

Wired ADSL 2/2+ Router

ADE-3400v4 / ADE-4400v4

User's Manual

Copyright

Copyright© 2009 by PLANET Technology Corp. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of PLANET.

PLANET makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Any software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not this company, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software. Further, this company reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.

All brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

Federal Communication Commission Interference Statement

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

- 1. Reorient or relocate the receiving antenna.
- 2. Increase the separation between the equipment and receiver.
- 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 4. Consult the dealer or an experienced radio technician for help.

FCC Caution

To assure continued compliance (example-use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE) The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

WEEE Regulation

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

Revision

User's Manual for Wired ADSL 2/2+ Router Model: ADE-3400v4 / ADE-4400v4 Rev: 1.0 (November. 2009) Part No. EM-ADE3400v4_4400v4_v1

Table of Contents

1. INTRODUCTION	6
1.1 Feature	
1.2 Package Contents	
1.3 Physical Details	9
2. INSTALLATION	
2.1 System Requirement	
2.2 Hardware Installation	
2.3 Configuring the Network Properties	
3. WEB CONFIGURATION MANAGEMENT	
3.1 Access the Router	
3.2 Wizard	
3.3 Status	27
3.3.1System	
3.3.2 LAN	
3.3.3 WAN	
3.3.4 Port Mapping (ADE-4400 only)	
3.3.5 Statistics	
3.3.5.1 Traffic Statistic	
3.3.5.2 DSL Statistic	
3.3.6 ARP Table	
3.4 Network	
3.4.1 LAN	
3.4.1.1 LAN IP	
3.4.1.2 DHCP	
3.4.1.3 DHCP Static IP	
3.4.2 WAN	
3.4.2.1 WAN	
3.4.2.2 ATM Setting	
3.4.2.3 ADSL Setting	
3.5 Service	
3.5.1 DNS	
3.5.1.1 DNS	
3.5.1.2 DDNS	

3.5.2 Firewall	
3.5.2.1 IPPort Filter	
3.5.2.2 MAC Filter	
3.5.2.3 URL Blocking	41
3.5.2.4 Virtual Server	41
3.5.2.5 DMZ Setting	
3.5.2.6 DoS Setting	
3.5.3 UPNP	
3.5.4 IGMP Proxy	
3.5.5 TR-069	
3.5.6 ACL	
3.6 Advance	
3.6.1 Bridge Setting	
3.6.2 Routing	
3.6.2.1 Static Route	
3.6.2.2 RIP	
3.6.3 Port Mapping (ADE-4400 only)	
3.6.4 QoS	
3.6.5 SNMP	
3.6.6 Others	
3.7 Admin	53
3.7.1 Commit/Reboot	
3.7.2 Upgrade	
3.7.2.1 Upgrade Firmware	
3.7.2.2 Backup/Restore	
3.7.3 System Log	
3.7.4 Password	
3.7.5 Time Zone	
3.8 Diagnostic	
3.8.1 Ping	
3.8.2 ATM Loopback	
3.8.3 ADSL	
3.8.4 Diagnostic Test	
APPENDIX A: GLOSSARY	

1. Introduction

The PLANET Wired ADSL 2/2+ Router, the ADE-3400 / ADE-4400, provides office and residential users the ideal solution for sharing a High-Speed ADSL 2/2+ broadband Internet connection on the 10/100Mbps Fast Ethernet Interface. It can support downstream transmission rates up to 24Mbps and upstream transmission rates up to 3.5Mbps. The product supports PPPoA (RFC 2364 - PPP over ATM Adaptation Layer 5), PPP over Ethernet (RFC 2516), and RFC 1483 encapsulation over ATM (MER, bridged or routed) to establish a connection with ISP.

Via the user-friendly management interface, the ADE-3400 / ADE-4400 can be managed by workstations running standard web browsers. Furthermore, the device provides DHCP server, NAT, Virtual Server, DMZ, access control, IP filter, VPN Pass-Through, and UPnP capability.

The device also serves as an Internet firewall, protecting your network from being accessed by outside users. It provides the natural firewall function (Network Address Translation, NAT). All incoming and outgoing IPs are monitored and filtered by this product. In addition, it can be configured to block internal users from accessing to the Internet.

1.1 Feature

Internet Access Features

Shared Internet Access

All users on the LAN can access the Internet through the ADE-3400 / ADE-4400 using only a single external IP Address. The local (invalid) IP Addresses are hidden from external sources. This process is called NAT (Network Address Translation).

Built-in ADSL 2/2+ Modem

The device provides ADSL 2/2+ modem, and supports all common ADSL connections.

• PPPoE, PPPoA, Direct Connection Support

Various WAN connections are supported by ADE-3400 / ADE-4400.

Auto-detection of Internet Connection Method

In most situations, the device can test your ADSL and Internet connection to determine the connection method used by your ISP.

• Fixed or Dynamic IP Address

On the Internet (WAN port) connection, the device supports both Dynamic IP Address (IP Address is allocated on connection) and Fixed IP Address.

Advanced Internet Functions

• Virtual Servers

This feature allows Internet users to access Internet servers on your LAN. The required setup is quick and easy.

DMZ Support

The device can translate public IP addresses to private IP address to allow unrestricted 2-way communication with Servers or individual users on the Internet. This provides the most flexibility to run programs, which could be incompatible in NAT environment.

Firewall

Supports simple firewall with NAT technology and provides option for blocking access from Internet, like Web, FTP, Telnet, SNMP, and ICMP. It also supports MAC and IP filtering.

• Universal Plug and Play (UPnP)

UPnP allows automatic discovery and configuration of the Broadband Router. UPnP is supported by Windows ME, XP, or later.

VPN Pass through Support

PCs with VPN (Virtual Private Networking) software are transparently supported - no configuration is required.

RIP1/2 Routing

It supports RIPv1/2 routing protocol for routing capability.

• Simple Network Management Protocol (SNMP)

It is an easy way to remotely manage the router via SNMP.

LAN Features

• Ethernet Port

The ADE-3400 provides one Ethernet port, making it easy to create or extend your LAN.

• 4-Port Switch (ADE-4400 only)

The ADE-4400 incorporates a 4-Port 10/100Base-TX switching hub, making it easy to create or extend your LAN.

DHCP Server Support

Dynamic **H**ost **C**onfiguration **P**rotocol provides a dynamic IP address to PCs and other devices upon request. The device can act as a DHCP Server for devices on your local LAN.

1.2 Package Contents

- ADE-3400 / ADE-4400 Unit x 1
- Power Adapter x 1
- Quick Installation Guide x 1
- User's Manual CD x 1
- RJ-11 cable x 2
- RJ-45 cable x 1
- Splitter x 1

1.3 Physical Details

Front Panel of ADE-3400



Front Panel LED definition

LED	State	Description
	ON	When the router is powered on and in ready state.
PWR	Red	The devise is being turned on and booting.
	OFF	When the router is powered off.
Link	ON	Successful connection between ADSL modem and telecom's
		network.
	Flashing	Modem is trying to establish a connection to telecom's network.
Data	Flashing	Data is transferred between Router and Internet.
	ON	Link
	Flashing	TX or RX activity.

Rear Panel of ADE-3400



Rear Panel Port and Button Definition

Connector	Description
POWER Button	The power button is for turn on or turns off the router.
Power	Power connector with 12V DC, 0.5A
	The reset button can restore the default settings of device. To restore
Reset	factory defaults, keep the device powered on and push a paper clip into
	the hole. Press down the button over 5 seconds and then release.
	Router is successfully connected to a device through the Ethernet port.
Ethernet	If the LED is flashing, the Router is actively sending or receiving data
	over that port.
Line	The RJ-11 connector allows data communication between the modem
	and the ADSL network through a twisted-pair phone wire.



Front Panel LED definition

LED	State	Description
	Green	When the router is powered on and in ready state.
PWR	Red	The devise is being turned on and booting.
	OFF	When the router is powered off.
Link C	ON	Successful connection between ADSL modem and telecom's
		network.
	Flashing	Modem is trying to establish a connection to telecom's network.
Data	Flashing	Data is transferred between Router and Internet.
	ON	Link
	Flashing	TX or RX activity

Rear Panel of ADE-4400



Rear Panel Port and Button Definition

Connector	Description
POWER Button	The power button is for turn on or turns off the router.
	The reset button can restore the default settings of device. To restore
Reset	factory defaults, keep the device powered on and push a paper clip into
	the hole. Press down the button over 5 seconds and then release.
Power	Power connector with 12V DC, 0.5A
	Router is successfully connected to a device through the corresponding
LAN 1-4	port (1, 2, 3, or 4). If the LED is flashing, the Router is actively sending or
	receiving data over that port.
Line	The RJ-11 connector allows data communication between the modem
	and the ADSL network through a twisted-pair phone wire.

2. Installation

This chapter offers information about installing your router. If you are not familiar with the hardware or software parameters presented here, please consult your service provider for the values needed.

2.1 System Requirement

- 1. Personal computer (PC)
- 2. Pentium III 266 MHz processor or higher
- 3. 128 MB RAM minimum
- 4. 20 MB of free disk space minimum
- 5. RJ45 Ethernet Port

2.2 Hardware Installation

Please connect the device to you computer as follow:

- If connecting to the splitter, connect the "Line" splitter to wall jack using one telephone cable
- Use another telephone cable to connect "MODEM" port of the splitter and "LINE" port of the modem. The "Phone" port of the splitter can be use to connect the telephone by a telephone cable.
- Use Ethernet cable to connect "LAN" port of the modem and "LAN" port of your computer.



Figure1 ADE-3400 connection diagram



Figure2 ADE-4400 connection diagram

If do not need to connect to the splitter,

- Connect the modem to wall jack with a telephone cable.
- Use Ethernet cable to connect "LAN" port of the modem and network adaptor of your computer.

2.3 Configuring the Network Properties

Configuring PC in Windows XP

- 1. Go to Start / Control Panel (in Classic View). In the Control Panel, double-click on Network Connections
- 2. Double-click Local Area Connection.



3. In the Local Area Connection Status window, click Properties.

🕹 Local Area Connection Status	? 🔀
General Support	
Connection	
Status:	Connected
Duration:	00:19:32
Speed:	100.0 Mbps
A = 15 (B)	
Sent —	
Packets: 27	0
Properties Disable	
	Close

4. Select Internet Protocol (TCP/IP) and click Properties.

🕹 Local Area Connection Properties 🛛 🔹 💽
General Authentication Advanced
Connect using:
B ASUSTeK/Broadcom 440x 10/100 Integrated Controller
Configure
This connection uses the following items:
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected
OK Cancel

5. Select the Obtain an IP address automatically and the Obtain DNS server address automatically radio buttons.

6. Click OK to finish the configuration.

ternet Protocot (TCP/IP) Pi	uper ties
General Alternate Configuration	
You can get IP settings assigned this capability. Otherwise, you nee the appropriate IP settings.	automatically if your network supports ad to ask your network administrator for
⊙ Obtain an IP address automa	atically
Use the following IP address	
IP address:	
Subnet mask:	
Default gateway:	
Obtain DNS server address	automatically
OUse the following DNS serve	er addresses:
Preferred DNS server:	
Alternate DNS server:	· · · ·
	Advanced

Configuring PC in Windows 2000

- 1. Go to Start / Settings / Control Panel. In the Control Panel, double-click on Network and Dial-up Connections.
- 2. Double-click Local Area Connection.

🔃 Network and Dial-up Connections		
File Edit View Favorites Tools	Advanced Help	11
🖙 Back 🔹 🔿 👻 💽 🥘 Search 🗳	🚡 Folders 👩 階 🧏 🗙 🖄 🗐 🏢 •	
Address 😰 Network and Dial-up Connec	tions	▼ 🖗 Go
Network and Dial-up Connections Local Area Connection Type: LAN Connection Status: Enabled ASUSTEK/Broadcom 440x 10/100 Integrated Controller	Make New Connection	

- 3. In the Local Area Connection Status window click Properties.
- 4. Select Internet Protocol (TCP/IP) and click Properties.

- 5. Select the Obtain an IP address automatically and the Obtain DNS server address automatically radio buttons.
- 6. Click **OK** to finish the configuration.

Internet Protocol (TCP/IP) Propert	ies <mark>?</mark> X
General	
You can get IP settings assigned aut this capability. Otherwise, you need to the appropriate IP settings.	omatically if your network supports o ask your network administrator for
 Obtain an IP address automatic 	ally
C Use the following IP address: -	
IP address:	
Subnet mask:	
Default gateway:	· · ·
Obtain DNS server address aut	omatically
└── Use the following DNS server a	ddresses:
Preferred DNS server:	
Alternate DNS server:	
	Advanced
	OK Cancel

Configuring PC in Windows 98/Me

- **1.** Go to **Start / Settings / Control Panel**. In the Control Panel, double-click on **Network** and choose the **Configuration** tab.
- Select TCP/IP → NE2000 Compatible, or the name of your Network Interface Card (NIC) in your PC.

Network
Configuration Identification Access Control
The following <u>n</u> etwork components are installed:
🔜 Microsoft Family Logon 📃
ASUSTeK/Broadcom 440x 10/100 Integrated Controller
B Dial-Up Adapter
TCP/IP -> ASUST eK/Broadcom 440x T0/T00 Integrated
Add Remove Properties
Primary Network Logon:
Microsoft Family Logon
Eile and Print Sharing
Description TCP/IP is the protocol you use to connect to the Internet and wide-area networks.
OK Cancel

- 3. Select the Obtain an IP address automatically radio button.
- 4. Then select the DNS Configuration tab.
- 5. Select the **Disable DNS** radio button and click **OK** to finish the configuration.

CP/IP Properties				? ×
Bindings DNS Configuration	Adv. Gateway	anced WINS C	Ne Configuration	etBIOS IP Address
• Disable DNS • Enable DNS]
Host:		Domai	16	
DNS Server Sear	rch Order —		Add	
		_	<u>R</u> emove	
Domain Suffix Se	arch Order	-1 F	Add	
		- 1	Re <u>m</u> ove	i
			ок	Cancel

3. Web Configuration Management

This chapter describes how to configure the router by using the Web-based configuration utility.

3.1 Access the Router

The following is the detailed description of accessing the router for the first time. **Step 1**: Open the Internet Explorer (IE) browser and enter <u>http://192.168.1.1</u>. **Step 2**: In the **Login** page that is displayed, enter the username and password.

- The username and password of the super user are admin and admin.
- The username and password of the super user are user and user.

Connect to 192.1	168.1.1 ? 🔀
	G
User name:	
Password:	Remember my password
	OK Cancel

If you log in as a super user, the page shown in the following figure appears. You can check, configure and modify all the settings.

PLANET Networking & Communication		ADSL 2/2+ Router							
Status	Wizard	Status	Network	Service	Advance	Admin	Diagnost		
	System	LAN	WAN	Statistics	ARP Table				
System	System This page sho System Alias Name Uptime(hh:m Software Ver DSP Version DSL Oper Osl DSL Up Time Upstream Sp	Status ows the current status m:ss) rsion status e(hh:mm:ss) eed	ADE-3400 00:01:00 V2.1 2.9.0.5a 	ngs of the device.					
	Downstream	Speed							

If you log in as a common user, you can check the status of the router, but can not configure the most of the settings.

Note:

In the Web configuration page, you can click **Apply Changes** to save the settings temporarily. If you want to save the settings of this page permanently, click **save** of **Attention** that appears at the button of the Web page after the configuration.

3.2 Wizard

The **Wizard** page guides fast and accurate configuration of the Internet connection and other important parameters. The following sections describe these various configuration parameters. Whether you configure these parameters or use the default ones, click **NEXT** to enable your Internet connection.

When subscribing to a broadband service, you should be aware of the method by which you are connected to the Internet. Your physical WAN device can be either PPP, ADSL, or both. The technical information about the properties of your Internet connection is provided by your Internet Service Provider (ISP). For example, your ISP should inform you whether you are connected to the Internet using a static or dynamic IP address, and the protocol that you use to communicate on the Internet.

In the navigation bar, click **Wizard**. The page shown in the following figure appears.

Wizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Wizard						
Wizard	Wizard	I					
	The Wizard	will guide you to finis	hing the DSL Configura	tion step by step.			
	Step 1: Setup	p Web Account					
	Step 2: Setup	p Time Zone					
	Step 3: Setup	p WAN Interface					
	Step 4: Save	Configuration					
	Step 1: Se	tup Web Account					
	Please set a r	new account to access	s the web server of ADS	L Router.			
	User Name	e:	admin 💌				
	New Passy	word:					
	Confirmed	Password:					
					NEXT		

The following table describes the parameters of this page:

Field	Description
User Name	Choose the user name for accessing the router. You can choose admin or user .
New Password	Enter the password to which you want to change the old password. The password can not contain space key, %, ", ? or &.
Confirmed Password	Enter the new password again.

After finishing the configuration, click **NEXT**. The page shown in the following figure appears. In this page, you can configure the system time and Network Time Protocol (NTP) server.

Nizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Wizard						
Wizard	Step 2: Se Please setup	tup Time Zone the system time and t	he Network Time Proto	col(NTP) server.			
	NTP Cont	iguration:					
	State:		💿 Disable 🔿 Er	nable			
	Server IP:						
	Interval:		Every	hours			
	Time Zone:		(GMT) Gambia,	Liberia, Morocco, E	ngland		~
	GMT time:		Fri Nov 6 14:57:20	2009			
				E	BACK		

The following table describes the parameters of this page:

Field	Description
State	You can disable or enable NTP function. You have to enable it if you want to configure the parameters of this page.
Server IP	Enter the IP address of the specified time server manually.
Interval	Set the interval that the router obtains the time from the time server. That is, the interval that the router verifies the time with the server.
Time Zone	Choose the time zone in which area you are from the drop down list.
GMT time	It displays the Greenwich Mean Time (GMT).

After finishing the configuration, click **NEXT**. The page shown in the following figure appears.

Wizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
Wizara	Wizard	Status	Network	3611166	Advance	Admin	Diagnosae
	Wizard						
Wizard	Step 3: Se	tup WAN Interfa	ice				
	Please setup	the Channel Mode o	f WAN Interface.				
	PVC Setti	ing: VPI: 0	(0-255) VCI: 0	(32-65535)			
	Encapsula	ation: OLLC/SNA	AP OVC-Mux				
	Channel N	Mode: 0 1483 Brid	lged				
		○ 1483 ME	R				
		PPP over	Ethernet(PPPoE)				
		O PPP over	ATM(PPPoA)				
		🔿 1483 Rou	ited				
	PPP Setti	ngs: User Name:		Passwor	d:		
	Default R	oute: Enable 	Disable				
	DNS Sett	ings: 💿 Obtain D	NS Automatically				
		◯ Use the f	ollowing DNS server a	ddress:			
		Primary DNS	Server:				
		Secondary D	NS Server:				
				E	ACK NEXT		

There are five channel modes, the following describes them respectively.

1483 Bridged

In the **Setup WAN Interface** page, enter the correct PVC, set the channel mode to **1483 Bridged**.

Wizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Wizard						
Wizard	Step 3: Se	tup WAN Interfa	ce				
	Please setup	the Channel Mode of	f WAN Interface.				
	PVC Setti	ng: VPI: 8	(0-255) VCI: 35	(32-65535)			
	Encapsula	tion: OLLC/SNA	P OVC-Mux				
	Channel M	Iode: 💿 1483 Brid	ged				
		🔾 1483 MEI	ર				
		O PPP over	Ethemet(PPPoE)				
		O PPP over	ATM(PPPoA)				
		🔾 1483 Rou	ted				
				[BACK NEXT		

Click **NEXT**, and the page shown in the following figure appears.

Nizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Wizard						
Wizard	Step 4:Save Click "FINISH" to drop these s The parame	Configuration to save these setti ettings. ters you set:	ings. Click "BACK" to n	nake any modifications	s. Click "RESET"		
	User Name:	admin					
	Password:	123					
	NTP State:	Disable					
	VPI:	8					
	VCI:	35					
	Encapsulation	n: LLC/SNAP					
	Channel Mo	de: 1483 bridge					
				BACK	H RESET		

If you want to modify the configuration, click **BACK** to return to the previous page. If you ensure the configuration is correct, click **FINISH** to take the configuration effect.

1483 MER

In the **Setup WAN Interface** page, enter the correct PVC, set the channel mode to **1483 MER**.

Wizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Wizard						
Wizard	Step 3: Se	tup WAN Interfa	ce				
	Please setup	the Channel Mode of	WAN Interface.				
	PVC Setti	ng: _{VPI:} 8	(0-255) VCI: 35	(32-65535)			
	Encapsula	tion: OLLC/SNA	P OVC-Mux				
	Channel N	Iode: 🔿 1483 Bridg	geđ				
		1483 MER	t i i i i i i i i i i i i i i i i i i i				
		O PPP over	Ethernet(PPPoE)				
		O PPP over	ATM(PPPoA)				
		0 1483 Rout	ed.				
	PPP Setti	ngs: User Name:		Passwor	d:		
	Default R	oute: ③Enable 〇	Disable				
	DNS Sett	ings: 💿 Obtain Dl	NS Automatically				
		O Use the fo	blowing DNS server a	ddress:			
		Primary DNS	Server:				
		Secondary D	NS Server:				
				B	ACK NEXT		

The following table describes the parameters of this page:

Field	Description
PVC Settings	 VPI: Virtual Path Identifier (VPI) is the virtual path between two points in an ATM network, ranging from 0 to 255. VCI: Virtual Channel Identifier (VCI) is the virtual channel between two points in an ATM network, ranging from 32 to 65535 (0 to 31 is reserved for local management of ATM traffic).
Encapsulation	Select the method of encapsulation provided by your ISP. You can select LLC/SNAP or VC-Mux .
Channel Mode	Select the WAN connection type. You can select 1483 Bridged , 1483 MER , PPP over Ethernet (PPPoE) , PPP over ATM (PPPoA) , or 1483 Routed . In this example, 1483 MER is selected.
Default Route	You can select Enable or Disable.
DNS Settings	 Obtain DNS Automatically: IP address is assigned by the office end automatically. You need not to enter the IP address. Use the following DNS server address: If you want to enter the DNS server address manually, select it and enter the IP addresses of primary DNS and secondary DNS.

After finishing the configuration, click **NEXT**. The page shown in the following figure appears.

Wizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic				
	Wizard										
Wizard	Step 4:Sav	Step 4:Save Configuration									
	Click "FINISI to drop these	H" to save these setti e settings.	ngs. Click "BACK" to 1	nake any modification:	s. Click "RESET"						
	The param	The parameters you set:									
	User Name	e: admin									
	Password:	123									
	NTP State	: Disable									
	VPI:	8	8 35								
	VCI:	35									
	Encapsulat	ion: LLC/SNAP									
	Channel M	ode: 1483 mer									
	WAN IP S	Settings: Use the follo	owing IP address:								
	WAN IP:	0.0.0.0									
	Netmask:	0.0.0.0									
	Gateway:	0.0.0.0									
	DNS Settin	ngs: Obtain DNS	Automatically								
				BACK FINIS	H RESET						

PPPoE/PPPoA

In the **Setup WAN Interface** page, enter the correct PVC, set the channel mode to **PPPoE** or **PPPoA**.

Wizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic				
	Wizard										
Wizard	Step 3: Se	tup WAN Interfa	ce								
	Please setup	Please setup the Channel Mode of WAN Interface.									
	PVC Setti	PVC Setting: VPI: 0 (0-255) VCI: 0 (32-65535)									
	Encapsulation: LLC/SNAP VC-Mux 										
	Channel Mode: 🔿 1483 Bridged										
		○ 1483 MEF	ι								
		• PPP over	Ethernet(PPPoE)								
		O PPP over	ATM(PPPoA)								
		O 1483 Rout	ted								
	PPP Setti	ngs: User Name:		Password	1:						
	Default R	oute: 💿 Enable 🤇	Disable								
	DNS Sett	ings: 💿 Obtain Di	NS Automatically								
		◯ Use the fo	ollowing DNS server a	ddress:							
		Primary DNS	Server:								
		Secondary D	NS Server:								
				B	ACK NEXT						

The following table describes the parameters of this page:

Field	Description
PVC Settings	 VPI: Virtual Path Identifier (VPI) is the virtual path between two points in an ATM network, ranging from 0 to 255. VCI: Virtual Channel Identifier (VCI) is the virtual channel between two points in an ATM network, ranging from 32 to 65535 (0 to 31 is reserved for local management of ATM traffic).
Encapsulation	Select the method of encapsulation provided by your ISP. You can select LLC/SNAP or VC-Mux .
Channel Mode	Select the WAN connection type. You can select 1483 Bridged , 1483 MER , PPP over Ethernet (PPPoE) , PPP over ATM (PPPoA) , or 1483 Routed . In this example, PPPoE is selected.
PPP Settings	Enter the username and password for PPP dial-up, which are provided by your ISP.
Default Route	You can select Enable or Disable .
DNS Settings	 Obtain DNS Automatically: IP address is assigned by the office end automatically. You need not to enter the IP address. Use the following DNS server address: If you want to enter the DNS server address manually, select it and enter the IP addresses of primary DNS and secondary DNS.

After finishing the configuration, click **NEXT**. The page shown in the following figure appears.

Wizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic			
	Wizard									
Wizard	Step 4:Sav Click "FINISF to drop these	e Configuration I" to save these settings.	ngs. Click "BACK" to t	make any modification:	s. Click "RESET"					
	The parameters you set:									
	User Name	admin								
	Password:	123								
	NTP State:	Enable								
	NTP Serve	r IP: 145.12.131.1								
	NTP Interv	al: 2								
	Time Zone:	8								
	VPI:	0								
	VCI:	35								
	Encapsulati	on: LLC/SNAP								
	Channel M	ode: pppoe								
	ppp User N	Jame: test@5600.com	m							
	ppp Passwo	ord: test								
	DNS Settin	igs: Obtain DNS A	utomatically							
				BACK	H RESET					

1483 Routed

In the **Setup WAN Interface** page, enter the correct PVC, set the channel mode to **1483 Routed**.

Nizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
Wizard	Wizard Step 3: Set Please setup t	t up WAN Interfa the Channel Mode of	ce WAN Interface.				
	PVC Settin Encapsula	ng: VPI: 8	(0-255) VCI: 35	(32-65535)			
	Channel N	Iode: 1483 Bi 1483 M 1483 M PPP ov PPP ov PPP ov 1483 R	ridged IER er Ethernet(PPPoE) er ATM(PPPoA) outed				
	WAN IP S	Settings: ③ Obtain ○ Use th WAN IP: Netmask: Gateway:	an IP address automati e following IP address:				
	Default Ro DNS Setti	oute: ① Enable ngS: ② Obtain ○ Use th Primary D? Secondary	O Disable DNS Automatically e following DNS server (S Server: DNS Server:	address:	BACK NEXT		

The following table describes the parameters of this page:

Field	Description
PVC Settings	 VPI: Virtual Path Identifier (VPI) is the virtual path between two points in an ATM network, and its valid value is from 0 to 255. VCI: Virtual Channel Identifier (VCI) is the virtual channel between two points in an ATM network, ranging from 32 to 65535 (0 to 31 is reserved for local management of ATM traffic).
Encapsulation	Select the method of encapsulation provided by your ISP. You can select LLC/SNAP or VC-Mux .
Channel Mode	Select the WAN connection type. You can select 1483 Bridged , 1483 MER , PPP over Ethernet (PPPoE) , PPP over ATM (PPPoA) , or 1483 Routed . In this example, 1483 Routed is selected.
WAN IP Settings	 Obtain an IP address automatically: Obtain the DNS server assigned by the uplink equipment, such as BAS. Use the following IP address: Enter the static IP address provided by your ISP.
Default Route	You can select Enable or Disable.
DNS Settings	 Obtain DNS Automatically: IP address is assigned by the office end automatically. You need not to enter the IP address. Use the following DNS server address: If you want to enter the DNS server address manually, select it and enter the related data.

After finishing the configuration, click **NEXT**. The page shown in the following figure appears.

Wizard	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Wizard						
Wizard	Step 4:Sav	e Configuration	ings. Click "BACK" to n	nake any modifications	. Click "RESET"		
	to arop these	eters you set:					
	User Name	admin					
	Password:	123					
	NTP State:	Disable					
	VPI:	8					
	VCI:	35					
	Encapsulatio	on: LLC/SNAP					
	Channel Mo	ode: 1483 router					
	WAN IP Se	ettings: Obtain an II	address automatically				
	DNS Settin	gs: Obtain DNS	Automatically				
				BACK	H RESET		

3.3 Status

In the navigation bar, click **Status**. In the **Status** page that is displayed contains **System**, **LAN**, **WAN**, **Statistics** and **ARP Table**.

3.3.1System

Choose **Status > System**. The page that is displayed shows the current status and some basic settings of the router, such as, uptime, software version, upstream speed, downstream speed, and other information.

System	Wizard	Status	Network	Service	Advance	Admin	Diagnostic			
	System	LAN	WAN	Statistics	ARP Table					
System	System This page sh	Status	s and some basic settin	ngs of the device.						
	System									
	Alias Name		ADE-3400							
	Uptime(hh:r	nm:ss)	00:14:30							
	Software Ve	rsion	V2.1							
	DSP Versio	n	2.9.0.5a							
	DSL	DSL								
	Operational	Status								
	DSL Up Tim	ie(hh:mm:ss)								
	Upstream S	peed								
	Downstream	1 Speed								

3.3.2 LAN

Choose **Status** > **LAN**. The page that is displayed shows some basic LAN settings of the router. In the **LAN Status** page, you can view the LAN IP address, DHCP server status, MAC address and DHCP client table. If you want to configure the LAN network, refer to the chapter 03.4.1 LAN.

LAN	Wizard	Status	Network	Service	Advance	Admin	Diagnostic				
	System	LAN	WAN	Statistics	ARP Table						
LAN	LAN S	tatus									
	This page s	This page shows some basic LAN settings. 									
	IP Address		192.168.1.1								
	Subnet Mas	k	255.255.255.0								
	DHCP Serv	er	Enable								
	MAC Addre	SS									
	DHCP Clien	DHCP Client Table									
	Name II	P Address	MAC Address	Expir	y(s) Type						

3.3.3 WAN

Choose **Status** > **WAN**. The page that is displayed shows some basic WAN settings of the router. In the **WAN Status** page, you can view basic status of WAN, default gateway, DNS server. If you want to configure the WAN network, refer to the chapter 03.4.2 WAN.

WAN	Wizard	Status	Network	Service	Advance	Admi	n Diagnostic
	System	LAN	WAN	Statistics	ARP Table		
WAN	WAN S This page sl Interface 1 DNS Server	Status hows some basic WAI VPI/VCI Encap	N settings. Droute Protoco	ol IP Address	Gateway	Status	

3.3.4 Port Mapping (ADE-4400 only)

Choose **Status > Port Mapping**. The page that is displayed shows the relationship and status of port mapping.

Port Mapping	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	System	LAN	WAN	Port Mapping	Statistics	ARP Table	
Port Mapping	Port N This page sl Status: Dise	Iapping hows the mapping rela ubled	tion and the status of	port mapping.			
	Select		Interfaces		Status		
	Default	:	LAN1,LAN2,LAN3,LA	AN4	Enabled		
	Group1						
	Group2						
	Group3						
	Group4						

3.3.5 Statistics

Choose Status > Statistics. The Statistics page that is displayed contains Traffic Statistic and DSL Statistic.

3.3.5.1 Traffic Statistic

Click **Traffic Statistic** in the left pane, the page shown in the following figure appears. In this page, you can view the statistics of each network interface.

Traffic Statistic	Wizard	Status		Network	Service	е	Advance	Admin	Diagnostic
	System	LAN		WAN	Statistics	s	ARP Table		
Traffic Statistic DSL Statistic	Statist This page sl interface.	ics hows the packet stat	istics for	r transmissio	on and reception reg	garding to) network		
	Interface	Rx pkt	Rx err	Rx drop	Tx pkt	Tx err	Tx drop		
	el	99	0	0	89	0	0		
	a0	0	0	0	0	0	0		
	al	0	0	0	0	0	0		
	a2	0	0	0	0	0	0		
	a3	0	0	0	0	0	0		
	a4	0	0	0	0	0	0		
	a5	0	0	0	0	0	0		
	аб	0	0	0	0	0	0		
	a7	0	0	0	0	0	0		

3.3.5.2 DSL Statistic

Click **DSL Statistic** in the left pane, the page shown in the following figure appears. In this page, you can view the ADSL line statistics, downstream rate, upstream rate and other information.

DSL Statistic	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	System	LAN	WAN	Statistics	ARP Table		
Traffic Statistic DSL Statistic	ADSL This page st	Configurati	ON ADSL Router.				
	Adsl Line S Adsl Mode	tatus	ACTIVATING.				
	Up Stream Down Strea	m					
	Attenuation Attenuation	Down Stream(db) Up Stream(db)	-				
	SNR Margin	n Down Stream(db)					
	Vendor ID DSP Versio	n	RETK				
	CRC Errors						
	Down Stream	m BER	-				
	Down Output	ower it Power	-				
	ES SES						
	UAS		-				
	Adsl Retrai	n: Retr	ain Refresh				

3.3.6 ARP Table

Choose **Status > ARP Table**. In the **Arp tables** page, you can view the table that shows a list of learned MAC addresses.

ARP Table	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	System	LAN	WAN	Statistics	ARP Table		
ARP Table	Arp ta The page sh	bles ow MAC address tabl	les.				
	IP address 192.168.1.1 192.168.1.118 Refresh		0	Mac address 0:30:4F:03:04:05 0:30:4F:0C:F2:CE			

3.4 Network

In the navigation bar, click **Network**. The **Network** page that is displayed contains **LAN** and **WAN**.

3.4.1 LAN

Choose **Network > LAN**. The **LAN** page that is displayed contains **LAN IP**, **DHCP**, and **DHCP Static IP**.

3.4.1.1 LAN IP

Click **LAN IP** in the left pane, the page shown in the following figure appears. In this page, you can change IP address of the router. The default IP address is 192.168.1.1, which is the private IP address of the router.

LAN	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	LAN	WAN					
LAN IP DHCP DHCP Static IP	LAN II This page is the setting fo	used to configure the	LAN interface of your	ADSL Router. Here y	ou may change		
	Interface Na IP Address: Subnet Masl V Seconda IP Address: Subnet Masl	me: el 192. k: 255. ry IP 0.0.0 k: 0.0.0	168.1.1 255.255.0 .0				

The following table describes the parameters of this page:

Field	Description
IP Address	Enter the IP address of LAN interface. It is recommended to use an address from a block that is reserved for private use. This address block is 192.168.1.1- 192.168.255.254.
Subnet Mask	Enter the subnet mask of LAN interface. The range of subnet mask is from 255.255.0.0-255.255.255.254.
Secondary IP	Select it to enable the secondary LAN IP address. The two LAN IP addresses must be in the different network.

3.4.1.2 DHCP

Dynamic Host Configuration Protocol (DHCP) allows the individual PC to obtain the TCP/IP configuration from the centralized DHCP server. You can configure this router as a DHCP server or disable it. The DHCP server can assign IP address, IP default gateway, and DNS server to DHCP clients. This router can also act as a surrogate DHCP server (DHCP proxy) where it relays IP address assignment from an actual real DHCP server to clients. You can enable or disable DHCP server or DHCP proxy.

Click **DHCP** in the left pane, the page shown in the following figure appears.

DHCP	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	LAN	WAN					
LAN IP DHCP DHCP Static IP	DHCP LAN IP Add This page ci (I)Enable th available to request Inte (2)Enable th LAN. You c (3)If you ch (3)If you ch (3)I	Mode ress: 192.168.1.1 Sub m be used to config th e DHCP Server if you hosts on your LAN. T met access. e DHCP Relay if you a n set the DHCP serve bose "None", then the e: ge: time: hanges Undo	net Mask: 255 255 255 4 te DHCP mode:None,D are using this device as the device distributes in re using the other DHC rip address. modem will do nothing DHCP Server 192.168.1.2 192.168.1.1 1440 mint domain.name	0 DHCP Relay or DHCP S a DHCP server. This numbers in the pool to CP server to assign IP i g when the hosts requ 192.168.1.254	erver. page lists the IP addres hosts on your network address to your hosts o est a IP address. Show Client	s pools as they n the	

The following table describes the parameters of this page:

Field	Description
DHCP Mode	If set to DHCP Server , the router can assign IP addresses, IP default gateway and DNS Servers to the host in Windows95, Windows NT and other operation systems that support the DHCP client.
IP Pool Range	It specifies the first and the last IP address in the IP address pool. The router assigns IP address that is in the IP pool range to the host.
Show Client	Click it, the Active DHCP Client Table appears. It shows IP addresses assigned to clients.
Default Gateway	Enter the default gateway of the IP address pool.
Max Lease Time	The lease time determines the period that the host retains the assigned IP addresses before the IP addresses change.
Domain Name	Enter the domain name if you know. If you leave this blank, the domain name obtained by DHCP from the ISP is used. You must enter host name (system name) on each individual PC. The domain name can be assigned from the router through the DHCP server.

Click **Show Client** in the **DHCP Mode** page, the page shown in the following figure appears. You can view the IP address assigned to each DHCP client.

Active DHCP C	Active DHCP Client Table				
This table shows the assigned leased client.	This table shows the assigned IP address, MAC address and time expired for each DHCP leased client.				
Name IP Address	MAC Address	Expiry(s)	Туре		
Refresh Close					

The following table describes the parameters and buttons in this page:

Field	Description
IP Address	It displays the IP address assigned to the DHCP client from the router.
MAC Address	It displays the MAC address of the DHCP client. Each Ethernet device has a unique MAC address. The MAC address is assigned at the factory and it consists of six pairs of hexadecimal character, for example, 00-A0-C5-00-02-12.
Expired (s)	It displays the lease time. The lease time determines the period that the host retains the assigned IP addresses before the IP addresses change.
Refresh	Click it to refresh this page.
Close	Click it to close this page.

In the DHCP Mode field, choose None. The page shown in the following figure appears.



In the **DHCP Mode** field, choose **DHCP Relay**. The page shown in the following figure appears.

DHCP	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	LAN	WAN					
LAN IP DICP DHCP Static IP	DHCP LAN IP Add This page of UjEnable th available to request Inter (c)Enable th LAN. You c (c)]If you ch Relay Serve Apply C	Mode ress: 192.168.1.1 Sub n be used to config th other of the server if you obsts on your LAN. T met access. e DHCP Relay if you a m set the DHCP server r: r: 192.168.2.242 hanges Undo rendorClass UP Rang	net Mask: 255.255.255. he DHCP mode:None,D are using this device a the device distributes r if y address. modern will do nothing DHCP Relay	0 HCP Relay or DHCP 9 a DHCP server. This numbers in the pool to CP server to assign IP g when the hosts requ	Server. page lists the IP address hosts on your network. address to your hosts o lest a IP address.	r pools is they n the	

The following table describes the parameters and buttons of this page:

Field	Description
DHCP Mode	If set to DHCP Relay , the router acts a surrogate DHCP Server and relays the DHCP requests and responses between the remote server and the client.
Relay Server	Enter the DHCP server address provided by your ISP.
Apply Changes	Click it to save the settings of this page.
Undo	Click it to refresh this page.

3.4.1.3 DHCP Static IP

Click **DHCP Static IP** in the left pane, the page shown in the following figure appears. You can assign the IP addresses on the LAN to the specific individual PCs based on their MAC address.

DHCP Static IP	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	LAN	WAN					
LAN IP DHCP	DHCP This page li	Static IP C	onfiguration	1 The device distributes	the number		
DHCP Static IP	configured t	to hosts on your netwo	ork as they request Inte	emet access.	die Halloei		
	IP Address:	0.0.0	0.0				
	Mac Addres	is: 0000	00000000 (e:	s. 00E086710502)			
	Add	Delete Selected	Undo				
	DHCP Statio	: IP Table:					
	Sele	ct	IP Address	MAC Add	ress		

The following table describes the parameters and buttons of this page:

Field	Description
IP Address	Enter the specified IP address in the IP pool range, which is assigned to the host.
Mac Address	Enter the MAC address of a host on the LAN.
Add	After entering the IP address and MAC address, click it. A row will be added in the DHCP Static IP Table .
Delete Selected	Select a row in the DHCP Static IP Table , then click it, this row is deleted.
Undo	Click it to refresh this page.
DHCP Static IP Table	It shows the assigned IP address based on the MAC address.

3.4.2 WAN

Choose **Network > WAN**. The **WAN** page that is displayed contains **WAN**, **ATM Setting**, and **ADSL Setting**.

3.4.2.1 WAN

V

Click **WAN** in the left pane, the page shown in the following figure appears. In this page, you can configure WAN interface of your router.

/AN	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	LAN	WAN					
WAN ATM Setting	Channe	el Configura	ation				
ADSL Setting	This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router. Note : When connect type of PPPoE and PPPoA only is "Manual", the "Connect" and "Disconnect" button will be enable.						
	Default Route	e Selection: OAuto	o 💿 Specified				
	VPI: 0 Channel Mod	VCI:	Encapsulation Enable NAPT:	: • LLC OVC-Mux	ι.		
	Enable IGMP	:	-				
	PPP Settings	s: User Name: Type:	Continuous	Passwor V Idle Time	d:		
	WAN IP Sett	ings: Type: Local IP Addr Netmask:	Fixed IP ess:	ODHC Remote I	P IP Address:		
	Default Rout Unnumbered	e: Disable	Enable	() Auto	,		
	Connect	Disconnect	dd Modify De	lete Undo Refre	esh		
	Current ATM	IVC Table:	_	ID Remete	Tierr	_	
	Select Inf M	ode VPI VCI Encap N 483 8 35 LLC	APT IGMP DRoute	Addr IP NetMa	oser Unnumber St	evn	

The following table describes the parameters of this page:

Field	Description
Default Route Selection	You can select Auto or Specified.
VPI	The virtual path between two points in an ATM network, ranging from 0 to 255.
VCI	The virtual channel between two points in an ATM network, ranging from 32 to 65535 (1 to 31 are reserved for known protocols)
Encapsulation	You can choose LLC and VC-Mux.
Channel Mode	You can choose 1483 Bridged , 1483 MER , PPPoE , PPPoA , or 1483 Routed .
Enable NAPT	Select it to enable Network Address Port Translation (NAPT) function. If you do not select it and you want to access the Internet normally, you must add a route on the uplink equipment. Otherwise, the access to the Internet fails. Normally, it is enabled.
Enabel IGMP	You can enable or disable Internet Group Management Protocol (IGMP) function.
PPP Settings	
User Name	Enter the correct user name for PPP dial-up, which is provided by your ISP.
Password	Enter the correct password for PPP dial-up, which is provided by your ISP.
Туре	You can choose Continuous , Connect on Demand , or Manual .
Idle Time (min)	If set the type to Connect on Demand , you need to enter the idle timeout time. Within the preset minutes, if the router does not detect the flow of the user continuously,

Field	Description						
	the router automatically disconnects the PPPoE						
	connection.						
WAN IP Settings							
	You can choose Fixed IP or DHCP .						
	• If select Fixed IP , you should enter the local						
Туре	address, remote IP address and subnet mask.						
	• If select DHCP , the router is a DHCP client, the WAN						
	IP address is assigned by the remote DHCP server.						
Local IP Address	Idress Enter the IP address of WAN interface provided by your ISP.						
Remote IP Address	Enter the gateway IP address provided by your ISP.						
Netmask Enter the subnet mask of the local IP address.							
Unnumbered	Select this checkbox to enable IP unnumbered function.						
Add	After configuring the parameters of this page, click it to						
Aud	add a new PVC into the Current ATM VC Table .						
	Select a PVC in the Current ATM VC Table, and then						
Modify	modify the parameters of this PVC. After finishing, click it						
	to apply the settings of this PVC.						
	This table shows the existed PVCs. It shows the interface						
Current ATM VC Table	name, channel mode, VPI/VCI, encapsulation mode,						
	local IP address, remote IP address and other						
	information. The maximum item of this table is eight.						
Ø	Click it, the PPP Interface-Modify appears. You can modify the PVCs' parameters.						

Click click in the **PPPoE** mode, the page shown in the following figure appears. In this page, you can configure parameters of this PPPoE PVC.

WAN	Wizard	Status	Network	Service	Advance	Admin	Diagnostic		
	LAN	WAN							
WAN ATM Setting	PPP II	nterface ·	- Modify						
ADSL Setting	Protoco	1:	PPPoE						
-	ATH VCC	:	8/32						
	Login Na	ame:	test@5600	. com					
	Passwor	d:	••••						
	Authent	ication l etho	d: AUTO 🔜						
	Connect	ion Type:	Continuou	Cont inuous					
	Idle Ti	me(s):	0						
	Bridge:		OBridged	l Ethernet (Trans	parent Bridging)				
			OBridged	l PPPoE (implies)	Bridged Ethernet)				
			⊙ Disable	Bridge					
	AC-Name	:							
	Service	-Name:							
	802.1q:		⊙Disable	○ Enable					
			VLAN ID(0-	4095): 0]				
	∎TU:		1492						
	Static 3	IP:							
	Apply C	Changes Retur	m Undo						

The following table describes the parameters and buttons of this page:

Field	Description				
Protocol	It displays the protocol type used for this WAN connection.				
ATM VCC	The ATM virtual circuit connection assigned for this PPP interface (VPI/VCI).				
Login Name	The user name provided by your ISP.				
Password	The password provided by your ISP.				
Authentication Method	You can choose AUTO, CHAP, or PAP.				
Connection Type	You can choose Continuous , Connect on Demand , or Manual .				
Idle Time (s)	If choose Connect on Demand , you need to enter the idle timeout time. Within the preset minutes, if the router does not detect the flow of the user continuously, the router automatically disconnects the PPPoE connection.				
Bridge	You can select Bridged Ethernet, Bridged PPPoE, or Disable Bridge.				
AC-Name	The accessed equipment type.				
Service-Name	The service name.				
802.1q	You can select Disable or Enable . After enable it, you need to enter the VLAN ID. The value ranges from 0 to 4095.				
Apply Changes	Click it to save the settings of this page temporarily.				
Return	Click it to return to the Channel Configuration page.				
Undo	Click it to refresh this page.				

3.4.2.2 ATM Setting

Click **ATM Setting** in the left pane, the page shown in the following figure appears. In this page, you can configure the parameters of the ATM, including QoS, PCR, CDVT, SCR, and MBS.

ATM Setting	Wizard	Status	Network	Sen	vice	Advance	Admin	Diagnostic
	LAN	WAN						
WAN ATM Setting ADSL Setting	ATM S This page is may change VPI: PCR: Apply C	Settings used to configure th the setting for VPI, V VCI: CDVT: Changes Under	e parameters for the A' (CI, QoS etc QoS: UBR SCR:	IM of your A	ADSL Route	r. Here you		
	Current ATI Select	M VC Table: VPI VCI	QoS PCR	CDVT	SCR	MBS		
	0	8 35	UBR 6144	0				
	0	8 32	UBR 6144	0				

The following table describes the parameters of this page:

Field	Description
VPI	The virtual path identifier of the ATM PVC.
VCI	The virtual channel identifier of the ATM PVC.
QoS	The QoS category of the PVC. You can choose UBR, CBR, rt-VBR, or nrt-VBR.
PCR	Peak cell rate (PCR) is the maximum rate at which cells can be transmitted along a connection in the ATM network. Its value ranges from 1 to 65535.
CDVT	Cell delay variation tolerance (CDVT) is the amount of delay permitted between ATM cells (in microseconds). Its value ranges from 0 to 4294967295.
SCR	Subtain cell rate (SCR) is the maximum rate that traffic can pass over a PVC without the risk of cell loss. Its value ranges from 0 to 65535.
MBS	Maximum burst size (MBS) is the maximum number of cells that can be transmitted at the PCR. Its value ranges from 0 to 65535.

3.4.2.3 ADSL Setting

Click **ADSL Setting** in the left pane, the page shown in the following figure appears. In this page, you can select the DSL modulation. Mostly, you need to remain this factory default settings. The router supports these modulations: **G.Lite**, **G.Dmt**, **T1.413**, **ADSL2**, **ADSL2+**, **AnnexL**, and **AnnexM**. The router negotiates the modulation modes with the DSLAM.

ADSL Setting	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	LAN	WAN					
WAN ATM Setting	ADSL	Settings					
ADSL Setting	Adsl Settin	gs.					
	ADSL mod	alation:					
		🗌 G .	Lite				
		🗹 G.	Dmt				
		🗹 Ti	.413				
		🗹 A	DSL2				
		🗹 A	DSL2+				
	AnnexL Op	tion:					
		🗹 Er	abled				
	AnnexM O	ption:					
		Er Er	abled				
	ADSL Capa	bility:					
		🗹 Bi	tswap Enable				
		🗹 SI	A Enable				
	Apply C	hanges					

3.5 Service

In the navigation bar, click **Service**. In the **Service** page that is displayed contains **DNS**, **Firewall**, **UPNP**, **IGMP Proxy**, **TR-069**, and **ACL**.

3.5.1 DNS

Domain Name System (DNS) is an Internet service that translates the domain name into IP address. Because the domain name is alphabetic, it is easier to remember. The Internet, however, is based on IP addresses. Every time you use a domain name, DNS translates the name into the corresponding IP address. For example, the domain name www.example.com might be translated to 198.105.232.4. The DNS has its own network. If one DNS server does not know how to translate a particular domain name, it asks another one, and so on, until the correct IP address is returned.

Choose Service > DNS. The DNS page that is displayed contains DNS and DDNS.

3.5.1.1 DNS

Click **DNS** in the left pane, the page shown in the following figure appears.

ervice	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
DNS DDNS	DNS C	onfiguratio	n	6 DYG D 1			
	Ihis page is used to configure the DNS server ip addresses for DNS Relay.						
	DNS 1 DNS 2 DNS 3	1: 2: 3:	0.0.0				
	Apply C	hanges Rese	et Selected				

The following table describes the parameters and buttons of this page:

Field	Description
Attain DNS Automatically	Select it, the router accepts the first received DNS assignment from one of the PPPoA, PPPoE or MER enabled PVC(s) during the connection establishment.
Set DNS Manually	Select it, enter the IP addresses of the primary and secondary DNS server.
Apply Changes	Click it to save the settings of this page.
Reset Selected	Click it to start configuring the parameters in this page.

3.5.1.2 DDNS

Click **DDNS** in the left pane, the page shown in the following figure appears. This page is used to configure the dynamic DNS address from DynDNS.org or TZO. You can add or remove to configure dynamic DNS.

DDNS	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
DNS DDNS	Dynam This page is you can Ad	tic DNS Con used to configure the d'Remove to configure	figuration Dynamic DNS address Dynamic DNS.	s from DynDNS.org or	TZO. Here		
	DDNS provi Hostname: Interface: Enable: DynDns Sett	ider: Dyn[• V	DNS.org				
	Username: Password: TZO Setting	;s:					
	Email: Key: Add R Dynamic DD	emove					
	Select	State Service	Hostname	Usen	name Inter	face	

The following table describes the parameters of this page:

Field	Description
DDNS provider	Choose the DDNS provider name.
Hostname	The DDNS identifier.
Interface	The WAN interface of the router.
Enable	Enable or disable DDNS function.
Username	The name provided by DDNS provider.
Password	The password provided by DDNS provider.
Email	The email provided by DDNS provider.
Key	The key provided by DDNS provider.

3.5.2 Firewall

Choose Service > Firewall. The Firewall page that is displayed contains IP Port Filter, MAC Filter, URL Blocking, Virtual Server, DMZ Setting, and DoS Setting.

3.5.2.1 IP Port Filter

Click **IP Port Filter** in the left pane, the page shown in the following figure appears. Entries in the table are used to restrict certain types of data packets through the gateway. These filters are helpful in securing or restricting your local network.

Firewall	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
IPPort Filter	IP/Port	t Filtering					
MAC Filter							
URL Blocking	Entries in thi	s table are used to res Gateway. Use of such	strict certain types of d	lata packets from your	local network to Interne g your local network	t	
Virtual Server		outonuj: ose el sue	inters car of neiprai	in second ing of restarcas			
DMZ Setting							
ALG Setting	Outgoing De	fault Action: 💿 Per	mit O Deny				
DoS Setting	Incoming De	fault Action: OPer	mit 💿 Deny				
	Rule Action:	01	Permit 💿 Deny				
	Protocol:	IP	~	Direction:	Outgoing 🖌		
	Source IP Ad	ddress:		Mask Address:	255.255.255.255]	
	Dest IP Addr	ess:		Mask Address:	255.255.255.255]	
	SPort:		-	DPort:	-		
	Enable:	\checkmark					
	Apply C	hanges Re	set				
	Current Filte	r Table:					
	Rule Pro	tocol Source IP	/Mask SPort	Dest IP/Mask DI	Port State Direction	on Action	

3.5.2.2 MAC Filter

Click **MAC Filter** in the left pane, the page shown in the following figure appears. Entries in the table are used to restrict certain types of data packets from your local network to Internet through the gateway. These filters are helpful in securing or restricting your local network.

MAC Filter	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
IPPort Filter MAC Filter URL Blocking Virtual Server DMZ Setting ALG Setting DoS Setting	MAC I Entries in th through the Outgoing D Incoming Du Apply	Filtering is table are used to res Gateway. Use of such efault Policy ODen sfault Policy ODen	trict certain types of d filters can be helpful ii y ⊙ Allow y ⊙ Allow	ata packets from your n securing or restrictin	iocal network to Intern g your local network.	et	
	Direction: Action: Source MA Destination Add Current MA Select Delete	Outgo © Der MAC: C Filter Table: Direction Delete All	ing y Allow (ex. 00E08 (ex. 00E08 Source MAC	6710502) 6710502) Destinatio	on MAC A	ction	

3.5.2.3 URL Blocking

Click **URL Blocking** in the left pane, the page shown in the following figure appears. This page is used to block a fully qualified domain name, such as tw.yahoo.com and filtered keyword. You can add or delete FQDN and filtered keyword.

URL Blocking	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
IPPort Filter MAC Filter URL Blocking Virtual Server	URL I This page is keyword.	Blocking Co	nfiguration	e you can add/delete fil	tered		
DMZ Setting ALG Setting DoS Setting	URL Block	ing Capability: Changes	٥ı	Disable 🔿 Enable			
	Keyword: AddKey URL Blocki Select	word Delet ng Table: Filtered Ke	e Selected Keyword word				

The following table describes the parameters and buttons of this page:

Field	Description
URL Blocking Capability	 You can choose Disable or Enable. Select Disable to disable URL blocking function and keyword filtering function. Select Enable to block access to the URLs and keywords specified in the URL Blocking Table.
Keyword	Enter the keyword to block.
AddKeyword	Click it to add a keyword to the URL Blocking Table.
Delete Selected Keyword	Select a row in the URL Blocking Table and click it to delete the row.
URL Blocking Table	A list of the URL (s) to which access is blocked.

3.5.2.4 Virtual Server

Click Virtual Server in the left pane, the page shown in the following figure appears.

Virtual Server	Wizard	Status	Network	Service	Advance	Admin	Diagnosti
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
IPPort Filter MAC Filter URL Blocking Virtual Server DMZ Setting ALG Setting DoS Setting	Virtua The page all Service Typ O Usual S User-de Protocol: WAN Settin WAN Interf WAN Port: LAN Ip Add	I Server ow you to config virt e: ervice Name: frined Service Name: g: ace: Port: tress: Changes	AUTH TCP Interface any 113 113	e access the server thro	ugh the Gateway.		
	Current Vir	tual Server Forwardi	ing Table:				
	ServerNar	ne Protocol Loca	I IP Address Local F	Port WAN IP Addres	ss WAN Port Stat	e Action	

The following table describes the parameters of this page:

Field	Description
Service Type	 You can select the common service type, for example, AUTH, DNS, or FTP. You can also define a service name. If you select Usual Service Name, the corresponding parameter has the default settings. If you select User-defined Service Name, you need to enter the corresponding parameters.
Protocol	Choose the transport layer protocol that the service type uses. You can choose TCP or UDP .
WAN Setting	You can choose Interface or IP Address.
WAN Interface	Choose the router port that uses virtual server.
WAN Port	Choose the access port on the WAN.
LAN Open Port	Enter the port number of the specified service type.
LAN IP Address	Enter the IP address of the virtual server. It is in the same network segment with LAN IP address of the router.

3.5.2.5 DMZ Setting

Demilitarized Zone (DMZ) is used to provide Internet services without sacrificing unauthorized access to its local private network. Typically, the DMZ host contains devices accessible to Internet traffic, such as web (HTTP) servers, FTP servers, SMTP (e-mail) servers and DNS servers.

Click **DMZ Setting** in the left pane, the page shown in the following figure appears.

The following describes how to configure DMZ.

Step 1: Select Enable DMZ to enable this function.

Step 2: Enter an IP address of the DMZ host.

Step 3: Click Apply Changes to save the settings of this page temporarily.

DMZ Setting	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
IPPort Filter	DMZ						
MAC Filter							
URL Blocking	A Demilitari access to its	zed Zone is used to pr	ovide Internet services	s without sacrificing un ost contains devices a	authorized		
Virtual Server	Internet traf	fic, such as Web (HT)	IP) servers, FTP serve	rs, SMTP (e-mail) serve	ers and DNS		
DMZ Setting							
ALG Setting	Enable	DMZ					
DoS Setting	DMZ Host I	P Address:					
	Apply C	Changes Rese	t				

3.5.2.6 DoS Setting

Denial-of-Service Attack (DoS attack) is a type of attack on a network that is designed to bring the network to its knees by flooding it with useless traffic.

Click **DoS Setting** in the left pane, the page shown in the following figure appears. In this page, you can prevent DoS attacks.

DoS Setting	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
IPPort Filter	DoS Se	etting					
MAC Filter							
URL Blocking	A "denial-of	-service" (DoS) attack	is characterized by an	explicit attempt by hac	kers to prevent		
Virtual Server	legitimate us	sers of a service from us	sing that service.		-		
DMZ Setting	🗌 Enable	DoS Prevention					
ALG Setting	Who	le System Flood: SYN		100 Packets/	Second		
DoS Setting	Who	le System Flood: FIN	[100 Packets/	Second		
	Who	le System Flood: UDP		100 Packets/	Second		
	Who	le System Flood: ICMP	•	100 Packets/	Second		
	Per-S	Source IP Flood: SYN		100 Packets/	Second		
	Per-S	Source IP Flood: FIN	[100 Packets/	Second		
	Per-S	Source IP Flood: UDP	[100 Packets/	Second		
	Per-S	Source IP Flood: ICMP	•	100 Packets/	Second		
	TCP/	UDP PortScan		Low 💙 Sensitivity			
	ICM	P Smurf					
	IP La	and					
	IP Sp	boof					
	IP Te	earDrop OfDeeth					
	TCP	Scan					
	ТСР	SynWithData					
	UDP	Bomb					
	UDP	EchoChargen					
	Select /	ALL Clear AL	L				
	Enabl	le Source IP Blocking	[300 Block time	(sec)		
	Apply C	Changes					

3.5.3 UPNP

Choose **Service** > **UPnP**, the page shown in the following figure appears. This page is used to configure UPnP. The system acts as a daemon after you enable it.

UPNP	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
UPNP	UPnP This page in	UPnP Configuration This page is used to configure UPnP. The system acts as a daemon when you enable UPnP.					
	UPnP: WAN Inter	face:	O Disable	Enable			
	Apply C	Changes					

3.5.4 IGMP Proxy

Choose **Service** > **IGMP Proxy**, the page shown in the following figure appears. IGMP proxy enables the system to issue IGMP host messages on behalf of hosts that the system discovered through standard IGMP interfaces. The system acts as a proxy for its hosts after you enable it.

IGMP Proxy	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL	
IGMP Proxy	IGMP	Proxy Conf	figuration				
	IGMP proxy system disc hosts when . Enable IGM . Enable IGM	enables the system to overed through standa you enable it by doing AP proxy on WAN inte AP on LAN interface (c	issue IGMP host mes ard IGMP interfaces. T g the follows: erface (upstream), which downstream), which co	sages on behalf of hos he system acts as a pro h connects to a router nnects to its hosts.	ts that the xy for its running IGMP.		
	IGMP Proxy	y:	ODisable	 Enable 			
	Multicast A	llowed:	○ Disable	Enable			
	Robust Cou	nt:	2]			
	Last Membe	er Query Count:	2]			
	Query Inter	val:	60	(seconds)			
	Query Resp	oonse Interval:	100	(*100ms)			
	Group Leave	e Delay:	2000	(ms)			
	Apply C	hanges Undo]				

3.5.5 TR-069

Choose **Service** > **TR-069**, the page shown in the following page appears. In this page, you can configure the TR-069 CPE.

R-069	Wizard	Status	Network	Service	Advance	Admin	Diagnostic		
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL			
TR-069	TR-069 This page is ACS's param	Configuration of the second se	ttion e TR-069 CPE. Here you	1 may change the settir	ng for the				
	ACS:								
	Enable:								
	URL:	http	://172.21.70.44/cpe/?	pd128					
	User Name:	rtk							
	Password:	•••	,						
	Periodic Info	orm Enable: OI	Disable 💿 Enable						
	Periodic Info	orm Interval: 300							
	Connection	Pognanti							
	User Name:	rtk							
	Password:		•						
	Path	(1+0)							
	Port	700	7						
	1011.	134	1						
	Debug:								
	ACS Certifi	cates CPE: 💿 🕅	No 🔿 Yes						
	Show Messa	ge: 💿 I	Disable 🔿 Enable						
	CPE Sends O	GetRPC: OI	Disable 🔿 Enable						
	Skip MRebo	ot: 💿 I	Disable 🔿 Enable						
	Delay:	OI	Disable 💿 Enable						
	Auto-Executi	Auto-Execution: ODisable OEnable							
	Apply Ch	Apply Changes Reset							
	Certificat M	anagement:							
	CPE Certific	cat Password:	nt	Apply Und	<u>'</u>				
	CPE Certific	cat:		Browse	Upload				
	CA Contilian			Browse	Upload				

The following table describes the parameters of this page:

Field	Description
ACS	
URL	The URL of the auto-configuration server to connect to.
User Name	The user name for logging in to the ACS.
Password	The password for logging in to the ACS.
Periodic Inform Enable	Select Enable to periodically connect to the ACS to check whether the configuration updates.
Periodic Inform Interval	Specify the amount of time between connections to ACS.
Connection Request	
User Name	The connection username provided by TR-069 service.
Password	The connection password provided by TR-069 service.
Debug	
Show Message	Select Enable to display ACS SOAP messages on the serial console.
CPE sends GetRPC	Select Enable , the router contacts the ACS to obtain configuration updates.
Skip MReboot	Specify whether to send an MReboot event code in the inform message.
Delay	Specify whether to start the TR-069 program after a short delay.
Auto-Execution	Specify whether to automatically start the TR-069 after the router is powered on.

3.5.6 ACL

Choose **Service** > **ACL**, the page shown in the following figure appears. In this page, you can permit the data packets from LAN or WAN to access the router. You can configure the IP address for Access Control List (ACL). If ACL is enabled, only the effective IP address in the ACL can access the router.

III Note:

If you select **Enable** in ACL capability, ensure that your host IP address is in ACL list before it takes effect.

ACL	Wizard	Status	Network	Service	Advance	Admin	Diagnostic			
	DNS	Firewall	UPNP	IGMP Proxy	TR-069	ACL				
ACL	ACL C You can spp Entries in th network to Using of su Direction S	ACL Configuration You can specify what services are accessable form LAN or WAN parts. Entries in this ACL table are used to permit certain types of data packets from your local network or Internet network to the Gateway. Using of such access control can be helpful in securing or restricting the Gateway management. Direction Select: ① LAN ① WAN								
	LAN ACL S IP Address: Services AI ☑ Any Add R	witch:	C Enable	⑦ Disab (The IP 0.0.0.)	le) represent any IP)	Apply				

The following table describes the parameters and buttons of this page:

Field	Description
Direction Select	Select the router interface. You can select LAN or WAN . In this example, LAN is selected.
LAN ACL Switch	Select it to enable or disable ACL function.
IP Address	Enter the IP address of the specified interface. Only the IP address that is in the same network segment with the IP address of the specified interface can access the router.
Services Allowed	You can choose the following services from LAN: web , telnet , ftp , tftp , snmp , or ping . You can also choose all the services.
Add	After setting the parameters, click it to add an entry to the Current ACL Table .
Reset	Click it to refresh this page.

Set direction of the data packets to **WAN**, the page shown in the following figure appears.

ACL	Wizard	Status	Network	Service		Advance	e A	dmin	Diagnostic		
	DNS	Firewall	UPNP	IGMP Proxy		TR-069	A	CL			
ACL	ACL C You can sp Entries in th network to Using of su Direction S	ACL Configuration You can specify what services are accessable form LAN or WAN parts. Entries in this ACL table are used to permit certain types of data packets from your local network or Internet network to the Gateway. Using of such access control can be helpful in securing or restricting the Gateway managment. Direction Select: O LAN O WAN									
	WAN Setti WAN Inter Services A U web telnet thp thp pring Add R	ng: face: Nowed: : eset	Interface pppoe1	v							
	Current AC	L Table:	TD & David To factor		Gundan	Dest	A				
	0	LAN	192.168.1.5-192.16	iace i8.1.10	any	rort	Delete				
	1	WAN	pppoel		web	80	Delete				
	2	WAN	pppoel		telnet	23	Delete				
	3	WAN	pppoel		tftp	69	Delete				
	4	WAN	pppoel		snmp	161	Delete				
	5	WAN	pppoel		ping		Delete				
	6	WAN	pppoel		ftp	21	Delete				

The following table describes the parameters and buttons of this page:

Field	Description
Direction Select	Select the router interface. You can select LAN or WAN. In this example, WAN is selected.
WAN Setting	You can choose Interface or IP Address.
WAN Interface	Choose the interface that permits data packets from WAN to access the router.
IP Address	Enter the IP address on the WAN. Only the IP address that is in the same network segment with the IP address on the WAN can access the router.
Services Allowed	You can choose the following services from WAN: web , telnet , ftp , tftp , snmp , or ping . You can also choose all the services.
Add	After setting the parameters, click it to add an entry to the Current ACL Table .
Reset	Click it to refresh this page.

3.6 Advance

In the navigation bar, click **Advance**. In the **Advance** page that is displayed contains **Bridge Setting**, **Routing**, **QoS**, **SNMP** and **Others**.

3.6.1 Bridge Setting

Choose **Advance** > **Bridge Setting**, the page shown in the following figure appears. This page is used to configure the bridge parameters. You can change the settings or view some information on the bridge and its attached ports.

Advance	Wizard	Status	Network	Service	Advance	Admin	Diagnostic		
	Bridge Setting	Routing	QoS	SNMP	Others				
Bridge Setting	Bridge	Setting							
	This page is used to configure the bridge parameters. Here you can change the settings or view some information on the bridge and its attached ports.								
	Ageing Tim	le:	300	(seconds)					
	802.1d Spar	nning Tree:	 Disabled 	○ Enabled					
	Apply C	hanges Undo	Show MACs						

The following table describes the parameters and button of this page:

Field	Description
Aging Time	If the host is idle for 300 seconds (default value), its entry is deleted from the bridge table.
802.1d Spanning Tree	You can select Disabled or Enabled . Select Enabled to provide path redundancy while preventing undesirable loops in your network.
Show MACs	Click it to show a list of the learned MAC addresses for the bridge.

Click **Show MACs**, the page shown in the following figure appears. This table shows a list of learned MAC addresses for this bridge.

Forwarding Table							
				1			
MAC Address	Port	Туре	Aging Time				
00:30:4F:00:00:00	0	Static	300				
00:30:4F:03:04:05	0	Static	300				
00:30:4F:00:00:09	0	Static	300				
00:30:4F:0c:f2:ce	1	Dynamic	300				
ff:ff:ff:ff:ff	0	Static	300				
refresh close)			1			

3.6.2 Routing

Choose **Advance > Routing**, the page shown in the following figure appears. The page that is displayed contains **RIP** and **Static Route**.

3.6.2.1 Static Route

Click **Static Route** in the left pane, the page shown in the following figure appears. This page is used to configure the routing information. You can add or delete IP routes.

tatic Route	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Bridge Setting	Routing	QoS	SNMP	Others		
Static Route RIP	Routin	ig Configura	ation	Jaro you and dddalat	a ID contos		
	Enable: Destination	:					
	Subnet Mas Next Hop: Metric:	k:	1]			
	Interface: Add Rout	te Update (Delete Selected	Show Routes			
	Static Route Select	Table: State Destinat	ion Subnet Mask	NextHop	Metric	Itf	

The following table describes the parameters and buttons of this page:

Field	Description
Enable	Select it to use static IP routes.
Destination	Enter the IP address of the destination device.
Subnet Mask	Enter the subnet mask of the destination device.
Next Hop	Enter the IP address of the next hop in the IP route to the destination device.
Metric	The metric cost for the destination.
Interface	The interface for the specified route.
Add Route	Click it to add the new static route to the Static Route Table.
Update	Select a row in the Static Route Table and modify the parameters. Then click it to save the settings temporarily.
Delete Selected	Select a row in the Static Route Table and click it to delete the row.
Show Routes	Click it, the IP Route Table appears. You can view a list of destination routes commonly accessed by your network.
Static Route Table	A list of the previously configured static IP routes.

Click **Show Routes**, the page shown in the following figure appears. The table shows a list of destination routes commonly accessed by your network.



3.6.2.2 RIP

Click **RIP** in the left pane, the page shown in the following figure appears. If you are using this device as a RIP-enabled router to communicate with others using Routing Information Protocol (RIP), enable RIP. This page is used to select the interfaces on your devices that use RIP, and the version of the protocol used.

Bridge Setting Routing QoS SNMP Others Static Route RIP RIP Configuration Enable the RIP if you are using this device as a RIP-enabled router to communicate with others using the Routing Information Protocol. attention: if you want to enable RIP, please make sure remote control is enabled. RIP: Off On Apply interface: br0 v RIP1 RIP1 RIP1 RIP1 RIP1	RIP	Wizard Sta	atus Network	Service	Advance	Admin	Diagnostic
Static Route RIP Configuration Enable the RIP if you are using this device as a RIP-enabled router to communicate with others using the Routing Information Protocol. attention: if you want to enable RIP, please make sure remote control is enabled. RIP: Off On Apply interface: Recv Version: RIP1		Bridge Setting Rou	iting QoS	SNMP	Others		
RIP: On Apply interface: br0 v Recv Version: RIP1 v	Static Route RIP	RIP Configu Enable the RIP if you as others using the Routin attention: if you want to	I ration re using this device as a RIP-ena ng Information Protocol. o enable RIP, please make sure t	abled router to communi emote control is enabled	cate with 1.		
interface: br0 v Recv Version: RIP1 v		RIP:	⊙ Off ○ On	Apply			
Send Version: RIP1 v Add Delete Rip Config List: Sand Version		interface: Recv Version: Send Version: (Add) Delete Rip Config List:		Varian	AVarian		

The following table describes the parameters and buttons of this page:

Field	Description
RIP	Select On , the router communicates with other RIP-enabled devices.
Apply	Click it to save the settings of this page.
Interface	Choose the router interface that uses RIP.
	Choose the interface version that receives RIP messages. You can choose RIP1 , RIP2 , or Both .
Recv Version	 Choose RIP2 indicates the router receives RIP v2 messages. Choose Both indicates the router receives RIP v1 and RIP
Send Version	 v2 messages. The working mode for sending RIP messages. You can choose RIP1 or RIP2. Choose RIP1 indicates the router broadcasts RIP1 messages only. Choose RIP2 indicates the router multicasts RIP2 messages only.
Add	Click it to add the RIP interface to the Rip Config List .
Delete	Select a row in the Rip Config List and click it to delete the row.

3.6.3 Port Mapping (ADE-4400 only) Choose **Advance > QoS**, the page shown in the following figure appears.

Port Mapping	Wizard	Status	Network	Service	Advance	Admin	Diagnostic					
	Bridge Setting	Routing	Port Mapping	QoS	SNMP	Others						
Port Mapping	Port M	apping Co	nfiguration									
	 Select a group from the table. Select interfaces from the available/grouped interface list and add it to the grouped/available interface list using the arrow buttons to manipulate the required mapping of the ports. Click "Apply Changes" button to save the changes. 											
	Note that the s new group.	Note that the selected interfaces will be removed from their existing groups and added to the new group.										
	• Disable	Enable										
	WAN		Interface group									
		Ad	d >									
	LAN	<	Del									
	Select		Interfaces	nuncei al	Status							
	Group1		LAIN4, CILDUNG, CAIN4	PPP3c1,a1								
	Group2 O				-							
	Group3 O											
	Group4 🔾				-							
	Annhy											
	Appiy											

3.6.4 QoS

Choose **Advance > QoS**, the page shown in the following figure appears. Entries in the **QoS Rule List** are used to assign the precedence for each incoming packet based on physical LAN port, TCP/UDP port number, source IP address, destination IP address and other information.

QoS	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Bridge Setting	Routing	QoS	SNMP	Others		
IP QoS	IP QoS Entries in th specified pc Config Proc 1: set traffic 2: assign th IP QoS:	iis table are used to as bicy. edure: rule. e precedence or add m ⓒ disable ⓒ e	sign the precedence fo narker for different stre nable	or each incoming packe am.	t based on		

Step 1: Enable IP QoS and click **Apply** to enable IP QoS function. **Step 2**: Click **add rule** to add a new IP QoS rule.

The page shown in the following figure appears.

QoS	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Bridge Setting	Routing	QoS	SNMP	Others		
IP QoS	IP QoS						
	Entries in this specified poli Config Proce 1: set traffic n 2: assign the	s table are used to as: icy. dure: ule. precedence or add m	sign the precedence fo arker for different strea	r each incoming packet m.	based on		
	IP QoS:	🔿 disable 💿 er	nable	(Apply		
	QoS Policy:	strea	ım based 💌				
	Schedule Mo	ode: stric	t prior 💌				
	QoS Rule List	stream rul src Port dest IF	e dest Port proto pr	behavior ny prior IP IP Precd ToS 80	2.1p wan itf		
	delete	delete all add	rule				
	Add QoS Rul Src IP: 0.0	le 1.0.0	Src Mask: 255	255 255 255	٦		
	Dest IP:		Dest Mask:	.200.200.200]		
	Src Port:		Dest Port:				
	Protocol:	~	Phy Port:	~			
	set priority:	p3(Lowest) 💌 modify QoS mark					

The following table describes the parameters and buttons of this page:

Field	Description					
	Select to enable or disable IP QoS function. You need to enable IP					
	QoS if you want to configure the parameters of this page.					
QoS Policy	You can choose stream based, 802.1p based, or DSCP based.					
Schedule Mode	You can choose strict prior or WFQ (4:3:2:1).					
Src IP	The IP address of the source data packet.					
Src Mask	The subnet mask of the source IP address.					
Dest IP	The IP address of the destination data packet.					
Dest Mask	The subnet mask of the destination IP address.					
Src Port	The port of the source data packet.					
Dest Port	The port of the destination data packet.					
Protocol	The protocol responds to the IP QoS rules. You can choose TCP ,					
FIOLOCOI	UDP, or ICMP.					
Phy Port	The LAN interface responds to the IP QoS rules.					
Set priority	The priority of the IP QoS rules. P0 is the highest priority and P3 is					
	the lowest.					
IP Precedence	You can choose from 0 to 7 define the priority in the ToS of the IP					
	data packet.					
	The type of IP ToS for classifying the data package					
IP ToS	You can choose Normal Service, Minimize Cost, Maximize					
	Reliability, Maximize Throughput, or Minimize Delay.					
802.1p	You can choose from 0 to 7.					
delete	Select a row in the QoS rule list and click it to delete the row.					
delete all	Select all the rows in the QoS rule list and click it to delete the rows.					

3.6.5 SNMP

Choose **Advance** > **SNMP**, the page shown in the following figure appears. You can configure the SNMP parameters.

SNMP		Wizard	Status	Network	Service	Advance	Admin	Diagnostic
		Bridge Setting	Routing	QoS	SNMP	Others		
	SNMP	SNMP	Protocol C	onfiguratio	n			
		This page is system desc	used to configure the cription, trap ip addres	sNMP protocol. Here s, community name, et	you may change the s c	etting for		
		🗹 Enabl	e SNMP					
		System De	escription ADS	SL 2/2+ 4-Port Route	r			
		System Co	ontact					
		System Na	ame ADI	E-4400				
		System Lo	cation					
		Trap IP Ac	ldress					
		Communit only)	ty name (read- pub	lic				
		Communit write)	ty name (read- pub	lic				
		Apply C	hanges Reset	1				

The following table describes the parameters of this page:

Field	Description
Enable SNMP	Select it to enable SNMP function. You need to enable SNMP, and then you can configure the parameters of this page.
Trap IP Address	Enter the trap IP address. The trap information is sent to the corresponding host.
Community name (read-only)	The network administrators must use this password to read the information of this router.
Community name (write-only)	The network administrators must use this password to configure the information of the router.

3.6.6 Others

Choose **Advance** > **Others**, the page shown in the following figure appears.

Others	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Bridge Setting	Routing	QoS	SNMP	Others		
Other Other Advanced Configuration Here you can set other miscellaneous advanced settings. Half Bridge: When enable Half Bridge, that PPPoE(PPPoA)'s connection type will set to							
	Continuous. Half Bridge: O Disable Enable Interface:						

3.7 Admin

In the navigation bar, click **Admin**. The **Admin** page that is displayed contains **Commit/Reboot**, **Upgrade**, **System Log**, **Password** and **Time Zone**.

3.7.1 Commit/Reboot

Choose **Admin > Commit/Reboot**, the page shown in the following figure appears. You can set the router reset to the default settings or set the router to commit the current settings.

Commit/Reboot	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Commit/Reboot	Upgrade	System Log	Password	Time Zone		
Commit/Reboot	Comm	it/Reboot					
	This page is used to commit changes to system memory and reboot your system with different configurations.						
	Reboot from: Save Current Configuration						
	Reboot						

The following table describes the parameters and button of this page:

Field	Description
Reboot from	 You can choose Save Current Configuration or Factory Default Configuration. Save Current Configuration: Reset to the factory default settings, and then reboot the router. Factory Default Configuration: Save the current settings, and then reboot the router.
Reboot	Click it to reboot the router.

3.7.2 Upgrade

Choose **Admin > Upgrade**. The **Upgrade** page that is displayed contains **Upgrade Firmware** and **Backup/Restore**.

Caution: Do not turn off the router or press the Reset button while the procedure is in progress.

3.7.2.1 Upgrade Firmware

Click **Upgrade Firmware** in the left pane, the page shown in the following figure appears. In this page, you can upgrade the firmware of the router.

Upgrade	Wizard	Status	Network	Service	Advance	Admin	Diagnostic	
	Commit/Reboot	Upgrade	System Log	Password	Time Zone			
Upgrade Firmware Backup/Restore	Upgrade Firmware This page allows you upgrade the ADSL Router firmware to new version. Please note, do not power off the device during the upload because it may crash the system. Note:System will reboot after file is uploaded.							
	Select File:			Brows	e			
	Upload	Reset						

The following table describes the parameters and button of this page:

Field	Description			
Select File	Click Browse to select the firmware file.			
Upload	After selecting the firmware file, click Upload to starting upgrading the firmware file.			
Reset	Click it to starting selecting the firmware file.			

3.7.2.2 Backup/Restore

Click **Backup/Restore** in the left pane, the page shown in the following figure appears. You can backup the current settings to a file and restore the settings from the file that was saved previously.

Backup/Restore	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Commit/Reboot	Upgrade	System Log	Password	Time Zone		
Upgrade Firmware Backup/Restore	Backup/Restore Sett		ettings				
	Load Settin	gs from File:	Save		Browse	Upload	

The following table describes the parameters and button of this page:

Field	Description
Save Settings to File	Click it, and select the path. Then you can save the configuration file of the router.
Load Settings from File	Click Browse to select the configuration file.
Upload	After selecting the configuration file of the router, click Upload to start uploading the configuration file of the router.

3.7.3 System Log

Choose **Admin > System Log**, the page shown in the following figure appears. In this page, you can enable or disable system log function and view the system log.

System Log	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Commit/Reboot	Upgrade	System Log	Password	Time Zone		
System Log	Log Se	tting					
	This page is will set the le	used to display the s og flag. By clicking th	ystem event log table. e ">> ", it will display t	By checking Error or N the newest log informa	Notice (or both) tion below.		
	Error:		Notice:				
	Apply Cl	hanges Reset					
	Event log Tab	ble:					
	Save Lo Old	og to File Cl	ean Log Table				
	Time In	dex Type		Log Information		I	

3.7.4 Password

Choose **Admin > Password**, the page shown in the following figure appears. By default, the user name and password are **admin** and **admin** respectively. The common user name and password are **user** and **user** respectively.

Password	Wizard	Status	Network	Service	Advance	Admin	Diagnostic			
	Commit/Reboot	Upgrade	System Log	Password	Time Zone					
Password	Passwo	ord Setup								
	This page is name and p	This page is used to set the account to access the web server of ADSL Router. Empty user name and password will disable the protection.								
	User Name:	: admi	n 🛩							
	New Passwe	ord:								
	Confirmed	Password:								
	Set to Defau	ult Password:								
	Apply C	hanges Res	set							

The following table describes the parameters of this page:

Field	Description
User Name	Choose the user name for accessing the router. You can choose admin or user .
New Password	Enter the password to which you want to change the old password.
Confirmed Password	Enter the new password again.
Set to Default Password	Select it, the password is set to the default password.

3.7.5 Time Zone

Choose **Admin > Time Zone**, the page shown in the following figure appears. You can configure the system time manually or get the system time from the time server.

Time Zone	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Commit/Reboot	Upgrade	System Log	Password	Time Zone		
Time Zone	Wizard Commit/Reboot System This page is change the : System Tim Apply C NTP Configu State: Server2: Interval: Ev Come GMT TF	Status Upgrade Upgrade I Time Configure the settings or view some e: 1970 year hanges Reset aration: Disable Enable very 1 hours GMT) Gambia, Liberi wu Jan 1 0:0:27 1970	Network System Log iguration system time and Netw information on the sys Jan V month and A month and	Service Password rock Time Protocol(NT rem time and NTP par day 0 hot	Advance Time Zone P) server. Here you can ameters. ar 0 min 27	Admin	Diagnostic
	Time Zone: ((GMT Tr time: Tr Apply C NTP Start:	au Jan 1 0:0:27 1970 hanges Reset	a, Morocco, England et GMT Time	1	~		

The following table describes the parameters of this page:

Field	Description			
System Time	Set the system time manually.			
NTP Configuration				
State	Select enable or disable NTP function. You need to enable NTP if you want to configure the parameters of NTP.			
Server	Set the primary NTP server manually.			
Server2	Set the secondary NTP server manually.			
Time Zone	Choose the time zone in which area you are from the drop down list.			

3.8 Diagnostic

In the navigation bar, click **Diagnostic**. The **Diagnostic** page that is displayed contains **Ping**, **ATM Loopback**, **ADSL** and **Diagnostic Test**.

3.8.1 Ping

Choose **Diagnostic > Ping**. The page shown in the following figure appears.

Diagnostic	Wizard	Status	Network	Service	Advance	Admin	Diagnostic
	Ping	ATM Loopback	ADSL	Diagnostic Test			
Ping	Ping D	agnostic					
	Host : PING						

The following table describes the parameter and button of this page:

Field	Description
Host	Enter the valid IP address or domain name.
PING	Click it to start to Ping.

3.8.2 ATM Loopback

Choose **Diagnostic > ATM Loopback**. The page shown in the following figure appears. In this page, you can use VCC loopback function to check the connectivity of the VCC. The ATM loopback test is useful for troubleshooting problems with the DSLAM and ATM network.

ATM Loopback	Wizard	Status	Network	Service	Advance	Admin	Diagnostic			
	Ping	ATM Loopback	ADSL	Diagnostic Test						
ATM Loopback	Connectivi	Fault Manag	gement - Co	OAM loopback capabil	erification					
	connectivit	ty of the VCC.	ised to perform the v	CC loopback function to	o check the					
	Flow Type:	Segment								
	O F5 O F4	○ F5 End-to-End ○ F4 Segment								
	OF4 VPI:	End-to-End								
	VCI:									
	Go !									

Click Go! to start testing.

3.8.3 ADSL

Choose **Diagnostic** > **ADSL**. The page shown in the following figure appears. It is used for ADSL tone diagnostics.

ADSL	Wizard	Status	Network	Service	Advand	ce Admin	Diagnostic
	Ping	ATM Loopback	ADSL	Diagnostic Test			
ADSL	Diagn	ostic ADSL					
	Adsl Tone	Diagnostic					
	Start						
		Down	stream Upstre	am			
	Hlin Scale						
	Loop Atten	uation(dB)					
	Signal Atte	enuation(dB)					
	SNR Marg	in(dB)					
	Attainable	Rate(Kbps)					
	Output Pov	ver(dBm)					
	Tone Num	ber H.Real	H.Image SNI	QLN	Hlog		
	0						
	1						
	2						
	3						

Click Start to start ADSL tone diagnostics.

3.8.4 Diagnostic Test

Choose **Diagnostic** > **Diagnostic Test**, the page shown in the following figure appears. In this page, you can test the DSL connection. You can also view the LAN status connection and ADSL connection.

Diagnostic Test	Wizard	Status	Network	Service	Advance	Admin	Diagnostic			
	Ping	ATM Loopback	ADSL	Diagnostic Test						
Diagnostic Test	Diagno	ostic Test								
	The DSL Ro displays a fa	The DSL Router is capable of testing your DSL connection. The individual tests are listed below. If a test displays a fail status, click "Run Diagnostic Test" button again to make sure the fail status is consistent.								
	Select the Is	nternet Connection:	~	Run Diagnos	tic Test					

Click Run Diagnostic Test to start testing.

Appendix A: Glossary

Address mask

A bit mask select bits from an Internet address for subnet addressing. The mask is 32 bits long and selects the network portion of the Internet address and one or more bits of the local portion. Sometimes it called subnet mask.

AAL5

ATM Adaptation Layer - This layer maps higher layer user data into ATM cells, making the data suitable for transport through the ATM network.

ADSL

Asymmetric digital subscriber line

ATM

Asynchronous Transfer Mode - A cell-based data transfer technique in which channel demand determines packet allocation. ATM offers fast packet technology, real time, and demand led switching for efficient use of network resources.

AWG

American Wire Gauge - The measurement of thickness of a wire

Bridge

A device connects two or more physical networks and forward packets between them. Bridges can usually be made to filter packets, that is, to forward only certain traffic. Related devices are repeaters which simply forward electrical signals from one cable to the other and full-fledged routers which make routing decisions based on several criteria.

Broadband

Characteristic of any network multiplexes independent network carriers onto a single cable. Broadband technology allows several networks to coexist on one single cable; traffic from one network does not interfere with traffic from another. Broadcast a packet delivery system where a copy of a given packet is given to all hosts attached to the network. Example: Ethernet.

со

Central Office. Refers to equipment located at a Telco or service provider's office.

CPE

Customer Premises Equipment located in a user's premises

DHCP (Dynamic Host Configuration Protocol)

DHCP is software that automatically assigns IP addresses to client stations logging onto a TCP/IP network. DHCP eliminates having to manually assign permanent IP addresses to every device on your network. DHCP software typically runs in servers and is also found in network devices such as Routers.

DMT

Discrete Multi-Tone frequency signal modulation

Downstream rate

The line rate for return messages or data transfers from the network machine to the user's premises machine.

DSLAM

Digital Subscriber Line Access Multiplex

Dynamic IP Addresses

A dynamic IP address is an IP address that is automatically assigned to a client station (computer, printer, etc.) in a TCP/IP network. Dynamic IP addresses are typically assigned by a DHCP server, which can be a computer on the network or another piece of hardware, such as the Router. A dynamic IP address

may change every time your computer connects to the network.

Encapsulation

The technique layer protocols in which a layer adds header information to the protocol data unit (PDU) from the layer above. As an example, in Internet terminology, a packet would contain a header from the physical layer, followed by a header from the network layer (IP), followed by a header from the transport

layer (TCP), and followed by the application protocol data.

Ethernet

One of the most common local area network (LAN) wiring schemes, Ethernet has a transmission rate of 10 Mbps.

FTP

File Transfer Protocol. The Internet protocol (and program) transfer files between hosts.

Hop count

A measure of distance between two points on the Internet. It is equivalent to the number of gateways that separate the source and destination.

HTML

Hypertext Markup Language - The page-coding language for the World Wide Web.

HTML browser

A browser used to traverse the Internet, such as Netscape or Microsoft Internet Explorer.

http

Hypertext Transfer Protocol - The protocol carry world-wide-web (www) traffic between a www browser computer and the www server being accessed.

ICMP

Internet Control Message Protocol - The protocol handle errors and control messages at the IP layer. ICMP is actually part of the IP protocol.

Internet address

An IP address is assigned in blocks of numbers to user organizations accessing the Internet. These addresses are established by the United States Department of Defense's Network Information Center. Duplicate addresses can cause major problems on the network, but the NIC trusts organizations to use individual addresses responsibly. Each address is a 32-bit address in the form of x.x.x.x where x is an eight- bit number from 0 to 255. There are three classes: A, B and C, depending on how many computers on the site are likely to be connected.

Internet Protocol (IP)

The network layer protocol for the Internet protocol suite

IP address

The 32-bit address assigned to hosts that want to participate in a TCP/IP Internet.

ISP

Internet service provider - A company allows home and corporate users to connect to the Internet.

MAC

Media Access Control Layer - A sub-layer of the Data Link Layer (Layer 2) of the ISO OSI Model responsible for media control.

MIB

Management Information Base - A collection of objects can be accessed via a network management protocol, such as SNMP and CMIP (Common Management Information Protocol).

NAT

Network Address Translation - A proposal for IP address reuse, where the local IP address is mapped to a globally unique address.

NVT

Network Virtual Terminal **PAP** Password Authentication Protocol

PORT

The abstraction used in Internet transport protocols to distinguish among multiple simultaneous connections to a single destination host.

POTS

Plain Old Telephone Service - This is the term describe basic telephone service.

PPP

Point-to-Point-Protocol - The successor to SLIP, PPP provides router-to-router and host-to-network connections over both synchronous and asynchronous circuits.

PPPoE

PPP over Ethernet is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.

Remote server

A network computer allows a user to log on to the network from a distant location.

RFC

Request for Comments - Refers to documents published by the Internet Engineering Task Force (IETF) proposing standard protocols and procedures for the Internet. RFC can be found at www.ietf.org.

Route

The path that network traffic takes from its source to its destination. The route a datagram may follow can include many gateways and many physical networks. In the Internet, each datagram is routed separately.

Router

A system is responsible for making decisions about which of several paths network (or Internet) traffic will follow. To do this, it uses a routing protocol to gain information about the network and algorithms to choose the best route based on several criteria known as "routing metrics".

Routing Table

Information stored within a router that contains network path and status information. It is used to select the most appropriate route to forward information along.

Routing Information Protocol

Routers periodically exchange information with one another so that they can determine minimum distance paths between sources and destinations.

SNMP

Simple Network Management Protocol - The network management protocol of choice for TCP/IP-based Internet.

SOCKET

(1) The Berkeley UNIX mechanism for creating a virtual connection between processes.(2) IBM term for software interfaces that allow two UNIX application programs to talk via TCP/IP protocols.

Spanning-Tree Bridge Protocol (STP)

Spanning-Tree Bridge Protocol (STP) - Part of an IEEE standard. A mechanism for detecting and preventing loops from occurring in a multi-bridged environment. When three or more LAN's segments are connected via bridges, a loop can occur. Because of a bridge forwards all packets that are not recognized as being local, some packets can circulate for long periods of time, eventually degrading system performance. This algorithm ensures only one path connects any pair of stations, selecting one bridge as the 'root' bridge, with the highest priority one as identifier, from which all paths should radiate.

Spoofing

A method of fooling network end stations into believing that keep alive signals have come from and returned to the host. Polls are received and returned locally at either end

Static IP Address

A static IP address is an IP address permanently assigned to computer in a TCP/IP network. Static IP addresses are usually assigned to networked devices that are consistently accessed by multiple users, such as Server PCs, or printers. If you are using your Router to share your cable or DSL Internet connection, contact your ISP to see if they have assigned your home a static IP address. You will need that address during your Router's configuration.

Subnet

For routing purposes, IP networks can be divided into logical subnets by using a subnet mask. Values below those of the mask are valid addresses on the subnet.

ТСР

Transmission Control Protocol - The major transport protocol in the Internet suite of protocols provides reliable, connection-oriented full-duplex streams.

TFTP

Trivial File Transfer Protocol. A simple file transfer protocol (a simplified version of FTP) that is often boot diskless workstations and other network devices such as routers over a network (typically a LAN).

Telnet

The virtual terminal protocol in the Internet suite of protocols - Allows users of one host to log into a remote host and act as normal terminal users of that host.

Transparent bridging

The intelligence necessary to make relaying decisions exists in the bridge itself and is thus transparent to the communicating workstations. It involves frame forwarding, learning workstation addresses, and ensuring no topology loops exist (in conjunction with the Spanning-Tree algorithm).

UDP

User Datagram Protocol - A connectionless transport protocol that runs on top of TCP/IP's IP. UDP, like TCP, uses IP for delivery; however, unlike TCP, UDP provides for exchange of datagram without acknowledgments or guaranteed delivery. Best suited for small, independent requests, such as requesting a MIB value from an SNMP agent, in which first setting up a connection would take more time than sending the data.

UNI signaling

User Network Interface signaling for ATM communications.

Virtual Connection (VC)

A link that seems and behaves like a dedicated point-to-point line or a system that delivers packets in sequence, as happens on an actual point-to-point network. In reality, the data is delivered across a network via the most appropriate route. The sending and receiving devices do not have to be aware of the options and the route is chosen only when a message is sent. There is no pre-arrangement, so each virtual connection exists only for the duration of that one transmission.

WAN

Wide area network - A data communications network that spans any distance and is usually provided by a public carrier (such as a telephone company or service provider).

Important Note

According to Annex3 of the ERC/REC 70-03 publication, the use of Wideband Data Transmission systems has the following National Restrictions:

Frequency range: 2400-2483.5MHz

Country	Restriction	Reason/Remark
France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
Italy		If used outside of own premises, general authorization is required
Luxembourg	None	General authorization required for network and service supply(not for spectrum)
Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20km from the centre of Ny-Alesund
Russian Federation		Only for indoor applications



EC Declaration of Conformity

For the following equipment:

*Type of Product	:	ADS	L 2/2+ R	outer			
*Model Number	:	ADE	E-3400A	/ ADI	E-3400B		
* Produced by:							
Manufacturer's Nam	e	:	Planet	Techr	ology C	orp.	
Manufacturer's Addr	ess	:	9F, No.	96, N	lin Chua	n Road,	Hsin Tien
			Taipei,	Taiwa	n, R.O.C	2.	

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to 1999/5/EC R&TTE. For the evaluation regarding the R&TTE the following standards were applied:

	Emission	EN 55022	(1998)
	Harmonic	EN 61000-3-2	(2000)
	Flicker	EN 61000-3-3	(1995 + A1)
	Immunity	EN 55024	(2003 + A2)
	ESD	IEC 61000-4-2	(1995 + A2)
	RS	IEC 61000-4-3	(1995 + A1)
	EFT/ Burst	IEC 61000-4-4	(1995 + A2)
	Surge	IEC 61000-4-5	(1995 + A1)
	CS	IEC 61000-4-6	(1996 + A1)
	Voltage Disp	IEC 61000-4-11	(1994 + A1)
	LVD	EN 60950	(2001)

Responsible for marking this declaration if the:

☑ Manufacturer □ Authorized representative established within the EU

Authorized representative established within the EU (if applicable):

Company Name: Planet Technology Corp.

Company Address: 9F, No.96, Min Chuan Road, Hsin Tien, Taipei, Taiwan, R.O.C

Person responsible for making this declaration

Name, Surname <u>Allen Huang</u>

Position / Title : <u>Product Manager</u>

Taiwan Place **07, December, 2007** *Date*

Allen

Legal Signature

PLANET TECHNOLOGY CORPORATION



EC Declaration of Conformity

For the following equipment:

*Type of Product	:	ADS	SL 2/2+ 4	-Port Ro	outer	
*Model Number	:	ADE	E-4400A	/ ADE-4	4400B	
* Produced by:						
Manufacturer's Nam	le	:	Planet	Technol	logy Corp.	
Manufacturer's Add	ress	:	9F, No.	96, Mir	n Chuan Roa	d, Hsin Tien
			Taipei,	Taiwan	, R. O.C.	

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to 1999/5/EC R&TTE. For the evaluation regarding the R&TTE the following standards were applied:

		EN 200 286V1 2 1	(2001)
		EN 300 380 V 1.5.1	(2001)
	Emission	EN 55022	(1998 Class B)
	Harmonic	EN 61000-3-2	(2000)
	Flicker	EN 61000-3-3	(1995 + A1:2001)
	Immunity	EN 55024	
	ESD	IEC 61000-4-2	(1995 + A1:1998)
	RS	IEC 61000-4-3	(1996 + A1:1998)
	EFT/ Burst	IEC 61000-4-4	(1995)
	Surge	IEC 61000-4-5	(1995)
	CS	IEC 61000-4-6	(1996)
	Voltage Disp	IEC 61000-4-11	(1994)
	LVD	EN 60950	(2000)

Responsible for marking this declaration if the:

☑ Manufacturer □ Authorized representative established within the EU

Authorized representative established within the EU (if applicable):

Company Name: Planet Technology Corp.

Company Address: 9F, No.96, Min Chuan Road, Hsin Tien, Taipei, Taiwan, R.O.C

Person responsible for making this declaration

Name, Surname <u>Allen Huang</u>

Position / Title : <u>Product Manager</u>

Taiwan Place **07, December, 2007** *Date*

Legal Signature

PLANET TECHNOLOGY CORPORATION