



User Manual Type II ADSL 2 + CPE / IAD T2-B-Gawv1.4U10Y-BI V1.00

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1 Introduction

The T2-B-Gawv1.4U10Y.BI is an ADSL2+ access device that supports multiple line modes. It supports ADSL2/ADSL2+ and is backward compatible to ADSL. It also offers auto-negotiation capability for different standards (e.g., G.dmt, T1.413 Issue 2) according to the settings of digital subscriber line access multiplexer (DSLAM) in the central office. It provides four 10/100Base-T Ethernet interfaces and one USB interface at the user end. By utilizing the high-speed ADSL connection, the T2-B-Gawv1.4U10Y.BI can provide broadband connectivity to the Internet, downstream up to 24 Mbps and upstream up to 1 Mbps.

The device supports WLAN access, such as WLAN AP or WLAN device, to the Internet. It complies with IEEE 802.11, 802.11b/g specifications, WEP, WPA, and WPA2 security specifications.

1.1 Packing List

- 1 x T2-B-Gawv1.4U10Y.BI
- 1 x External Splitter
- 1 x Power Adapter
- 2 x Telephone Cables (RJ-11)
- 1 x Ethernet Cables (RJ-45)
- 1 x Quick Start Guide
- 1 x Driver and Utility Software CD (With Motive Client Software)

1.2 Safety Cautions

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

- Use volume labels to mark the type of power.
- Use the power adapter packed within the device package.
- Pay attention to the power load of the outlet or prolonged lines. An overburden power outlet or damaged lines and plugs may cause electric shock or fire accident. Check the power cords regularly. If you find any damage, replace it at once.
- Proper space left for heat dissipation is necessary to avoid damage caused by overheating to the device. The long and thin holes on the device are

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designed for heat dissipation to ensure that the device works normally. Do not cover these heat dissipation holes.

- Do not put this device close to a place where a heat source exits or high • temperature occurs. Avoid the device from direct sunshine.
- Do not put this device close to a place where it is over damp or watery. Do not spill any fluid on this device.
- Do not connect this device to any PCs or electronic products, unless our • customer engineer or your broadband provider instructs you to do this, because any wrong connection may cause power or fire risk.
- Do not place this device on an unstable surface or support. •

1.3 LEDs and Interfaces

Front panel

Power	DSL	Internet	LAN4	LAN3	LAN2	LAN1	WLAN	WPS	VolP	USB			_
 0	0	0	0	0	0	O.	0	C)	0	0	Ö	0	

The following table describes the LEDs of the device.

LEDs	Color	Status	Description
	Graan	On	The device is powered on.
Dowor	Green	Off	The device is powered off.
Power	Ded	On	The device is initializing.
	Rea	Blinks	The firmware is upgrading.
Del	Graan	On	The initial self-test of the unit is normal and ready.
DSL	Green	Blinks	The device is detecting itself.
		Off	The initial self-test is failed.
		On	The device has successful Internet connection.
	Green	Blinks	Data is being transmitted on the Internet.
Internet		Off	The Internet connection is failed or DSL has no synchronization.
	Red	On	The device is dialing up before obtaining IP address successfully by PPP.
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	LEDs	Color	Status	Description
			On	The device has successful Ethernet connections.
	LAN4/3/2/1	Green	Blinks	Data is being transmitted through the LAN interface.
			Off	The LAN connection is not established.
			On	The connection of WLAN interface is normal.
V	WLAN	Green	Blinks	Data is being transmitted through the WLAN interface.
			Off	No WLAN connection.
			On	The WPS is active.
	WPS	Green	Blinks	The WPS is active, waiting for the remote client to establish connection.
			Off	The WPS is inactive.
			On	The VoIP phone is registered.
	VoIP1	Green	Blinks	The phone is off-hook.
			Off	The VoIP phone is not registered.
			On	The USB connection is normal.
	USB_H1	Green	Blinks	Data is being transmitted through the USB interface.
			Off	The USB connection is failed.

Rear panel



The following table describes the interfaces of the device.

Interface	Description	
\bigcirc	Power switch, power on or po	ower off the device.
Power	Power interface, for connecti DC, 1 A.	ing to the power adapter of 12 V
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Interface	Description		
WLAN	WLAN switch, switch on or switch off the WLAN function.		
Reset	Reset to the factory defaults. Keep the device powered on and push a paper clip into the hole for over 3 seconds, then release it. The configuration is restored to the factory defaults.		
WPS	WPS switch, switch on or switch off the WPS function.		
USB	USB Host Port, for connecting the device those have USB Device Port (Like Pen Drive).		
LAN1/2/3/4 RJ-45 interfaces, for connecting to the Ethernet interface PC or Ethernet devices through the Ethernet cable.			
Internet	RJ-11 interface for connecting to the telephone set through the telephone cable.		
FXS	Connect to phones for VoIP application.		

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2 Hardware Installation

Step 1 Connect the Internet interface of the device and the Modem interface of the splitter through a telephone cable. Connect the phone to the Phone interface of the splitter through a telephone cable. Connect the incoming line to the Line interface of the splitter.

The splitter has three interfaces:

- Line: Connect to a wall phone interface (RJ-11 jack).
- Modem: Connect to the DSL interface of the device.

• **Phone**: Connect to a telephone set.

Step 2 Connect the **LAN** interface of the device to the network card of the PC through an Ethernet cable (MDI/MDIX).

Note:

Use twisted-pair cables to connect with the Hub or Switch.

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

Connection 1

The following connection method is recommended.

Figure 1 displays the application diagram for the connection of the router, PC, splitter and the telephone sets, and no telephone set is placed before the splitter.



Connection 2

Figure 2 displays the application diagram for the connection of the router, PC, splitter and the telephone sets, and a telephone set is placed before the splitter.



Figure 2 Connection 2 (A phone is installed closed to the splitter)



When connection 2 is used, the filter must be installed close to the telephone cable. See Figure 2. Do not use the splitter to replace the filter.

Installing a telephone directly before the splitter may lead to failure of connection between the device and the central office, or failure of Internet access, or slow connection speed. If you really need to add a telephone set before the splitter, you must add a microfilter before a telephone set. Do not connect several telephones before the splitter or connect several telephones with the microfilter.

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3 Web Configuration Management

3.1 Preparation before Login

Before accessing the modem, ensure the communication between PC and the modem is normal.

3.1.1 Setup

Connecting your PC or home network with the modem is a simple procedure, varying slightly depending on the operating system (OS). This chapter helps you to seamlessly integrate modem with your PC or home network. In most cases, the setup procedure described below is unnecessary. For example, the default DHCP setting in Windows 2000 is client, requiring no further modification. However, it is advised to follow the setup procedure described below to verify that the communication parameters and the physical cable connections are valid or correct.

3.1.2 Setting up WAN and LAN connections

WAN Connection

Your PC can connect to the Internet by ADSL. Connect its Internet socket to the wall socket through a telephone cable. If it has an Ethernet socket for the wide area network (WAN), connect it to the external ADSL or to the Ethernet socket through an Ethernet cable.

LAN Connection

Your PC can connect to the gateway with the LAN interface. Use an Ethernet cable to establish the connection between an LAN interface of your modem and the network card of your PC.

3.1.3 PC Network Configuration

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

This configuration principle is identical but operations are differently on each OS.

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Figure 3 displays the TCP/IP Properties dialog box in the Windows XP system.

iis capability. Otherwise, you n ie appropriate IP settings.	eed to ask your network administrator for
 Obtain an IP address auto 	matically
O Use the following IP address	955:
IP address:	and the second second
Subnet mask:	· · · ·
Default gateway:	
 Obtain DNS server addres O Use the following DNS se 	ss automatically rver addresses:
Preferred DNS server:	
Alternate DNS server:	
	Advanced

Windows XP

- (1) Open the Control Panel and click **Network Connections**.
- (2) Right-click the Ethernet connection icon and choose **Properties** from the shortcut menu.
- (3) On the General tab, select the Internet Protocol (TCP/IP) component, and click Properties. The Internet Protocol (TCP/IP) Properties window appears.
- (4) Select Obtain an IP address automatically.
- (5) Select Obtain DNS server address automatically.
- (6) Click **OK** to save the settings.

Windows 2000/98/Me

- (1) Open the Control Panel and click Network and Dialing Connections.
- (2) Right-click the **Ethernet connection** icon and choose **Properties** from the shortcut menu. The **Connection Properties** window appears.

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- (3) Select the Internet Protocol (TCP/IP) component and click Properties.
- (4) The Internet Protocol (TCP/IP) Properties window appears.
- (5) Select Obtain an IP address automatically.
- (6) Select Obtain DNS server address automatically.
- (7) Click OK to save the settings.

Windows NT

- (1) Open the Control Panel and click Network.
- (2) On the **Protocol** tab, select the **Internet Protocol (TCP/IP)** component, and click **Properties**.
- (3) On the IP Address tab, select the Obtain an IP address automatically option.
- (4) On the DNS tab, ensure that no DNS server is defined in the DNS Service Search Order box and that no suffix is defined in the Domain Suffix Search Order box.

Linux

- (1) Login in to the system as a super user, by entering su in the terminal window.
- (2) Enter vi /etc/sysconfig/network-script/ifcfg-eth0 to modify the eth0 network devices and assign IP addresses.
- (3) Enter ifconfig to view the newly assigned IP addresses.

3.1.4 Connection between the Modem and PC

The procedure of checking the connection between the modem and PC is as follows:

- (1) Configure the IP address of the PC as 192.168.1.X (2~254), netmask as 255. 255.255.0, and gateway address as 192. 168.1.1 (for a customized version, configure them according to the actual version).
- (2) Enter **arp** -**a** in the DOS window to check whether the PC can read the MAC address of the DSL. See Figure 4.

C:\Documents and Settings\Administrator>arp -a Interface: 192.168.1.56 on Interface 0x1000003 Internet Address Physical Address Type 192.168.1.1 00-1e-e3-00-2a-31 dynamic C:\Documents and Settings\Administrator>_

Figure 4

(3) Ping the management IP address (by default, 192.168.1.1) of the modem.

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User Manual for T2-B-Gay	wv1.4U10Y.BI
C:\Documents and Setting:	s\Administrator>arp −a
Interface: 192.168.1.56 Internet Address 192.168.1.1	on Interface Øx1000003 Physical Address Type 00-1e-e3-00-2a-31 dynamic
C:\Documents and Setting:	s\Administrator>ping 192.168.1.1
Pinging 192.168.1.1 with	32 bytes of data:
Reply from 192.168.1.1:] Reply from 192.168.1.1:] Reply from 192.168.1.1:] Reply from 192.168.1.1:]	bytes=32 time<10ms TIL=128 bytes=32 time<10ms TIL=128 bytes=32 time<10ms TIL=128 bytes=32 time<10ms TIL=128
Ping statistics for 192. Packets: Sent = 4, R Approximate round trip t Minimum = Øms, Maximu	168.1.1: eceived = 4, Lost = 0 (0% loss), ines in milli-seconds: un = 0ms, Average = 0ms
C:\Documents and Settings	s\Administrator>

If the PC can read the MAC address of the device and ping the management IP address of the device successfully, the connection between the modem and PC is normal.



When you manage the device through Web, you must keep the power of the device on. Otherwise, the device may be damaged.

3.2 Login in to the Modem

(1) Open the Internet Explorer and enter **http://192.168.1.1**.

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(2) Enter the user name and a password. See Figure 5. The default user name and password are **admin** and **admin** respectively.

Connect to 19	2.168.1.1	? 🛛
		GE
User name: Password:	Remember my p	assword

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Click OK and	the main interface appe	ears.	
BROADBAND			encythering the TERM
Home	Overview		
Overview System Log Troubleshooting	Basic Advanced		
Configuration	System Information		
Countly	Model Name	T2-B-Gawv1.4U10Y-BI	
security	Firmware Version	10.4.3.12.12	
Services	System Up time	00:00:46s	
DSL Home	Internet Connection		
Port Statistics	DSL Status	Not Connected	
Admile	Downstream Data Rate	0 kbps	
Admin	Upstream Data Rate	0 kbps	
	Max Att Downstream Rate	0 kbps	
	Max Att Upstream Rate	0 kbps	
	Wireless Settings		
	Status	Disable	
	SSID	BSNL_AP	
	Channel	1	
	Security	128 bit WEP	
	LAN Port		-
	Mac Address	00:26:15:50:16:00	
	IP Address	192.168.1.1	
	DHCP server	On	
	Subnet Mask	255.255.255.0	
	Voice		
	Status	Enabled	
	Registration Status	Unknown	
	Phone Numbers-Channel 1	1	
	[Go To Advanced view]		

After logging in to the modem as a super user, you can check, configure, and modify all the settings. You can also diagnose the device system.

3.3 Home

Click **Home** to enter system information page. On the left page, there are three options: **Overview**, **System Log**, and **Troubleshooting**.

3.3.1 Overview

This page displays the current status and configuration of the system. It contains the status of the modem. Such as, firmware version, system uptime, downstream data rate, upstream data rate, DSL status, wirelss and voice status.

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User Manual for T2-B-Gawv1.4U10Y.BI 3.3.1.1 Basic

Choose **Overview** > **Basic** and the following page appears.

Overview	
Basic Advanced	
System Information	
Model Name	T2-B-Gawv1.4U10Y-BI
Firmware Version	10.4.3.12.12
System Up time	00:00:46s
Internet Connection	
DSL Status	Not Connected
Downstream Data Rate	0 kbps
Upstream Data Rate	0 kbps
Max Att Downstream Rate	0 kbps
Max Att Upstream Rate	0 kbps
Wireless Settings	
Status	Disable
SSID	BSNL_AP
Channel	1
Security	128 bit WEP
LAN Port	
Mac Address	00:26:15:50:16:00
IP Address	192.168.1.1
DHCP server	On
Subnet Mask	255.255.255.0
Voice	
Status	Enabled
Registration Status	Unknown
Phone Numbers-Channel 1	1
Phone Numbers-Channel 1	1

[Go To Advanced view]

The following table describes the parameters of this page.

Field	Description
System Information	
Model Name	It displays the model name of the modem.
Firmware Version	The software version of the modem.
System Up time	Uptime of the modem.
Internet Connection	

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Field	Description	
DSL Status	The status of the ADSL port.	
Downstream Data Rate	Down line rate.	
Upstream Data Rate	Up line rate.	
Wireless Settings		
Status	The status of the wireless network.	
	Service set identification (SSID) is a unique	
SSID	name to identify the modem in the wireless	
	LAN.	
LAN Port		
Mac Address	The MAC address of the modem.	
IP Address	The IP address of the modem.	
DHCP server	The current status of the DHCP server.	
Voice		
Status	The VoIP status.	
Registration Status	It displays the registration status of VoIP application.	

Note:

The firmware version displayed in this page may be inconsistent with the actual software version, and is for reference only.

3.3.1.2 Advanced

Click Advanced in the Overview page and the following page appears.

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Dverview asic Advanced	
System Information	
Model Name	T2-B-Gawv1.4U10Y-BI
Firmware Version	10.4.3.12.12
DSL Firmware Version	E.25.41.64 A
Wireless Version	1.20
System Up time	00:08:59s
Internet Connection	
DSL Status	Not Connected
Last Failed	0x0000000
Downstream Data Rate	0 kbps
Upstream Data Rate	0 kbps
Max Att Downstream Rate	0 kbps
Max Att Upstream Rate	0 kbps
SNR (Downstream)	
SNR (Upstream)	
Line Attentuation(Downstream)	
Line Attentuation(Upstream)	
Connected Standard	Inactive
Wireless Settings	
Status	Disable
SSID	BSNL_AP
Channel	1
Security	128 bit WEP
LAN Port	
Mac Address	00:26:15:50:16:00
IP Address	192.168.1.1
DHCP server	On
Subnet Mask	255.255.255.0
Voice	
Status	Enabled
Total Number of Line Support	1
Registration Status	Unknown
Phone Numbers-Channel 1	1
Statuc	
ARP	
MM.	Tariffic Chaba
HCD	I Fattic State

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The following table describes the parameters of this page.

Field	Description	
System Information		
DSL Firmware Version	The hardware version of the modem.	
Wireless version	The wireless version of the modem.	
Internet Connection		
Connected Standard	The status of the line mode.	
	It contains the configuration information about	
Status	ARP, DHCP Traffic Stats, and Wireless	
	Connection.	

Note:

The rate is measured under a zero-kilometer link. In the circumstances, the gateway is automatically set, and the DNS addresses are obtained from the BRAS.

3.3.2 System Log

Choose **Home** > **System Log** and the following page appears. In this page, you can consult the logs after relevant settings. You can also save the current settings to your PC.

Jse to save t	he current settings into your computer	
Enter date in Y	YYY-MM-DD format and select a module	
Date :	1970-01-03 to 1970-01-03	
Module :	System Logs Show Save System Logs Security Logs	
Logs Sat, O3 Jan	1970 - 00:00:04 ALARM::MINOR: SYSTEM UP	
Logs Sat, O3 Jan	1970 - 00:00:04 ALARM::MINOR: SYSTEM UP	
LOGS Sat, O3 Jan	1970 - 00:00:04 ALARM::MINOR: SYSTEM UP	

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Note:

Set the query time consistent with the SNTP if you want to obtain the real-time of the system logs.

3.3.3 Troubleshooting

Choose **Home** > **Troubleshooting** to enter the troubleshooting page. This page is used to carry out diagnostic test. Troubleshooting allows you to carry out diagnostic tests on your local Ethernet and WAN connection by ping the web site or running the diagnostic tests. The tests results can be used to identify all the problems that are related to your DSL connection or the configuration of the modem.

Enter a well-known site (for example, IP 10.18.102.55) that you want to test. Click **Ping** and the following page appears.

Troubleshooting

Select Internet Connection:	bridge_8_81 🗸	
Ping to well known site: e.g. www.yahoo.com)	10.18.102.55	Ping
	R	un Diagnostic Tests

If the network connects well and the IP address or the site is effective, the ping of the well-known site passes. Otherwise, it is failed to ping the well-known site. Select the Internet connection that you want to test from the drop-down list (take bridge_8_81 for example). Click **Run Diagnostic Tests** and the following page appears. In this page, you can view the test result.

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Troubleshooting		
Select Internet Connection:	bridge_8_81 🗸	
Ping to well known site: (e.g. www.yahoo.com)	10.18.102.55	Ping
	Run Dia	anostic Tests
Test the connection to your local	network	
Test your Ethernet Connection:		PASS
Test DSL Synchronization:		FAIL
F4 OAM Test		
Test your F4 OAM Segment :		N/A
Test your F4 OAM ETOE :		N/A
F5 OAM Test		
Test your F5 OAM Segment :		N/A
Test your F5 OAM ETOE :		N/A
Ping to well known site: 10.18.102	2.55	FAIL

The information that is displayed helps you to locate the problems.

3.4 Configuration

Click **Configuration** to enter system configuration page. On the left page, there are seven options: **Wireless Network**, **Internet Connection**, **Local Network (LAN)**, **Voice Configuration**, **DHCP Server**, **DHCP Relay**, and **IPv6 Prefix**. You can modify LAN and WAN settings, such as PVC, LAN port, and DHCP.

3.4.1 Wireless Network

A wireless local area network (WLAN) provides a flexible data communications system that you can use to access various services, such as, surfing on the Internet, E-mail, and printing services, without the cable connection. You can connect to the Internet while roaming around in the converage area.

Choose **Configuration** > **Wireless Network** and the following page appears. In this page, you can configure the parameters for wireless LAN clients that may connect to the modem.

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User Manual for T2-B-Gawv1.4U10Y.BI 3.4.1.1 Basic Settings

By Default WiFI is disbaled in your CPE, and its using default SSID as "BSNL_AP". please configure the WiFI if you want to us it.

Choose **Wireless Network > Basic Settings** and the following page appears. You must set the location where you are in order to prevent the modem from transmitting the illegal frequencies.

OADBAND			Ceracon
Home	Wireless Network Basic Settings / <u>Advanced Setting</u>	is I MAC Address Filter	
shooting	To make sure MyDsiModem does where you are in the world.	not transmit on illegal frequencies, you must set	
onfiguration			
ss Network	Global Setting		
letwork (LAN)	Select Profile:	802.11B/G	
Configuration	Wireless Network:	Disable DEnable	
Jerver Relav	Select Country:	INI 🐱	
efix	You may either choose a channel you	reelf, or allow to automatically select the best channel.	
Security	Channel Selection:	Auto 🛩	
Services	Select Channel:	1 0	
	Network Name (SSID):	DSNL_AP	
DSL Home	Hide SSID:	⊙No ○Yes	
ort Statistics	Security Settings		
Admin	Select Security Option:	128 Bit Encryption	
	WEP Authentication Mode:	Open O Shared	
	Select Tx Key Index:	0	
	Select Key Method:	Pass Phrase 🛩	
	Key:		
	WEP Pass Phrase:		
	Select Encryption Protocol:	TEIP protocol	
	Select Authentication Method:	PSE (Pre Shared Key) -	
	WPA Pass Phrase:	000000000000000000000000000000000000000	
	802.1x Identity String:	12-8-Gamv1.4010Y-81 00:26:16:50:1	
	003 to Dalate Timesute	(con	

The following table describes the parameters of this page.

	Field	Description
		Choose the security specification. You can
	Select Profile	choose 802.11 B/G, 802.11B only, 802.11G
		only, or 802.11 MIXED_LONG.
	Wiroloss Notwork	Enable or disable the wireless network. If you
		want to connect to the Internet, enable it.
	Select Country	Choose the country where the modem works.
	Channel Selection	You can choose Auto or Manual.
	Select Channel	A channel is the radio frequency(ies) used by
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Field	Description
	802.11b/g wireless device. Channels available depend on your geographical area.
Network Name(SSID)	Service set identification (SSID) is a unique name to identify the modem in the wireless LAN. All wireless devices on a WLAN must use the same SSID in order to communicate with each other. By default, the SSID of the modem is BSNL_AP .
Hide SSID	 You can enable or disable this SSID. If you select Yes, the wireless adaptor will fail to auto-search the SSID .The auto-searching list does not display the SSID. However, if you know the SSID, you can set the connection manually. If you select No, the auto-searching list displays the SSID.
Select Security Option	It is vital to protect wireless communication between wireless stations, access points and wired network. There are six options.

3.4.1.2 Advanced Settings

Click **Advanced Settings** in the **Wireless Network** page and the following page appears. In this page, you can configure the parameters for wireless LAN clients may connect to the modem. You can also modify the Fragmentation Threshold, Rts Threshold, Nitroxm Piggyback and WMM.

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Wireless Network	.+0101.01
Avanced Settings : Advanced Settings	MAC Address Filter
<u>asie settings</u> - Navanoeu settings	Pince Address Filter
To make sure MyDslModem does no where vou are in the world.	ot transmit on illegal frequencies, you must se
Global Setting	
Select Profile:	802.11B/G 🗸
Wireless Network:	⊙ Disable ○ Enable
Select Country:	INI 🗸
You may either choose a channel yours	elf, or allow to automatically select the best channel.
Channel Selection:	Aut o 🗸
Select Channel:	1 🗸
Network Name (SSID):	BSNL_AP
Hide SSID:	⊙No ○Yes
Fragmentation Threshold :	2346
RTS Threshold :	2347
NitroXM PiggyBack:	O Disable O Enable
WMM:	⊙ Disable ○ Enable
Security Settings	
Select Security Option:	128 Bit Encryption 🗸
WEP Authentication Mode:	⊙ Open ○ Shared
Select Tx Key Index:	0 🗸
Select Key Method:	Pass Phrase 🗸
Key:	12345678901234567890123456
WEP Pass Phrase:	
Select Encryption Protocol:	TKIP protocol
Select Authentication Method:	PSK (Pre Shared Key)
WPA Pass Phrase:	
802.1x Identity String:	T2-B-Gawy1.4U10Y-BI 00:26:15:50:1
802 1x Bekey Timeout	600
602.1X Rekey Timeout.	000

The following table describes the parameters of this page.

Field	Description
	The fragmentation threshold is a way of
	limiting the size of packets (frames)
Fragmentation Threshold	transmitted over the network. If a packet
	exceeds the configured fragmentation
	threshold, the fragmentation function is

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User Manual for T2-B-Gawv1.4U10Y.BI

Field	Description		
	enabled, and the packets are sent as multiple		
	802.11 frames.		
	Request to send (RTS) is designed to prevent		
	collisions due to hidden node. A RTS defines		
	the biggest size data frame you can send		
	before a RTS handshake invoked. The RTS		
DTS Threshold	threshold value is between 0 and 2347.		
RTS THESHOL	If the RTS threshold value is greater than the		
	fragment threshold value, the RTS		
	handshake does not occur. Because the data		
	frames are fragmented before they reach the		
	RTS size.		
Nitro VM Diggy Pook	Piggyback refers to interleaving the TCP Ack		
NitroXM PiggyBack	return flow with the TCP data flow.		

3.4.1.3 MAC Address Filter

Click **MAC Address Filter** in the **Wireless Network** page and the following page appears. In this page, you can restrict the wireless PCs that connect with the modem. You can restrict the PCs in the blacklist or whitelist way.

Wireless Network

Basic Settings | Advanced Settings | MAC Address Filter

You can restrict which wireless PCs can connect to your device. Select how you want to restrict PCs below.

Select MAC Auth	Disabled 🗸	
MAC Address	Disabled BlackList	Delete
Add MAC Address:	WhiteList	Apply

Select MAC Auth: There are three options: Disabled, BlackList, or WhiteList.

- If choose **Disabled**, all the PC are allowed to access the modem.
- If choose **BlackList**, the PC whose MAC address is listed is denied to access the modem.

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 If choose WhiteList, only the PC whose MAC address is listed is allowed to access the modem.

3.4.1.4 Wireless Configuration Example

Before you configure the wireless network, ensure that the wireless network card is installed in the PC.

The following describes the example of wireless network configuration:

Step 1 In the Control Panel page, double click Network Connections. The following page appears.

Network Committions				. C ×
ile Edit View Favorites To	ols Advanced Help			- 47
3 tax • 🕥 - 🎓 🎾	Search 🍋 Folders 🛄 •			
stress 🔹 Network Connections				S S
THE PARTY DEPARTY	Name	Type	Status	Device N
Network Tasks 2	Broadband			
Create a new connection Change Windows Firewall settings	8_35 LAN or High-Speed Internet	Broadband	Disconnected, Prewalled	WANMO
See Also A	Local Area Connection 2	LAN or High-Speed Inter	Connected, Firewalled	Broadcor
Network Troubleshooter	Local Area Connecton	LAN or High-Speed Inter	Connected, Firewailed	Realitek F
Other Places	0			
Control Panel				
Ny Network Places				
My Documents				
My Computer				





Step 3 In the Wireless Network Connection page, refresh the network lists and select the network name (SSID) PRISM_WIRELESS, which is the default SSID name. Then click Connect.

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Network Tasks	Choose a wireless network	
💋 Refresh network list	Click an item in the list below to connect to a wireless network information.	in range or to get more
Set up a wireless network for a home or small office	((p)) ChinaNet-ipcam	-BDU
Related Tasks	((Q)) adsl-000005	
Learn about wireless networking	Unsecured wireless network ((Q)) ChinaNet-one	
Change the order of preferred networks	Security-enabled wireless network (WPA)	•000
Change advanced settings	((P)) Unsecured wireless network	
	((Q)) PRISM_WIRELESS	
	Unsecured wireless network ((Q)) ZTENet	e880
	Unsecured wireless network	

After finishing the settings, you can manage the modem through graphical user interface (GUI) or Telnet.

3.4.2 Internet Connection

This page displays the information of the PVC after some effective configuration.

3.4.2.1 Connections

Choose **Configuration** > **Internet Connection** and the following page appears. In this page, you can view the information of the PVC.

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BROADBAND										terace	-
Home verview ystem Log	Internet Con Connections	ADSL MA	Configu C Spoofing	ration							
Configuration	Click Add to ad existing Interne	ld Internet et connect	connection	. Click Delete	or Edit lir	k to delete	/edit	an			
/ireless Network hternet Connection ocal Network (LAN) oice Configuration	PVC Name	VPI/VCI	Category	Protocol	NAT	WAN IP Address	Edit	Delete	_		
HCP Relay Pv6 Prefix	pppoe_0_35 Connect >>	0/35	UBR	PPPoE LlcBridged	On	Not Assigned	2	0			
Security	bridge_0_32	0/32	UBR	RFC2684- Bridged LlcBridged	Off		1	0			
Services DSL Home	bridge_0_100	0/100	UBR	RFC2684- Bridged LicBridged	Off		•	0			
Port Statistics	bridge_8_35	8/35	UBR	RFC2684- Bridged	Off		•	0			
Admin	bridge_8_81	8/81	UBR	RFC2684- Bridged	Off		1	Û			
	bridge_14_34	14/34	UBR	RFC2684- Bridged LicBridged	Off	Ð	•	Û			
	bridge_1_41	1/41	UBR	RFC2684- Bridged LlcBridged	Off	2	•	0			
				1	select						

- Delete an existing Internet connection.
 Modify an existing Internet connection. •

Note:

In the Connections page, the default configuration of the modem supports six PVCs. The modem can be configured with eight PVCs at most. If you add more than eight PVCs, it refuses to add.

$\widehat{\ensuremath{\mathbb{I}}}$: Delete an existing Internet connection.

The following describes an example of deleteing bridge_0_32. **Step 1** In the following page, click to delete bridge_0_32.

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Internet Connection Configuration Connections | ADSL | MAC Spoofing

Internet Connection Configuration

Click Add to add Internet connection. Click Delete or Edit link to delete/edit an existing Internet connection.

PVC Name	VPI/VCI	Category	Protocol	NAT	WAN IP Address	Delete Edit
pppoe_0_35 <u>Connect</u> ≫	0/35	UBR	PPPoE LlcBridged	On	Not Assigned	높 🛈 🗖
bridge_0_32	0/32	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_0_100	0/100	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_8_35	8/35	UBR	RFC2684- Bridged LlcBridged	Off	-	<u>)</u> 🛈 🗖
bridge_8_81	8/81	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_14_34	14/34	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_1_41	1/41	UBR	RFC2684- Bridged LlcBridged	Off	-	<u>)</u> 🕅 🗖
				select all		
					Add >	Delete

Step 2 The system deletes bridge_0_32. After the deletion, the following page appears.

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Internet Connection Configuration Connections | ADSL | MAC Spoofing

Internet Connection Configuration

 ${\rm Click}$ Add to add ${\rm Internet}$ connection. ${\rm Click}$ ${\rm Delete}$ or ${\rm Edit}$ link to delete/edit an existing ${\rm Internet}$ connection.

PVC Name	VPI/VCI	Category	Protocol	NAT	WAN IP Address	Delete Edit
pppoe_0_35 <u>Connect</u> ≫	0/35	UBR	PPPoE LlcBridged	On	Not Assigned	높 🛈 🗖
bridge_0_100	0/100	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_8_35	8/35	UBR	RFC2684- Bridged LlcBridged	Off	-	🔪 🛈 🗖
bridge_8_81	8/81	UBR	RFC2684- Bridged LlcBridged	Off	-	% 🕅 🗖
bridge_14_34	14/34	UBR	RFC2684- Bridged LlcBridged	Off	-	% 🕅 🗖
bridge_1_41	1/41	UBR	KFC2684- Bridged LlcBridged	Off	-	높 🕅 🗖
			-	select all		
					Add >	Delete

Sector 2 Strain Stra

The following describes an example of modifying bridge_8_35. **Step 1** In the following page, click to modify bridge_8_35.

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Internet Connection Configuration Connections | ADSL | MAC Spoofing

Internet Connection Configuration

Click Add to add Internet connection. Click Delete or Edit link to delete/edit an existing Internet connection.

PVC Name	VPI/VCI	Category	Protocol	NAT	WAN IP Address	Delete Edit
pppoe_0_35 Connect ≫	0/35	UBR	PPPoE LlcBridged	On	Not Assigned	높 🛈 🗖
bridge_0_32	0/32	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🕅 🗖
bridge_0_100	0/100	UBR	RFC2684- Bridged LlcBridged	Off	-	% 🛈 🗖
bridge_8_35	8/35	UBR	RFC2684- Bridged LlcBridged	Off	-	<u>)</u> 🕅 🗖
bridge_8_81	8/81	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🕅 🗖
bridge_14_34	14/34	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_1_41	1/41	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
				select all		
					Add >	Delete

Step 2 The following page appears. In this page, you can modify VPI, VCI and service category.

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User Manual for T2-B-Gawv1.4U10Y.BI	
Internet Connection Configuration	
Configure ATM PVC	
Please enter VPI and VCI numbers for the Internet com by your ISP.	nection which is provided
VPI:	8 (0-255)
VCI:	35 (32- 65535)
Service Category:	UBR With PCR 🐱
Peak Cell Rate	8000 cell/s (0-8000)
Sustainable Cell Rate:	0 cell/s (1-7099)
Maximum Burst Size:	0 cells (1-1000000)
	Next > Cancel

The following table describes the parameters of this page.

	Field	Description
		Virtual path identifier (VPI) is the virtual path
	VPI	between two points in an ATM network. Its
		valid value is from 0 to 255.
		Virtual Channel Identifier (VCI) is the virtual
	VCI	channel between two points in an ATM
		network. Its valid value is from 32 to 65535.
		You can choose UBR With PCR, CBR, Non
		Realtime VBR, or Realtime VBR.
		• UBR with PCR: Unspecified bite rate
		with peak cell rate (UBR with PCR).
		When the network is congested, the UBR
		cell is dropped and communication traffic
	Service Category	is at a fairly low level. Its peak cell rate
		range is from 0 to 8000.
		• CBR : Constant bit rate (CBR) is a coding
		mode. It is adapted for strict requirement
		to delay and quality of data packets
		transmission. Its peak cell rate range is
		from 0 to 7100.
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Field	Description			
	 Non Real-time VBR: Non real-time variable bit rate (NRT-VBR) is adapted for real time with relatively low requirement. Its peak cell rate range is from 0 to 8000. The sustainable cell rate range is from 1 to 7099, and the maximum burst size range is from 0 to 1000000. Real-time VBR: Real-time variable bit rate (Real-time VBR) is adapted for real time with high requirement. Its peak cell rate range is from 0 to 8000. The sustainable cell rate range is from 1 to 7099, and the maximum burst size range is from 1 to 7099, and the maximum burst size range is from 1 to 7099, and the maximum burst size range is from 1 to 7099, and the maximum burst size range is from 0 to 1000000. 			
Sustainable Cell Rate	Sustainable cell rate (SCR) is an ATM parameter for traffic management. For variable bit rate (VBR) connections, SCR determines the long-term average cell rate that can be transmitted.			
Maximum Burst Size	Maximum burst size (MBS) is used to specify the maximum number of cells that can be transmitted at the contracted peak cell rate (PCR).			

Note:

The value of PCR should be greater than SCR, and MBS is usually less than 10. The service category merely is effective to upstream.

Step 3 After proper modifications, click Next and the following page appears. In the page, you can modify the configure connection type, such as encapsulation type or encapsulation mode (The mode is only adapted for RFC2684 protocol).

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nternet Connection Configuration		
Configure Connection Type		
Select the encapsulation type with the ATM PV you to use.	C that your ISP has instructed	
Encapsulation Type:	LLC/SNAP 🗸	
Encapsulation Mode:	Bridged 🗸	
	Next > Cancel	

Add >: Add Internet connection.

The following describes an example of adding PVC 0/32.

 Step 1
 In the following page, click Add to add PVC 0/32.

 Internet Connection Configuration

 Connections | ADSL | MAC Speefing

Internet Connection Configuration

Click Add to add Internet connection. Click Delete or Edit link to delete/edit an existing Internet connection.

PVC Name	VPI/VCI	Category	Protocol	NAT	WAN IP Address	Delete Edit
pppoe_0_35 Connect_>>>	0/35	UBR	PPPoE LlcBridged	On	Not Assigned	높 🕅 🗖
bridge_0_100	0/100	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_8_35	8/35	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_8_81	8/81	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_14_34	14/34	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
bridge_1_41	1/41	UBR	RFC2684- Bridged LlcBridged	Off	-	높 🛈 🗖
				select all		
					Add >	Delete

Step 2 The following page appears. In this page, you can modify VPI, VCI, and service categories.

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	User Manual	for	T2-B-Gay	wv1.4U1	0Y.BI
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Configure ATM PVC	
Please enter PVC Name, VPI and VCI i is provided by your ISP.	numbers for the Internet connection which
PVC Name:	R_0_32
VPI:	0 (0-255)
VCI:	32 (32-65535)
Service Category:	UBR With PCR 🗸
Peak Cell Rate	0cell/s(0- 8000)
Sustainable Cell Rate:	0 cell/s(1- 7099)
Maximum Burst Size	0 cells(1-

The following table describes the parameters of this page.

	Field	Description
	VPI	Virtual path identifier (VPI) is the virtual path between two points in an ATM network. Its
		valid value is from 0 to 255.
	VCI	Virtual Channel Identifier (VCI) is the virtual channel between two points in an ATM
		network. Its valid value is from 32 to 65535.
		You can choose UBR with PCR, CBR, Non
		Realtime VBR, or Realtime VBR.
Service C		• UBR with PCR: Unspecified bite rate
		with peak cell rate (UBR with PCR).
	Service Category	When the network is congested, the UBR
		cell is dropped and communication traffic
		is at a fairly low level. Its peak cell rate
		range is from 0 to 8000.
		• CBR : Constant bit rate (CBR) is a coding
		mode. It is adapted for strict requirement
		to delay and quality of data packets
		transmission. Its peak cell rate range is
		from 0 to 7100.
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Field	Description
	 Non Real-time VBR: Non real-time variable bit rate (NRT-VBR) is adapted for real time with relatively low requirement. Its peak cell rate range is from 0 to 8000. The sustainable cell rate range is from 1 to 7099, and the maximum burst size range is from 0 to 1000000. Real-time VBR: Real-time variable bit rate (Real-time VBR) is adapted for real time with high requirement. Its peak cell rate range is from 0 to 8000. The sustainable cell rate range is from 1 to 7099, and the maximum burst size range is from 1 to 7099, and the maximum burst size range is from 1 to 7099, and the maximum burst size range is from 1 to 7099, and the maximum burst size range is from 0 to 1000000.
Sustainable Cell Rate	Sustainable cell rate (SCR) is an ATM parameter for traffic management. For variable bit rate (VBR) connections, SCR determines the long-term average cell rate that can be transmitted.
Maximum Burst Size	Maximum burst size (MBS) is used to specify the maximum number of cells that can be transmitted at the contracted peak cell rate (PCR).

Note:

The value of PCR should be greater than SCR, and MBS is usually less than 10. The service category merely is effective to upstream.

Step 3 After proper modifications, click **Next** and the following page appears. In this page, you can modify Internet connection protocol and encapsulation type.

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nternet Connection Configuration			
Configure Connection Type			
Select the protocol and instructed you to use.	encapsulation type with the ATM PVC that your ISP has		
Protocol:	○PPP over ATM (PPPoA)		
	○PPP over ATM for IPv6 (PPPoA IPv6)		
	⊙ PPP over Ethernet (PPPoE)		
	○PPP over Ethernet for IPv6 (PPPoE IPv6)		
	○RFC2684 (IPv4)		
	○RFC2684 (IPv6)		
	O Bridging		
Encapsulation Type:	LLC/SNAP 🗸		
Encapsulation Mode:	Bridged 🔛		
	Next > Cancel		

Sample 1: PPP over ATM (PPPoA)

 Step 1
 Select PPP over ATM (PPPoA) protocol and set the encapsulation type to VC MUX (depending upon the uplink equipment, generally VC MUX). Then click Next.

Configure Connection Type			
Select the protocol and instructed you to use.	encapsulation type with the ATM PVC that your ISP has		
Protocol:	⊙PPP over ATM (PPPoA)		
	○PPP over ATM for IPv6 (PPPoA IPv6)		
	○PPP over Ethernet (PPPoE)		
	○PPP over Ethernet for IPv6 (PPPoE IPv6)		
	○RFC2684 (IPv4)		
	ORFC2684 (IPv6)		
	OBridging		
Encapsulation Type:	WC MUX 🐱		
Encapsulation Mode:	Bridged 🖌		

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Step 2 In this example, the modern must be configured as built-in PPPoA + NAT. Select Obtain an IP address automatically, Enable NAT, and Add Default Route.

Ir	Internet Connection Configuration		
¢	Configure WAN IP Settings		
-	Enter information provided by your ISP to configure the WAN IP settings.		
	 Obtain an IP address automatically 		
	O Use the following IP address:		
	WAN IP Address:		
	Enable NAT		
	✓ Add Default Route		
	Next > Cancel		

The following table describes the parameters of this page.

Field	Description
Obtain an IP address automatically	Through PPP dial-up to obtain an IP address assigned by up-link equipment, such as BRAS.
Use the following IP address	If you want to manually enter the WAN IP address, select it and enter the IP address provided by your ISP.
Enable NAT	Select it to enable network address translation (NAT) function of the modem. If you do not enable NAT and want to the modem to access the Internet normally, you must add a route on the uplink equipment. Otherwise, the access to the Internet fails. Normally, it is required to enable NAT.
Add Default Route	Add a default route in the routing table. Normally, it must be selected. Otherwise, you have to add a default route manually.

Step 3 Enter the correct broadband user name and password. Select a proper PPP connection mode. Then click **Next**.

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```

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nternet Connection Configuration		
Configure Broadband Use	er Name and Password	
To use your Broadband ser password.	rvice, please verify your Broadband user name and	
Broadband User Name:	tw4@9806a.com	
Password:	•••	
Confirm Password:	•••	
Session established by:	⊙ Always On	
	○Dial on Demand	
	Consider Lanside Traffic Only	
	Disconnect if no activity for 0 minutes	
	○ Manually Connect	
	Consider Lanside Traffic Only	
	Disconnect if no activity for minutes	
	Next > Cancel	

The following table describes the parameters of this page.

	Field	Description		
	Broadband User Name	Enter the correct user name provided by your ISP.		
	Password	Enter the correct password provided by your ISP.		
	Confirm Password	Confirm the correct password provided to your ISP.		
	Session established by	 Select a PPP connection mode according to your practice. Always On: After the device is powered on, the system performs PPP dial-up automatically. If the device is powered off, DSLAM or the up-link equipment is abnormal, the PPP connection will not be broken. Dial on Demand: After the device is powered on, the PPP dial-up performs automatically. If the device does not 		
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Field	Description
	detect the flow of the user continuously
	within the preset minutes, the device
	automatically stops the PPP connection.
	Once the device detects the data flow
	(for example, accessing the web page), it
	restarts the PPP for dial-up.
	Manually Connect: Choose
	Configuration > Internet Connection >
	Connections. Click Connect in the
	Internet Connection Configuration
	page to start the PPP connection. If the
	device does not detect the data-flow of
	the user continuously within the preset
	minutes, the device automatically
	releases the PPP connection. The
	difference between manually connect
	and dial on demand is that you must start
	a PPP connection manually again if you
	select manually connect. Enter the
	waiting time in the field.



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nternet Connection Configuration					
Summary					
Make sure that the settin	gs below match the settings provided by your ISP.				
Internet(WAN) Configu	ration:				
VPI / VCI	VPI / VCI 0 / 32				
Service Category	UBR With PCR 0 cell/s				
Connection Type	PPPoA VC MUX, Always On				
Connection Type NAT	PPPoA VC MUX, Always On On				
Connection Type NAT WAN IP Address	PPPoA VC MUX, Always On On Automatically Assigned				

Check the configuration according to the requirements. When you ensure that the configuration is correct, click **Apply**. The following page appears.

Internet Connection Configuration Connections ADSL MAC Spoofing							
Internet Con Click Add to a existing Intern	nection C dd Interne let connec	onfiguratio t connectio tion.	n n. Click Delet	e or Edit l	ink to delete	e/edit ar	
PVC Name	VPI/VCI	Category	Protocol	NAT	WAN IP Address	Delete Edit	
pppoe_0_35 Connect >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	0/35	UBR	PPPoE LlcBridged	On	Not Assigned	% . 🕅	
bridge_0_100	0/100	UBR	RFC2684- Bridged LlcBridged	Off	-	% . 🕅	
bridge_8_35	8/35	UBR	RFC2684- Bridged LlcBridged	Off	-	` . 🗊	
bridge_8_81	8/81	UBR	RFC2684- Bridged LlcBridged	Off	-	` . 🗊	
bridge_14_34	14/34	UBR	RFC2684- Bridged LlcBridged	Off	-	` . 🗊	
bridge_1_41	1/41	UBR	RFC2684- Bridged LlcBridged	Off	-	` . 🗊	
R_0_32 Connect >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	0/32	UBR	PPPoA VC/MUX	On	Not Assigned	` . 🕅	
				select all			
					Add >	Dele	rte

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Sample 2: PPP over ATM for IPv6 (PPPoA IPv6)

Step 1 Select PPP over ATM for IPv6 (PPPoA IPv6) protocol and set the encapsulation type to VC MUX (depending upon the uplink equipment, generally VC MUX). Then click Next.

Configure Connection	Туре
Select the protocol and instructed you to use.	encapsulation type with the ATM PVC that your ISP has
Protocol:	○PPP over ATM (PPPoA)
	⊙ PPP over ATM for IPv6 (PPPoA IPv6)
	○PPP over Ethernet (PPPoE)
	○PPP over Ethernet for IPv6 (PPPoE IPv6)
	ORFC2684 (IPv4)
	○RFC2684 (IPv6)
	○ Bridging
Encapsulation Type:	VC MUX 🐱
Encapsulation Mode:	Bridged 🗸

Step 2In this example, the modern must be configured as built-in PPPoA + NAT.Select Obtain an IP address automatically, Enable NAT, and AddDefault Route.

nternet Connection Configuration			
Configure WAN IP Settings			
Enter information provided by your ISP to configure the WAN IP settings.			
 Obtain an IP address automatically 			
O Use the following IP address:			
WAN IP Address:			
Enable NAT			
✓ Add Default Route			
	_		
Next > Cance			

The following table describes the parameters of this page.

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Field	Description
Obtain an IP address automatically	Through PPP dial-up to obtain an IP address assigned by up-link equipment, such as BRAS.
Use the following IP address	If you want to manually enter the WAN IP address, select it and enter the IP address provided by your ISP.
Enable NAT	Select it to enable network address translation (NAT) function of the modem. If you do not enable NAT and want to the modem to access the Internet normally, you must add a route on the uplink equipment. Otherwise, the access to the Internet fails. Normally, it is required to enable NAT.
Add Default Route	Add a default route in the routing table. Normally, it must be selected. Otherwise, you have to add a default route manually.

Step 3Enter the correct broadband user name and password. Select a properPPP connection mode. Then click Next.

Internet Connection Configuration

Configure Broadband User Name and Pass	word
--	------

Broadband User Name:	tw4@9806a.com
Password:	•••
Confirm Password:	•••
Session established by:	● Always On
	○Dial on Demand
	Consider Lanside Traffic Only
	Disconnect if no activity for 🕛 minutes
	○ Manually Connect
	Consider Lanside Traffic Only
	Disconnect if no activity for 🕛 minutes
	Next > Cancel

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The following	table	describes	the	parameters	of this	page
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Field	Description
Broadband User Name	Enter the correct user name provided by your ISP.
Password	Enter the correct password provided by your ISP.
Confirm Password	Confirm the correct password provided by your ISP.
Session established by	 Select a PPP connection mode according to your practice. Always On: After the device is powered on, the system performs PPP dial-up automatically. If the device is powered off, DSLAM or the up-link equipment is abnormal, the PPP connection will not be broken. Dial on Demand: After the device is powered on, the PPP dial-up performs automatically. If the device does not detect the flow of the user continuously within the preset minutes, the device automatically stops the PPP connection. Once the device detects the data flow (for example, accessing the web page), it restarts the PPP for dial-up. Manually Connect: Choose Configuration > Internet Connection > Connections. Click Connect in the Internet Connection. If the device does not detect the PPP connection. If the device does not detect the PPP connection. If the device does not detect the PPP connection. If the device does not detect the data-flow of the user continuously within the preset minutes, the device automatically releases the PPP connection. The difference between manually connect and dial on demand is that you must start

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Field	Description
	a PPP connection manually again if you
	select manually connect. Enter the
	waiting time in the field.

Step 4 Click **Next** and the following page appears. In this page, you can confirm the modification

nternet Connectio	on Configuration	
Summary		
Make sure that the settings below match the settings provided by your ISP.		
Internet(WAN) Confi	iguration:	
VPI / VCI	0 / 32	
Service Category	UBR With PCR 0 cell/s	
Service Category Connection Type	UBR With PCR 0 cell/s PPPoA for IPv6 LLC/SNAP, Always On	
Service Category Connection Type NAT	UBR With PCR 0 cell/s PPPoA for IPv6 LLC/SNAP, Always On On	
Service Category Connection Type NAT WAN IP Address	UBR With PCR 0 cell/s PPPoA for IPv6 LLC/SNAP, Always On On Automatically Assigned	

Sample 3: PPP over Ethernet (PPPoE)

Step 1 Select PPP over Ethernet (PPPoE) protocol. Set to LLC/SNAP encapsulation type and Bridged encapsulation mode. Then click Next.

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Internet Connection Configuration		
Configure Connection Type		
Select the protocol and instructed you to use.	encapsulation type with the ATM PVC that your ISP has	
Protocol:	○PPP over ATM (PPPoA)	
	○PPP over ATM for IPv6 (PPPoA IPv6)	
	⊙ PPP over Ethernet (PPPoE)	
	○PPP over Ethernet for IPv6 (PPPoE IPv6)	
	○RFC2684 (IPv4)	
	○RFC2684 (IPv6)	
	OBridging	
Encapsulation Type:	LLC/SNAP 🗸	
Encapsulation Mode:	Bridged 🗸	
	Next > Cancel	



Internet Connection Configuration				
Configure WAN IP Settings				
Enter information provided by your ISP to configure the WAN IP settings.				
Enable/Disable the Access Concentrator option				
Access Concentrator :				
 Obtain an IP address automatically 				
O Use the following IP address:				
WAN IP Address:				
Enable NAT				
✓ Add Default Route				
Next > Cancel				

The following table describes the parameters of this page.

Field			Description	
Enable/Dis	sable	the	Enable or disable the access concentrator.	
Access	Concer	ntrator		
.	,			

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Field	Description
option	
Access Concentrator	 If select Enable, in the PPPoE Discovery stage, the modem makes a choice according to the AC-Name value after receiving many PADO packets. If select Disable, in the PPPoE Discovery stage, the modem makes a choice according other service (such as the service that PADO provides), then it sends PADR packets to each BRAS.
Obtain an IP Address automatically	Through PPP dial-up to obtain an IP address assigned by up-link equipment, such as BRAS.
Use the following IP address	If you want to manually enter the WAN IP address, select it and enter the IP address provided by your ISP.
Enable NAT	Select it to enable network address translation (NAT) function of the modem. If you do not enable NAT and want to the modem to access the Internet normally, you must add a route on the uplink equipment. Otherwise, the access to the Internet fails. Normally, it is required to enable NAT.
Add Default Route	Add a default route in the routing table. Normally, it must be selected. Otherwise, you have to add a default route manually.

Step 3 Enter the correct broadband user name, password and confirm password. Select a proper PPP connection mode. Then click Next.

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nternet Connection Configuration		
Configure Broadband User	Name and Password	
To use your Broadband servi password.	ice, please verify your Broadband user name and	
Service Name:		
Broadband User Name:	tw2@9806e.com	
Password:	•••	
Confirm Password:	•••	
Session established by:	⊙ Always On	
	◯ Dial on Demand	
	Consider Lanside Traffic Only	
	Disconnect if no activity for 0 minutes	
	○ Manually Connect	
	Consider Lanside Traffic Only	
	Disconnect if no activity for 0 minutes	
	Next > Cancel	

The following table describes the parameters of this page.

	Field	Description
	Service Name	Enter the service name provided by the ISP. It
		may not fill.
	Proodbond Lloor Nomo	Enter the correct user name provided by your
	Broadband User Name	ISP.
	<u> </u>	Enter the correct password provided by your
	Password	ISP.
	Confirm Decouverd	Confirm the correct password provided by
	Confirm Password	your ISP.
		Select a PPP connection mode according to
	Session established by	your practice.
		• Always On: After the device is powered
		on, the system performs PPP dial-up
		automatically. If the device is powered
		off, DSLAM or the up-link equipment is
		abnormal, the PPP connection will not be
		broken.
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Field	Description
	 Dial on Demand: After the device is powered on, the PPP dial-up performs automatically. If the device does not detect the flow of the user continuously within the preset minutes, the device automatically stops the PPP connection. Once the device detects the data flow (for example, accessing the web page), it
	restarts the PPP for dial-up. • Manually Connect: Choose
	Configuration > Internet Connection > Connections. Click Connect in the
	Internet Connection Configuration page to start the PPP connection. If the device does not detect the data-flow of
	the user continuously within the preset minutes, the device automatically releases the PPP connection. The
	difference between manually connect and dial on demand is that you must start a PPP connection manually again if you
	select manually connect. Enter the waiting time in the field.

Step 4 Click **Next** and the following page appears. In this page, you can confirm the modification.

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Internet Connection Configuration		
Summary		
Make sure that the settings below match the settings provided by your ISP.		
Internet(WAN) Configuration:		
VPI / VCI	0 / 32	
Service Category	UBR With PCR 0 cell/s	
Connection Type	PPPoE LLC/SNAP, Always On	
PPPOE AC	Not Configured	
PPPOE Service Name		
NAT	On	
WAN IP Address	Automatically Assigned	
Default Route	On	
Click "Cancel" to discard these s	settings. Click "Apply" to make Apply Cancel	

Step 5 Check the configuration according to the requirements. When you ensure that the configuration is correct, click Apply. The following page appears.

Internet Connection Configuration Connections ADSL MAC Spoofing							
Internet Connection Configuration Click Add to add Internet connection. Click Delete or Edit link to delete/edit an existing Internet connection.							
PVC Name	VPI/VCI	Category	Protocol	NAT	WAN IP Address	Delete Edit	
pppoe_0_35 Connect_≫	0/35	UBR	PPPoE LlcBridged	On	Not Assigned	% . (î	
bridge_0_100	0/100	UBR	RFC2684- Bridged LlcBridged	Off	-	% . (î	
bridge_8_35	8/35	UBR	RFC2684- Bridged LlcBridged	Off	-	% . û	
bridge_8_81	8/81	UBR	RFC2684- Bridged LlcBridged	Off	-	% . û	
bridge_14_34	14/34	UBR	RFC2684- Bridged LlcBridged	Off	-	% . (î	
bridge_1_41	1/41	UBR	RFC2684- Bridged UcBridged	Off	-	% (i	
R_0_32 Connect >>>>	0/32	UBR	PPPoE LlcBridged	On	Not Assigned	% . (î	
				select all			
					Add >	De	lete
Feracom L	imited			46			An l

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Sample 4: PPP over Ethernet for IPv6 (PPPoE IPv6) Step 1 Select PPP over Ethernet for IPv6 (PPPoE IPv6) protocol. Set to

LLC/SNAP encapsulation type and Bridged encapsulation mode. Then click Next.

nternet Connection Configuration				
Configure Connection	Туре			
Select the protocol and instructed you to use.	encapsulation type with the ATM PVC that your ISP has			
Protocol:	○PPP over ATM (PPPoA)			
	○PPP over ATM for IPv6 (PPPoA IPv6)			
	○PPP over Ethernet (PPPoE)			
	⊙ PPP over Ethernet for IPv6 (PPPoE IPv6)			
	○RFC2684 (IPv4)			
	○RFC2684 (IPv6)			
	OBridging			
Encapsulation Type:	LLC/SNAP 🐱			
Encapsulation Mode:	Bridged 🗸			
	Next > Cancel			

Step 2 In this example, select Obtain an IP address automatically, Enable NAT, and Add Default Route.

terne	e Connection Configuration
onfigu	ire WAN IP Settings
inter in	formation provided by your ISP to configure the WAN IP settings.
	Enable/Disable the Access Concentrator option
	Access Concentrator :
۲	Obtain an IP address automatically
0	Use the following IP address:
	WAN IP Address:
	Enable NAT
	Add Default Route
	Next > Cancel

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Field	Description
Enable/Disable the	Enable or disable the access concentrator.
Access Concentrator	
option	
Access Concentrator	 If select Enable, in the PPPoE Discovery stage, the modem makes a choice according to the AC-Name value after receiving many PADO packets. If select Disable, in the PPPoE Discovery stage, the modem makes a choice according other service (such as the service that PADO provides), then it sends PADR packets to each BRAS.
Obtain an IP Address automatically	Through PPP dial-up to obtain an IP address assigned by up-link equipment, such as BRAS.
Use the following IP address	If you want to manually enter the WAN IP address, select it and enter the IP address provided by your ISP.
Enable NAT	Select it to enable network address translation (NAT) function of the modem. If you do not enable NAT and want to the modem to access the Internet normally, you must add a route on the uplink equipment. Otherwise, the access to the Internet fails. Normally, it is required to enable NAT.
Add Default Route	Add a default route in the routing table. Normally, it must be selected. Otherwise, you have to add a default route manually.

Step 3 Enter the correct broadband user name, password and confirm password. Select a proper PPP connection mode. Then click **Next**.

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Internet Connection Configuration					
Configure Broadband User Name and Password					
To use your Broadband servi password.	ice, please verify your Broadband user name and				
Service Name:					
Broadband User Name:	tw2@9806e.com				
Password:	•••				
Confirm Password:	•••				
Session established by:	⊙ Always On				
	◯ Dial on Demand				
	Consider Lanside Traffic Only				
	Disconnect if no activity for 0 minutes				
	○ Manually Connect				
	Consider Lanside Traffic Only				
	Disconnect if no activity for 0 minutes				
	Next > Cancel				

The following table describes the parameters of this page.

	Field	Description
	Saniaa Nama	Enter the service name provided by the ISP. It
	Service Name	may not fill.
	Proodbond Lloor Nomo	Enter the correct user name provided by your
	Broaubanu Oser Marrie	ISP.
	Decoword	Enter the correct password provided by your
	Password	ISP.
	Confirm Docoword	Confirm the correct password provided by
	Commin Password	your ISP.
		Select a PPP connection mode according to
		your practice.
		• Always On: After the device is powered
	Session established by	on, the system performs PPP dial-up
		automatically. If the device is powered
		off, DSLAM or the up-link equipment is
		abnormal, the PPP connection will not be
		broken.
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Field	Description
	 Dial on Demand: After the device is powered on, the PPP dial-up performs automatically. If the device does not detect the flow of the user continuously within the preset minutes, the device automatically stops the PPP connection. Once the device detects the data flow (for example, accessing the web page), it
	restarts the PPP for dial-up. • Manually Connect: Choose
	Configuration > Internet Connection > Connections. Click Connect in the
	Internet Connection Configuration page to start the PPP connection. If the device does not detect the data-flow of
	the user continuously within the preset minutes, the device automatically releases the PPP connection. The
	difference between manually connect and dial on demand is that you must start a PPP connection manually again if you
	select manually connect. Enter the waiting time in the field.

Step 4 Click **Next** and the following page appears. In this page, you can confirm the modification.

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below match the settings provided by your ICD			
below match the settings provided by your 13P.			
tion:			
) / 32			
JBR With PCR O cell/s			
PPPoE for IPv6 LLC/SNAP, Always On			
Dn			
WAN IP Address Automatically Assigned			
Dn			

Sample 5: RFC2684 (IPv4)

Step 1 Select RFC2684 (IPv4) protocol. Set to LLC/SNAP encapsulation type and Bridged encapsulation mode. Then click Next.

Configure Connection	Туре			
Select the protocol and instructed you to use.	encapsulation type with the ATM PVC that your ISP has			
Protocol:	○PPP over ATM (PPPoA)			
	○PPP over ATM for IPv6 (PPPoA IPv6)			
	○PPP over Ethernet (PPPoE)			
	○PPP over Ethernet for IPv6 (PPPoE IPv6)			
	● RFC2684 (IPv4)			
	○RFC2684 (IPv6)			
	O Bridging			
Encapsulation Type:	LLC/SNAP			
Encapsulation Mode:	Bridged 🐱			

Step 2 In this example, select Obtain an IP address automatically, Enable NAT, and Add Default Route.

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Internet Connection Configuration				
Config	igure WAN IP Settings			
Enter	r information provided by your ISP to co	nfigure the	WAN IP set	ttings.
۲	Obtain an IP address automatically			
\circ) Use the following IP address:			
	WAN IP Address:			
	WAN Subnet Mask:			
	Default Gateway:			
] Enable NAT			
] Add Default Route			
			Next >	Cancel

The following table describes the parameters of this page.

Field	Description
Obtain an IP address automatically	Through PPP dial-up to obtain an IP address assigned by up-link equipment, such as BRAS.
Use the following IP address	If you want to manually enter the WAN IP address, select it and enter the IP address provided by your ISP.
Enable NAT	Select it to enable network address translation (NAT) function of the modem. If you do not enable NAT and want to the modem to access the Internet normally, you must add a route on the uplink equipment. Otherwise, the access to the Internet fails. Normally, it is required to enable NAT.
Add Default Route	Add a default route in the routing table. Normally, it must be selected. Otherwise, you have to add a default route manually.

Step 3 Click **Next** and the following page appears. In this page, you can confirm the modification.

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ummary	
Nake sure that the sett	ings below match the settings provided by your ISP.
Internet(WAN) Config	juration:
VPI / VCI	0 / 32
Service Category	UBR With PCR O cell/s
Connection Type	rfc2684 IPv4(bridged) LLC/SNAP,
NAT	On
WAN IP Address	Automatically Assigned
Default Route	On

Sample 6: RFC2684 (IPv6)

Step 1 Select RFC2684 (IPv6) protocol. Set to LLC/SNAP encapsulation type and Bridged encapsulation mode. Then click Next.

ation type with the ATM PVC that your ISP has over ATM (PPPoA) over ATM for IPv6 (PPPoA IPv6) over Ethernet (PPPoE) over Ethernet for IPv6 (PPPoE IPv6)
over ATM (PPPoA) over ATM for IPv6 (PPPoA IPv6) over Ethernet (PPPoE) over Ethernet for IPv6 (PPPoE IPv6)
over ATM for IPv6 (PPPoA IPv6) over Ethernet (PPPoE) over Ethernet for IPv6 (PPPoE IPv6)
over Ethernet (PPPoE) over Ethernet for IPv6 (PPPoE IPv6)
over Ethernet for IPv6 (PPPoE IPv6)
· · · · · · · · · · · · · · · · · · ·
2684 (IPv4)
2684 (IPv6)
ging
IAP 🗸
ed 🗸

Step 2 In this example, select Obtain an IPv6 address automatically and Add Default Route.

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nternet Connection Configuration				
Configure Rfc2684 IPv6 Configurations				
Enter settin	information provided by yongs.	our ISP to configure the Rfc2684 (D	HCPv6 Client)	
۲	 Obtain an IPv6 address automatically 			
\bigcirc	O Use the following IPv6 address:			
	IPv6 Address:			
	Default Gateway:			
	Add Default Route			
By Ena server hosts a advert non te	abling DHCPv6 the modem can and delegate the same on the can configure their IP address ised prefixes. The modem can mporary IPv6 addresses for it:	acquire prefixes from DHCP : LAN side interface. LAN side automatically from these also acquire temporary and WAN connection by DHCPv6 Next >	Cancel	

The following table describes the parameters of this page.

Field	Description
Obtain an IPv6 address automatically	Through PPP dial-up to obtain an IPv6 address assigned by up-link equipment, such as BRAS.
Use the following IPv6 address	If you want to manually enter the WAN IPv6 address, select it and enter the IPv6 address provided by your ISP.
Add Default Route	Add a default route in the routing table. Normally, it must be selected. Otherwise, you have to add a default route manually.

Step 3 Click **Next** and the following page appears. In this page, you can confirm the modification.

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Internet Connection Configuration			
Summary			
Make sure that the setti	ngs below match the settings provided by your ISP.		
Internet(WAN) Config	uration:		
VPI / VCI	0 / 32		
Service Category	UBR With PCR 0 cell/s		
Connection Type	rfc2684 IPv6(bridged) LLC/SNAP,		
<i>.</i>			
WAN IP Address	Automatically Assigned		

Sample 7: Bridging

Step 1 Select Bridging protocol. Set to LLC/SNAP encapsulation type and Bridged encapsulation mode. Then click Next.

Configure Connection	Туре
Select the protocol and instructed you to use.	encapsulation type with the ATM PVC that your ISP has
Protocol:	○ PPP over ATM (PPPoA)
	○ PPP over ATM for IPv6 (PPPoA IPv6)
	○PPP over Ethernet (PPPoE)
	○PPP over Ethernet for IPv6 (PPPoE IPv6)
	ORFC2684 (IPv4)
	ORFC2684 (IPv6)
	● Bridging
Encapsulation Type:	LLC/SNAP 🗸
Encapsulation Mode:	Bridged 🗸

Step 2 In this example, select Obtain an IP address automatically, Enable NAT, and Add Default Route.

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ntern	nternet Connection Configuration				
Config	Configure WAN IP Settings				
Enter	information provided by your ISP to c	onfigure the WAN IP settings.			
۲	None				
	Obtain an IP address automatically				
	Use the following IP address:				
	WAN IP Address:				
	WAN Subnet Mask:				
۲	Obtain DNS server address automatic	cally			
	Use the following DNS server address	::			
	Primary DNS server:				
	Secondary DNS server:				
		Next > Cancel			

The following table describes the parameters of this page.

Field	Description
Obtain an IP Address automatically	Through PPP dial-up to obtain an IP address assigned by up-link equipment, such as BRAS.
Use the following IP address	If you want to manually enter the WAN IP address, select it and enter the IP address and subnet mask provided by your ISP.
Obtain DNS server address automatically	Select it to obtain DNS server address.
Use the following DNS server address	If you want to manually enter the DNS server address, select it and enter the primary DNS server and secondary DNS server.

Step 3 Click **Next** and the following page appears. In this page, you can confirm the modification.

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nternet Connection Configuration		
Summary		
Make sure that the settings	below match the settings provided by your ISP.	
Internet(WAN) Configural	tion:	
VPI / VCI	0 / 32	
Service Category	UBR With PCR 0 cell/s	
Connection Type	Bridging LLC/SNAP,	
NAT	Off	
NAT		
WAN IP Address	None	

 Click "Cancel" to discard these settings. Click "Apply" to make
 Apply
 Cancel

 Step 4
 Check the configuration according to the requirements. When you ensure that the configuration is correct, click Apply. The following page appears.

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Internet Connection Configuration Connections | ADSL | MAC Spoofing

Internet Connection Configuration

Click Add to add Internet connection. Click Delete or Edit link to delete/edit an existing Internet connection.

PVC Name	VPI/VCI	Category	Protocol	NAT	WAN IP Address	Edit	Delete	
bridge_0_35	0/35	UBR	RFC2684- Bridged LlcBridged	Off	-	۹.	Û	
bridge_8_35	8/35	UBR	RFC2684- Bridged LlcBridged	Off	-	۹.	Û	
bridge_8_81	8/81	UBR	RFC2684- Bridged LlcBridged	Off	-	۹.	0	
bridge_0_100	0/100	UBR	RFC2684- Bridged LlcBridged	Off	-	\	0	
PppoeUp <u>Connect</u> ≫	0/135	UBR	PPPoE LlcBridged	On	Not Assigned	۹.	Û	
R_0_32	0/32	UBR	RFC2684- Bridged LlcBridged	Off	-	۹.	Î	
				select all				
					< bba	ר ר	Del	ete

3.4.2.2 ADSL

Click **ADSL** in the **Internet Connection Configuration** page and the following page appears. In this page, you can modify ADSL parameters.

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nternet Conne	ction Configuration
Connections ADS	L i MAC Spoofing
ADSL Supported 4	Annexes
This page lists vari by selecting check	ous ADSL supported capabilities.Capabilities can be configured boxes.
Common Setting	s
Basic Attributes	
Annex Specific Settings	
Capability	
🗹 AnnexA	AnnexA Attributes
✓ T1413A	
✓ A2Plus	BisA Attributes
✓ A2	
M2Plus	BisM Attributes
✓ M2	
	Apply Start Defaults

Click **Basic Attributes** and the following page appears. It lists all specific ADSL attributes. In this page, you can configure the settings.

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User Manual for T2-B-Gawv1.4U10Y.BI Configure ADSL Port

This page lists all Annex specific ADSL attributes. For basic list it displays which are common to all annexes. These attributes can be configured by selecting values and applying submit button

Action	Startup 💌
ActivateLine	None 🗸
HostControl	Enable 🗸
AutoStart	true 🗸
ShowtimeLed	3 🗸
Retrain	EnableOverallOnly 🗸
Defaults	None 🗸
ReadMemory	
WriteMemory	
DSPTrace	StopLogging 🗸 🗸
LoopbackTest	DAC/ADC Lpbk MTS 🗸
Whip	Disable 🗸
WhipMode	Standalone 🐱
DyingGasp	Enable 🗸
JtopiaInterface	Level1 🗸
PhysicalPort	0
ClockType	Crystal 🗸
GenericTrace	DSP 🗸
DSPTraceType	DSP Message Trace 🗸
debug	disable 🗸
MaxRSMemory	32 🗸
Profile	MAIN 🗸
DetectNoise	Disable 🗸
resetDefaults	false 🗸

Defaults: There are five options. Choose one line mode you need. The default setting checks the most modulation modes. The modem negotiates the modulation mode with the DSLAM.

The following table descr	cribes the ADSL data rate standards.	
Data rate standard	Uplink	Downlink
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Data rate standard	Uplink	Downlink
ADSL	1 Mbps	8 Mbps
ADSL2	1 Mbps	12 Mbps
ADSL2+	1 Mbps	24 Mbps

BisA Standard contains Bis/BisPlusAuto/BisPlusOnly/READSL2, AnnexA Standard contains G.dmt/T1.413/G.lite. The difference between Annex M and Annex A is that the uplink of Annex M can reach 2 Mbps, and Annex A can only reach 1 Mbps. If you want to take the settings effect immediately, you should select **Start** in **ActiveteLine** field.

3.4.2.3 MAC Spoofing

MAC spoofing does not support bridge PVC.

Step 1 Click MAC Spoofing in the Internet Connection Configuration page and the following page appears. Select Enabled (By default, MAC Spoofing is disabled) and click Next.

Internet Connection Configuration Connections ADSL MAC Spoofing	
MAC spoofing lets MyDslModem identify itself as another computer or device. You may need to use this depending on your Internet Service Provider.	
Select whether you need MAC spoofing enabled from the options below:	
O Disabled - MAC Spoofing is not used	
Enabled - MAC Spoofing will be used with a MAC address you provide	
Next Cancel	
Step 2 Enter the MAC address and click Next.	
Internet Connection Configuration MAC Spoofing Setup	
You must provide a valid MAC address for MyDslModem to spoof.	
MAC Address: 00 : 18 : 77 : 03 : 16 : 28	
Next > Cancel	
Sten 3 Check the configuration of you ensure that your con	ofigur

Step 3 Check the configuration. If you ensure that your configuration is correct, click Confirm.

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Internet Connection Configuration MAC Spoofing Confirm
To confirm these settings, click on the Confirm button below. If you do not wish to apply these settings, click on the Cancel button.
MAC Spoofing will be enabled . The spoof MAC Address will be 00:1B:77:03:16:2B
Confirm Cancel

3.4.3 Local Network (LAN)

In this page, you can configure the local network.

3.4.3.1 **IPv4 Address**

Choose Configuration	> Local Network (LAN) and the follow	ving page appears. In
this page, you can set	he IP address and subnet mask of LAI	۷.
Local Network Configura IPv4 Address IPv6 Address D	ition <u>NS Client</u> <u>DNS Relay</u> <u>DNS LAN Host</u>	
LAN side IP Address Setting	;	
Primary IP Address		
Enter here the IP address of your F your network.	outer. This is the address visible from the computers on	
IP Address:	192. 168. 1. 1	
Subnet Mask:	255. 255. 255. 0	
Host Name:	MyDslModem	
Domain Name:	local.lan	
Virtual IP Address		
✓ Configure Virtual IP address	and subnet mask	
IP Address:	10. 18. 102. 56	
Subnet Mask:	255. 255. 0. 0	
MTU	1500 (default: 1500)	
New settings only take effect after y your PC's IP address to match new	rour Router is rebooted. If necessary, reconfigure Apply settings.	

The following table describes the parameters of this page.

	Field	Description	
	Primary IP Address		
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Field	Description	
ID Addroop	The management IP address of the LAN on	
IF Address	the modem. By default, it is 192.168.1.1.	
Subnet Mask	The subnet mask of the IP address. By	
	default, it is 255.255.255.0.	
Virtual IP Address	Select it, you can access the Internet through	
	the virtual IP address. By default, it is not	
	selected. After you select it, you are required	
	to enter IP Address and Subnet Mask.	
	The maximum transmission unit. By default, it	
WITO	is 1500.	

Enter the required parameters and click Apply to take it effect.

3.4.3.2 IPv6 Address

Click **IPv6 Address** in the **Local Network Configuration** page and the following page appears. In this page, enter the unicast IPv6 address of the LAN side, which should not begin with fe8.

Local Network Configura	ocal Network Configuration v4 Address IPv6 Address DNS Client DNS Relay DNS LAN Host	
IPv6 LAN side configuration		
Enable IPv6 Router	۲	
Disable IPv6 Router	0	
IPv6 Address		
Enter here the Unicast IPv6 address	of your Lan Side interface.	
IPv6 Address:		
Enabling IPv6 Router will result in er interface. The modern will send solic process received router advertiseme messages to LAN side hosts so that i neinbhor discoverce protocol on the L	habling the modern to act as a router on the LAN ited/unsolicited router advertisements and also ents on the LAN interface. It will send redirect routing is optimal on LAN side. It will also enable AN interface	Apply

3.4.3.3 DNS Client

Click **DNS Client** in the **Local Network Configuration** page and the following page appears. A DNS server is any PC registered to join the DNS. A DNS server

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runs special-purpose networking software, features a public IP address, and contains a database of network names and addresses for other Internet hosts.

Local Network Configuration IPv4 Address IPv6 Address DNS Client DNS Relay DNS LAN Host		
Click Add to add new DNS Server. Click Delete to delete an existing DNS Server.		
IP Address		Delete
IP Address :		Add

3.4.3.4 DNS Relay

Click **DNS Relay** in the **Local Network Configuration** page and the following page appears. The DNS relay responds to DNS requests from the LAN side. Usually it transmits DNS requests to other DNS servers to parse, the addresses of the DNS servers are obtained through the DHCP client.

Local Network Configuration		
Click Add to add new DNS Rel Click Delete to delete an exist	lay Server. ting DNS Relay Server.	<u>Davridse</u>
IP Address		Delete
172.24.10.10		Ŵ
172.24.11.10		Û
	Delete All	Ŵ
● IPv4 Address	○ IPv6 Address	_
IP Address :	Ac	Id



Dial-up under bridge mode, the DNS setting is inefficient. When the DNS sends the request, the DNS client parses them by itself. If the parse is failed, it is delivered to a superior DNS server. DNS client can record some domain

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information to the buffer. DNS relay does not parse them, and all the requests are transferred to a superior DNS server.

3.4.3.5 DNS LAN Host

When you enter a domain name into a browser, the PC must send a request to a DNS server to obtain the corresponding IP address immediately. The DNS server attempts to look up the domain name in its local host database immediately.

Click **DNS LAN Host** in the **Local Network Configuration** page and the following page appears.

DNS Table IPv4 Address i IPv6 Refresh	Address DNS Client DNS	<u>6 Relay</u> I DNS LAN H	ost
Host name	IP address	Creator	Delete
	Create a New	DNS hostname entry	manually

Click Create a New DNS hostname entry manually and the following page appears.

Local Network Conf IP Address DNS Client D	iguration <u>NS Relay</u> I DNS LAN Host	
DNS Table Enter Host Name and IP A create entry into DNS tab	ddress and click "Apply" button le	to
Host Name		
IP Address		Apply

The following table describes the parameters of this page.

Field	Description
Host Name	Enter the domain name.
IP Address	Enter the valid IP address of LAN host.

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Click **Apply** to add the host name and IP address as DNS server. Then other hosts can access the PC through the domain name.

3.4.4 Voice Configuration

Voice over Internet Protocol (VoIP) is a technology that allows you to make voice calls using a broadband Internet connection instead of a regular phone line.

3.4.4.1 System Settings

Choose **Voice Configuration** > **System Settings** and the following page appears. In this page, you can view and modify the settings of system wide voice.

Voice Configuration	
System Settings SIP End Points Dialing Plan	
System Settings Status: Your VoIP service is enabled not	v. You can make VoIP phone calls.
[Go To Advanced view]	
VoIP Functionality	Enable (SIP) 🗸
IP Interface Name	pppoe_0_35 🗸
Region	INDIA
Cid Type	FSK 🗸
DTMF Mode	Inband 🗸
[Go To Advanced view]	Apply

Cid Type: Calling identity delivery (CID) supports field services kit (FSK), dual-tone multi-frequency (DTMF).

Select **Enable (SIP)** from the **VoIP Functionality** drop-down list, select the IP interface name and correct region.

Click **Go To Advanced view** and the following page appears. In this page, you can configure more settings of the VoIP parameter.

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Voice Configuration System Settings <u>SIP</u> <u>End Points</u> <u>Dialing Plan</u>	
System Settings Status: Your VoIP service is enabled now	. You can make VoIP phone calls.
[Go To Basic view]	
VoIP Functionality	Enable (SIP) 🗸
IP Interface Name	pppoe_0_35 🖌
Region	INDIA 🗸
Cid Type	FSK 🗸
DTMF Mode	Inband 🗸
RFC 2833 Payload Type	101
RTP DSCP	000000
SIG DSCP	000000
Active Channels	1
Local TCP Port	5060
Local UDD Port	5060

3.4.4.2 SIP

Click **SIP** in the **VoIP Configuration** page and the following page appears. In this page, you can view and modify the related settings of the SIP protocol.

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User Manual for T2-B-Gawv1.4U10Y.BI	
Voice Configuration	
System Settings SIP End Points Dialing Plan	
SIP Settings	
Enter values for SIP Parameters and press App	ly button to save SIP settings
[Go To Advanced view]	
Proxy	
Proxy Port	5060
Proxy Transport Type	UDP 🗸
Proxy Routing	⊙Loose ○Strict
Registrar	
Registrar Port	5060
Registrar Transport	UDP 🗸
Outbound Server	
Outbound Server Port	5060
Outbound Server Transport	UDP 🗸
User Domain	
Registration Expiration Time	3600
Silence Suppression	🔿 Enable 💿 Disable
Echo Cancellation	💿 Enable 🔘 Disable
Packetization Period	20
[Go To Advanced view]	Apply

Enter the proxy and the registrar in the corresponding fields. The proxy can be the IP address of the SIP server. Generally, the registrar is as same as proxy. Click **Go To Advanced view** and the following page appears. It provides more parameters for you to modify.

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iystem Settings SIP End Points Dialing Plan	
SIP Settings	
Enter values for SIP Parameters and	press Apply button to save SIP setting
[Go To Basic view]	
Proxy	
Proxy Port	5060
Proxy Transport Type	UDP 🗸
Proxy Routing	⊙Loose ○Strict
Registrar	
Registrar Port	5060
Registrar Transport	UDP 🗸
Outbound Server	
Outbound Server Port	5060
Outbound Server Transport	UDP 🗸
Message Summary	Disable 🗸
Subsription Server	none
Subsription Port	5060
Subscrition Transport	UDP 🗸
Subsription Duration	3600
Jser Domain	
Registration Expiration Time	3600
T.38 Fax Relay	disable 🗸
T.38 Fax Max Bit Rate	14400 🗸
Silence Suppression	🔿 Enable 💿 Disable
Echo Cancellation	💿 Enable 🔘 Disable
Packetization Period	20

3.4.4.3 End Points

Click **End Points** in the **VoIP Configuration** page and the following page appears. In this page, you can view and modify end point settings, such as the login name, password. You can also view the registration status.

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Voice Config System Settings	juration	Points <u>Diali</u> i	ng Plan			
End Points Set	tings					
[Go To Advance	d view]					
End Point Name	Login Name	Display Name	Mode	Registration Status	Detail	Edit
1			None	Unknown	0	۹.
[Go To Advance	d view]					

Click **Go To Advanced view** and the following page appears. It provides more parameters for you to modify.

/oice	Config	gurati <u>SIP</u>	on End Poir	its <u>Dialing Plan</u>								
End Po	ints Se	ttings										
(Go To	<u>Basic vi</u>	ew]										
Index	End Point Name	Login Name	Display Name	Available Codecs	Admin Status	Mode	Registration Status	Detail	Edit	Speed Dials	Users	Call
.1	1			PCMU,PCMA,G726-	inservice	None	Unknown	0	1	0	0	0

It provides valid time for forward calling, and it supports three way conferences. Take the basic settings for example. Click A and the following page appears. Enter **End Point Name** (such as 755222666, which is the called number) and other parameters. Then boot the system to take the settings effect immediately. The registration status display **Registered** if it is registered in the SIP server successfully.

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System Settings SIP End Po	ints Dialing Plan	
End Points Settings		
[Go To Advanced view]		
End Point Name	755222666	
Login Name	test	
Password	••••	
Display Name	test	
Admin State	inservice 🗸	
Admin State		

You can dial up the numbers by a call terminal, such as X-Lite or telephone. The number should have been registered in the SIP server to guarantee the conversation goes well.

3.4.4.4 Dialing Plan

Click **Dialing Plan** and the following page appears. In this page, you can view and modify digit map.

Voice Config System Settings	uration SIP End Points Dialing Plan	
Dial Plan Settin	gs	
Digit Map	(x. T ##S * [268] xS *74x. #S x#S *90x. #S *2x	
		Apply

Digit map allows you to set the various dialing codes that are used to make VoIP calls. You can activate or deactivate certain services. It is recommended not to modify the default digit map, if you want to make VoIP call.

3.4.4.5 VoIP Configuration Example

The following describes the example of the voice configuration:

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 Step 1
 Choose Configuration > Voice Configuration. Select a PVC from the IP Interface Name drop-down list, such as iplan. Then select the region.

Voice Configuration System Settings <u>SIP</u> End Points D	ialing Plan
System Settings	
Status: Your VoIP service is enabled	now. You can make VoIP phone calls.
[Go To Advanced view]	
VoIP Functionality	Enable (SIP) 🗸
IP Interface Name	iplan 🗸
Region	CHINA
Cid Type	FSK 🗸
DTMF Mode	Inband 🗸
[Go To Advanced view]	Apply

Step 2 Click **Apply** and the following page appears. Enter the proxy and registrar that are the IP address of the SIP server.

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Jser Manual for T2-B-Gawv1.4U	10Y.BI
Voice Configuration	
System Settings SIP End Points Dia	aling Plan
SIP Settings	
Enter values for SIP Parameters and r	press Apply button to save SIP settings
[Go To Advanced view]	
	172 24 107 4
Proxy	F060
Proxy Transport Type	ODP 🗸
Proxy Routing	O Loose ○ Strict
Registrar	172.24.107.4
Registrar Port	5060
Registrar Transport	UDP 🐱
Outbound Server	
Outbound Server Port	5060
Outbound Server Transport	UDP 💌
User Domain	
Registration Expiration Time	3600
Silence Suppression	O Enable 💿 Disable
Echo Cancellation	📀 Enable 🔘 Disable
Packetization Period	20
[Go To Advanced view]	Appl
1 se renter encod nom	

- Step 3 Click Apply to take the settings effect.
- Step 4 Click End Points in the Voice Configuration page and the following page appears.

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Jser Manual for T2-B-Gawv	1.4U10Y.BI					
Voice Configuration System Settings SIP End Points Dialing Plan						
End Points Settings						
[Go To Advanced view]						
End Point Name	99900888					
Login Name	99900888					
Password	•••••					
Display Name	99900888					
Admin State	inservice 🗸					
Registration Status	Unknown					
[Go To Advanced view]		Apply Cancel				

The following table describes the parameters of this page.

Field	Description
End Point Name	The call-up number.
	The authentication name for registering VoIP
Login Name	call.
Deserverd	The authentication password for registering
Password	VoIP call.
A desire Otata	The service state. Usually, you should choose
Admin State	inservice.

After finishing the settings, reboot the modem to take the settings effective. If the login number is registered successfully, you can view the status.

Voice Configur	ration IP End Points	I <u>Dialing Plan</u>				
End Points Settings						
[Go To Advanced vi	<u>ewl</u>					
End Point Name 99900888	Login Name 99900888	Display Name 99900888	Mode None	Registration Status Registered	Detail O	Edit
[Go To Advanced vi	ew]					

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Now, you can make a VoIP call with another effective number that is registered on the SIP server.

3.4.5 DHCP Server

As a DHCP server, the modem maintains a pool of IP address and distributes it to LAN hosts.

3.4.5.1 Global Settings

Choose **Configuration** > **DHCP Server** and the following page appears. In this page, you can set the status of the DHCP server.

DHCP Server Configurati	on
Global Settings <u>Server Setting</u>	s <u>Advanced Settings</u>
DHCP Server Configuration	
This page allows you enable an interfaces that DHCP Server wil	d disable the DHCP server. Also you can specify the I operate on.
DHCP server status	
DHCP server is currently	⊙ Enable ○ Disable
	(Apply)
Use this section to edit the list of IP server status must be disabled for a DHCP server interface.	interfaces that the DHCP server will operate on. DHCP dding new DHCP server interface or deleting existing
Name	Delete
IP interface iplan 🗸 🛛 Add	

The following table describes the parameters of this page.

Field	Description
	Select it to enable DHCP server function.
	When the PC connected to the modem is set
DHCD conver is ourrently	to obtain the IP address automatically, the
DHCP server is currently	modem takes a valid IP address from the IP
	address pool and assigns it to the PC. By
	default, DHCP server is enabled.
	It is used to edit the list of IP address that the
DHCP server interfaces	DHCP server operates on. DHCP server

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Field	Description
	status must be disabled for adding a new
	DHCP server or deleting an existing DHCP
	server.

3.4.5.2 Server Settings

Click **Server Settings** and the following page appears. In this page, you can modify the DHCP server settings.

DHCP Serv Global Setting	v <mark>er Configur</mark> <u>s</u> ∣Server Setti	ation ngs <u>Advance</u>	d Settings		
DHCP Serve	er Configuration	ı			
This page all IP/MAC map;	ows creation of pings.	DHCP server s	ubnets and DHCF	server fixed I	nost
Existing DH	ICP server subr	nets			
Subnet Value	Subnet Mask	Use local host address as DNS server	Use local host address as default gateway	Assign Auto Domain Name	Delete
192.168.1.0	255.255.255.0	true	true	true 🔪	Ô
				Add	Subnet
Existing DH	ICP fixed IP/MA	AC mappings			ē
IP Address	Mac Address	Max Lease	Time Default	Lease Time	elete Edit
				Add Fixed	i Host

Click **Add Fixed Host** and the following page appears. In this page, you can set host IP and MAC mapping.

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Jser Manual for T2-B-	Jser Manual for T2-B-Gawv1.4U10Y.BI							
DHCP Server Configue	uration ttings <u>Advanced S</u>	<u>Settings</u>						
DHCP server fixed host 1	DHCP server fixed host IP/MAC mapping							
best with the MAC address address already present in there is a suitable subnet should be expressed as 6 I 00:20:2b:01:02:03	pring here. The P as s you specify. The a dynamic address defined for the IP a hexadecimal pairs s parameters	Iddress you choose win be given to the IP address must not clash with an IP range. You should also ensure that iddress to reside in. The MAC address eperated by colons, e.g.						
IP address								
MAC address								
Maximum lease time	86400	Seconds						
Default lease time	43200	Seconds						
		Apply Cancel						

The following table describes the parameters of this page.

Field	Description
	It is the maximum value to which the default
Movimum loopo timo	lease time can be set. The unit value is set in
Maximum lease time	second. By default, it is 86400 seconds (24
	hour).
	It is the time that the DHCP server leases IP
	address to the DHCP client. After the preset
Default lease time	time, the lease IP address is released. The
	unit value is set in second. By default, it is
	43200 seconds (12 hour).

3.4.5.3 Advanced Settings

Click **Advanced Settings** and the following page appears. In this page, you can configure the advanced DHCP server classes and subnet-pools.

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	ver Configura	tion	51		
lobal Setting	s Server Settings	Advanced S	ettings		
Advanced D	HCP Server Cor	figuration			
This nage all	ows you to confir	ure advanced l	DHCP server classe	es and sub	net-noo
rino pago an	ono you to comi	are davanced i		55 4.14 545	not poe
DHCP Class	ies				
Use this sectio	in to edit DHCP Clas	ses.			
Class Name	Class Type	Class Data	Edit	Dele	te
					Ad
Subnet Poo	ls				
Use this sectio	on to Add/Edit Subne	t Pools.			
Subnet	AllowClasses [)enyclasses P	oolRanges	Edit	Delete
192.168.1.0		:	192.168.1.2-	\	Û
			192.100.1.17		Delete All 🕅
					0.4
					Au
Shared-Net	works				Au
Shared-Net	works n to Add/Edit Shared	i Networks.			Au
Shared-Net Use this section Shared	works n to Add/Edit Shared	l Networks.			
Shared-Net Use this section Shared - Network Name	works n to Add/Edit Shared Subnet Valu	l Networks.	Edit	Delete	e
Shared-Net Use this section Shared - Network Name	works n to Add/Edit Shared Subnet Valu	l Networks. IB/Mask	Edit	Deleta	8

Click Add in the DHCP Classes page and the following page appears.

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HCP Server Configuration lobal Settings Server Settings Advanced Settings					
Add DHCP server class.					
This page allows you	to add/edit a DHCP server class.				
Class Name:	test				
	Hann Data Class				
Class Type:	USEI Data Class				

Enter the class name and class data, and select class type. Click Add to show the following page.

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ilobal Settin	gs Server Settings	Advanced	Settings		
Advanced	DHCP Server Con	figuration			
This page a	llows you to config	jure advanced	DHCP server clas	ses and sul	bnet-poo
DHCP Clas	ses				
Use this secti	ion to edit DHCP Clas	ses.			
Class Name	Class Type	Class Data	Edit	Delete	B
test	user-class		<u>\.</u> .	Û	
				Delete Al	ı 🛍
					A
Subnet Po	ols				A
Subnet Po	ols ion to Add/Edit Subne	t Pools.			Â
Subnet Po Use this sect Subnet	ols ion to Add/Edit Subne AllowClasses [t Pools. Denyclasses I	PoolRanges	Edit	<u>A</u> d
Subnet Po Use this sect Subnet 192.168.1.	ols ion to Add/Edit Subne AllowClasses [0	t Pools. Denyclasses I	PoolRanges	Edit	Ac Delete
Subnet Po Use this sect Subnet 192.168.1.4	ols ion to Add/Edit Subne AllowClasses [0	t Pools. Denyclasses 1	PoolRanges 192.168.1.2- 192.168.1.17	Edit	Ar Delete
Subnet Po Use this sect Subnet 192.168.1.	ols ion to Add/Edit Subne AllowClasses [0	t Pools. Denyclasses I	PoolRanges 192.168.1.2- 192.168.1.17	Edit	Delete All
Subnet Po Use this sect Subnet 192.168.1,1	ols ion to Add/Edit Subne AllowClasses [0	t Pools. Denyclasses I	PoolRanges 192.168.1.2- 192.168.1.17	Edit	Delete Delete All
Subnet Po Use this sect Subnet 192.168.1.1	ols ion to Add/Edit Subne AllowClasses (0	t Pools. Denyclasses I	PoolRanges 192.168.1.2- 192.168.1.17	Edit	Delete All Delete
Subnet Po Use this sect Subnet 192.168.1.4	ols ion to Add/Edit Subne AllowClasses [0	t Pools. Denyclasses I	PoolRanges 192.168.1.2- 192.168.1.17	Edit	Delete Delete All
Subnet Po Use this sect Subnet 192.168,1,1 Shared-Ne Use this secti	ols ion to Add/Edit Subne AllowClasses D D tworks on to Add/Edit Shared	t Pools. Denyclasses I	PoolRanges 192.168.1.2- 192.168.1.17	Edit	Delete Delete All Delete
Subnet Po Use this sect Subnet 192.168.1.1 Shared-Ne Use this secti	ols ion to Add/Edit Subne AllowClasses [0 • •tworks on to Add/Edit Shared	t Pools. Denyclasses I	200lRanges 192.168.1.2- 192.168.1.17	Edit	Delete All A

Click Sin the **Subnet Pools** page. You can attach an existent class name, and set its attribute. Click **Apply** and the following page appears. In this page, you can view its status.

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Global Setting	gs <u>Server Settings</u>	Advanced S	ettings		
Advanced	DHCP Server Con	figuration			
This page a	llows you to config	ure advanced	DHCP server clas	ses and su	bnet-po
DHCP Clas	ses				
Use this secti	on to edit DHCP Class	es.			
Class Name	Class Type	Class Data	Edit	Delet	e
test	user-class		<u>\</u>	Û	
				Delete Al	ı
					A
Subnet Po	ols				
Use this secti	ion to Add/Edit Subne	: Pools.			
Subnet	AllowClasses D	enyclasses I	PoolRanges	Edit	Delete
Subnet 192.168.1.(AllowClasses D test	enyclasses I	PoolRanges 192.168.1.2- 192.168.1.17	Edit	Delete
Subnet 192.168.1.(AllowClasses D	enyclasses I	PoolRanges 192.168.1.2- 192.168.1.17	Edit	Delete Delete All
Subnet 192.168.1.(AllowClasses D	enyclasses I	PoolRanges 192.168.1.2- 192.168.1.17	Edit	Delete Delete All
Shared-Ne	AllowClasses D	enyclasses I	200Ranges 192.168.1.2- 192.168.1.17	Edit	Delete All
Subnet 192.168.1.0 Shared-Ne Use this section	AllowClasses D test tworks on to Add/Edit Shared	Networks.	200Ranges 192.168.1.2- 192.168.1.17	Edit	Delete All
Subnet 192.168.1.(Shared-Ne Use this section	AllowClasses D D test tworks on to Add/Edit Shared	Networks.	200Ranges 192.168.1.2- 192.168.1.17	Edit	Delete All
Subnet 192.168.1.(Shared-Ne Use this section Shared	AllowClasses D test tworks on to Add/Edit Shared	Networks.	200Ranges 192.168.1.2- 192.168.1.17	Edit	Delete All

In the Shared-Networks page, you can add or edit the DHCP shared networks.

3.4.6 DHCP Relay

Choose **Configuration** > **DHCP Relay** and the following page appears. In this page, you can modify the DHCP relay settings or add DHCP server adress or interfaces running DHCP relay. DHCP relay is used to send the DHCP client request to other DHCP server across several physical and logical sub-networks. For a DHCP client, the relay acts as a DHCP server, and this operation is

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transparent. It is prohibited to run the DHCP server and the DHCP relay simultaneously. **DHCP Relay Configuration** Relay Settings DHCP Relay Settings ○Enable ⊙Disable DHCP Relay is currently Apply DHCP Server Address Actions Add ___. ____. [Interfaces Running DHCP Relay Actions iplan 🔽 Add

The following table describes the parameters of this page.

Field		Descri	otion				
DHCP Server	The IP address of the DHCP server to WAN						
Interfaces	Running	DHCP	request	sends	out	through	this
DHCP Relay		interfac	e.				

Note:

After entering the effective server address in the DHCP server address in the DHCP Relay Settings page, you must list all interfaces that the DHCP relay needs to bind to, for both sending and receiving packets. For example, it is not enough to only bind to a LAN interface (iplan) to receive the requests from the DHCP clients. It is also necessary to bind a WAN interface.

3.4.7 IPv6 Prefix

Choose **Configuration** > **IPv6 Prefix** and the following page appears. In this page, the prefixes are added to the LAN side interface. Then, the modem advertises these prefixes in router advertisements on the LAN side. LAN side hosts can auto configure them using these prefixes. All prefixes are advertised as on-link and autonomous.

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Current Prefixe	5:		
Prefix	Prefix Length Prefered	Life Time Valid Life Time	e Delete
Add New Prefix:		_	
Add New Prefix: IPv6 Prefix:			
Add New Prefix: IPv6 Prefix: Prefix Length:			
Add New Prefix: IPv6 Prefix: Prefix Length: Pref Life Time:	604800	(In Seconds)	

3.5 Security

Click **Security** to enter security configuration page. On the left page, there are three options: **IP Filtering**, **Port Forwarding**, and **Virtual Server**.

3.5.1 IP Filtering

Choose **Security** > **IP Filtering** and the following page appears. In this page, you can specify the IP packet filtering rules to prevent unsolicited access from the Internet or limit the Internet access from PCs on your network.

BROADBAND											Carace					
Home	IP Filt	er Cor	nfigurati	on												
Overview System Log Troubleshooting	IP Filte	r Settir	ıgs													
Configuration	This pa comput	ge allow ers on y	is you to s your netwo	pecify the	he IP pa	cket	filtering rules	to pre	ivent un	isolicited a	iccess from the Inf	ternet	or limit	the Interne	et access	for
Security		0000100	anter anter	5.40												_
IP Filtering Port Forwarding Virtual Server	IP Filte	ring					O Disab	e			OE	nable			_	
Services																Apply
DSL Home	Port E	Itors														
Port Statistics	Filter	Policy	Protocol	Filter	Sou	irce I	P Range	Sourc	e Port	Destin	ation IP Range	Desti Port	nation Range	Direction	Status	Dete
Admin	Name	Name		Action	Start		End	Start	End	Start	End	Start	End			# 6
	all- out	ext- int	ALL	Allow	0.0.0.0	255.	255.255.255	0	65535	0.0.0.0	255.255.255.255	0	65535	OutBound	Enabled	10
	mcast	ext- int	UDP	Allow	0,0,0,0	255.	255.255.255	0	65535	224.0.0.1	239.255.255.255	0	65535	Both	Enabled	2.0
						_									0	Add

The IP filter feature enables you to create rules that control the forwarding of
incoming and outgoing data between the LAN and WAN side. When you define anTeracom Limited83An ISO Certificed Company

IP filter rule and enable it, you instruct the modem to examine data packets to determine whether they meet the criteria. The criteria can include the network or Internet protocol, the packet carries, the direction in it is traveling.

Add an IP filter rule

The procedure for adding an IP filter rule is as follows:

Step 1	Step 1 Enable IP Filtering and click Add.						
IP Filter Cor IP Filter	IP Filter Configuration IP Filter						
Add New Out	bound IP Filter	ing Rule					
Port Filter Ru	le						
Filter Rule Nar	ne:						
Select policy:			ext-int 🗸				
Select the dire	ection to filter p	ackets:	⊙ Outbound traffic				
			◯ Inbound traffic				
			OBoth				
Protocol:			ALL 🗸				
Filter Action	d.		Allow 🗸				
Source IP R	ange:	Start		End IP/Mask			
Destination	IP Range:	Start		End IP/Mask			
Source Port	Range:	Start		End			
Destination	Port Range:	Start		End			
Status:			📀 Enable		🔘 Disable		
						Apply	

Step 2 Enter the filter rule name and other parameters. Click **Apply**. In this example, enter **aa** in the **Filter Rule Name** field. This rule named aa can forbid any application corresponding to port from 1 to 80.

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Add New Outbound IP Filtering Rule	3				
Port Filter Rule					
Filter Rule Name:	aa				
Select policy:	ext-int 🗸				
Select the direction to filter packets:	 Outbound traffic 				
	◯ Inbound traffic				
	OBoth				
Protocol:	TCP 🗸				
Filter Action:	Allow 🗸				
Source IP Range: Start	0.0.0.0 End IP/Mask 255.255.255				
Destination IP Range: Start	0. 0. 0. 0 End IP/Mask 255. 255. 255. 255				
Source Port Range: Start	1 End 65535				
Destination Port Range: Start	1 End 80				
Status:	Enable Oisable				
	Apply				
Step 3 Click Apply a	and the following page appears.				

Step 3	Click	Apply	and	the	following	page	appears.	In	the	IP	Filter
	Confi	guratio	n page	e, you	ı can view	the res	ult of the IF	P filte	er cor	nfigu	ration.
# BSNI							Augura P				

										Caraci	the TEAM	-			
Home	IP Filt	er Co	nfigurati	on											
verview vitem Log oubleshooting	IP Filte	er Setti	ngs												
Configuration	This pa comput	ge allov ters on	vs you to s your netwo	pecify t rk.	he IP pa	cket filtering rule	s to pre	event ur	nsolicited a	ccess from the In	ternet	or limit	the Interne	et access	for
Security	-	0.000	and the second	50402 											
Filtering int Forwarding tual Server	IP Filte	ring				() Disab	ile			OE	inable				192
Services															Appl
DSL Home	Port F	iters													_
Port Statistics	Filter	Policy	Protocol	Filter	Sou	rce IP Range	Sour	ce Port	Destin	ation IP Range	Desti	ination Range	Direction	Status	
Admin	Name	Name		Action	Start	End	Start	End	Start	End	Start	End			đ
	all- out	ext- int	ALL	Allow	0.0.0.0	255.255.255.255	0	65535	0.0.0.0	255.255.255.255	0	65535	OutBound	Enabled	2
				-		AFF AFF AFF AFF		65535	224.0.0.1	239.255.255.255	0	65535	Both	Enabled	
	mcast	ext- int	UDP	Allow	0.0.0.0	200.200.200.200									-

3.5.2 Port Forwarding

Choose **Security** > **Port Forwarding** and the following page appears. In this page, you can create, modify, and delete port forwarding rules. These rules allow applications or software to work on your PCs if the Internet connection uses NAT.

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Port Fo	rwarding (Configuration			
Port For This pag	warding Sett	i ngs eate, modify and c	lelete port forwa	arding rules. These	e rules
allow app uses NAT	Dications or s	oftware to work or	n your computer	's if the internet o	onnection
Name	Protocol	External Port	Internal IP	Internal Port	Delete Edit
					Add

Click **Add** and the following page appears. The IP packages of the Camerades application of Audio/Video service that come from the WAN Interface ipwan is forwarded to the host with IP address 192.168.1.2. If you select **User defined** with a self-defined name, you can configure the parameters in the page.

Port Forwarding

Add New Port Fo	orwarding R	tule			
Name:					
O Pre-defined:	Audio/Video)	🗸 Camera	des 🗸	
OUser defined:					
WAN Interface :	ipwan 🗸				
Forward to Internal Host IP Address: 192. 168. 1. 2					
By using the rul	es:				
D		External	Packet	Forward to Ir	iternal Host
Protocol/Typ	e Por	t Start	Port End	Port Start	Port End
None 🗸					
None 🗸					
None 🗸					
					Apply

3.5.3 Virtual Server

Choose **Security** > **Virtual Server** and the following page appears. A virtual server is a PC on your local network that can be accessed from the Internet. All interfaces for virtual server is listed.

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Virtual Server Configuration					
DMZ Host					
A DMZ host is a computer on your lo can be accessed from the Internet.	cal network that				
Interface	DMZ Host	Edit			

Take pppoe_0_35 for example. Click to show the **DMZ Host Configuration** page. Enter the host address, such as 192.168.1.2. Click **Apply**. Remote user can access the host 192.168.1.2 by the interface pppoe_0_35. IP filter should be disabled or add relevant rule. Otherwise, the access request can not reach the DMZ host.).

Virtual Server Configuration	
DMZ Host Configuration	
A DMZ host is a computer on your log Internet.	cal network that can be accessed from the
Those IP packets from the interface applications configured in the port for	pppoe_0_35 that do NOT belong to any orwarding table will be:
O Discarded	
 Forwarded to the DMZ host 	
IP address of DMZ host:	192.168.1.2
	Apply

3.6 Services

Click **Services** to enter service configuration page. On the left page, there are five options: **IGMP Proxy**, **IPv4 Routing**, **IPv6 Routing**, **Quality of Service**, and **Mac Filtering**.

3.6.1 IGMP Proxy

Choose **Services** > **IGMP Proxy** and the following page appears. Internet Group Multicast Protocol (IGMP) is used by routers and hosts that support multicasting. All the systems on a physical network identify the multicast grouping of specific hosts through IGMP. The multicast routers learn this information and forward the multicast datagram to the corresponding interfaces. The IGMP proxy holds up the

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request of the terminal. After disposing, the information is transmitted to the super-level router. The system acts as a proxy for its hosts after you enable IGMP

Home	IGMP Proxy Configuration	n
Overview System Log Troubleshooting	Enabling the IGMP proxy functio	n will allow the users on your local network to play
Configuration		
Security	IGMP Snooping Configuration	
Services	IGMP Snooping	O Enable O Disable
IGMP Proxy IPv4 Routing IPv6 Routing Quality of Service	ICMD Drovu Configuration	
Mac Filtering	Internet Connection	ICMD Provy Enabled
DSL Home		-
Port Statistics	thaut in	
Admin		

3.6.2 IPv4 Routing

3.6.2.1 Static Routing

Choose **Services** > **IPv4 Routing** and the following page appears. In this page, you can configure static route and dynamic routing. A default route is used to send IP packages of unknown destination address to the default gateway. The default route defines the IP address where all data is forwarded.

P Routing Configuration Static Routing Dynamic Routing						
IP Static Route	e Settings					
Current route	s:					
Destination	Netmask	Gateway	WAN Interface	Delete		
10.18.102.74	255.255.255.255	0.0.0.0	iplan	0		
				bbA		

The following table describes the parameters of this page.

Field	Description			
Destination	The IP address that packets are sent to.			
Netmask	The subnet mask of the destination IP address.			
Gateway	The gateway that the packets pass by during			

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Field	Description
	transmission.
MAN Interfece	The WAN interface that the packets pass
WAN IIILEHACE	through on the modem.

Click **Add** in the **Static Routing** page. In this page, you can add static routing. You need to provide the destination IP address and netmask. You also need to enter the gateway IP address or the interface through which the packets are forwarded in the corresponding fields. The interface can be iplan, ipwan or you can specify the interface that the modem has.

P Routing Configurati Static Routing Dynamic Rou	on _{uting}
Add New Static Route	
Destination	For default route, type 0.0.0.0 or leave blank
IP Address	10. 18. 102. 74
Netmask	255. 255. 255. 255
Eorward packots to	
Gateway IR address:	
 Interface: 	iplan 💌
	Apply

3.6.2.2 Dynamic Routing

Click **Dynamic Routing** in the **IP Static Route Settings** page. In this page, you can configure the dynamic routing for any existing interface. You can enable or disable operation mode and RIP version for a particular interface.

Dynamic Ro	uting Settings				
u can configu	ure dynamic rout	ing for any existing ir	nterface using	g edit image	e link
e interface.					-
Interface	RIP Version	Operation Mode	Multicast	Enabled	- Edit
Interface	RIP Version	Operation Mode N/A	Multicast False	Enabled	Edit

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Click 🂊 and the following pa	age appears.
IP Routing Configuration Static Routing Dynamic Routing	
IP Dynamic Routing Configuration	
You can enable the function on several desired RIP version and operation mode, RIP.	interfaces of your Router. Select the , then tick the 'Enable' checkbox to enable
Interface Name:	iplan
RIP Version:	1 💌
Operation Mode:	Active 🗸
Multicast Send Type	
Enable:	
	Apply

The following table describes the parameters of this page.

Field	Description
	There are 1, 2, and Both options in the
RIP version	drop-down list.
	You can choose Provide Active, Passive,
	and Send only.
	• Choose Active for transmitting and
Operation Made	receiving RIP interactive information.
Operation wode	• Choose Passive for only receiving
	information.
	• Choose Send Only for transmitting
	information.

Check to enable related interfaces and then click **Apply** to take the settings effect immediately.

3.6.3 IPv6 Routing

Choose **Services** > **IPv6 Routing** and the following page appears. In this page, you can configure static route and dynamic routing.

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tatic IPv	6 Routing	on		
Current	routes:			
Prefix	PrefixLength	Gateway	Interface	Delete
Add IPv(5 Route			
Prefix				
PrefixLen	gth			
Forward	packets to			
🔘 Gatew	ay address:			
A Interf	ace:	iplan	n 🗸	

The following table describes the parameters of this page.

Field	Description		
Prefix	Enter the IPV6 IP address.		
Destint as ath	Enter the length of the prefix. The prefix length is		
PrefixLength	not larger than 128bit.		
	Select the packet route. You can select the packets		
	are forwarded to the gateway or WAN interface.		
Forward poolsate to	• If set to gateway, you need to enter the		
Forward packets to	gateway address.		
	• If set to WAN interface, you need to		
	choose the WAN interface.		

3.6.4 Quality of Service

Choose **Services** > **Quality of Service** and the following page appears. This page shows a summary of the QoS and scheduler settings available on the system.

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Quality of Servi	ce Configuration	
Quality of Service		
This page shows a s system. Click Edit ic	summary of the QoS and Scheduler se on to View or Modify the complete Qo	ttings available on the S rule parameters.
QoS Status:	○ Enabled ⊙ Disabled	
		Арр
0 - 0 P - I-	01-1	8-1-1-
Qos Rule	status Edit	Delete
Scheduler Setting	<u></u>	[
Scheduler Setting Use this section to con traffic.	S figure the Scheduler setings on the system .	applicable to upstream
Scheduler Setting Use this section to con traffic. Scheduler Type:	S figure the Scheduler setings on the system → ○ Priority ○ Wf2qPlus ⊙ None	applicable to upstream
Scheduler Setting Use this section to con traffic. Scheduler Type: Delaybound (bytes):	s figure the Scheduler setings on the system · ○ Priority ○ Wf2qPlus ⊙ None	applicable to upstream
Scheduler Setting Use this section to con traffic. Scheduler Type: Delaybound (bytes): Max Rate (kbps):	s figure the Scheduler setings on the system · ○ Priority ○ Wf2qPlus ⊙ None	applicable to upstream
Scheduler Setting Use this section to con traffic. Scheduler Type: Delaybound (bytes): Max Rate (kbps): Max Burst (bytes):	s figure the Scheduler setings on the system . ○ Priority ○ Wf2qPlus ⊙ None	applicable to upstream

Click **Add** and the following page appears. In this page, you can specify quality of service (QoS) rules to upstream traffic. All of specified conditions in the traffic rule must be satisfied for the rule to take effect.

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Quality of Service Configuration

QoS Rule Configuration

This page allows you to specify Quality of Service (QoS) rules to upstream traffic. All of specified conditions in the traffic rule must be satisfied for the rule to take effect.

Rule Name:		Rule Status:	⊙Enable ○Disable
Matching Criteria			
Physical Port:	🗌 ethernet0 🗌 ethernet1	. 🗌 ethernet	2 🗌 ethernet3
Source Mac Address:		Destination Mac Address:	
802.1p priority:	v ~ v	VLAN ID (1 to 4094):	~
Source IP Address:		Destination	
IPP/ DS Field:	● IPP/TOS	1 110010551	O DSCP
IP Precedence Range:	~ ~ V	DSCP Range (0 to 63):	~
Type of Service:	Normal Service 🗸 🗸		
Protocol:	ANY 🗸		
Source Port:	~	Destination Port:	~
Actions			
Mark 802.1P Priority:	~	Mark VLAN ID (1 to 4094):	
Mark Traffic Priority:	~		
Mark IPP/DS:	● IPP/TOS		O DSCP
Precedence Range:	~	DSCP Range (0 to 63):	

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User Manual for T2-B-Gawv1.4U10Y.BI **3.6.5 Mac Filtering**

May be you want to manage the MAC address to block or permit a PC on the LAN. When you enable MAC filter rules, the modem serves as a firewall that works at layer 2. The following describes the example of the Ethernent transport.

3.6.5.1 Rule

Click Rule in the Mac Filter Configuration page and the following page appears.

Mac Fil	iter Con	figuration Rule				
Rule Se	ttings					
This sec	tion allow:	s you to configure filte	ring rules on the system.			
Rule Name	Status	Source Mac match criteria	Destination Mac match criteria	Action	Edit	Delete
r1	Enabled					
					(Add

Click \clubsuit and the following page appears. In this page, you can configure filtering rules on the system.

Mac Filter Con Transport Profile	Mac Filter Configuration Transport Profile Rule					
Add Rule						
Use this page to a	add or edit a filte	ring rule				
Rule Name:	r2					
Status:	💿 Enable 🔘	Disable				
Action:	drop	~				
Field Enab Field Field	^{le} Operator	Value1	Value2			
Source 🔽 Mac:	GT 🗸					
Destination 🔽 Mac:	GT LT GTEQ LTEQ					
	EQ NEQ INRANGE		Cancel Apply			

The following table describes the parameters of this page.

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Field	Description
GT	Greater than
LT	Less than
GTEQ	Greater than and equal to
LTEO	Less than and equal to
EQ	Equal to
NEQ	Not equal to
INRANGE	Include the range
EXRANGE	Exclude the range

The source MAC value is 00:1E:E3:00:2B:1C, that is the Ethernet physical address. The destination MAC value is 00:1E:E3:00:2D:BC. After finishing the settings of rule status and action, click **Apply** to take it effect.

Mac Fi Transpor	Iter Cor <u>t Profile</u>	figuration Rule				
Rule Se	ettings	vs vou to configure filt	ering rules on the system.			
Rule Name	Status	Source Mac match criteria	Destination Mac match criteria	Action	Edit	Delete
r1	Enabled					
r2	Enabled	GT, 00:1E:E3:00:2B:1C	GT, 00:1E:E3:00:2D:BC	drop	\$	Ô
						Ad

3.6.5.2 Profile

Click **Profile** in the **Mac Filter Configuration** page. In this page, you can create and configure filtering profiles.

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Profile	Rules	Edit	Delete
Profile	Rules	Edit	Delete
This section allows you to create	and configure filtering p	rofiles.	
Profile Settings			
Transport Profile Rule			
Mac Filter Configuration			
Mac Filter Configuration			

Add a profile name as p2, and then click **N** to edit the p2. In this page, you can attach or detach more than one filtering rules to a profile.

Mac Filter Configuration	
Edit Profile	
Use this page to attach and detach filtering	ng rules to a profile
Rule Name	Detach
	(Assession)
	Attach
[Back to profiles]	

3.6.5.3 Transport

Choose **Mac Address** > **Transport** and the following page appears. In this page, you can attach or detach filtering profiles to a transport. You can also enable or disable filtering on a transport.

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Mac Filter Configuration Transport | <u>Profile</u> | <u>Rule</u>

Transport settings

This section allows you to attach/detach filtering profiles to a transport and enable/disable filtering on a transport.

Transport	State	Tx Path Profiles	Rx Path Profiles	Edit
wlan	Enabled		p1,	<u>\</u> .
ethernet0	Enabled		р1,	<u>\</u>
ethernet1	Enabled		p1,	<u>\</u>
ethernet2	Enabled		р1,	<u>\</u>
ethernet3	Enabled		p1,	\
bridge_0_35	Disabled			<u>\</u>
bridge_8_35	Disabled			<u>\</u> .
bridge_8_81	Disabled			%
bridge_0_100	Disabled			<u>\</u>
PppoeUp	Disabled			\$

Before attaching the filtering profile to the specified transport, the profiles and rules should be configured. For example, click \sum of the Ethernet transport. You can configure p1 attach Tx Path for the Ethernet transport, and it matches the corresponding settings of rule1.



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Select L2 Filter Enabled and ping the IP address of the modem as 192.168.1.1 from PC. It is failed, because the tx path attaches to the rule1 and no rx path returns back. If enter the CLI commands: transports detach ethernet I2 filter profile profile1 Rx by serial port to detach the rx path, it succeeds to ping.

Note:

when you configure the MAC filtering for the first time, refer to the following procedure: Firstly, adding the rules. Secondly, attaching them to the profile. Then, attaching the profiles to the specified transport.

3.7 DSL Home

Click **DSL Home** to enter DSL home page. On the left page, there are two options: **Management Server** and **CWM Parameters**.

3.7.1 Management Server

TR069 is a popular network management protocol, and its connecting way is TCP, carrier is HTTP, MIF (information format) is XML, SSL as optional encrypt method. It provides the management of software, firmware by mirrors, status and capability monitor, diagnosis, and Web supervision to the user equipment.

Choose **DSL Home** > **Management Server** and the following page appears. In this page, you can configure the parameters of the management server.

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Home Overview Jystem Log roubleshooting Configuration	DSL Home Management Server Management Server configuration This page allows you to configure ManagementServ	rer's parameter.	
Security	Configure the parameters of Management Ser	ver here.	
Services	URL	: http://bootstrap.acs.	
DSL Home	Username	: multiplay	
lanagement Server	Password	:	
WM Parameters	Periodic Inform	: Enable Disable	
Port Statistics	Periodic Inform Interval	: 14400	
Admin	Periodic Inform Time (yyyy-mm-ddThh:mm:ss)	: 0001-01-01T00:00:00	
	Parameter Key	1	
	Connection Request URL	: //cwm/CRN.html	
	Connection Request Username	: multiplay	
	Connection Request Password	:	
	Upgrades Managed	: false	
	ACS Discovery	: OEnable ODisable	

The following table describes the parameters of this page.

Field	Description
URL	URL for the modem to connect to the ACS using CPE WAN Management Protocol (CWMP). This parameter must be in the form of a valid HTTP or HTTPS URL. HTTPS URL indicates that the ACS supports SSL. The host portion of this URL is used by the modem to validate the certificate from the ACS when using the certificate-based authentication.
Username	Username is used to authenticate the modem when establishing a connection to the ACS using the CWMP. This username is used only for HTTP-based authentication of the modem.
Password	The password is used to authenticate the modem when establishing a connection to the ACS using CWMP. This password is used only for HTTP-based authentication of the modem. When read, this parameter returns an empty string, regardless of the actual value.
Periodic Inform	If you select Enable, the modem must periodically
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Field	Description
	send the modem information to server using the
	inform method call
	The duration in seconds of the interval for which the
Periodic Inform Interval	modem must attempt to connect with the ACS and
	call the inform method if periodic inform is enabled
	An absolute time reference in LITC to determine
	when the modern should initiate the inform method
	calls. Each inform call must occur at this reference
	time plus or minus an integer multiple of the
Periodic Inform Time	periodic inform interval. A zero date time value
	(0000-00-00T00:00:00) indicates that no particular
	time reference is specified. That is, the modern may
	locally choose the time reference, required only to
	adhere to the specified periodic inform interval.
	The value of the parameter key argument from the
Parameter Kev	most recent set parameter values, add object, or
,	delete object method call from the server. If there
	do not have such calls, this value is empty.
Connection Request	HTTP URL for an ACS to make a connection
URL	request notification to the modem.
Connection Request	Username is used to authenticate an ACS. It makes
Username	a connection request to the modem.
	Password is used to authenticate an ACS making a
Connection Request	connection request to the modem. When read, this
Password	parameter returns an empty string, regardless of
	the actual value.
	It indicates whether or not the ACS will manage
	upgrades for the modem. If it is true, the modem
Upgrades Managed	only uses ACS to seek out available upgrades. If it
	is false, the modem may use other means for this
	purpose.
	Whether or not the modem must enable ACS
	discovery from DHCP.

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User Manual for T2-B-Gawv1.4U10Y.BI **3.7.2 CWM Parameters**

Choose **DSL Home** > **CWM Parameters** and the following page appears. In this page, you can modify the customer premise equipment WAN management (CWM) parameters. It displays the CWM parameters received from CWMP application.

CWM Parame	ters	uration			
This page allov	vs you to c	onfigure CWI	MParameters's pa	rameter.	
Configure th	e paramet	ers of CWM	Parameters he	re.	
CRN Auth Typ	be	:	None 🗸		
CWM		:	💿 Enable 🔵 Di	sable	
					Appl
The followin	g are the R	ead-Only P	aramters of CW	/м.	
Bootstrap				:	true
Trigger Set				:	0
Reboot Comm	and Key			:	
Command	Fault	Start	Complete	Tc	Request

3.8 Port Statistics

Click **Port Statistics** to enter port statistics page. On the left page, there are eight options: **Voipfex0**, **Voipcmdstat**, **DSL**, **Ethernet0**, **Ethernet1**, **Ethernet2**, **Ethernet3**, and **Wireless**.

3.8.1 Voipfxs0

This page displays the current status and configuration of the FXS port.

3.8.1.1 Basic

Choose **Port Statistics** > **Voipfxs0** and the following page appears. In this page, you can view the information of the FXS port.

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Home	Port Configuration	
verview	Basic Advanced	
ystem Log	Veletyco Dest Configuration	
roubleshooting	This page allows you to view the values of port paramete	rs.
Configuration		
Security	Generate SID	false
Services	Coder Type Upstream	G711U
DSL Home	Jitter Max Delay	200
Contraction of the Contraction o	Jitter Nominal	40
Port Statistics	Jitter Dynamic	true
oiptxsu oipcmdstat	Dtmf Relay	0
SL	Echo Control	true
themet0 themet1	Packet Rate	20
themet2	Gain Ctrl Up	0
themet3 Scalass	Gain Ctrl Dn	0
Admin	Fxs Seize Time	100
Addini	Fxs Release Time	900
	Fxs Hf Max Time	900
	Exs Hf Min Time	300
	Fxs Min Pulse	20
	Fxs Max Pulse	110
	Fxs Pulse Pause	300
	Reset Defaults	faice

The following table describes the parameters of this page.

Field	Description
Jitter Dynamic	Provide jitter buffer adjustment if it is true.
Reset Defaults	Reset to the default values after rebooting.

3.8.1.2 Advanced

Click Advanced in the Voipfxs0 Port Configuration page and the following page appears. In this page, you can view the information of the FXS port.

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Port Configuration

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Voipfxs0 Port Configuration This page allows you to view the values of port parameters.

Dsp Id	0
Dsp Port Id	0
Dsp Version	
Port Type	fxs
Generate SID	false
Coder Type Upstream	G711U
Jitter Max Delay	200
Jitter Nominal	40
Jitter Dynamic	true
Dtmf Relay	0
Echo Control	true
Use JB	true
Packet Rate	20
Gain Ctrl Up	0
Gain Ctrl Dn	0
Out Of Service	false
Fxs Seize Time	100
Fxs Release Time	900
Exs Hf Max Time	900
Fxs Hf Min Time	300
Fxs Min Pulse	20
Fxs Max Pulse	110
Fxs Pulse Pause	300
Cid Type	з
Ring Type	1
Default Jitter Max Delay	200
Default Jitter Nominal	40
Default Jitter Dynamic	true
Default Generate SID	false
Default Coder Type Upstream	G711U
Default Dtmf Relay	false
Default Use JB	true
Default Echo Control	true
Default Packet Rate	20
Default Gain Ctrl Up	0
Default Gain Ctrl Dn	0
Default Fxs Seize Time	100
Default Fxs Release Time	900
Default Fxs Hf Max Time	900
Default Fxs Hf Min Time	300
Default Fxs Min Pulse	20
Default Fxs Max Pulse	110
Default Fxs Pulse Pause	300
Reset Defaults	false
Port Snmp If Index	0
Port Somo If Type	

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The following table describes the parameters of this page.

Field	Description
Cid Type	Calling identity delivery (CID) type.
Reset Defaults	Reset to the default values after rebooting.

Note:

Some of the attributes displayed in the **Voipfxs0 Port Configuration** page can be set from the CLI. Enter **port voipfxs0 set ?**. The attributes is displayed as the output of this command. Its function depends on the configuration of the DSLAM and the capability of the central office the modem connected to.

3.8.2 Voipcmdstat

This page displays the current status and configuration of the voipcmdstat port.

3.8.2.1 Basic

Choose **Port Statistics** > **Voipcmdstat** and the following page appears. In this page, you can view the information of voipcmdstat port.

Voipcmdstat Port Configuration This page allows you to view the values of port parameters.		
Generate SID	false	
Coder Type Upstream	G711U	
Jitter Max Delay	200	
Jitter Nominal	40	
Jitter Dynamic	true	
Dtmf Relay	0	
Echo Control	true	
Packet Rate	20	
Gain Ctrl Up	0	
Gain Ctrl Dn	0	
Fxs Seize Time	100	
Fxs Release Time	900	
Fxs Hf Max Time	900	
Fxs Hf Min Time	300	
Fxs Min Pulse	20	
Fxs Max Pulse	110	
Fxs Pulse Pause	300	
Reset Defaults	false	

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User Manual for T2-B-Gawv1.4U10Y.BI 3.8.2.2 Advanced

Click Advanced in the Voipcmdstat Port Configuration page and the following page appears. In this page, you can view the the information of voipcmdstat port.

This page allows you to view the values of port parameters.	
Dsp Id	o
Dsp Port Id	0
Dsp Version	
Port Type	cmdsta
Generate SID	false
Coder Type Upstream	G711U
litter Max Delay	200
litter Nominal	40
litter Dynamic	true
Dtmf Relay	0
cho Control	true
Jse JB	true
Packet Rate	20
Gain Ctrl Up	0
Gain Ctrl Dn	0
Out Of Service	falca
vs Seize Time	100
Lyc Deleace Time	900
eve Hf May Time	900
Lys Lif Min Timo	300
ive Min Dulen	20
Cue May Dulen	110
ive Dulea Dauca	200
Tid Tung	2
Ping Tung	1
Default litter Max Delay	200
Default litter Nominal	40
Default litter Dynamic	true
Default Coperate SID	falco
Default Coder Type Unstream	67110
Default Dtmf Polau	false
Default Use 19	taise
Default Echo Control	true
Service Concor	, true
Default Packet Rate	20
Default Gain Ctrl Up	0
Default Gain Ctrl Dn	0
Default Fxs Seize Time	100
Default Fxs Release Time	900
Default Fxs Hf Max Time	900
Default Fixs Hf Min Time	300
Default Fixs Min Pulse	20
Default Fixs Max Pulse	110
Default Fixs Pulse Pause	300
Reset Defaults	false
Port Snmp If Index	0
Port Snmp If Type	0

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Note:

Some of the attributes displayed in the voipcmdstat port configuration page can be set from the CLI. Enter **port voipcmdstat set ?**. The attributes is displayed as the output of this command. Its function depends on the configuration of the DSLAM and the capability of the central office the modem connected to.

3.8.3 DSL

This page displays the current status and configuration of the DSL port.

3.8.3.1 Basic

Choose **Port Statistics** > **DSL** and the following page appears. In this page, you can view the the following information. The attributes and values are displayed as the output depending on the configuration of the DSLAM that the modem is connected with.

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SL Port Configuration is page allows you to view the values of port parameters. Priver Version 1.75 APIVersion GS_API_650 Ermware Version E.25.41.57 A Dop Version 0x0000000 Common Handshake Enable Connected false Operational Mode Inactive State HandShake 0 State HandShake 0 State HandShake 0 No00000000 Dependion Progress 0x00000000 Common Progress 0x00000000 Rat Bit Rate 0 Cx000000018 Ax ATTNOR FX Bit Rate 0 Cx Bit Rate 0 Cx Cell Rate 0 Cy Cy Cell Rate 0 Cy Cy Cy Cy Cell Cy	Port Configuration	
SL Port Configuration his page allows you to view the values of port parameters. Triver Version I.75 APVersion Scale Status State Connected State Connected		
Driver Version1.75APIVersionGS_API_650Firmware VersionCS_API_650Ermware VersionCS_API_650Dop VersionNA0000000CommotedFableConnectedFableDiperational ModeInactiveStateHandShakeWatchdogNA0000000Operation ProgressNA0000000Last FailedNA0000000X Bit RateNA0000000X Bit RateNA0000000X Bit RateOX ATTNDRVY ATTNDRVY Cell Rate0NoneODoverall Failure0None0.00State StatusNON000000Y StatusUnknown (3182)Status Fail Count0.00Profile StatusVStatus Fail CountNoneStatus Fail CountSartupActionSartupActiotat LineNoneStatus Fail CountSaleVatus StatusSaleStatus Fail CountSaleVatis ControlSaleActiotat LineNoneShowtime LedSaleArbip ActiveInactiveAltip ActiveSaleAltip ActiveSaleAltip ActiveSaleAltip ActiveSaleAltip ActiveSaleAltip ActiveSaleAltip ActiveSaleAltip ActiveSaleAltip ActiveSaleAltip ActiveSale	ISL Port Configuration This page allows you to view the val	ues of port parameters.
APIVersionGS_API_650Firmware VersionCS_AILS7 ADay Version0x0000000Common HandshakeEnableConnectedfaiseOperational ModeInactiveStateHandShakeWatchdog0x0000000Operational ModeNa0000000Operational Mode0x0000000Cast Failed0x0000000Cast Failed0x0000000X Bit Rate0x0000000X Bit Rate0X ATTNDRVY ATTNDRVY C Cell Rate0State Base0Overall Failure0Overall Failure0Overall Failure0Overall Failure0Overall Failure0Overall StatusUnknown (3182)PSDMask StatusStartupActionStartupActiotat LineNoneStatus Fail Count0Vattus Eline3ActionStartupActiotat LineNoneShortime Led3StartinCinableOverallOnlyJefallsNoneAltip ActiveInactiveAltip ActiveDisableAltip ActiveStandaloneJying GaspEnableJosh InterfaceDSPJosh InterfaceStandaloneJying CaspGasheAltip ActiveMainAltip ActiveStartupAltip ActiveStardaloneAltip ActiveStardaloneJosh Interface	Driver Version	1.75
irmware VersionE.25.41.57 ASpay Versionbx0000000Common HandshakeEnableSonnectedfalseJonnectedInactiveStateHandShakeWatchdog0x0000000Operation Progress0x0000000State0x00000000Rate0x00000000Rate0x00000000Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0State0<	APIVersion	GS_API_650
Spe Version0x0000000Sommon HandshakeEnableCommon HandshakeFalseSperational ModeInactiveStateHandShakeWatchdog0x0000000Operation Progress0x0000000Sat Failed0x0000000Kat Rate0XatTINR0XatTINR0KatTINR0Sate Cell Rate0Operation Progress0KatTINR0Sate Cell Rate0Soverall Failure0Operation Status0User Status0.00State Satus0.00Status0.00<	Firmware Version	E.25.41.57 A
Dommon Handshake Enable Connected failse Diperational Mode Inactive State HandShake HandShake Watchdog KADD000000 Diperation Progress KADD000000 Cast Bit Rate Control Contro	Dsp Version	0×00000000
onnected information in the set of the set	Common Handshake	Enable
periodical informationindicationStateHaddShakeWatchdog0x0000000Operation Progress0x00000000ast Failed0x00000000K Bit Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0Rate0State <td>Connected</td> <td>Taise</td>	Connected	Taise
AttraHalfublisheWatchdog0x00000000Operation Progress0x00000000Last Failed0x00000000X Bit Rate0X Bit Rate0X ATTNDR0FX ATTNDR0FX ATTNDR0X Cell Rate0Overall Failure0Jata Boost0Local TUCountry Code0INPup0.00PSDMask Status0Status Fail Count0Verall Failure0Jata Boost0Local TUCountry Code0INPup0.00PSDMask Status0Status Fail Count0Verall Failure0Jata Boost0Status Fail Count0Profile Status1ActionStartupActiotate LineNoneHost Control1Status Fail Count1Jost ControlStardueActionStardueShowtime Led3StartainEnableOverallOnlyJip Jata Boost1Jupia CaspEnableJupia CaspEnableJupia CaspCrystalSaeroin CraceDSPJoshelMainVast RSMemory32YorifieMaINVeralloStableYorifieCrystalSaeroin CraceDSPJoshelMainYorifieStableYorifieCasbleYorifieStable<	operacional Mode Stato	HandShake
AnnumbyDA000000000ActionDA000000000000000000000000000000000000	Watchdog	
Ast Failed 0x0000000 fx Bit Rate 0 fx Bit Rate 0 fx Bit Rate 0 fx Bit Rate 0 fx ATTNDR - fx ATTNDR 0 fx Cell Rate 0 Doral Boost 0 Local TUCountry Code 0 INPdown 0.00 PMstatus Unknown (3182) PSDMask Status 0 Status Fail Count 0 Oprofile Status - Action Startup Actiotat Line None Auto Start true allsafe true sable 1 Auto Start Stardalone Sying Gasp Enable Jopisale Port 0 Jock Type Crystal Jores Port Stardalone Sying Gasp Crystal Jobelio Port 0 Jock Type Stardalone Sying Casp Crystal Jores Port Stardalone Sying Casp Giable Jobebug<	Operation Progress	0x00000000
x Bit Rate 0 xx Bit Rate 0 xx AttrNDR 0 fx ATTNDR 0 fx Cell Rate 0 obverall Failure 0 obverall Failure 0 obtat Boost 0 Local TUCountry Code 0 NPup 0.00 PSDMask Status 0 Status Fail Count 0 Profile Status 0 Action Startup Actiotat Line None Host Control Startup Actiotat Line None Showtime Led 3 Astrain EnableOverallOnly Jefales Inactive Whip Disable Athip Active Inactive Nipin Gasp Enable Joogsp Enable Joogs Interface Desole Vhysical P	Last Failed	0x0000000
Rx Bit Rate 0 Rx ATTNDR I Kx ATTNDR I Kr ATTNDR 0 Annex Type 0 Fx Cell Rate 0 Obta Boost 0 Local TUCountry Code 0 Local TUCountry Code 0 LiNPup 0.00 PMstatus Unknown (3182) PSDMask Status 0 Status Fail Count 0 Profile Status 0 Action Startup Actioat Line None Hots Control Enable Status Fail Count Une Failsafe true Status Fail Count Disable Mone 1 Hots Control Same Status Fail Count Une Status Fail Count Une Status Fail Count Une Hots Control Same Action Satus Status Fail Count Une Status Fail Count Une Action Satus Action Satus Status Fail Count Ince Satus Fail Count Une Satus Fail Count Satus Satus Fail Count Satu	Tx Bit Rate	0
Rx ATTNDR	Rx Bit Rate	0
Fx ATTNDR Annex Type Annex Type Kr Cell Rate 0 Str Cell Rate 0 Local TUCountry Code 0 INPup 0.00 PMStatus 0 PSDMask Status 0 Status Fail Count 0 Profile Status 1 Action Startup Actiotat Line None Hots Control Knew Statisfe true Statisfe True Statisfe Saleloverallonity Stardalone Saleloverallonity Joing Casp Enable Athip Active Inactive Mhip Mode Standalone Joing Casp Enable Jobel Interface Evel 1 Athip Active O Jock Type Crystal Saneeric Trace DSP Sable Main Yose Malin <tr< td=""><td>R× ATTNDR</td><td></td></tr<>	R× ATTNDR	
Annex Type Fx Cell Rate 0 Fx Cell Rate 0 Sx Cell Rate 0 Data Boost 0 Lacal TrUCountry Code 0 UNPap 0.00 PMStatus 0 PSDMask Status 0 Status Fail Count 0 Profile Status 0 Action Startup Activate Line None Host Control Enable Actionted 3 Startus Fail Count Disable Vihip Activate Irue Failsafe true Showtime Led 3 Startus Standalone Vihip Active Inactive Whip Adde Standalone Joingasp Enable Jobaie Jock Type Crystal Sameric Trace DSP Sobeling Main Yardile Main Yardile Main Yardile Main Potect Noise Disable	TX ATTNDR	
Fx Cell Rate 0 Rx Cell Rate 0 Rx Cell Rate 0 Rx Cell Rate 0 Data Boost 0 Local ITUCountry Code 0.00 INPap 0.00 INPap 0.00 PMstatus 0.00 PMStatus 0.00 PMStatus 0.00 Porfile Status 0 Action Starup Actiotat Line None Host Control Enable Auto Start true Failsafe true None Stardionu Josable None Josable Stardionu Auto Start Inactive Auto Start Stardiane Josable Stardiane Josable Stardiane Josable Stardiane Josable Stardiane Joying Gasp Enable Stardianet Stardiane Joying Casp Crystal Stardianet Stardiane Joying Casp Crystal Stardianet Stardiane Joying Casp Crystal Stardianet Stardiane Joying Casp Crystal <	Annex Type	
Sx Cell Rate 0 Sx Cell Rate 0 Doverall Failure 0 Data Boost 0 Local TUCountry Code 0 INPup 0.00 PMStatus 0 PMStatus 0 PSDMask Status 0 Status Fail Count 0 Profile Status 0 Action Startup Actiotate Line None Host Control Enable Actiotate Line None Failsafe true Failsafe Inactive Mip Disable Abip Active Inactive Inactive Abip Active Inactive Abip Active Disable Jippia Interface DSP Jock Type Crystal Jock Type Disable Ving Casp disable Itay RSMemory 32 Patent Noise Disable Vin Speed MaIN	Tx Cell Rate	0
Dverall Failure 0 Data Boost 0 Data Boost 0 Local TUCCountry Code 0.00 INPdown 0.00 PMstatus Unknown (3182) PSDMask Status 0 Profile Status 0 Activate Line None Host Control Enable Auto Start 1 Failsafe true Failsafe Salle Whip Mode Sandalone Dyng Gasp Enable Jtopie Interface DS Jtopie Interface DS Debug disable Max RSMemory 32 Parte Main Detect Noise Disable	Rx Cell Rate	0
Data Boost Local ITUCountry Code Local ITUCountry Code INPup 0.00 INPup 0.00 PMstatus Unknown (3182) PSDMask Status Unknown (3182) Status Fail Count 0 Profile Status Unknown (3182) Action Startup Actiotat Line None Host Control Enable Auto Start true Failsafe true Showtime Led 3 Retrain None Whip Mode Standalone Jying Gasp Enable Jtopia Interface Usyling Josale Interface SSP Josale Interface SSP Josale Interface SSP Josale Port O Standalone Josale Josale Interface Mail Josale Port O Standalone Josale Josale Port SS Standalone Josale Josale Interface SS Josale Port SS Standalone Josale Josale Interface SS Josale Interface SS Josale Interface SS </td <td>Overall Failure</td> <td>0</td>	Overall Failure	0
Local TUCountry Code INPup 0.00 INPup 0.00 INPdown 0.00 PMStatus Unknown (3182) PSDMask Status 0 Status Fail Count 0 Profile Status 0 Action Startup Actiontal Enable None Hots Control Enable Actiost Enable True Failsafe true Showtime Led 3 Retrain EnableOverallOnly Jefaluts None Whip Disable Yhip Active Inactive Jropia Interface Level1 Josh Roman Disable Josh Roman Disable Josh Roman Disable Jubysical Port O Jock Type Crystal Saneric Trace DSP Pabug MaIN Yarofile MaIN Patent Noise Disable Yarofile David	Data Boost	
INPup 0.00 INPdown 0.00 PMstatus Unknown (3182) PSDMask Status 0 Status Fail Count 0 Porfile Status 0 Action Startup Activate Line None Host Control Enable Auto Start true Showtime Led 3 Retrain EnableOverallOnly Defaults None Whip Mode Standalone Dyng Gasp Enable Jtopia Interface Levei1 Jtopia Interface OS Debug disable Max RSMemory 32 Partise Disable Vat RSMemory 32 Partise Disable	Local ITUCountry Code	
INPdown 0.00 PNStatus Unknown (3182) PSDMask Status 0 PSDMask Status 0 Status Fail Count 0 Porfile Status Statup Action Statup Action Enable Activate Line None Fols Control Enable Auto Start true Showtime Led 3 Retrain EnableOverallOnly Defaults None Whip Mode Standalone Jyng Gasp Enable Itopie Interface DSP Jobelont O Clock Type DSP Debug disable Max RSMemory 32 Parteter Noise Disable Port Speed 20000	INPup	0.00
Mystatus Unknown (3182) PSDMask Status 0 Profile Status 0 Profile Status 5 Action Startup Action Startup Actiontate Line None Host Control Enable Auto Start true Failsafe true Showtime Led 3 Retrain EnableOverallOnly Defaults None Whip Disable Athip Active Inactive Athogasp Enable Joigasp Crystal Joigasle Mily Jobeug disable Marx RSMemory 32 Portili	INPdown	0.00
PSDMask Status PSDMask Status Fail Count 0 Status Fail Count 0 Profile Status Startup Action Startup Action Startup Activate Line None Host Control Enable Auto Start true Failsafe true Showtime Led 3 Retrain EnableOverallOnly Defaults None Whip Mode Standalone Dying Gasp Enable Jtopia Interface Level1 Jtopia Interface OS Pabug disable Max RSMemory 32 Partise Mail Patetet Noise Disable	PMstatus	Unknown (3182)
Status 0 Profile Status Startup Action Startup Activate Line None Host Control Enable Auto Start true Failsafe true Showtime Led 3 Retrain EnableOverallOnly Defaults None Whip Disable Whip Mode Standalone Jying Gasp Enable Itopia Interface Level1 Jhysical Port O Scherty 232 Partig MalN Viax RSMemory 32 Participeed Disable Vois Speed Disable	PSDMask Status	
Action Startup Action Startup Actionte Line None Host Control Enable Auto Stort true Failsafe true Showtime Led 3 Retrain EnableOverallOnly Defaults None Whip Disable Whip Active Inactive Mhip Mode Standalone	status Fall Count	U
Activate Line Startup Activate Line None Host Control Enable Auto Start true Failsafe true Showtime Led 3 Retrain Enable OverailOnly Defaults None Whip Mode Standalone Dying Gasp Enable Jitopia Interface Level 1 Hysical Port 0 Clock Type Crystal Generic Trace DSP Debug disable Max R8Memory 32 Profile Disable Port Speed Standalone DSP	Action	Startup
Notice Entrol Note Host Control Enable Auto Start true Failsafe true Stortine Led 3 Retrain EnableOverallOnly Defaults None Whip Disable Whip Mode Standalone Dysigol Sop Enable Jtopia Interface Level1 Jhysical Port 0 Clock Type DSP Jebug disable Max RSMemory 32 Partisle MAIN Patetet Noise Disable	Activate Line	Nope
Linking Linking Failsafe true Failsafe true Failsafe true Showtime Led 3 Sketrain EnableOverailOnly Defaults None Whip Disable Whip Active Inactive Joing Gasp Enable Jtopia Interface Level1 Jvysical Port 0 Jock Type Crystal Seneric Trace DSP Debug disable viax RSMemory 32 Partetor Noise Disable Voit Speed 20000	Host Control	Enable
alisafe true showtime Led 3 Retrain EnableOverallOnly Defaults None Whip Ode Standalone Whip Mode Standalone Dying Gasp Enable Utopia Interface Level 1 Physical Port 0 Slock Type Crystal Generic Trace DSP Debug disable Max RSNemory 32 Profile MAIN	Auto Start	true
Showtime Led 3 Retrain EnableOverallOnly Defaults None Whip Disable Whip Active Dying Gasp Disable Crystal Generic Trace DSP Debug disable Max RSMemory 32 Profile Var RSNemory 32 Profile Disable Yord Speed 20000	Failsafe	true
Retrain Enable OverailOnly Defaults None Whip Disable Whip Active Inactive Whip Active Inactive Whip Mode Standalone Dying Gasp Enable Utopia Interface Level 1 Physical Port 0 Clock Type Crystal Seneric Trace DSP Debug disable viax RSMemory 32 Profile MaIN Detect Noise Disable	Showtime Led	3
Defaults None Whip Disable Whip Active Inactive Whip Mode Standalone Dying Gasp Enable Lutpaia Interface Level1 Physical Port 0 Clock Type Crystal Beneric Trace DSP Jobug disable Max RSMemory 32 Profile MAIN Potetct Noise Disable Pot Speed 20000	Retrain	- EnableOverallOnly
Whip Disable Whip Active Inactive Whip Mode Standalone Dying Gasp Enable Drying Interface Level1 Physical Port 0 Clock Type Crystal Beneric Trace DSP Debug disable Max RSMemory 32 Profile MAIN Patetet Noise Disable Your Speed 20000	Defaults	None
Whip Active Inactive Whip Mode Standalone Standalone Standalone Dying Gasp Enable Ltopia Interface Level1 O O Clock Type Crystal Seneric Trace DSP Debug disable Marx RSMemory 32 Profile MAIN Petect Noise Disable Your Speed 20000	Whip	Disable
Whip Mode Standalone Dying Gasp Enable Utopia Interface Level 1 Physical Port O Clock Type Crystal Generic Trace DSP Debug disable Vax RSNemory 32 >orofile Disable Vort Speed 20000	Whip Active	Inactive
Dying Gasp Enable Utopia Interface Level1 Dyhysical Port 0 Clock Type Crystal Generic Trace DSP Jabug disable Max RSMemory 32 Porfile MAIN Patetct Noise Disable Port Speed 20000	Whip Mode	Standalone
Utopia Interface Leval1 Physical Port 0 Clock Type Crystal Generic Trace DSP Debug disable viax RSMemory 32 Profile MAIN Detect Noise Disable vort Speed 20000	Dying Gasp	Enable
Physical Port 0 Clock Type 0 Clock Type 2 Constitution 0 Sp Debug disable disable disable disable disable disable profile 0 Sisable port Speed 20000	Utopia Interface	Level1
Clock Type Crystal Generic Trace DSP Debug disable Max RSNemory 32 Profile MAIN Detect Noise Disable Port Speed 20000	Physical Port	0
Generic Trace DSP Debug disable Max RSMemory 32 Profile MAIN Detect Noise Disable vort Speed 20000	Clock Type	Crystal
Debug disable Max RSMemory 32 Profile MAIN Detect Noise Disable Port Speed 20000	Generic Trace	DSP
Max RSMemory 32 Profile MAIN Detect Noise Disable Port Speed 20000	Debug	disable
Prome MAIN Detect Noise Disable Port Speed 20000	Max RSMemory	32
Port Speed 20000	Profile	MAIN
Port Speed 20000	Detect Noise	Disable
	Port Speed	20000

The following table describes the parameters of this page.

Field	Description
Driver Version	The information of driver version.
APIVersion	Application program interface (API) version.

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Field	Description
Firmware Version	The modem version.
Dsp Version	Digital signal processor (DSP) version
Operational Mode	The synchronism mode.
Watchdog	Inspect the running estate of the application program.
Reset Defaults	Reset to the default values after rebooting.

3.8.3.2 Advanced

Click **Advanced** in the **DSL Port Configuration** page and the following page appears.

Port Configuration Basic Advanced	
DSL Port Configuration	
This page allows you to view the value	s of port parameters.
Driver Version	1.75
APIVersion	GS API 650
Firmware Version	E.25.41.57 A
Dsp Version	0x0000000
Common Handshake	Enable
Connected	false
Operational Mode	Inactive
State	HandShake
Watchdog	0×0000000
Operation Progress	0×0000018
Last Failed	0×0000000
Tx Bit Rate	0
Rx Bit Rate	0
Delt ACTATPds	+0.0 dB
Delt ACTATPus	+0.0 dB
Delt HLINscds	0
ACTPSDDs	
ACTPSDUS	
Bis TEQError	
Rx ATTNDR	

The following table describes the parameters of this page.

Field	Description
CACMode	Connection admission control (CAC) mode.
Traffic Shaping	The volume of adapter communication.
Is Dsl Dma Up	Direct memory access supported high
	broadband.

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Field	Description
Reset Defaults	Reset to the default values after rebooting.

Note:

Some of the attributes displayed in the **DSL Port Configuration** page can be set from the CLI. Enter **port a1 set ?**. The attributes is displayed as the output of this command. Its function depends on the configuration of the DSLAM and the capability of the central office the modem connected to.

3.8.4 Ethernet0/1/2/3

This page displays the current status and configuration of the Ethernet port. The modem has four Ehternet ports. Because they are similar, we describe the example of one Ethernet port. If the Ethernet port is working currently, the connected status desplays true. On the contrary, it displays false. the Mac value is different if the Ethernet port is not same.

3.8.4.1 Basic

Choose **Port Statistics** > **Ethernet0** and the following page appears. In this page, you can view the information of Ethernet port.

Port Configuration Basic Advanced		
Ethernet0 Port Configuration This page allows you to view the values of port parameters.		
MAC	00:10:20:30:40:50	
Connected	true	
Link Speed	100M	
Reset Defaults	false	

[Go To Advanced View]

The following table describes the parameters of this page.

Field	Description
MAC	The network adapter interface identifier with
	48 bits unique global address.
Connected	It displays the connection status.

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Field	Description
Reset Defaults	Reset to the default values after rebooting.

3.8.4.2 Advanced

Click **Advanced** in the **Ethernet0 Port Configuration** page and the following page appears. In this page, you can view the following information of the Etherent port. **Port Configuration**

Basic | Advanced Ethernet0 Port Configuration This page allows you to view the values of port parameters. MAC 00:10:20:30:40:50 Lower Port port=raw_ethernet/promiscuousenable=true TAG Connected true Link Speed 100M Map Port raw_ethernet Map Port Connected PortLinkStatus Map Port Link Speed LinkSpeed Map Port Link Speed Mult Map Port Link Speed Div Map Port Index 0 Global Port 0x00aef118 No Rx Demux false No Tx Tag false Promiscuous Enable true **Rx Errored** 0 Rx Global LUTFail 1 Rx Global No8021Q 0 Rx Too Short 0 **Rx Wrong MAC** 0 Reset Defaults false Port Snmp If Index 0 Port Snmp If Type 0 [Go To Basic View]

Note:

Some of the attributes displayed in the **Ethernet0 Port Configuration** page can be set from the CLI. Enter **ethernet set ?**. The attributes is displayed as the output of this command. Its function depends on the configuration of the DSLAM and the capability of the central office the modem connected to.

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This page displays the current status and configuration of the wireless port.

3.8.5.1 Basic

Choose Port Statistics > Wireless and the following page appears. In this page,

you can view the the information of wireless port.

Basic Advanced	
Wireless Port Configu	ration
This page allows you to	view the values of port parameters.
Authentication	Open
Encryption	WEP128
Auto Channel	true
Connected	false
Current Country	INI
Default Channel	1
Default Tx Key	0
Disable	true
ESSID	BSNL_AP
Link Speed	0
MAC	00:15:e9:00:00:02
Mode128Key0	12-34-56-78-90-12-34-56-78-90-12-34-56
Mode128Key1	00-00-00-00-00-00-00-00-00-00-00-00-00
Mode128Key2	00-00-00-00-00-00-00-00-00-00-00-00-00
Mode128Key3	00-00-00-00-00-00-00-00-00-00-00-00-00
Mode64Key0	00-00-00-00
Mode64Key1	00-00-00-00
Mode64Key2	00-00-00-00
Mode64Key3	00-00-00-00
Profile	MIXED_G_WIFI
Transmit Rate	Automatic
WPAEnable WPA1	false
WPAEnable WPA2	false
WPA	false
Reset Defaults	false

3.8.5.2 Advanced

Click **Advanced** in the **Wireless Port Configuration** page and the following page appears. In this page, you can view the following information of the wireless port.

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Port Configuration Basic Advanced

Wireless Port Configuration This page allows you to view the values of port parameters.

Authentication	Open
Encryption	WEP128
Port Class802_11	true
Vap Id	0
BMACVersion	2.1.41.0
LMACVersion	2.17.36.0
UMACVersion	2.20.24.0
State	GotMac
Allowed Channels	1,2,3,4,5,6,7,8,9,10,11,12,13
Antenna Diversity	0
Authenticate STA	00:00:00:00:00
Auto Channel	true
Collect Stats	true
Connected	false
Current Country	INI
De Authenticate STA	00:00:00:00:00
Default Channel	1
Default Max Queue	32
Default Tx Key	0
Disable	true
ESSID	BSNL_AP
Fragmentation Threshold	2346
Hide SSID	false
IEEE802_11_Event Sink	/task/i802_1x
Intra BSSRelay	1
WMM	false
WMMPS	false
Link Speed	0
MAC	00:15:e9:00:00:02
Mac Address Auth	disabled
Mac Mode	AP
Max Associated Stations	32
Max Frame Burst	1500
Mode128Kev0	12-34-56-78-90-12-34-56-78-90-12-34-56
, Mode128Kev1	00-00-00-00-00-00-00-00-00-00-00-00-00
Mode128Kev2	00-00-00-00-00-00-00-00-00-00-00-00-00-
Mode128Kev3	00-00-00-00-00-00-00-00-00-00-00-00-00-
Mode64Kev0	00-00-00-00
·····,-	

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Some of the attributes displayed in the **Wireless Port Configuration** page can be set from the CLI. Enter **port wireless set ?**. The attributes is displayed as the output of this command. Its function depends on the configuration of the DSLAM and the capability of the central office the modem connected to.

3.9 Admin

Click Admin to enter system admin page. On the left page, there are seven options: Firmware Upgrade, Back & Restore, Reboot, Remote Access, Lan Access, Change Password, and Time Zone.

3.9.1 Firmware Upgrade

Choose **Admin** > **Firmware Upgrade** and the following page appears. In this page, you can upgrade the software of the modem by TEImage.bin file.

BROADBAND	
Home	Upgrade
Overview System Log Troubleshooting	Firmware upgrade
Configuration	Current firmware version is 10.4.3.12.12
Security	Automatically Check for Updates
Services	For MyDsIModem to check for updates automatically, ensure your device is connected to the Internet, and then click on the Check for Updates button
DSL Home	below.
Port Statistics	Check for Updates >
Admin	
Firmware Upgrade Backup & Restore Reboot Remote Access Lan Access Change Password Time Zone	New Firmware File Name: (Browso) Warning: DO NOT switch off your Router during firmware upgrades. Please wait for the upgrade to complete before continuing to navigate the configuration manager.
	Upgrade

Click **Browse** to select the upgrade file. The upgrade process may take several minutes.



If it is not upgraded successfully, do not restart the modem or switch off the modem. Try to upgrade the image file again until it is successful. If it is upgraded successfully, restart the modem immediately to take the new software effect.

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Choose Admin > Back & Restore and the following page appears.

Backup & Restore Configuration	
Backup & Restore	
Backup Configuration	
Use to save the current Router's settings into your computer	
Warning: Only configuration saved to Flash will be backed up.	
	Backup
Restore Configuration	
Use to reset your Router with settings previously saved on your computer	
Backup file	Browse
	Restore

Click **Backup** to save the current system configuration. Conexant.icf is the default file.

Backup & Restore	Configuration
Backu File Download	×
-	You have chosen to download a file from this location.
Bacl 🤇 🤇	Conexant.icf from 192.168.1.1
Use t	
Warn	What would you like to do with this file?
_ 📀	Open this file from its current location
	Save trus me to disk Backup
Rest	
Use t	
Back	OK Cancel More Info Browse
	Restore

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Note:

The restore configuration file should be with "icf" format.

3.9.3 Reboot

Choose **Admin > Reboot** and the following page appears. In this page, you can reboot the modem in two ways.

Reboot			
Reboot Page			
This page allows you to reboot modem with the config simply select the configuration file and press reboot	juration fil	le you want	ed,
Reboot Router			
Reboot Router Use to Reboot Router with the listed configuration files			
Reboot Router Use to Reboot Router with the listed configuration files Reboot From		Last	~
Reboot Router Use to Reboot Router with the listed configuration files Reboot From		Last Last	~

- Last: Reboot from the last revisal.
- Factory: Reboot from the factory default configuration.

3.9.4 Remote Access

Choose Admin > Remote Access and the following page appears. you can open the remote access port for someone to login. Remote access, a management station that is a host or range of hosts that can remotely access. Once the modem has been configured to allow to remote access, the management station sends IP traffic on a specific transport or port to the external port of the device. Any NAT or firewall configuration is bypassed. This allows a network administrator access to the configuration of the device without having to visit the site.

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Remote Acces	5				
Enable remote acce configure your Rout	Enable remote access from management stations to let an expert, e.g. helpdesk, configure your Router remotely.				
To allow remote a	To allow remote access to your router via				
Application	Start IP Address	End IP Address	Firewall Interface		
📃 Web Browser			~		
Web Server Port O	n Wan Interface	80			
📃 Telnet			~		
Telnet FTP			v		
 □ Telnet □ FTP ☑ PING 	0. 0. 0	255. 255. 255. 255			
☐ Telnet ☐ FTP ☑ PING After a remote access	0. 0. 0. 0 session, you should come	255. 255. 255. 255 back to this page and disab	le access.		
 ☐ Telnet ☐ FTP ✓ PING After a remote access 	0.0.0.0 session, you should come	255. 255. 255. 255 back to this page and disab	le access.		

3.9.5 Lan Access

Choose **Admin** > **Lan Access** and the following page appears. It is used to enable or restrict LAN side management access to the modem.

Lan Access		
Enable or restrict Lan sid	e management access to th	e DSL router
Enable of restrict Earl sid	e management access to th	
Allow or restrict Lan si	de management access t	o vour router via
Application	Start IP Address	End IP Address
I tatala Duantanan		
🗹 Web Browser		
✓ Web Browser ✓ Telnet		
✔ Web Browser ✔ Telnet ✔ FTP		
♥ Web Browser ♥ Telnet ♥ FTP Lan Access rules must br changed.	e re-applied if the Lan side	IP address of the router is
♥ Web Browser ♥ Telnet ♥ FTP Lan Access rules must bi changed.	e re-applied if the Lan side	IP address of the router is
♥ Web Browser ♥ Telnet ♥ FTP Lan Access rules must bi changed.	e re-applied if the Lan side	IP address of the router is

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User Manual for T2-B-Gawv1.4U10Y.BI **3.9.6 Change Password**

Choose Admin > Change Password and the following page appears. If logging in to the modem as a super user, you can modify the password of the modem. It is advisable that the password should be changed to keep the system secure. Keep the your password. If you forget the password, you need to reset the modem and reset to the factory defaults.

Administration Password	
It is advisable that the password is changed to copy of your password somewhere safe. If you will need to be reset and all settings will be los) keep your system secure. Keep a forget your password, your Router t.
User name:	admin 🗸
Current password for admin:	
New password:	
Confirm new password:	
Make a note of your new password somewhere safe	for future reference
	Apply

3.9.7 Time Zone

This page displays the current time configuration of the system.

3.9.7.1 SNTP Client

Click **SNTP Client** in the **SNTP Client Configuration** page. In this page, you can modify the SNTP client configuration. By default, the time zone is configured as UTC.

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SNTP Client Co SNTP Server SNTP SNTP Client Config	onfigurati ⁹ Client guration	ion				
	YYYY :	MM :	DD :	нн :	MM :	SS
System Clock :	1970	01	03	00	14	28
TimeZone:	UTC(Unive	ersal,Coordi	nated)	*		
DayLightSaving:						
Mode:	None	*				
Retries:	2	(0 - 10)				
Timeout:	5	(0 - 30 5	iec)			
PollInterval:	1	(0 - 30 N	1in)			

3.9.7.2 SNTP Server

Click **SNTP Server** in the **SNTP Client Configuration** page. In this page, you can modify the SNTP server settings.

SNTP Server Configuration SNTP Server i <u>SNTP Client</u>			
SNTP Server Settings Allows to add a new SNTP Serv	ver or delete the existing servers	5.	
Hostname	IP Address	Delete	
⊙ Host Name:			
◯IP Address:			
		Add	

You can add a server by using host name or IP address. It starts the synchronization process automatically if it exists a effective server in the association list.

Sample 1: Add a host Name of the SNTP server. (The hostname: time.nist.gov, which belongs to American time server).

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SNTP Server Settings				
lows to add a new SNTP Serve	r or delete the existing server	s.		
Hostname	IP Address	Delete		
time.nist.gov	N/A	0		
⊙Host Name:				

Before adding a host name, you should ping the host name of the SNTP Server. It takes $\hat{\mu}$ ctive if the ping is successful. Click $\hat{\mu}$ to delete a single server association from the client list.

Sample 2: Add IP address of the SNTP server.

SNTP Server Configuration SNTP Server <u>SNTP Client</u>				
SNTP Server Settings Allows to add a new SNTP Server or delete the existing servers.				
Hostname	IP Address	Delete		
N/A	192.43.244.18	1		
⊙Host Name:				
○IP Address:				
		Add		

Before adding IP address, you should ping the IP address of the SNTP server. It takes effective if ping successes. Click D to delete a single server association from the client list.

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4 Network Topology

Before configuring the modem, you must determine if the modem is used in the Bridging mode or Routing mode. This chapter describes some applications. For detailed configuration, refer to Chapter 3 Web Configuration Management.

4.1 PPP over ATM (PPPoA) Mode



Description

In this example, the modem is connected with the DSLAM through PVC 8/81 and the access mode is the built-in PPPoA + NAT. The encapsulation of the BRAS downlink port is PPP over ATM. The authentication is CHAP PAP. The IP address is 136.1.1.1. The IP pool is 136.1.1.* and the IP address of uplink port is 10.61.92.157. The IP address of the WAN port on the modem is assigned by BRAS through the built-in PPPoA dial-up dynamically. The PC that the modem is connected with is assigned with a private IP address (in the same segment as the management IP address of the modem). The NAT function of the modem is enabled and the private PC address is translated to the public address 136.1.1.* (2 ~ 254) assigned by BRAS dynamically for access to ISP.

The IP address of the PC can be fixed (as in this example) or assigned through DHCP server of the modem. If it is assigned by DHCP server, the DHCP function of the modem must be enabled. The IP address of the DHCP address pool is

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192.168.1.* (2~254). The functions are enabled by default and the PC is configured to obtain IP and DNS addresses dynamically.

Setting

- (1) Open the network browser and enter **192.168.1.1** in the address bar to log in to the modem.
- (2) Choose Configuration > Internet Connection > Connections. Set VPI/VCI to 8/81, and click Next.
- (3) In the Configure Connection Type page, select PPP over ATM (PPPoA) protocol and set the encapsulation type to VC MUX. Click Next.
- (4) In the Configure WAN IP Settings page, select Obtain an IP address automatically and Enable NAT. Click Next.
- (5) In the Configure Broadband User Name and Password page, enter the Broadband User Name and Password provided by your ISP. Select a Session established by according to your practices. In this example, select Always on. Then click Next.
- (6) Check the network configuration and ensure that all the settings are consistent consistent with the data provided by your ISP. Then click **Apply**.

After the dial-up is successful, the IP address that the modem obtains at the WAN-side port R_0_32 is 136.1.1.3.

If NAT is disabled during the configuration, you must configure the modem on the BRAS. Otherwise, you cannot access your ISP. In actual applications, **Enable NAT** must be selected.

4.2 PPP over Ethernet (PPPoE) Mode



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User Manual for T2-B-Gawv1.4U10Y.BI **Description**

In this example, the modem is connected to the DSLAM through PVC 8/81 and the access mode is the built-in PPPoE+NAT. The encapsulation of the BRAS downlink port is PPP over Ethernet. The authentication is CHAP PAP. The IP address is 136.1.1.1. The IP pool is 136.1.1.* and the IP address of uplink port is 10.61.92.157. The IP address of the WAN port on the modem is assigned by BRAS through the built-in PPPoE dial-up dynamically. The PC that the modem is to is assigned with a private IP address (in the same segment as the management IP of the modem). The NAT function of the modem is enabled and the private PC address is translated to the public address 136.1.1.* (2 ~ 254) assigned by BRAS dynamically for access to ISP.

The IP address of the PC can be fixed (as in this example) or assigned through DHCP server of the modem. If it is assigned by DHCP server, the DHCP function of the modem must be enabled. The IP address of the DHCP address pool is 192.168.1.* (2~254). The functions are enabled by default and the PC is configured to obtain IP and DNS addresses dynamically.

Setting

- (1) Open the network browser and enter **192.168.1.1** in the address bar to log in to the modem.
- (2) Choose Configuration > Internet Connection > Connections. Set VPI/VCI to 8/81, and click Next.
- (3) In the Configure Connection Type page, select PPP over Ethernet(PPPoE) protocol and set the encapsulation type to LLC/SNAP. Click Next.
- (4) In the Configure WAN IP Settings page, select Obtain an IP address automatically and Enable NAT. Click Next.
- (5) In the Configure Broadband User Name and Password page, enter the Broadband User Name and Password provided by your ISP. Select a Session established by according to your practices. In this example, select Always on. Then click Next.
- (6) Check the network configuration and ensure that all the settings are consistent with the data provided by your ISP. Then click **Apply**.

After the dial-up is successful, the IP address that the modem obtains at the WAN side port R_0_32 is 136.1.1.2.

If **Enable NAT** is disabled during the configuration, you must configure the modem on the BRAS. Otherwise, you can not access your ISP. In actual applications, **Enable NAT** must be selected.

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4.3 RFC2684 (Bridged) + Fixedly-Assigned IP Address Mode



Description

In this example, the modem is connected to the DSLAM through PVC 8/81 and the access mode is the RFC2684 (bridged) +NAT. The down link port of DSLAM is encapsulated in 1483B. The IP address is 20.1.1.1. The IP address of the uplink port is 10.61.92.157. The WAN IP address of the modem is assigned as 20.1.1.12 and the gateway is 20.1.1.1. The PC to the modem is assigned with a private IP address (in the same segment as the management IP address 192.168.1.1). The NAT function of the modem is enabled and the private address of the PC is translated to the public address of 20.1.1.112 for accessing the ISP. The IP address of the PC can be fixed (as in this example) or assigned through DHCP server of the modem. If it is assigned by DHCP server, the DHCP function of the modem must be enabled. The IP address of the DHCP address pool is 192.168.1.* (2~254). The functions are enabled by default and the PC is configured to obtain IP and DNS addresses dynamically.

Setting

- (1) Open the network browser and enter **192.168.1.1** in the address bar to log in to the modem.
- (2) Choose Configuration > Internet Connection > Connections. Set VPI/VCI to 8/81, and click Next.
- (3) In the Configure Connection Type page, select RFC 1483 protocol. Set the encapsulation type to LLC/SNAP and the encapsulation mode to Bridged. Click Next.
- (4) In the Configure WAN IP Settings page, enter WAN IP Address, WAN Subnet Mask, and Default Gateway provided by your ISP. Select Enable NAT and Add Default Route, and click Next.

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- WAN IP Address: 20.1.1.112
- WAN Subnet Mask: 255.255.255.0
- Default Gateway: 20.1.1.1
- (5) Check the network configuration and ensure that all the settings are consistent with the data provided by your ISP. Then click **Apply**.

You can also modify the PVC 8/81 in "Internet Connetion". And the steps are the same as in "Connections".

After the configuration is done, the modem WAN-side interface is B_0_32.

If **Enable NAT** is disabled during the configuration, you must configure the modem on the BRAS. Otherwise, you can not access your ISP. In actual applications, **Enable NAT** must be selected.

4.4 RFC2684 (Bridged) + DHCP Mode



Description

In this example, the modem is connected to the DSLAM through PVC 8/81 and the access mode is the MER+NAT. The downlink port of DSLAM is encapsulated in 1483B. The IP address is 139.1.1.1 and the DHCP server is enabled. The address pool is 139.1.1.* (2~254). The IP address of the uplink port is 10.61.92.157. The WAN IP address of the modem is automatically obtained through DHCP. The PC to the modem is assigned with a private IP address (in the same segment as the management IP address 192.168.1.1). The NAT function of the modem are enabled and the private address of the PC is translated to the public address 139.1.1.* (2~254) dynamically assigned by BRAS for accessing the ISP.

The IP address of the PC can be fixed (as in this example) or assigned through DHCP server of the modem. If it is assigned by the DHCP server, the DHCP function of the modem must be enabled. The IP address of the DHCP address pool

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is 192.168.1.* (2~254). The functions are enabled by default and the PC is configured to obtain IP and DNS addresses dynamically.

Setting

- (1) Open the network browser and enter **192.168.1.1** in the address bar to log in to the modem.
- (2) Choose Configuration > Internet Connection > Connections. Set VPI/VCI to 8/81, and click Next.
- (3) In the Configure Connection Type page, select RFC 1483 protocol. Set the encapsulation type to LLC/SNAP and the encapsulation mode to Bridged. Click Next.
- (4) In the Configure WAN IP Settings page, select Obtain an IP address automatically and Enable NAT. Click Next.
- (5) Check the network configuration and ensure that all the settings are consistent with the data provided by your ISP. Then click **Apply**.

After the configuration is successful, the IP address that the modem obtains at the WAN-side port B $\,0.35$ is "136.1.1.2.

If **Enable NAT** is disabled during the configuration, you must configure the modem on the BRAS. Otherwise, you can not access your ISP. In actual applications, **Enable NAT** must be selected.



The DNS server address can be configured manually.

4.5 RFC2684 (Routed) + NAT Mode



Description

In this example, the modem is connected to the DSLAM through PVC 8/81 and the access mode is the IPOA+NAT. The downlink port of DSLAM is encapsulated in

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1483R. The IP address is 20.1.1.1. The IP address of the uplink port is 10.61.92.157. The WAN IP address of the modem is assigned as 20.1.1.2. The PC to the modem is assigned with a private IP address (in the same segment as the management IP address 192.168.1.1). The NAT function of the modem is enabled and the private address of the PC is translated to the public address 139.1.1.* (2~254) dynamically assigned by BRAS for access to ISP.

The IP address of the PC can be fixed (as in this example) or assigned through DHCP server of the modem. If it is assigned by DHCP server, the DHCP functions of the modem must be enabled. The IP address of the DHCP address pool is 192.168.1.* (2~254). The functions are enabled by default and the PC is configured to obtain IP and DNS addresses dynamically.

Setting

- 1) Open the network browser and enter **192.168.1.1** in the address bar to log in to the modem.
- Choose Configuration > Internet Connection > Connections. Set VPI/VCI to 8/81, and click Next.
- In the Configure Connection Type page, select RFC 1483 protocol. Set the encapsulation type to LLC/SNAP and the encapsulation mode to Routed. Click Next.
- 4) In the Configure WAN IP Settings page, enter WAN IP Address, WAN Subnet Mask, and Default Gateway provided by your ISP. Select Enable NAT and Add Default Route, and click Next.
 - WAN IP Address: 20.1.1.2
 - WAN Subnet Mask: 255.255.255.0
 - Default Gateway: 20.1.1.1
- 5) Check the network configuration and ensure that all the settings are consistent with the data provided by your ISP. Then click **Apply**.

In **Confiugre WAN IP Settings** page, besides entering WAN IP address, WAN subnet mask, DNS server addresses, and selecting enable NAT, you must select **Add Default Route**. Otherwise, you have to add the static modem manually. If you need to modify the LAN IP address and DHCP server information, you can operate in the **Local Network (LAN)** page and **DHCP Server** page.

After the configuration is done, WAN-side interface of the the modem is R_0_32.

4.6 External PPPoE Dial-up Mode

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Description

In this example, the modem is connected to the DSLAM through PVC 8/81 and the access mode is pure Bridging. The encapsulation of the downlink port of BRAS is PPP over Ehernet. The authentication is CHAP PAP. The IP address is 136.1.1.1. The IP pool is 136.1.1.*. The IP address of the uplink port is 10.61.62.157. The PC to the modem obtains its public address dynamically assigned by BRAS through PPPoE dial-up.

Setting

- 1) Open the network browser and enter **192.168.1.1** in the address bar to log in to the modem.
- Choose Configuration > Internet Connection > Connections. Set VPI/VCI to 8/81, and click Next.
- 3) In the **Configure Connection Type** page, select **Bridging** protocol. Set the encapsulation type to **LLC/SNAP**. Click **Next**.
- 4) Check the network configuration and ensure that all the settings are consistent with the data provided by your ISP. Then click **Apply**.

Note:

In the pure Bridging mode, there is no interface at the WAN side of the modem.

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Help Desk

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