtain an IP address automatically:

Select **Obtain an IPv6 address automatically** and Check **Dhcp6c Prefix Delegation (IAPD)**.

If your ISP is using stateful DHCPv6, check **Dhcp6c Address Assignment (IANA)** also. Click **Next** to go forwards.

**Tenda**

Device Info  
Advanced Setup  
Layer2 Interface  
**WAN Service**  
LAN  
NAT  
Security  
Parental Control  
Bandwidth Control  
Routing  
DNS  
DSL  
UPnP  
Print Server  
Storage Service  
Interface Grouping  
IP Tunnel  
Certificate  
Multicast  
IPTV  
Wireless  
Diagnostics  
Management

### WAN IP Settings

Enter information provided to you by your ISP to configure the WAN IP settings.

Notice: If "Obtain an IP address automatically" is chosen, DHCP will be enabled for PVC in IPoE mode.  
If "Use the following Static IP address" is chosen, enter the WAN IP address, subnet mask and interface gateway.

Obtain an IP address automatically

Option 60 Vendor ID:

Option 61 IAID:  (8 hexadecimal digits)

Option 61 DUID:  (hexadecimal digit)

Option 125:  Disable  Enable

Use the following Static IP address:

WAN IP Address:

WAN Subnet Mask:

WAN gateway IP Address:

Enter information provided to you by your ISP to configure the WAN IPv6 settings.

Notice:  
If "Obtain an IPv6 address automatically" is chosen, DHCPv6 Client will be enabled on this WAN interface.  
If "Use the following Static IPv6 address" is chosen, enter the static WAN IPv6 address. If the address prefix length is not specified, it will be default to /64.

Obtain an IPv6 address automatically

Dhcpv6 Address Assignment (IANA)

Dhcpv6 Prefix Delegation (IAPD)

Use the following Static IPv6 address:

WAN IPv6 Address/Prefix Length:

Specify the Next-Hop IPv6 address for this WAN interface.

Notice: This address can be either a link local or a global unicast IPv6 address.

WAN Next-Hop IPv6 Address:

For IPv6

**Step 5:** Here you can configure the NAT. If you are not an advanced user we recommend you to keep the default settings and then click **Next**.

**Tenda** Home Page

Device Info  
Advanced Setup  
Layer2 Interface  
ATM Interface  
ETH Interface  
**WAN Service**  
LAN  
NAT  
Security  
Parental Control  
Bandwidth Control

### Network Address Translation Settings

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

Enable NAT

Enable Firewall

**IGMP Multicast**

Enable IGMP Multicast

Enable MLD Multicast Proxy

**Step 6:** To configure the Default Gateway interface when using IPv6, select the interface that you want to configure with the WAN gateway address in **Selected WAN Interface** box. Then click **Next**.



**Tenda** Home Page

Device Info

Advanced Setup

Layer2 Interface

ATM Interface

ETH Interface

**WAN Service**

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

DSL

UPnP

Print Server

Storage Service

Interface Grouping

IP Tunnel

Routing -- Default Gateway

Default gateway interface list can have multiple WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Selected Default Gateway Interfaces

Available Routed WAN Interfaces

eth0.1

IPV6: Select a preferred wan interface as the system default IPv6 gateway.

Selected WAN Interface: ipoe\_eth0/eth0.1

For IPv6:

Back Next

**Step 7:** To configure all the WAN DNS address, check the **Obtain IPv6 DNS info from a WAN interface** option, or select the **Use the following Static IPv6 DNS address** option to enter the static DNS server IPv6 addresses provided by your ISP. At last, click **Next**.

**Tenda** Home Page

Device Info

Advanced Setup

Layer2 Interface

ATM Interface

ETH Interface

**WAN Service**

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

DSL

UPnP

Print Server

Storage Service

Interface Grouping

IP Tunnel

Certificate

Multicast

IPTV

Wireless

Diagnostics

Management

DNS Server Configuration

Select DNS Server Interface from available WAN interfaces OR enter static DNS server IP addresses for the system. (In ATM mode, if only a single PVC with IPoA or static-IPoE protocol is configured, Static DNS server IP addresses must be entered.)

DNS Server Interfaces can have multiple WAN interfaces served as system dns servers but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Select DNS Server Interface from available WAN interfaces:

Selected DNS Server Interfaces

Available WAN Interfaces

eth0.1

Use the following Static DNS IP address:

Primary DNS server: 192.168.1.1

Secondary DNS server:

IPv6: Select the configured WAN interface for IPv6 DNS server information OR enter the static IPv6 DNS server Addresses.

Note that selecting a WAN interface for IPv6 DNS server will enable DHCPv6 Client on that interface.

Obtain IPv6 DNS info from a WAN interface:

WAN Interface selected: ipoe\_eth0/eth0.1

Use the following Static IPv6 DNS address:

Primary IPv6 DNS server:

Secondary IPv6 DNS server:

For IPv6:

**Step 8:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.



**Tenda**

Device Info

Advanced Setup

Layer2 Interface

ATM Interface

ETH Interface

**WAN Service**

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

**WAN Setup - Summary**

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	IPoE
NAT:	Disabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast:	Disabled
Quality Of Service:	Disabled

Click: "Apply/Save" to have this interface to be effective. Click: "Back" to make any modifications.

Back Apply/Save

When the IPoE connection is successful, you can access the Internet.

**Tenda**

Device Info

Advanced Setup

Layer2 Interface

ATM Interface

ETH Interface

**WAN Service**

LAN

**Wide Area Network (WAN) Service Setup**

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	MId	Remove	Edit
eth0.1	ipoe_eth0	IPoE	N/A	N/A	Disabled	Enabled	Enabled	Enabled	Disabled	<input type="checkbox"/>	Edit

Add Remove

## Bridging

If you wish to initiate a dialup directly from your PC for Internet access or enjoy the entire Internet connection (instead of sharing it with others), you can select the Bridging and create a dialup program on your PC.

**Step 1:** Click **Advanced Setup** > **WAN Service** and then click the **Add** button.

**Tenda**

Device Info

Advanced Setup

Layer2 Interface

ATM Interface

ETH Interface

**WAN Service**

LAN

**Wide Area Network (WAN) Service Setup**

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	MId	Remove	Edit
-----------	-------------	------	------------	-----------	------	-----	----------	------	-----	--------	------

Add Remove

**Step 2:** Select the ETH interface you added just now from the pull-down menu in the figure below. Click **Next**.



The screenshot shows the Tenda router's configuration interface. On the left is a navigation menu with options: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted), LAN, NAT, Security, and Parental Control. The main content area is titled "WAN Service Interface Configuration". It contains a note: "Select a layer 2 interface for this service. Note: For ATM interface, the descriptor string is (portid\_vpi\_vc) For PTM interface, the descriptor string is (portid\_high\_low) Where portid=0 -> DSL Latency PATH0 portid=1 -> DSL Latency PATH1 portid=4 -> DSL Latency PATH0&1 low =0 -> Low PTM Priority not set low =1 -> Low PTM Priority set high =0 -> High PTM Priority not set high =1 -> High PTM Priority set". Below the note is a dropdown menu showing "eth0/eth0" and two buttons: "Back" and "Next".

**Step 3:** Select **Bridging**. Edit the **Enter Service Description**. This field is optional. We recommend that you keep the default. And click **Next**.



The screenshot shows the Tenda router's configuration interface. On the left is a navigation menu with options: Device Info, Advanced Setup, Layer2 Interface, ATM Interface, ETH Interface, WAN Service (highlighted), LAN, NAT, Security, Parental Control, Bandwidth Control, Routing, and DNS. The main content area is titled "WAN Service Configuration". It contains the text "Select WAN service type:" followed by three radio button options: "PPP over Ethernet (PPPoE)", "IP over Ethernet", and "Bridging" (which is selected). Below this is a text input field labeled "Enter Service Description:" containing the text "br\_eth0". Further down, there is a note: "For tagged service, enter valid 802.1P Priority and 802.1Q VLAN ID. For untagged service, set -1 to both 802.1P Priority and 802.1Q VLAN ID." Below this note are two input fields: "Enter 802.1P Priority [0-7]:" with a value of "-1" and "Enter 802.1Q VLAN ID [0-4094]:" with a value of "-1". At the bottom right are two buttons: "Back" and "Next".

**Step 4:** Here you can view your configurations. Click **Apply/Save** to save your settings if everything is correctly set.

**Tenda**

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

Connection Type:	Bridge
NAT:	Disabled
Full Cone NAT:	Disabled
Firewall:	Disabled
IGMP Multicast:	Disabled
Quality Of Service:	Disabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

Back Apply/Save

After the bridging connection is successful, initiate a dialup directly from your PC for Internet access.

**Tenda**

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

Interface	Description	Type	Vlan802.1p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mtd	Remove	Edit
eth0.1	br_eth0	Bridge	N/A	N/A	Disabled	Enabled	Enabled	Disabled	Disabled	<input type="checkbox"/>	Edit

Add Remove



Note

The device functions as a switch in Bridge mode -Ethernet uplink.

### 4.2.3 LAN

Here you can configure the LAN IP address and subnet mask. This IP address is to be used to access the device's settings through a web browser. Be sure to make a note of any changes you apply to this page.

#### IPv4

Click **Advanced** > **LAN** to enter the IPv4 address setting interface.

**Tenda**

**Local Area Network (LAN) Setup**

Configure the Broadband Router IP Address and Subnet Mask for LAN interface.

GroupName:

IP Address:

Subnet Mask:

Enable IGMP Snooping

Standard Mode

Blocking Mode

Disable DHCP Server

Enable DHCP Server

Start IP Address:

End IP Address:

Leased Time (hour):

**DNS Servers Assigned by DHCP Server:**

Primary DNS server:

Secondary DNS server:

Static IP Lease List: (A maximum 32 entries can be configured)

MAC Address	IP Address	Remove
<input type="button" value="Add Entries"/> <input type="button" value="Remove Entries"/>		

Configure the second IP Address and Subnet Mask for LAN interface

- 1) **IP Address/Subnet Mask:** The device's LAN IP address and subnet mask that both you can change to fit your network. The default IP address is 192.168.1.1. If you change the LAN IP address, you should use the new address to access the management interface next time.
- 2) **Enable IGMP Snooping:** Check to enable the IGMP Snooping feature. IGMP Snooping is to restrain broadcast on Layer 2. Enabling IGMP snooping is good for managing and controlling IPv4 broadcasts. Suggest selecting **Blocking Mode**.
  - **Standard Mode:** If no members join in one broadcast group, packets of this group will be broadcasted; if there're members joining in the group, packets will be only forwarded to the LAN port where the group members exist.
  - **Blocking Mode:** If no members join in one broadcast group, packets of this group will be dropped; if there's members joining in the broadcast group, packets will be only forwarded to the LAN port where the group members exist.
- 3) **Enable DHCP Server:** Check to enable the DHCP Server so that every upstream device connected to your router can obtain the IP address to access the Internet. If you would like to configure every upstream device with static IP

address to access the Internet, you can check **Disable DHCP Server**.

4) **Start/End IP Address:** Specify the start/end of the range for the IP address pool in the same subnet as the router. Only enabling DHCP server need you to finish this part configurations.

5) **Leased Time:** A time length that the IP address is assigned to each device before it is refreshed.

6) **Static IP Lease List:** A list of devices with reserved static IP addresses. If you prefer to configure each upstream device of your router with a static IP address for better management, you can add static IP addresses to the list.

- **Add Entries:** Click this button to add a static IP lease entry. A maximum 32 entries can be configured.
- **Remove Entries:** Click this button to remove a static IP lease entry.

7) **Configure the second IP Address and Subnet Mask for LAN interface:** If you want to configure two IP addresses for the LAN interface, you can check this option and enter the second IP Address and Subnet Mask manually.

The second IP address and subnet mask have the same function as the first ones.

8) **Apply/Save:** After you configure all the needed settings, click this button to apply and save them.

---

**Tip:**

DHCP (Dynamic Host Configuration Protocol) assigns an IP address to each device on the LAN/private network. When you enable the DHCP Server, the DHCP Server will automatically allocate an unused IP address from the IP address pool specified in this screen to the requesting device as long as the device is set to "Obtain an IP Address Automatically". By default, DHCP server is enabled.

---

## IPv6 Autoconfig

IPv6 address can only be Aggregatable Global Unicast Addresses and Unique Local Address. Link-Local Unicast Addresses and Multicast Addresses are not permitted.

Click **Advanced > LAN > IPv6 Autoconfig** to enter the IPv6 address setting page.



The screenshot shows the Tenda router's configuration interface for IPv6. The main heading is 'Static LAN IPv6 Address Configuration'. A note states: 'Note: Stateful DHCPv6 is supported based on the assumption of prefix length less than 64. Interface ID does NOT support ZERO COMPRESSION ":", Please enter the complete information. For example: Please enter "0:0:0:2" instead of "1:2".' Below this, there are three main sections highlighted with red boxes:

- Interface Address:** A text input field with a tooltip that says '(prefix length is required,such as "/64" added after the address)'. Below it is the 'Static LAN IPv6 Address Configuration' section.
- IPv6 LAN Applications:** This section contains:
  - Enable DHCPv6 Server
  - Stateless
  - Stateful
  - Start interface ID:
  - End interface ID:
  - Leased Time (hour):
- Enable RADVD:** This section contains:
  - Enable RADVD
  - Enable ULA Prefix Advertisement
  - Randomly Generate
  - Statically Configure
  - Prefix:
  - Preferred Life Time (hour):
  - Valid Life Time (hour):
- Enable MLD Snooping:** This section contains:
  - Enable MLD Snooping
  - Standard Mode
  - Blocking Mode

A 'Save/Apply' button is located at the bottom right of the configuration area.

❶ **Interface Address:** Enter the interface address with prefix length. E.g., the interface IPv6 address is “2000::1/64”, then you need to input [http://\[2000::1\]](http://[2000::1]) in the browse address bar to access the device management interface.

❷ **Enable DHCPv6 Server:** Check to enable the DHCPv6 Server.

❸ Select **Stateless** or **Stateful** as you need.

- **Stateless:** If selected, IPv6 clients will generate IPv6 addresses automatically based on the Prefix Delegation's IPv6 prefix and their own MAC addresses.
- **Stateful:** Stateful DHCPv6 is supported based on the assumption of prefix length less than 64. Select this option and configure the start/end interface ID and leased time. The router will automatically assign IPv6 addresses to IPv6 clients.

❹ **Enable RADVD:** Check it to enable the RADVD for informing computers in the LAN of your router's existence. When computers get the message, they will take the router's IP address as the secondary route for easy use. In addition, checking RADVD can also broadcast the prefix address generated from the computer in the LAN.

❺ **Enable IGMP Snooping:** Check to enable the IGMP Snooping feature. IGMP Snooping is to restrain broadcast on Layer 2. Enabling IGMP snooping is good for managing and controlling IPv6 broadcasts. Suggest to select **Blocking Mode**.

- **Standard Mode:** If no members join in one broadcast group, packets of this group will be broadcasted; if there're members joining in the group, packets will be only forwarded to the LAN port where the group members exist.
- **Blocking Mode:** If no members join in one broadcast group, packets of this group will be dropped; if there's members joining in the broadcast group, packets will be only forwarded to the LAN port where the group members exist.

6 Click **Save/Apply**.

#### Other fields' introduction that may help:

- **Enable ULA Prefix Advertisement:** If enabled, the router will advertise ULA prefix periodically.
- **Leased Time (hour):** A time length that the IP address is assigned to each device before it is refreshed.
- **Start interface ID/End interface ID:** Specify the start/end interface ID Interface ID does NOT support ZERO COMPRESSION "::". Please enter the complete information. For example: Please enter "0:0:0:2" instead of "::2".
- **Randomly Generate:** If selected, address prefix can be automatically generated.
- **Statically Configure:** If you select this option, you need to manually configure the address prefix and life time.
- **Prefix:** Specify the prefix.
- **Preferred Life Time (hour):** Specify the preferred life time in hour.
- **Valid Life Time (hour):** Specify the valid life time in hour.
- **Enable MLD Snooping:** MLD is used by IPv6 routers for discovering multicast listeners on a directly attached link. If disabled on layer2 devices, IPv6 multicast data packets will be broadcast on the entire layer2; if enabled, these packets will be multicast to only specified recipient instead of being broadcast on the entire layer2.

## 4.2.4 NAT

This section explains the following:

- [Virtual Server](#)
- [Port Triggering](#)
- [DMZ Host](#)

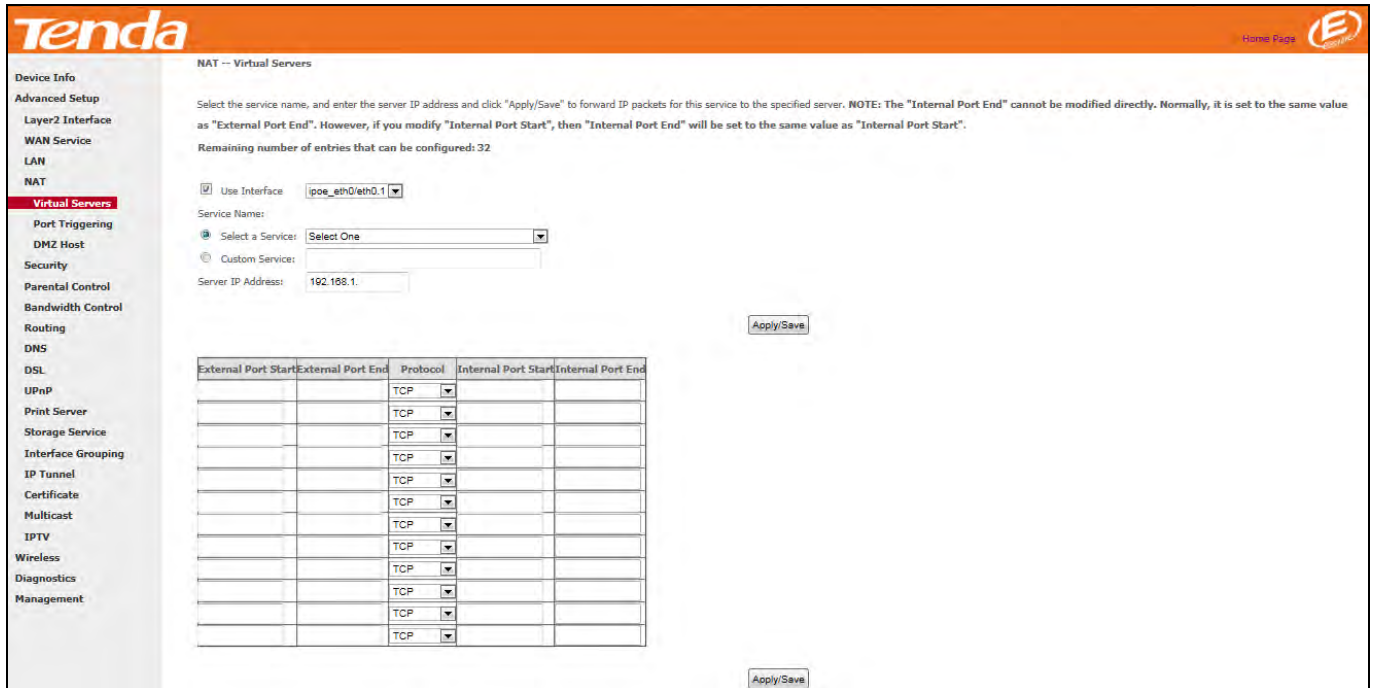
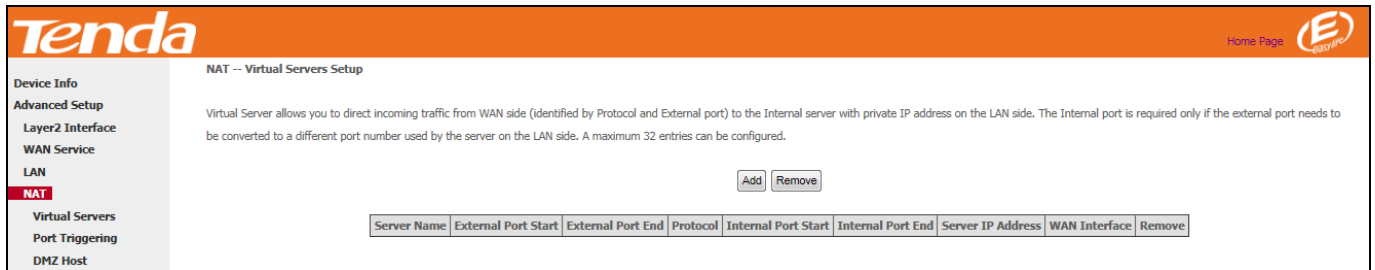
### Virtual Server

The Virtual Server is useful for web servers, ftp servers, e-mail servers, gaming and other specialized Internet applications.

**Scenario:** If you have a server in the LAN, such as a website, FTP server or game server, you want e-friends to visit the server, but the firewall and NAT function of your router stop visitors from accessing computers in the LAN.

**Solution:** Set virtual server rules to allow visitors to access the server via WAN IP address of your router.

Click **Advanced Setup > NAT > Virtual Servers** to enter the virtual server setup page. Click **Add** to add rules.



- 1 **User Interface:** Select the WAN interface you will use to visit the server in your LAN.
- 2 Configure the **Service Name > Select a Service** to select an existing service (**Select One** here is only an express to tell you select one service.) from the drop-down list. And then the corresponding external/internal start/end port will prompt automatically. Or configure **Service Name > Custom Service** to customize a service manually.
- 3 **Server IP Address:** Enter the IP address of your local computer that will provide this service.
- 4 Click **Apply/Save** to save configurations.

**Other fields' introduction that may help:**

**External Port Start/External Port End:** Server ports provided for Internet users to accessing the LAN.

**Protocol:** Select the protocol from the Protocol drop-down list. If you are unsure, select TCP/UDP.

**Internal Port Start/Internal Port End:** The ports used by the server in the LAN.

After all the configurations, visitors on the Internet can access your server by simply using “Protocol Name://WAN IP address: External Port”.



If UPnP feature on the router and some applications of the connected PC is enabled, you will be prompted on the Virtual

Server page that the UPnP interface is being used.

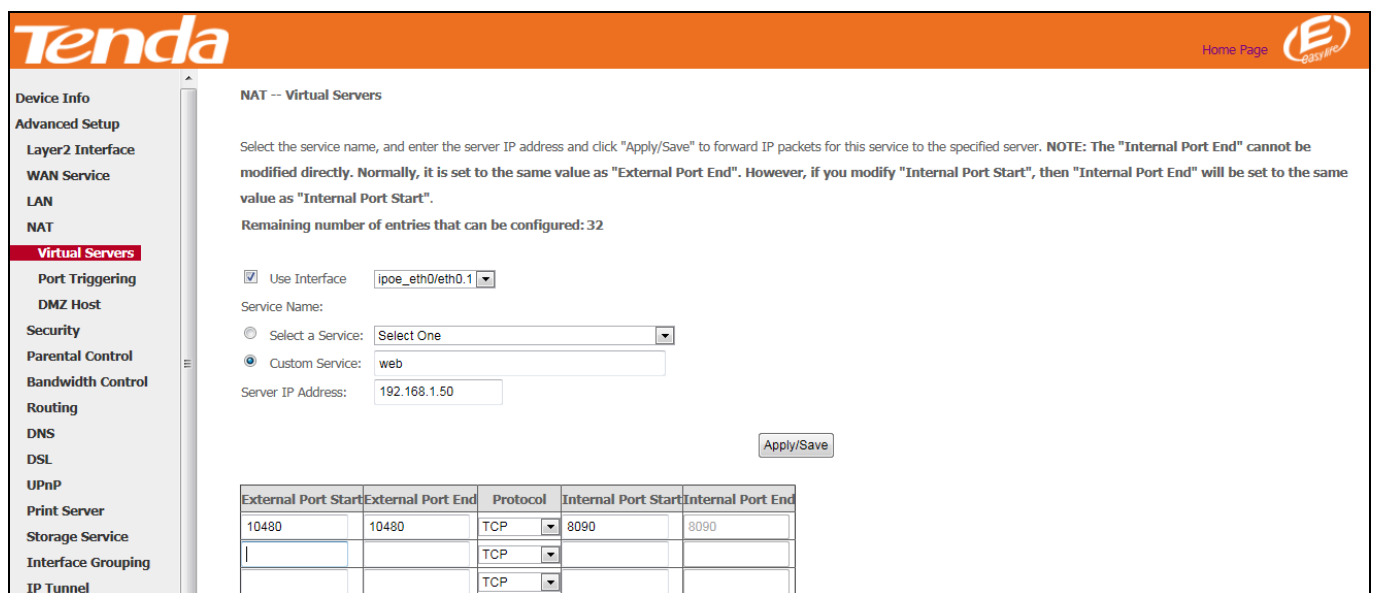
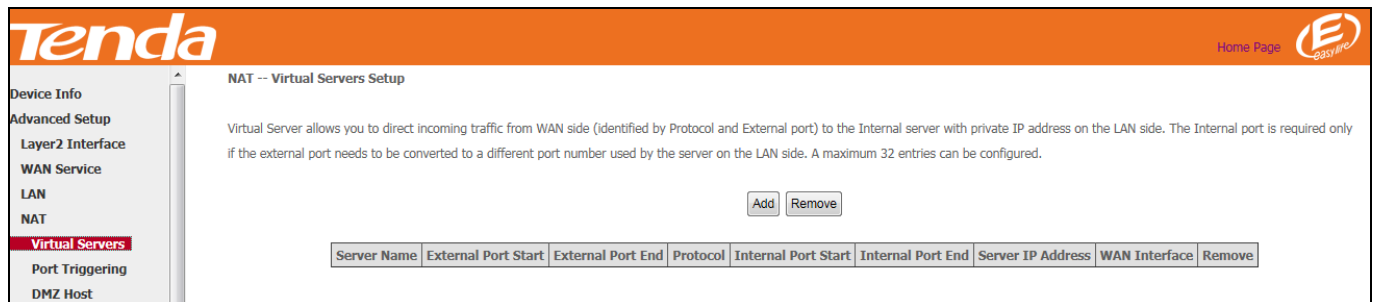
### Application Scenario:

You have set up one web server on the LAN. Web server——IP: 192.168.1.50, TCP port: 8090.

Now you hope friends on the Internet can access your web by **Port 10480** through WAN port. WAN port——ipoe\_eth0.1, IP: 1.2.3.4

### Configuration Steps:

Click **Advanced Setup** > **NAT** > **Virtual Server** to enter it and then click the **Add** button.



- ① Select the WAN interface **ipoe\_eth0/eth0.1** here.
- ② Input the word **web** in the **Custom Service** field. Then manually enter the port number 10480 in the **External Port Start** and **External Port End** fields, and enter the port number 8090 in the **Internal Port Start** and **Internal Port End** fields. Actually port in the **Internal Port End** field follows the port number in the **Internal Port Start** field automatically.
- ③ Select a protocol from the **Protocol** drop-down list. If you are unsure, select **TCP/UDP**.
- ④ In the **Server IP Address** field, enter the IP address of the web server: **192.168.1.50**.
- ⑤ Click **Apply/Save** to save the configuration.

**Result:**

Your friend on the Internet will be able to access your web server simply by entering “http://1.2.3.4:10480” in browser. Actually if you set the DNS in [4.2.9 DNS](#), your friend can also enter [http://domain name:10480](#) to access your web server.

**Port Triggering**

Ports of some applications such as games, video conferencing and instant messenger, etc., are specified and meanwhile, your router's firewall will stop messages to/from such ports, so for those applications, you cannot use them properly. However, **Port Triggering** is provided to help your play such games, or use this kind of instant messenger normally. Some safety system applications (like, safe guard and firewall) in the computer on the LAN may interfere with the Port triggering function. When using Port triggering, you can disable such applications.

Click **Advanced Setup > NAT > Port Triggering** and then click the **Add** button to add rules.

**Tenda** Home Page

NAT -- Port Triggering Setup

Some applications require that specific ports in the Router's firewall be opened for access by the remote parties. Port Trigger dynamically opens up the 'Open Ports' in the firewall when an application on the LAN initiates a TCP/UDP connection to a remote party using the 'Triggering Ports'. The Router allows the remote party from the WAN side to establish new connections back to the application on the LAN side using the 'Open Ports'. A maximum 32 entries can be configured.

Add Remove

Application Name	Trigger				Open		WAN Interface	Remove
	Protocol	Port Range		Protocol	Port Range			
		Start	End		Start	End		





Here in the **Port Triggering** interface, you can configure the port settings by selecting an existing application or creating your own (Custom application).

- ❶ **User Interface:** Select the WAN interface you will use to visit the server in your LAN.
- ❷ Configure the **Application Name** > **Select an application** to select an existing application (**Select One** here is only an express to tell you select one application.) from the drop-down list. And then the corresponding trigger start/end port will prompt automatically. Or configure **Application Name** > **Custom application** to customize an application manually.
- ❸ **Trigger Protocol:** Select the protocol from the drop-down list. If you are unsure, select TCP/UDP.
- ❹ Click **Save/Apply** to save configurations.

#### Other fields' introduction that may help:

**Trigger Port Start/End:** The port range for an application to initiate connections.

**Open Port Start/End:** After the application connection is established, the built-in firewall of the router will open ports between the start port number and end port number automatically.

#### Application Scenario:

You always use ICQ to communicate with computers on the Internet. You hope your LAN is secure and your instant communication with other computers can be smoother. The WAN port now is ipoe\_eth0.1.

#### Solution:

**NAT -- Port Triggering**

Some applications such as games, video conferencing, remote access applications and others require that specific ports in the Router's firewall be opened for access by the applications. You can configure the port settings from this screen by selecting an existing application or creating your own (Custom application) and click "Save/Apply" to add it.

Remaining number of entries that can be configured: 32

Use Interface:

Application Name:

Select an application:

Custom application:

Trigger Port Start	Trigger Port End	Trigger Protocol	Open Port Start	Open Port End	Open Protocol
4000	4000	UDP	20000	20059	TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP

## DMZ Host

The default DMZ (De-Militarized Zone) host feature is helpful when you are using some online games and videoconferencing applications that are not compatible with NAT (Network Address Translation). Note that enabling DMZ host means the built-in firewall of your router takes no effect, and your computer that's set as the DMZ host will totally expose itself to the Internet. In this case, hacker may easily attack the DMZ host. Strongly recommend you to disable DMZ host and clear all the DMZ host settings as soon as possible when you do not use it.

Click **Advanced Setup > NAT > DMZ Host**, input the IP address of the computer that you want to configure as the DMZ host into the **DMZ Host IP Address** field. At last, click **Save/Apply**.

**NAT -- DMZ Host**

The Broadband Router will forward IP packets from the WAN that do not belong to any of the applications configured in the Virtual Servers table to the DMZ host computer.

Enter the computer's IP address and click 'Save/Apply' to activate the DMZ host.

Clear the IP address field and click 'Save/Apply' to deactivate the DMZ host.

DMZ Host IP Address:

## 4.2.5 Security

This section explains the following information:

- [IP Filtering](#)
- [MAC Filtering](#)

### IP Filtering

#### Outgoing IP Filtering Setup

By default, all outgoing IP traffic from LAN is allowed, but some IP traffic can be **BLOCKED** by setting up filters.

Choose **Add** or **Remove** to configure outgoing IP filters.

**Tenda**

Device Info  
Advanced Setup  
Layer2 Interface  
WAN Service  
LAN  
NAT  
Security  
IP Filtering  
**Outgoing**  
Incoming  
MAC Filtering

**Outgoing IP Filtering Setup**

By default, all outgoing IP traffic from LAN is allowed, but some IP traffic can be **BLOCKED** by setting up filters.

Choose Add or Remove to configure outgoing IP filters.

Filter Name	IP Version	Protocol	SrcIP/ PrefixLength	SrcPort	DstIP/ PrefixLength	DstPort	Remove

Choose **Add** to enter the following screen:

**Tenda** Home Page

Device Info  
Advanced Setup  
Layer2 Interface  
WAN Service  
LAN  
NAT  
Security  
IP Filtering  
**Outgoing**  
Incoming  
MAC Filtering  
Parental Control  
Bandwidth Control  
Routing  
DNS  
DSL

**Add IP Filter -- Outgoing**

The screen allows you to create a filter rule to identify outgoing IP traffic by specifying a new filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. Click 'Apply/Save' to save and activate the filter.

Filter Name:

IP Version:

Protocol:

Source IP address[/prefix length]:

Source Port (port or port:port):

Destination IP address[/prefix length]:

Destination Port (port or port:port):

This screen allows you to create a filter rule to identify outgoing IP traffic by specifying a new filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. Click 'Apply/Save' to save and activate the filter.

**Filter Name:** Enter a descriptive filtering name.

**IP Version:** Select the IP version that the filter rule supports. Here is IPv4.

**Protocol:** TCP/UDP, TCP, UDP and ICMP are available for your option.

**Source IP address [/prefix length]:** Enter the [LAN IP address/prefix length] to be filtered.

**Source Port (port or port: port):** Specify a port number or a range of ports used by LAN PCs to access the Internet. If you are unsure, leave it blank.

**Destination IP address [/prefix length]:** Specify the external network IP address to be accessed by specified LAN PCs.

**Destination Port (port or port:port):** Specify a port number or a range of ports used by LAN PCs to access external network.

### Incoming IP Filtering Setup

When the firewall is enabled on a WAN or LAN interface, all incoming IP traffic is **BLOCKED**. However, some IP traffic can be **ACCEPTED** by setting up filters.

Choose **Add** or **Remove** to configure incoming IP filters.

**Tenda**

**Incoming IP Filtering Setup**

When the firewall is enabled on a WAN or LAN interface, all incoming IP traffic is **BLOCKED**. However, some IP traffic can be **ACCEPTED** by setting up filters.

Choose Add or Remove to configure incoming IP filters.

Filter Name	Interfaces	IP Version	Protocol	SrcIP/PrefixLength	SrcPort	DstIP/PrefixLength	DstPort	Remove

Add Remove

Click **Add** to enter the following screen:

**Tenda** Home Page

**Add IP Filter -- Incoming**

The screen allows you to create a filter rule to identify incoming IP traffic by specifying a new filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. Click 'Apply/Save' to save and activate the filter.

Filter Name:

IP Version:

Protocol:

Source IP address[/prefix length]:

Source Port (port or port:port):

Destination IP address[/prefix length]:

Destination Port (port or port:port):

**WAN Interfaces (Configured in Routing mode and with firewall enabled) and LAN Interfaces**  
Select one or more WAN/LAN interfaces displayed below to apply this rule.

Select All  ipoe\_eth3/eth0.1  br0/br1

Apply/Save

This screen allows you to create a filter rule to identify incoming IP traffic by specifying a new filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. Click **Apply/Save** to save and activate the filter.

**IP Version:** Select the IP version that the filter rule supports. Here is IPv4.

**Protocol:** TCP/UDP, TCP, UDP and ICMP are available for your option.

**Source IP address [/prefix length]:** Enter the Internal IP address [/prefix length] to be filtered.

**Source Port (port or port:port):** Specify a port number or a range of ports used by PCs from external network to access your internal network.

**Destination IP address [/prefix length]:** Specify the internal network IP address [/prefix length] to be accessed by the specified PCs from external network.

**Destination Port (port or port:port):** Specify a port number or a range of ports used by PCs from external network to access your internal network.

## MAC Filtering

**Note:** This feature can only be configured in a bridge WAN service.

MAC Filtering is only effective on ATM PVCs configured in Bridge mode. **FORWARDED** means that all MAC layer frames will be FORWARDED except those matching with any of the specified rules in the following table. **BLOCKED** means that all MAC layer frames will be BLOCKED except those matching with any of the specified rules in the following table.

Choose **Add** or **Remove** to configure MAC filtering rules.

**MAC Filtering Setup**

MAC Filtering is only effective on ATM PVCs configured in Bridge mode. **FORWARDED** means that all MAC layer frames will be **FORWARDED** except those matching with any of the specified rules in the following table. **BLOCKED** means that all MAC layer frames will be **BLOCKED** except those matching with any of the specified rules in the following table.

MAC Filtering Policy For Each Interface:  
**WARNING: Changing from one policy to another of an interface will cause all defined rules for that interface to be REMOVED AUTOMATICALLY! You will need to create new rules for the new policy.**

Interface	Policy	Change
eth0.1	FORWARD	<input type="checkbox"/>

Choose Add or Remove to configure MAC filtering rules.

Interface	Protocol	Destination MAC	Source MAC	Frame Direction	Remove
<input type="button" value="Add"/> <input type="button" value="Remove"/>					



### Warning!

Changing from one policy to another of an interface will cause all defined rules for that interface to be REMOVED AUTOMATICALLY! You will need to create new rules for the new policy.



Click **Add** to enter the following screen:

The screenshot shows the 'Add MAC Filter' configuration page in the Tenda router's web interface. The page features a sidebar with navigation options like 'Device Info', 'Advanced Setup', 'Layer2 Interface', 'WAN Service', 'LAN', 'NAT', 'Security', 'IP Filtering', 'MAC Filtering' (highlighted), 'Parental Control', 'Bandwidth Control', 'Routing', 'DNS', 'DSL', 'UPnP', and 'Print Server'. The main content area is titled 'Add MAC Filter' and contains the following elements:

- Instructions: 'Create a filter to identify the MAC layer frames by specifying at least one condition below. If multiple conditions are specified, all of them take effect. Click "Apply" to save and activate the filter. A maximum 32 entries can be configured.'
- Form fields:
  - Protocol Type: A dropdown menu.
  - Destination MAC Address: A text input field.
  - Source MAC Address: A text input field.
  - Frame Direction: A dropdown menu with 'LAN<=>WAN' selected.
  - WAN Interfaces (Configured in Bridge mode only): A dropdown menu with 'br\_eth0/eth0.1' selected.
- A 'Save/Apply' button at the bottom right.

Here you can create a filter to identify the MAC layer frames by specifying at least one condition below. If multiple conditions are specified, all of them take effect. Click **Save/Apply** to save and activate the filter.

**Protocol Type:** Select a protocol type from the drop-down list.

**Destination MAC Address:** Enter the destination MAC address to which the MAC filtering rule apply.

**Source MAC Address:** Enter the source MAC address to which the MAC filtering rule apply.

**Frame Direction:** Select a frame direction from the drop-down list.

**WAN Interfaces:** Select a WAN interface from the drop-down list.

## 4.2.6 Parental Control

This section explains the following information:

- [Time Restriction](#)
- [URL Filter](#)

### Time Restriction

Here you can add time of day restriction that an attached LAN device can access the Internet.

Click **Parental Control > Time Restriction > Add** to enter the following screen.

**Access Time Restriction**

This page adds time of day restriction to a special LAN device connected to the Router. The 'Browser's MAC Address' automatically displays the MAC address of the LAN device where the browser is running. To restrict other LAN device, click the "Other MAC Address" button and enter the MAC address of the other LAN device. To find out the MAC address of a Windows based PC, go to command window and type "ipconfig /all".

User Name:

Browser's MAC Address:

Other MAC Address:

Days of the week: 

Mon	Tue	Wed	Thu	Fri	Sat	Sun
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Click to select:

Start Blocking Time (hh:mm)

End Blocking Time (hh:mm)

**User Name:** Enter a user name.

**Browser's MAC Address:** Automatically adds the MAC address of the attached LAN device where the browser is running.

**Other MAC Address:** Specify the MAC address of the computer that you want to apply Internet access restriction.

**Days of the week:** Select the days of the week during which you wish to restrict Internet access.

**Start Blocking Time/End Blocking Time:** Specify time of day restriction to an attached LAN device. Within this specified time length of the day, this LAN device will be blocked from the Internet.

**Apply/Save:** Click it to save your settings.

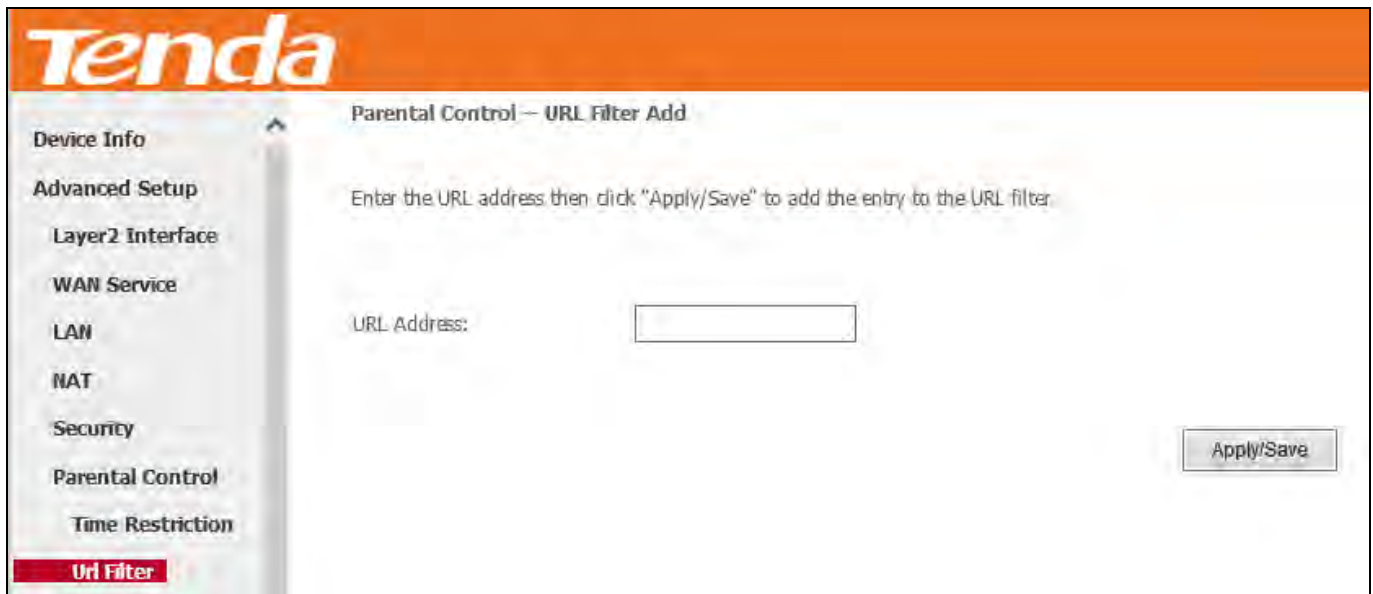
## URL Filter

Here you can add URL access restriction to all PCs in LAN.

**URL Filter** -- Please select the list type first then configure the list entries. Maximum 100 entries can be configured.

URL List Type:  Exclude  Include

Select the **URL List Type** (Exclude or Include) first and then click **Add** to enter the screen below for configuring the list entries. Maximum 100 entries can be configured.



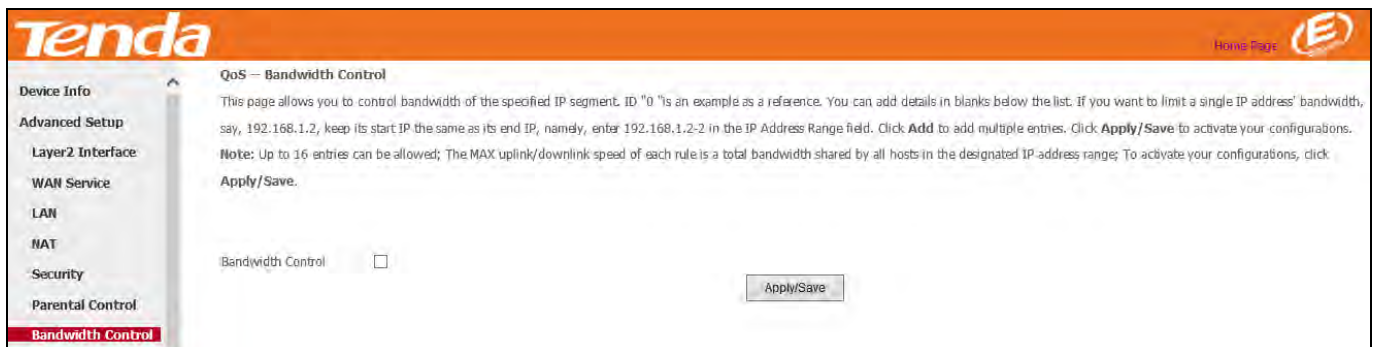
**URL Address:** Enter the URL you want to control the access. It can be a complete url address [www.google.com](http://www.google.com), or a part of the domain, like “google”.

### Note

If you have accessed the URL before you include it in a URL filter rule, you must reboot the router and erase it from your PC to activate this URL filter rule. To erase the domain name from your PC, click **Win+R** to enable **Run** process; enter **cmd** and then type **ipconfig /flushdns**.

## 4.2.7 Bandwidth Control

This page allows you to control bandwidth of the specified IP segment.



**Bandwidth Control:** Check/uncheck to enable/disable the bandwidth control feature.

**QoS - Bandwidth Control**

This page allows you to control bandwidth of the specified IP segment. ID "0" is an example as a reference. You can add details in blanks below the list. If you want to limit a single IP address' bandwidth, say, 192.168.1.2, keep its start IP the same as its end IP, namely, enter 192.168.1.2-2 in the IP Address Range field. Click **Add** to add multiple entries. Click **Apply/Save** to activate your configurations.

**Note:** Up to 16 entries can be allowed; The MAX uplink/downlink speed of each rule is a total bandwidth shared by all hosts in the designated IP address range; To activate your configurations, click **Apply/Save**.

ID	Description	Status	IP Address	Max Uplink Speed(Kbps)	Max Downlink Speed(kbps)	Action
0	Example	Enable	192.168.1.2-2	200	400	Edit Delete

Description:

IP Address Range:  -

Max Upstream Speed (Kbps):

Max Downstream Speed (Kbps):

Status:

**Description:** Enter the description of the controlled host.

**IP Address Range:** Enter the IP address of the host you want to control. It can be hosts or a single host. If you want to limit a single IP address's bandwidth, just keep the start IP same with the end IP, like 192.168.1.2-2

**Max Upstream Speed (Kbp/s):** Set the max upstream speed.

**Max Downstream Speed (Kbp/s):** Set the max downstream speed.

**Status:** You can view the current status of the controlled hosts, or you can select **Enable/Disable** from the drop-down list to enable or disable the current control rule.

**Action:** Here displays the actions you can do about the corresponding rule. There are tow actions: **Edit** and **Delete**.

♦ **Edit:** Click the **Edit** button corresponding to the ID to edit its control rule. And click **OK** to apply the modification.

♦ **Delete:** Click the **Delete** button corresponding to the ID to delete its control rule.

**Add:** After finishing the bandwidth control settings, click **Add** to generate the control rule.

**Apply/Save:** Click this button to activate your configurations.



**Note**

Up to 16 entries can be allowed.

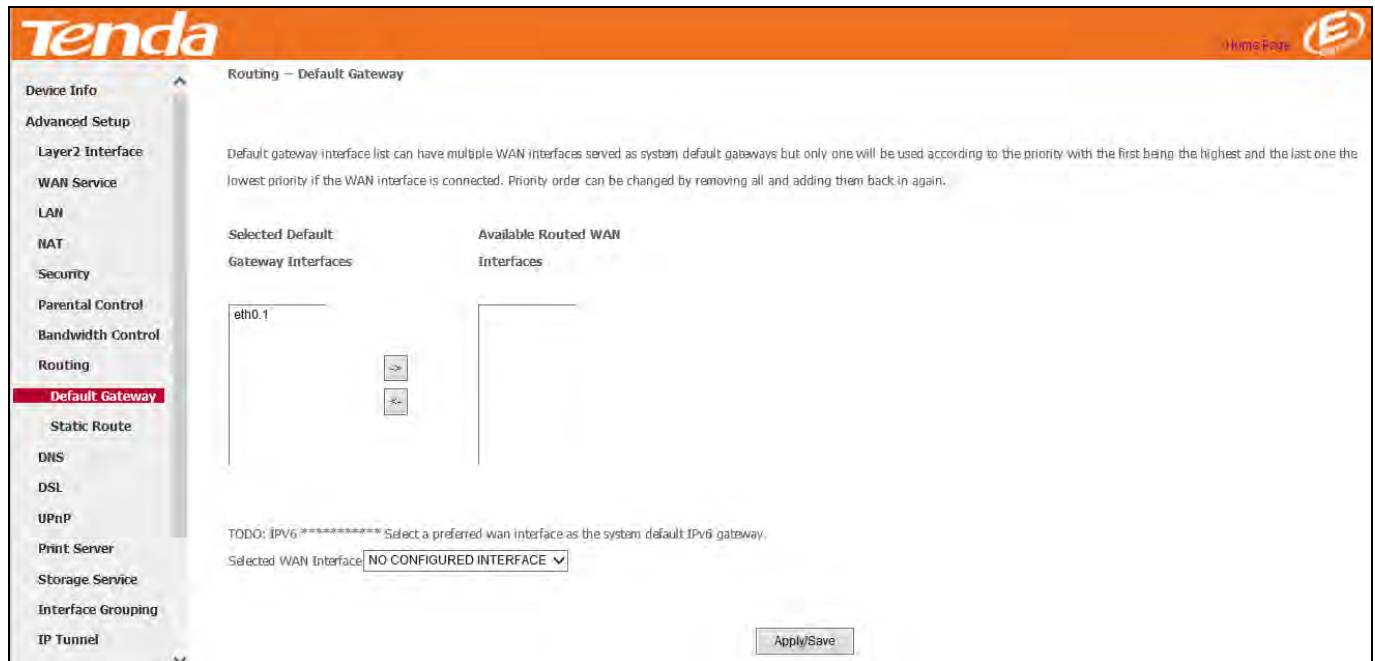
## 4.2.8 Routing

This section explains the following:

- [Default Gateway](#)
- [Static Route](#)

## Default Gateway

Default gateway interface list can have multiple secondary WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.



**Selected Default Gateway Interfaces:** Displays the selected default gateway interfaces. Select a WAN interface and

click the  button to move it to the **Available Routed WAN Interfaces** box.

**Available Routed WAN Interfaces:** Displays the available routed WAN interfaces. Select a WAN interface and click the

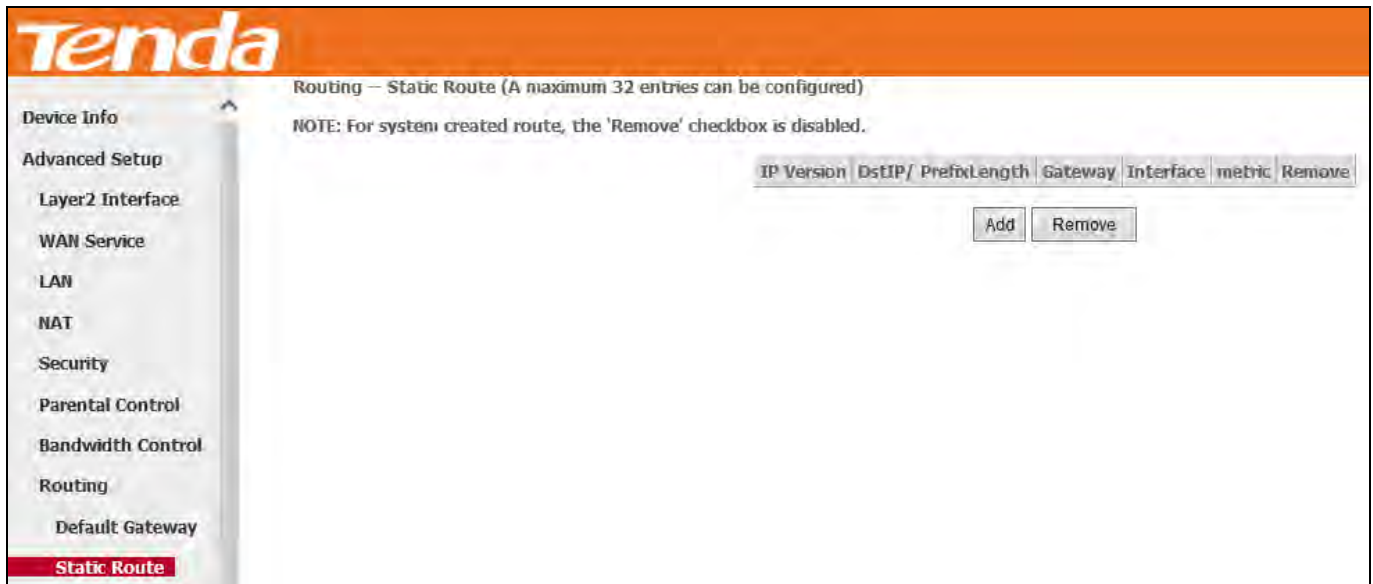
 button to add it to the **Selected Default Gateway Interfaces** box.

**Apply/Save:** Click it to save and activate your settings.

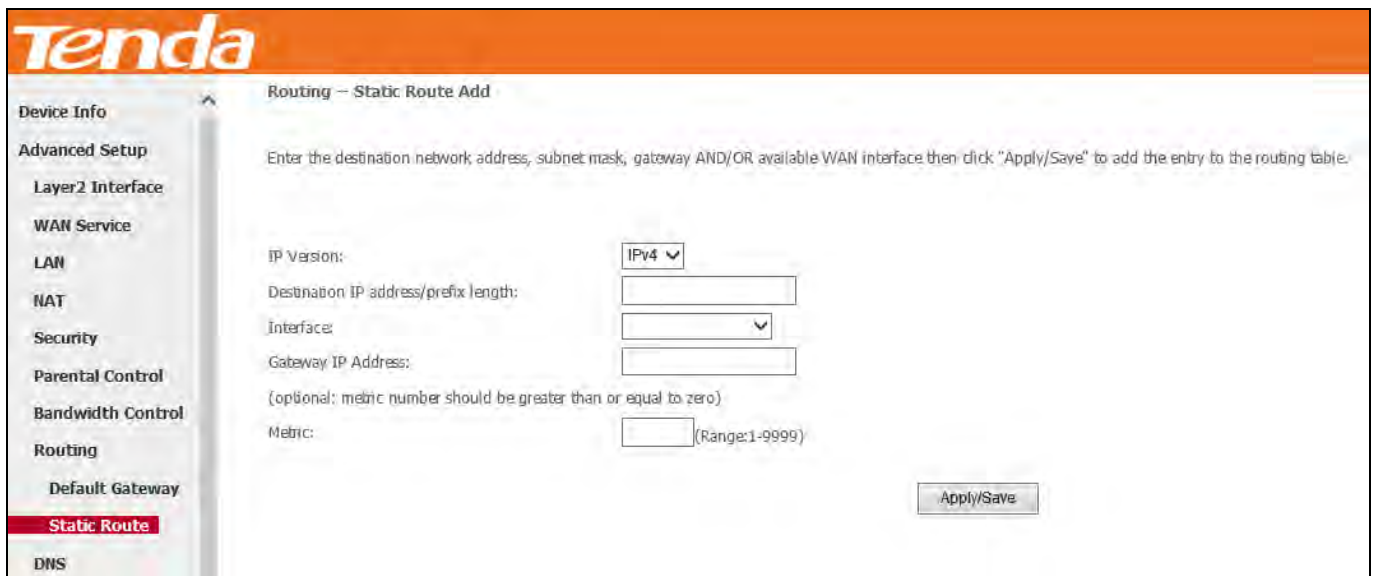
## Static Route

Static routes provide additional routing information to your router. Typically, you do not need to add static routes. However, when there are several routers in the network, you may want to set up static routing. Static routing determines the path of the data in your network. You can use this feature to allow users on different IP domains to access the Internet via this device. It is not recommended to use this setting unless you are familiar with static routing. In most cases, dynamic routing is recommended, because this feature allows the router to detect the physical changes of the network layout automatically. If you want to use static routing, make sure the router's DHCP function is disabled.





Click **Add** to enter the following screen:



**IP Version:** Select IPv4 or IPv6.

**Destination IP address/prefix length:** Enter the destination IP address and prefix length of the final destination.

**Interface:** Select an interface from the drop-down list.

**Gateway IP Address:** Enter the gateway IP address, which must be a router on the same LAN segment as the router.

**Metric:** Enter a number in the Metric field. This stands for the number of routers between your network and the destination.

**Apply/Save:** Click it to apply and save your settings.



#### Note

1. Destination IP address cannot be in the same IP segment as WAN or LAN segment of the router.
2. Only configure additional static routes for unusual cases such as multiple routers or multiple IP subnets located on your network. Wrong static routes may lead to network failure.

## 4.2.9 DNS

### DNS Server (Static DNS)

The DNS server translates domain names to numeric IP addresses. It is used to look up site addresses based on their names.

Select DNS Server Interface from available WAN interfaces or enter static DNS server IP addresses for the system.

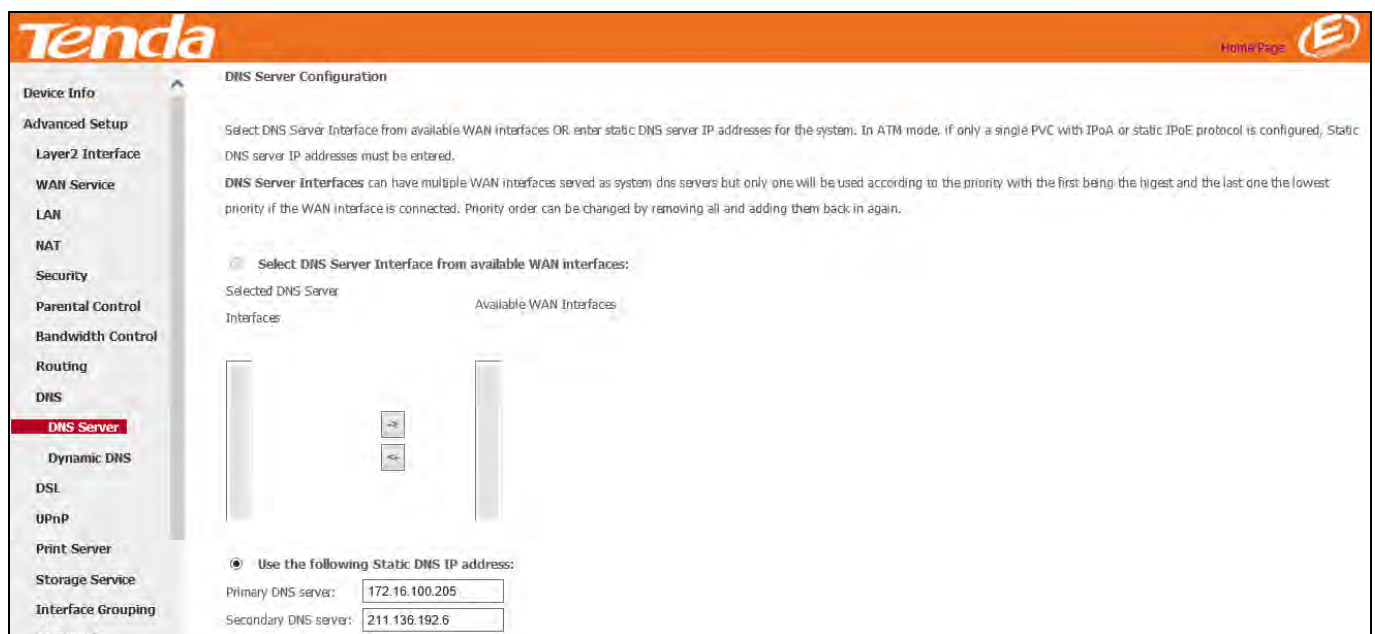
Here you can configure the WAN DNS address:

#### For IPv4:

-Click the Select DNS Server Interface from available WAN interfaces option;

-Or select the **Use the following Static DNS IP address** option and enter static DNS server IP addresses for the system.

And then click **Apply/Save**.



#### For IPv6:

-Select **Obtain IPv6 DNS info from a WAN interface** and Select a configured WAN interface for the IPv6 DNS server information.

-Select **Use the following Static IPv6 DNS address** and enter the static IPv6 DNS server addresses.

And then click **Apply/Save**.

<ul style="list-style-type: none"> <li>DNS</li> <li style="background-color: #f00; color: white; padding: 2px;">DNS Server</li> <li>Dynamic DNS</li> <li>DSL</li> <li>UPnP</li> <li>Print Server</li> <li>Storage Service</li> <li>Interface Grouping</li> <li>IP Tunnel</li> <li>Certificate</li> </ul>	<p>TODO: IPV6 ***** Select the configured WAN interface for IPV6 DNS server information OR enter the static IPV6 DNS server Addresses.</p> <p>Note that selecting a WAN interface for IPV6 DNS server will enable DHCPv6 Client on that interface.</p> <p> <input type="radio"/> Obtain IPV6 DNS info from a WAN interface:          WAN Interface selected: <span style="border: 1px solid #ccc; padding: 2px;">NO CONFIGURED INTERFACE</span> </p> <p> <input checked="" type="radio"/> Use the following Static IPV6 DNS address:          Primary IPV6 DNS server: <input style="width: 100px;" type="text"/>          Secondary IPV6 DNS server: <input style="width: 100px;" type="text"/> </p> <p style="text-align: right;"><input type="button" value="Apply/Save"/></p>
--	---



### Note

1. DNS Server Interfaces can have multiple WAN interfaces served as system DNS servers but only one will be used according to the priority with the first being the highest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.
2. In ATM mode, if only a single PVC with IPoA or static IPoE protocol is configured, Static DNS server IP addresses must be entered.
3. If you cannot locate the static DNS server IP information, ask your ISP to provide it.
4. The default settings are recommended if you are unsure about the DNS server addresses. If a wrong DNS server address is configured, webpages may not be open.

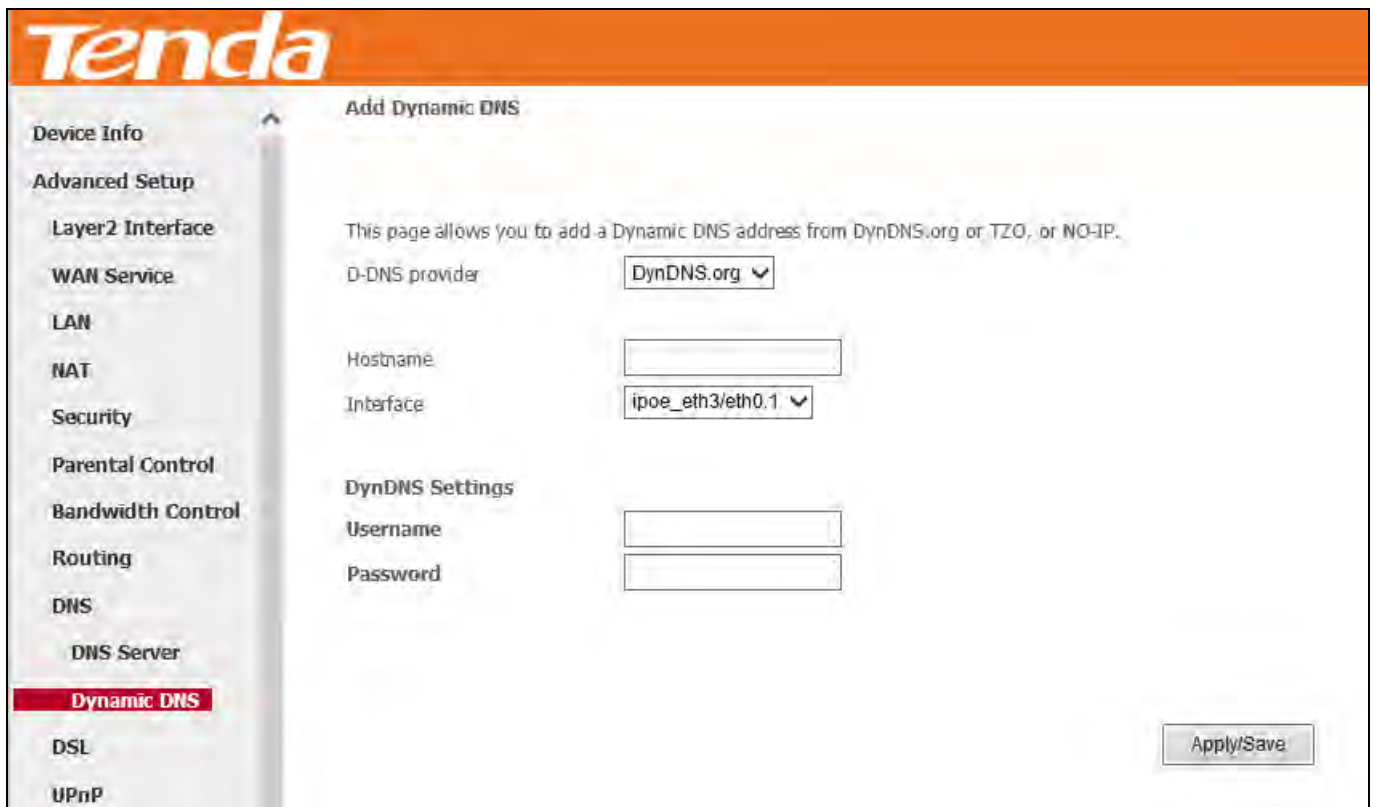
## Dynamic DNS (DDNS)

If your Internet service provider (ISP) gave you a static (fixed) public IP address, you can register a domain name and have that name associated with your IP address by public Domain Name Servers (DNS). However, if your ISP gave you a dynamic (changing) public IP address, you cannot predict what your IP address will be, and the address can change frequently. In this case, you can use a commercial Dynamic DNS service. It lets you register your domain to their IP address and forwards traffic directed at your domain to your frequently changing IP address. If your ISP assigns a private WAN IP address (such as 192.168.x.x or 10.x.x.x), the Dynamic DNS service does not work because private addresses are not routed on the Internet.

Click **Advanced Setup > DNS > Dynamic DNS** to enter the Dynamic DNS screen.



Click the **Add** button to configure the DDNS settings.



**D-DNS Provider:** Select your DDNS service provider from the drop-down menu. It supports three kinds of D-DNS service: DynDNS.org, TZO and NO-IP.

**Hostname:** Enter the DDNS domain name registered with your DDNS service provider.

**Interface:** Specify a WAN connection interface.

**Username:** Enter the DDNS user name registered with your DDNS service provider.

**Password:** Enter the DDNS password registered with your DDNS service provider.

#### Example: Dyndns.org

Username: qiangweianbian

Password: 414637

Hostname: xhh3793.dyndns.org

### Add Dynamic DNS

- 1) Select **DynDNS.org** from the **D-DNS provider** drop-down list.
- 2) Enter your DynDNS hostname. Here is “xhh3793.dyndns.org” as an example.
- 3) Specify a WAN connection interface.

**Tenda**

**Add Dynamic DNS**

This page allows you to add a Dynamic DNS address from DynDNS.org or TZO, or NO-IP.

D-DNS provider:

Hostname:

Interface:

**DynDNS Settings**

Username:

Password:

**Apply/Save**

### DynDNS Settings

- 1) Enter your DynDNS username. Here is “qiangweianbian” as an example.
- 2) Enter the password of your DynDNS.org account. Here is “414637” as an example.
- 3) Click **Apply/Save** to save your configurations.



# Tenda

Device Info

Advanced Setup

Layer2 Interface

WAN Service

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

Dynamic DNS

DSL

UPnP

## Add Dynamic DNS

This page allows you to add a Dynamic DNS address from DynDNS.org or TZO, or NO-IP.

D-DNS provider DynDNS.org ▼

Hostname xhh3793.dyndns.org

Interface ipoe\_eth3/eth0.1 ▼

### DynDNS Settings

Username qiangweianbian

Password ••••••

Apply/Save

# Tenda

Device Info

Advanced Setup

Layer2 Interface

WAN Service

LAN

NAT

Security

Parental Control

Bandwidth Control

Routing

DNS

Dynamic DNS

## Dynamic DNS

The Dynamic DNS service allows you to alias a dynamic IP address to a static hostname in any of the many domains, allowing your Broadband Router to be more easily accessed from various locations on the Internet.

Choose Add or Remove to configure Dynamic DNS.

Hostname	Username	Service	Interface	Remove
xhh3793.dyndns.org	qiangweianbian	dyndns	eth0.1	<input type="checkbox"/>

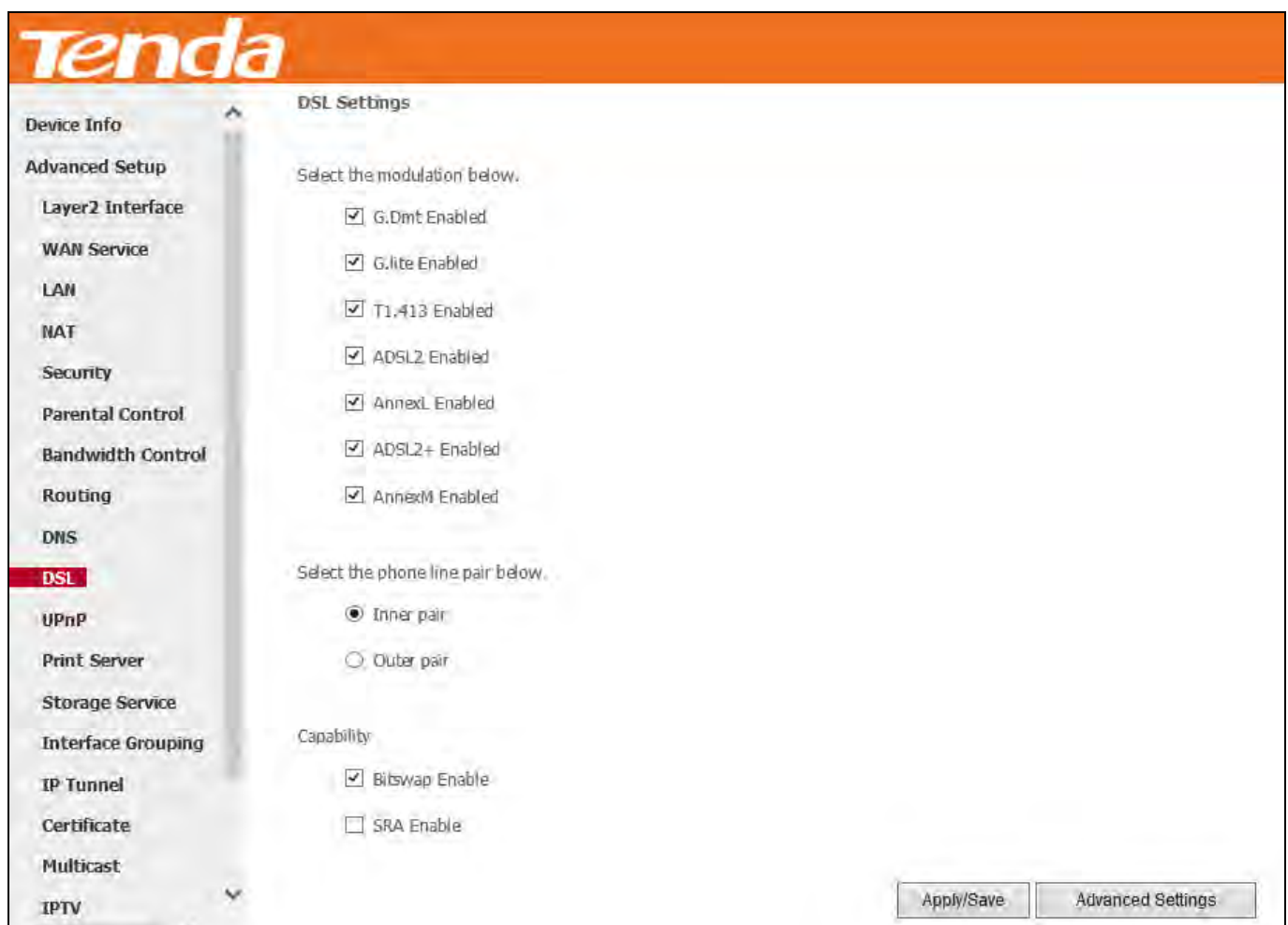
Add
Remove

## 4.2.10 DSL

This screen provides multiple ADSL modulation modes to meet diversified environments. You can also select phone line pair and Capability.

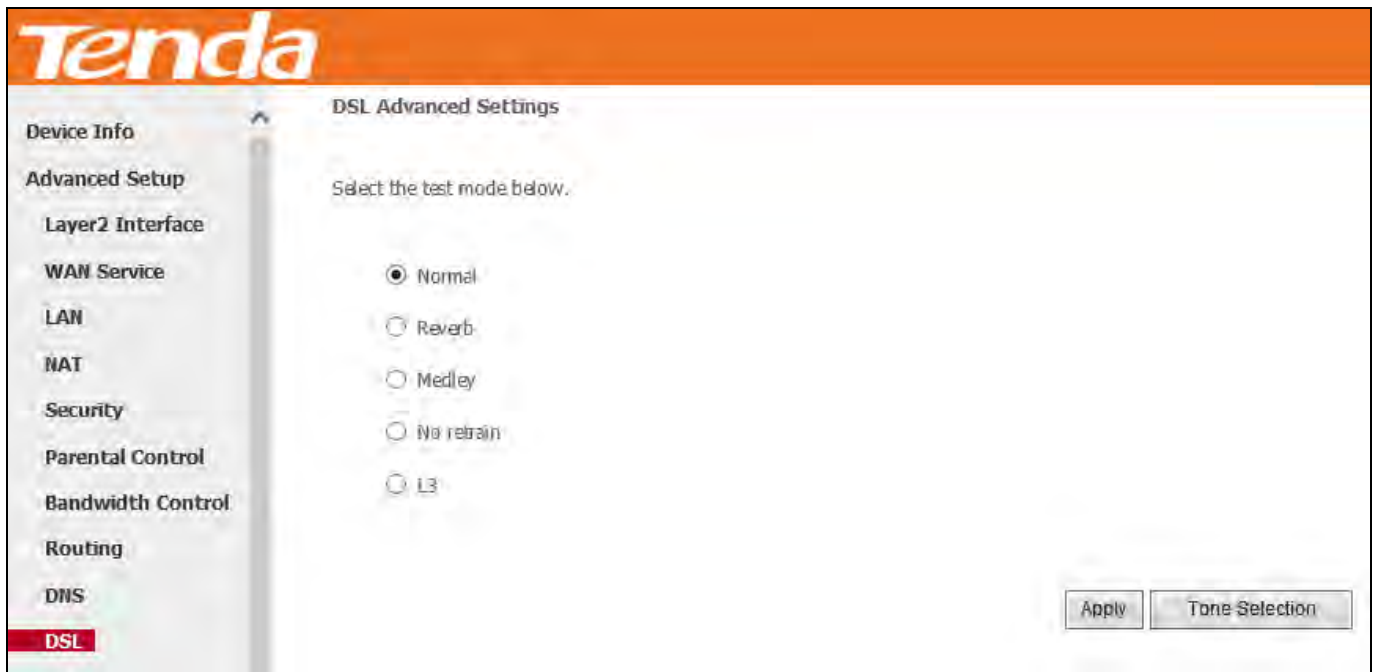
DSL parameter configurations must be supported by ISP to take effect. Actual parameters (see **Statistics-xDSL**) resulted from the negotiation between your router and ISP. Wrong configurations may fail your Internet access.

The best DSL configurations are the factory defaults. Only change them if you are instructed by your ISP or our technical staff when your router fails to negotiate with ISP in DSL (ATM) mode. Usually, this failure can be identified and confirmed if the ADSL LED on the device keeps displaying a slow or quick blinking light.



Check the checkbox next to a modulation to enable it and then click **Apply/Save**.

**Advanced Settings:** Click it to enter the Advanced Settings screen as below.



Here you can select the test mode and tone.



#### Tip

If you are unsure about the ADSL parameters, please apply the factory default settings. Wrong configurations may fail your Internet access.

## 4.2.11 UPnP

UPnP (Universal Plug and Play) allows Windows based systems to configure the device for various Internet applications automatically. UPnP devices can automatically discover the services from other registered UPnP devices on the network. If you use applications such as multiplayer gaming, peer-to-peer connections, or real-time communications, like instant messaging or remote assistance (a feature in Windows XP), you should enable UPnP.



**Enable UPnP:** Check/uncheck to enable/disable the UPnP feature.



UPnP is activated only when there is a live WAN service with NAT enabled.

## 4.2.12 Print Server

Enabling the Print Server makes all PCs in the LAN have an access to the USB printer which has been connected to this router. Click **Advanced Setup > Printer Server** to enter screen below:



**USB printing config:**

**Step 1:** Connect the USB printer to the USB port of the device.

**Step 2:** Enable USB printing service of the device (the router).

- ① Enter the name of the USB printer in Printer name box.
- ② Enter the manufacturer and model of the USB printer in the Make and model box.
- ③ Click **Apply/Save**.

**Tenda**

**Device Info**

**Advanced Setup**

- Layer2 Interface
- WAN Service
- LAN
- NAT
- Security
- Parental Control
- Bandwidth Control
- Routing
- DNS
- DSL
- UPnP
- Print Server**
- Storage Service

**Print Server settings**

This page allows you to enable / disable printer support.

Enable on-board print server.

Printer name

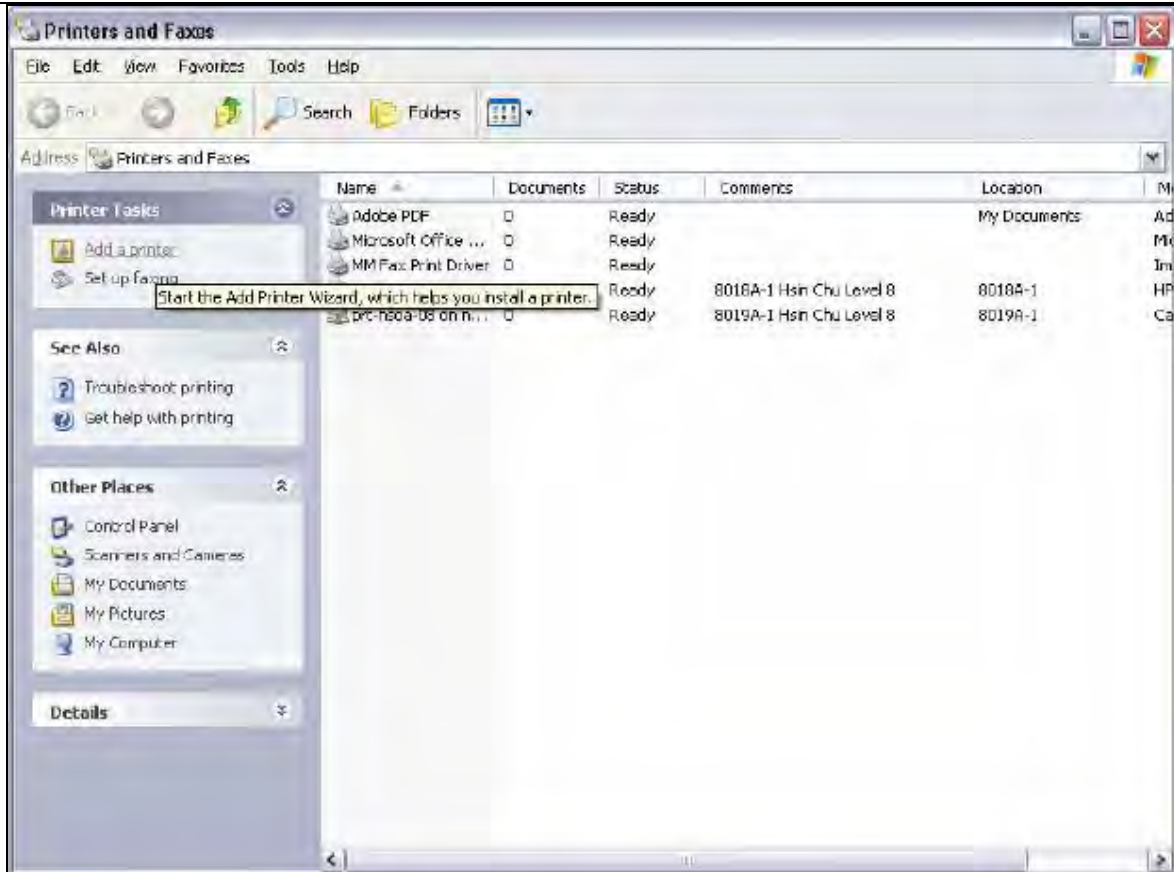
Make and model

**Apply/Save**

**Step 3:** Add the printer from your local PC (In Windows XP OS)

- ① Click **Start > Control Panel > Printers and Faxes > Add a printer;**

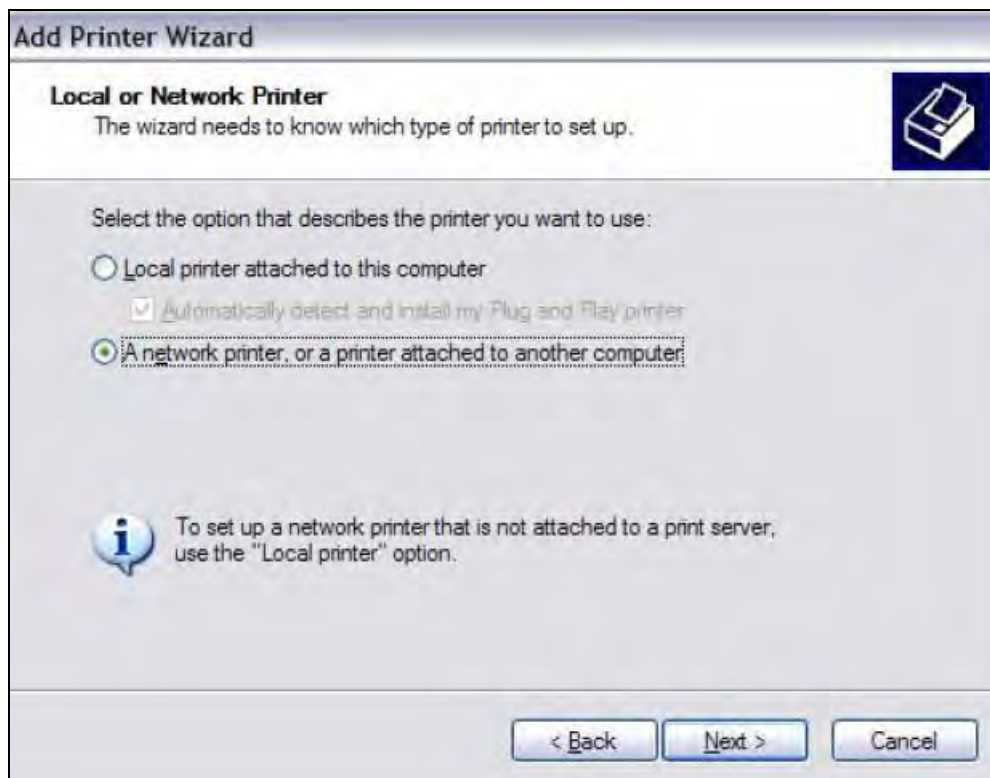




② Click Next;



③ Select A network printer, or a printer attached to another computer and click Next;



- ④ Select **Connect to a printer on the Internet or on a home or office network**, type in “http://192.168.1.1:631/printers/hp3845” in the URL field and click **Next**;



 **Note:**

Here “192.168.1.1” refers to this router’s LAN IP address and “hp3845” refers to the USB printer name you’ve filled in on the Print Server Settings page (See **Step 2**).

- ⑤ Insert the printer driver CD into your computer and click **Have Disk...**;



- ⑥ Click **Browse**, select driver file directory on CD-ROM and click **OK**;



- ⑦ Select the manufacturer and the model of your printer. And click **OK**.





- ⑧ Choose “Yes” or “No” for default printer setting and click **Next**.



- ⑨ Click **Finish**.



Check the status of printer from Windows “Control Panel”, printer window. Status should be shown “ready”.

