User's Manual

ACORP

ADSL Router

LAN110 / LAN410

(1-Port / 4-Port)

Contents

1 System Overview

1.1 General Description

The ADSL router is a high-speed ADSL2+ Ethernet router that is specifically designed to connect to the Internet and to directly connect to your local area network (LAN) via high-speed 10/100 Mbps Ethernet. The ADSL2+ modem is compatible with the latest ADSL standards, including ADSL2 and ADSL2+, and supports up to 24 Mbps downstream and 1.5 Mbps upstream to deliver true broadband speed and throughput.

To ensure fully compatibility, the DSL device was tested with all major DSLAMs, and support standard 10/100 Mbps Base-T Ethernet interface allowing user easily to link to PC or other Switches/Hubs. The DSL device is an idea solution for multi-users utilizing build-in channel mode (PPPoE/A, IPoA, IPoE), IP routing, NAT functionalities sharing the ADSL link. The DSL device is also a perfect solution for the residential users, it supports the users with bridge mode in host based PPPoE Client.

1.2 Specifications

1.2.1 ADSL Standard

- ITU-T G.992.1 (G.dmt)
- ANSI T1.413 Issue 2
- G.992.2 (G.lite)
- G.994.1 (G.hs)
- Auto-negotiating rate adaptation
- ADSL2 G.dmt.bis (G.992.3)
- ADSL2 G.lite.bis (G.992.4)
- ADSL2+ (G.992.5)

1.2.2 Software Features

- RFC-1483/2684 LLC/VC-Mux bridged/routed mode
- RFC-1577 Classical IP over ATM
- RFC-2516 PPPoE
- RFC-2364 PPPoA
- ITU-T 1.610 F4/F5 OAM send and receive loop-back
- 802.1d Spanning-Tree Protocol
- DHCP Client/Server/Relay
- NAT

- RIP v1/v2
- DNS Relay Agent
- DMZ support
- IGMP Proxy/Snooping
- Stateful Packet Inspection
- Protection against Denial of Service attacks
- IP Packet Filtering
- QoS
- Dynamic DNS
- UPnP support

1.2.3 Management

- Web-based Configuration
- Menu-driven Command-line Interpreter
- Telnet Remote Management
- SNMP v1/v2/Trap
- Firmware upgrade through FTP, TFTP and HTTP
- Configuration backup/restore
- Diagnostic Tool

2 Hardware Installation

2.1 Hardware Requirements

- 12V/1A AC power adaptor
- RJ-45 Ethernet cable
- RJ-11 ADSL line

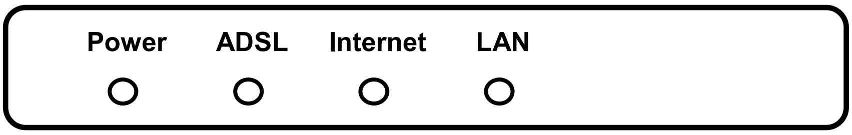
2.2 Hardware Setup Procedures

1. Connect RJ-11 line from LAN110/LAN410H5200 to DSLAM.
2. Connect RJ-45 line from your PC to LAN110/LAN410 Ethernet port.
3. Connect the 12V/1A AC power.

2.3 Descriptions of LEDs and Interfaces

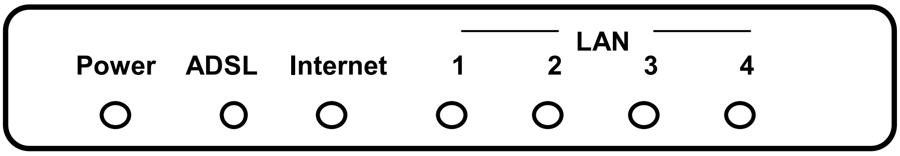
2.3.1 Front Panel

- LAN110 1port ADSL Router



LED	Color	Status	Descriptions
Power	**Green**	**OFF**	**Power OFF**
		GREEN	**Power ON**
ADSL	**Green**	**OFF**	**Can not find DSLAM**
		BLINK	**Start to handshaking with DSLAM**
		ON	**Sync OK with DSLAM**
Internet	**Green**	**OFF**	**PPP failed**
		BLINK	**Internet data transiting**
		ON	**PPP passed and allow internet surfing**
LAN	**Green**	**OFF**	**No LAN link**
		ON	**LAN link established and active**

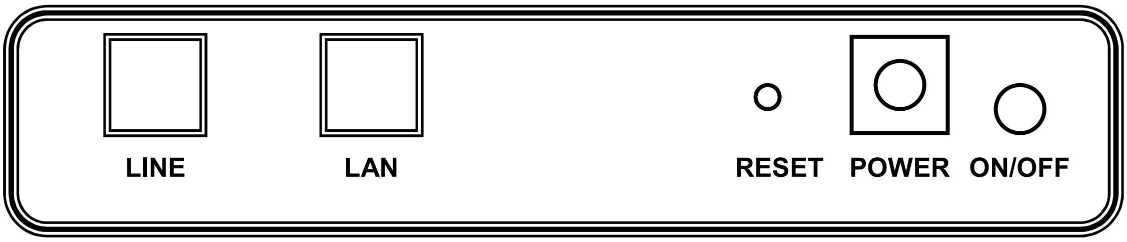
- LAN410 4ports ADSL Router



LED	Color	Status	Descriptions
POWER	Green	OFF	Power OFF
		GREEN	Power ON
ADSL	Green	OFF	Can not find DSLAM
		BLINK	Start to handshaking with DSLAM
		ON	Sync OK with DSLAM
Internet	Green	OFF	PPP failed
		BLINK	Internet data transiting
		ON	PPP passed and allow internet surfing
LAN1 – LAN4	Green	OFF	No LAN link
		BLINK	LAN Data transiting
		ON	LAN link established and active

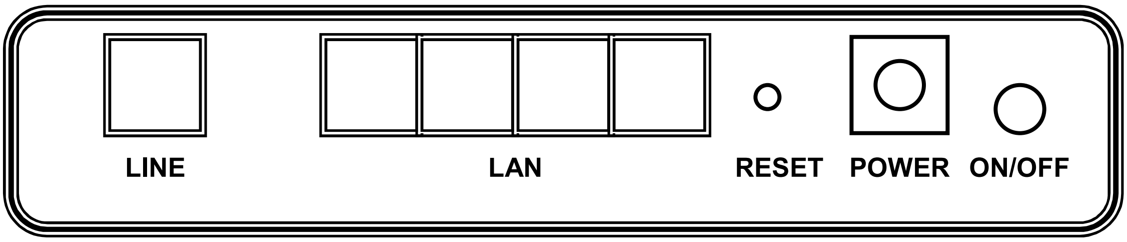
2.3.2 Rear Panel

- LAN110 1 port ADSL Router



Items	Usage
RESET	Resets to factory defaults. To restore 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
ON/OFF	Power on and off
LAN	Ethernet RJ-45 port
LINE	DSL RJ-11 port

- LAN410 4 ports ADSL Router



Items	Usage
RESET	Resets to factory defaults. To restore 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
ON/OFF	Power on and off
LAN	Ethernet RJ-45 port
LINE	DSL RJ-11 port

3 Software Configuration

The DSL device is an ADSL2+ router. When you power on the device, the system will boot up and connect to ADSL automatically. The system provides a PVC for bridge test by default. The default configurations for the system are listed below.

- LAN IP address: 192.168.1.1, NetMask: 255.255.255.0
- VPI/VCI for ATM: 0/0.
- ADSL Line mode: Auto-detect.

User can change settings via WEB browser. The following sections describe the set up procedures.

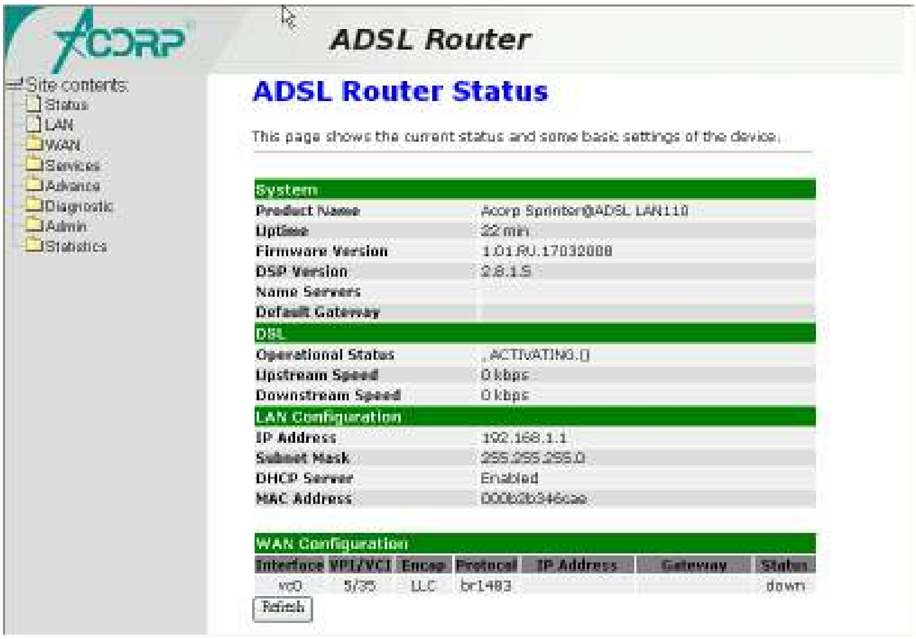
Please set your PC's Ethernet port as follow:

- IP address: 192.168.1.XXX
- NetMask: 255.255.255.0

Access the Web Console:

- Start your web browser.
- Type the Ethernet IP address of the modem/router on the address bar of the browser. Default IP address is 192.168.1.1.
- The **Enter Network Password** dialog box appears. Type the user name and password and then click OK. (the default user name is "Admin" and password is "Admin")

Once you have connected to ADSL2+ router. You will see the status page.



ADSL Router Status

This page shows the current status and some basic settings of the device.

System	
Product Name	Acorp Sprinter@ADSL LAN110
Uptime	22 min
Firmware Version	1.01.RU.17032008
DSP Version	2.8.1.5
Name Servers	
Default Gateway	
DSL	
Operational Status	, ACTIVATING.()
Upstream Speed	0 kbps
Downstream Speed	0 kbps
LAN Configuration	
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
DHCP Server	Enabled
MAC Address	000b2b346cae

WAN Configuration

Interface	VPI/VCI	Encap	Protocol	IP Address	Gateway	Status
vc0	5/35	LLC	br1483			down

This page displays the ADSL modem/router's current status and settings. Click the "Refresh" button to update the status

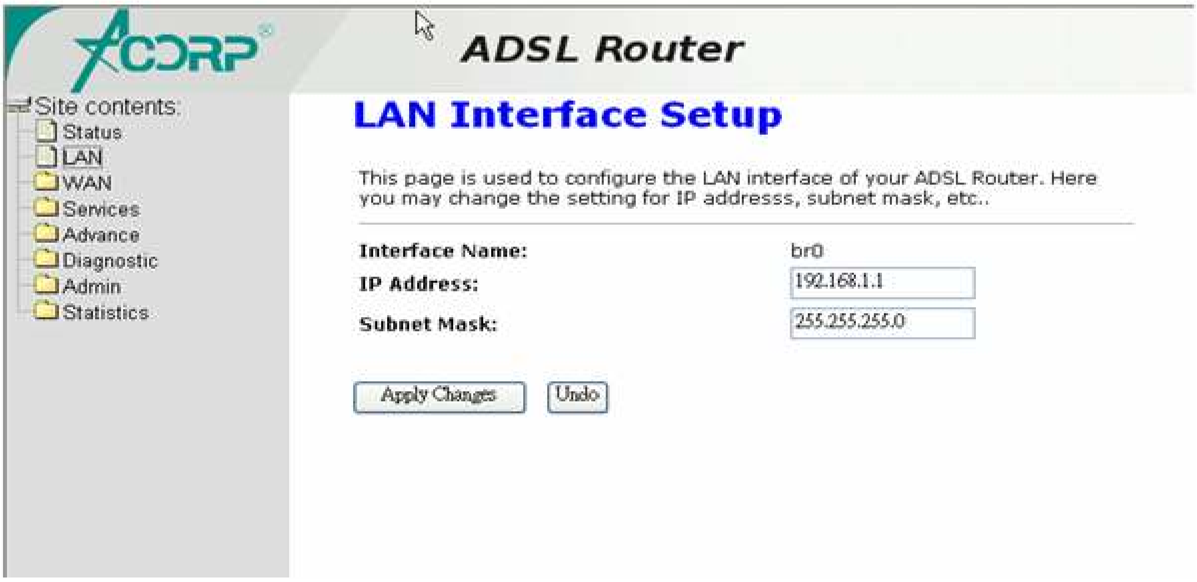
Function buttons in this page:

Refresh

Update the status of this page

3.1 LAN Configuration

This page shows the current setting of LAN interface. You can set IP address and subnet mask for LAN interface in this page.



LAN Interface Setup

This page is used to configure the LAN interface of your ADSL Router. Here you may change the setting for IP addresss, subnet mask, etc..

Interface Name: br0

IP Address: 192.168.1.1

Subnet Mask: 255.255.255.0

Fields in this page:

Field	Description
IP Address	The IP address your LAN hosts use to identify the device's LAN port.
Subnet Mask	LAN subnet mask.

Function buttons in this page:

Apply Changes

Click to save the setting to the configuration. New parameters will take effect after save into flash memory and reboot the system. See section "Admin" for save details.

Undo

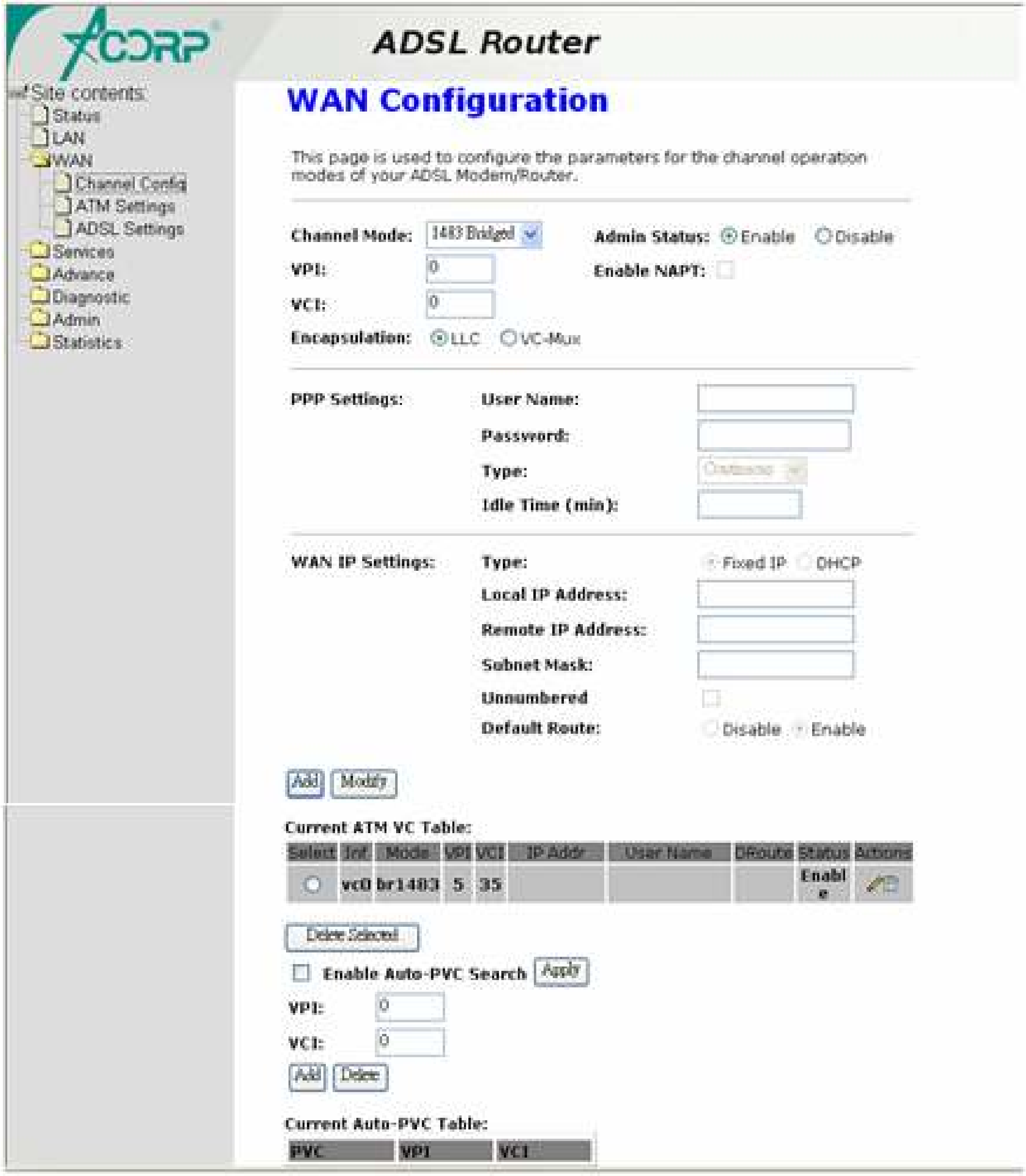
Discard your changes.

3.2 WAN Configuration

There are three sub-menu for WAN configuration: [Channel Config], [ATM Settings], and [ADSL Settings].

3.2.1 Channel Configuration

ADSL modem/router comes with 8 ATM Permanent Virtual Channels (PVCs) at the most. There are mainly three operations for each of the PVC channels: add, delete and modify. And there are several channel modes to be selected for each PVC channel. For each of the channel modes, the setting is quite different accordingly. Please reference to the section – **Channel Mode Configuration** for details.



WAN Configuration

This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router.

Channel Mode: 1483 Bridged
Admin Status: ● Enable ○ Disable
VPI: 0
Enable NAPT: □
VCI: 0
Encapsulation: ● LLC ○ VC-Mux

PPP Settings:
User Name:
Password:
Type: Continuous
Idle Time (min):

WAN IP Settings:
Type: ● Fixed IP ○ DHCP
Local IP Address:
Remote IP Address:
Subnet Mask:
Unnumbered □
Default Route: ○ Disable ● Enable

Current ATM VC Table:

Select	Inf	Mode	VPI	VCI	IP Addr	User Name	DRoute	Status	Actions
○	vc0	br1483	5	35				Enable	

□ Enable Auto-PVC Search

VPI: 0
VCI: 0

Current Auto-PVC Table:

PVC	VPI	VCI

Function buttons in this page:

Add

Click **Add** to complete the channel setup and add this PVC channel into configuration.

Modify

Select an existing PVC channel by clicking the radio button at the **Select** column of the **Current ATM VC Table** before we can modify the PVC channel. After selecting a PVC channel, we can modify the channel configuration at this page. Click **Modify** to complete the channel modification and apply to the configuration.

Delete Selected

Select an existing PVC channel to be deleted by clicking the radio button at the **Select** column of the **Current ATM VC Table**. Click **Delete Selected** to delete this PVC channel from configuration.

Auto PVC Search

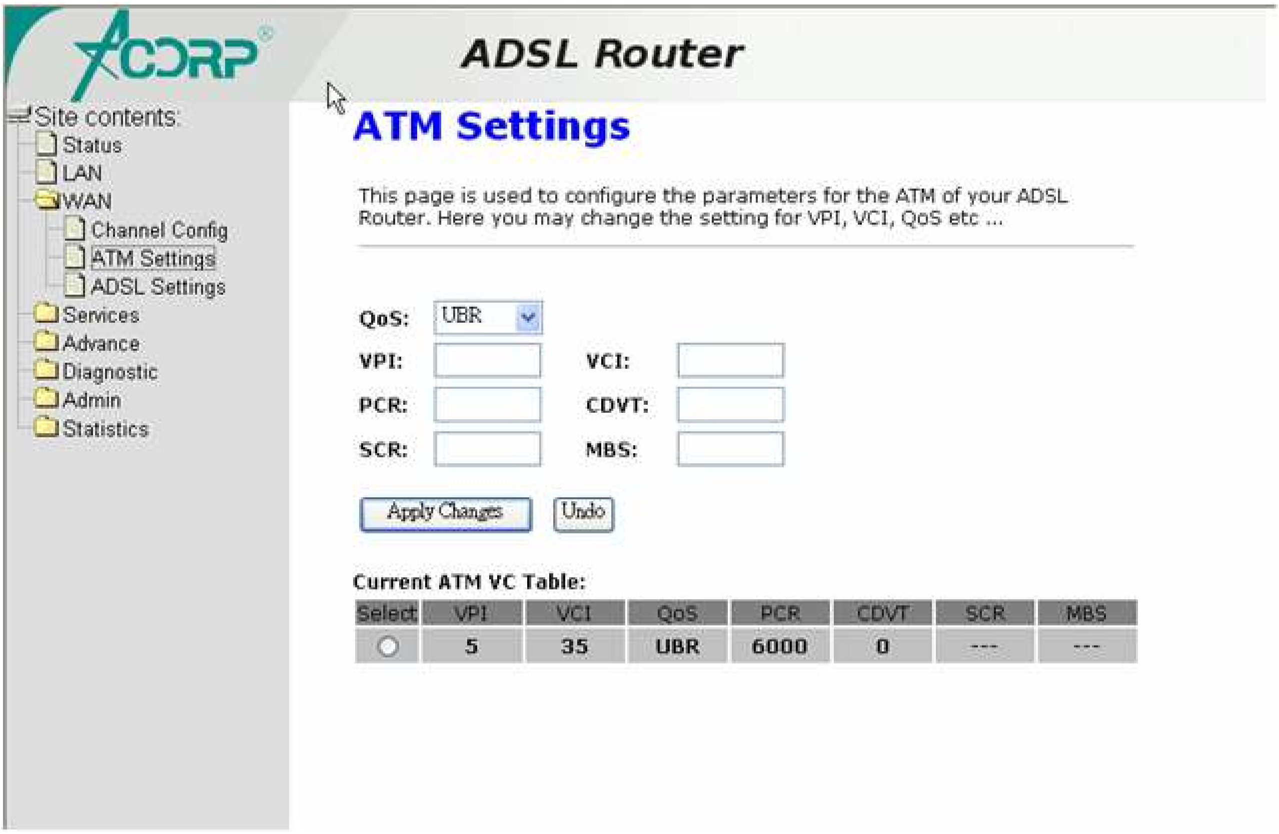
The overall operation of the auto-sensing PVC feature relies on end-to-end OAM pings or packet discovery to defined PVCs. There are two kinds of PVCs: customer default PVCs which are defined by the OEM/ISP and the backup PVCs. The backup list of PVCs is of the following VPI/VCI: *0/35*, *8/35*, *0/43*, *0/51*, *0/59*, *8/43*, *8/51*, and *8/59*. We can add/delete VPI/VCI into the backup list. By clicking "**Apply**" button, the auto-search mechanism can be enabled.

During connection establishment, the PVC module will first search the first customer default PVC. If the first default PVC is found, the PVC module will stop this search. If not found, the backup PVC list is used. If a PVC is found, the PVC module will update the particular PVC as the first default PVC. If no PVC is found again, the module will let the end-user know that no available VCC was found.

With the connection established, the PVC is stored in flash as the connection default PVC. Therefore upon reboot, this PVC is automatically chosen as the PVC for that connection.

3.2.2 ATM Setting

The page is for ATM PVC QoS parameters setting. The DSL device support 4 QoS mode —CBR/rt-VBR/nrt-VBR/UBR.



ATM Settings

This page is used to configure the parameters for the ATM of your ADSL Router. Here you may change the setting for VPI, VCI, QoS etc ...

QoS: UBR
VPI:
VCI:
PCR:
CDVT:
SCR:
MBS:

Current ATM VC Table:

Select	VPI	VCI	QoS	PCR	CDVT	SCR	MBS
○	5	35	UBR	6000	0	---	---

Fields in this page:

Field	Description
VPI	Virtual Path Identifier. This is read-only field and is selected on the **Select** column in the Current ATM VC Table.
VCI	Virtual Channel Identifier. This is read-only field and is selected on the **Select** column in the Current ATM VC Table. The VCI, together with VPI, is used to identify the next destination of a cell as it passes through to the ATM switch.

QoS	Quality of Server, a characteristic of data transmission that measures how accurately and how quickly a message or data is transferred from a source host to a destination host over a network. The four QoS options are: – UBR (Unspecified Bit Rate): When UBR is selected, the SCR and MBS fields are disabled. – CBR (Constant Bit Rate): When CBR is selected, the SCR and MBS fields are disabled. – nrt-VBR (non-real-time Variable Bit Rate): When nrt-VBR is selected, the SCR and MBS fields are enabled. – rt-VBR (real-time Variable Bit Rate): When rt-VBR is selected, the SCR and MBS fields are enabled.
PCR	Peak Cell Rate, measured in cells/sec., is the cell rate which the source may never exceed.
SCR	Sustained Cell Rate, measured in cells/sec., is the average cell rate over the duration of the connection.
MBS	Maximum Burst Size, a traffic parameter that specifies the maximum number of cells that can be transmitted at the peak cell rate.

Function buttons in this page:

Apply Changes

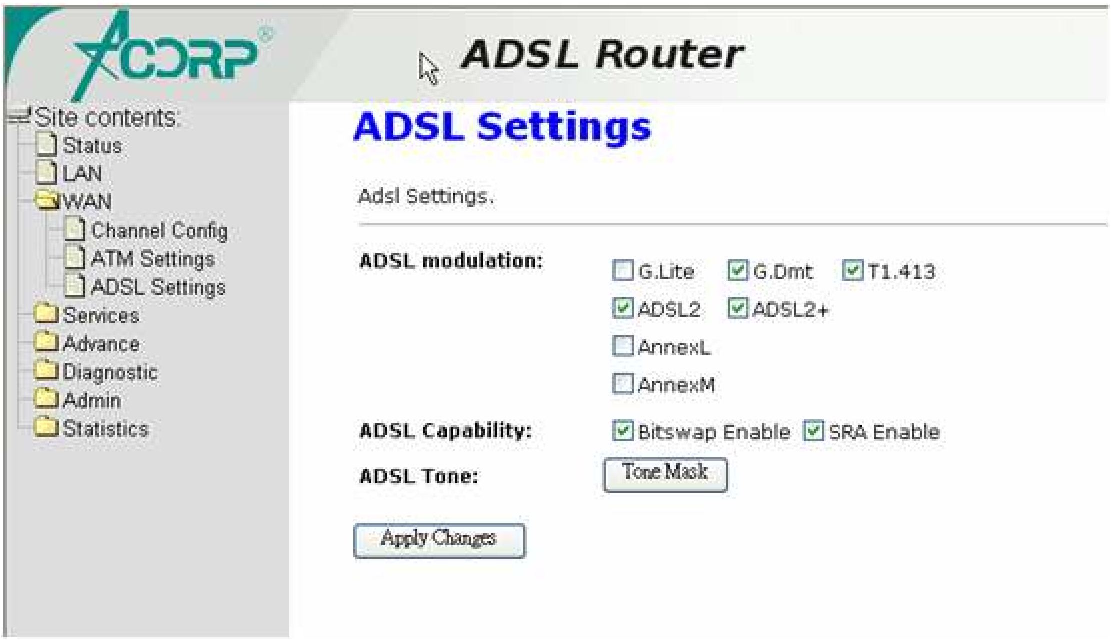
Set new PVC OoS mode for the selected PVC. New parameters will take effect after save into flash memory and reboot the system. See section "Admin" for save details.

Undo

Discard your settings.

3.2.3 ADSL Setting

The ADSL setting page allows you to select any combination of DSL training modes.



ADSL Settings

Adsl Settings.

ADSL modulation: □ G.Lite ☑ G.Dmt ☑ T1.413 ☑ ADSL2 ☑ ADSL2+ □ AnnexL □ AnnexM

ADSL Capability: ☑ Bitswap Enable ☑ SRA Enable

ADSL Tone:

Fields in this page:

Field	Description
ADSL modulation	Choose prefered xdsl standard protocols. G.lite : G.992.2 G.dmt : G.992.1 T1.413 : T1.413 issue #2 ADSL2 : G.992.3 ADSL2+ : G.992.5 Annex L : Enable ADSL2/ADSL2+ Annex L capability Annex M : Enable/Disable ADSL2/ADSL2+ Annex M capability
ADSL Capability	"Bitswap Enable" : Enable/Disable bitswap capability. "SRA Enable" : Enable/Disable SRA (seamless rate adaptation) capability.

Function buttons in this page:

Tone Mask

Choose tones to be masked. Masked tones will not carry any data.

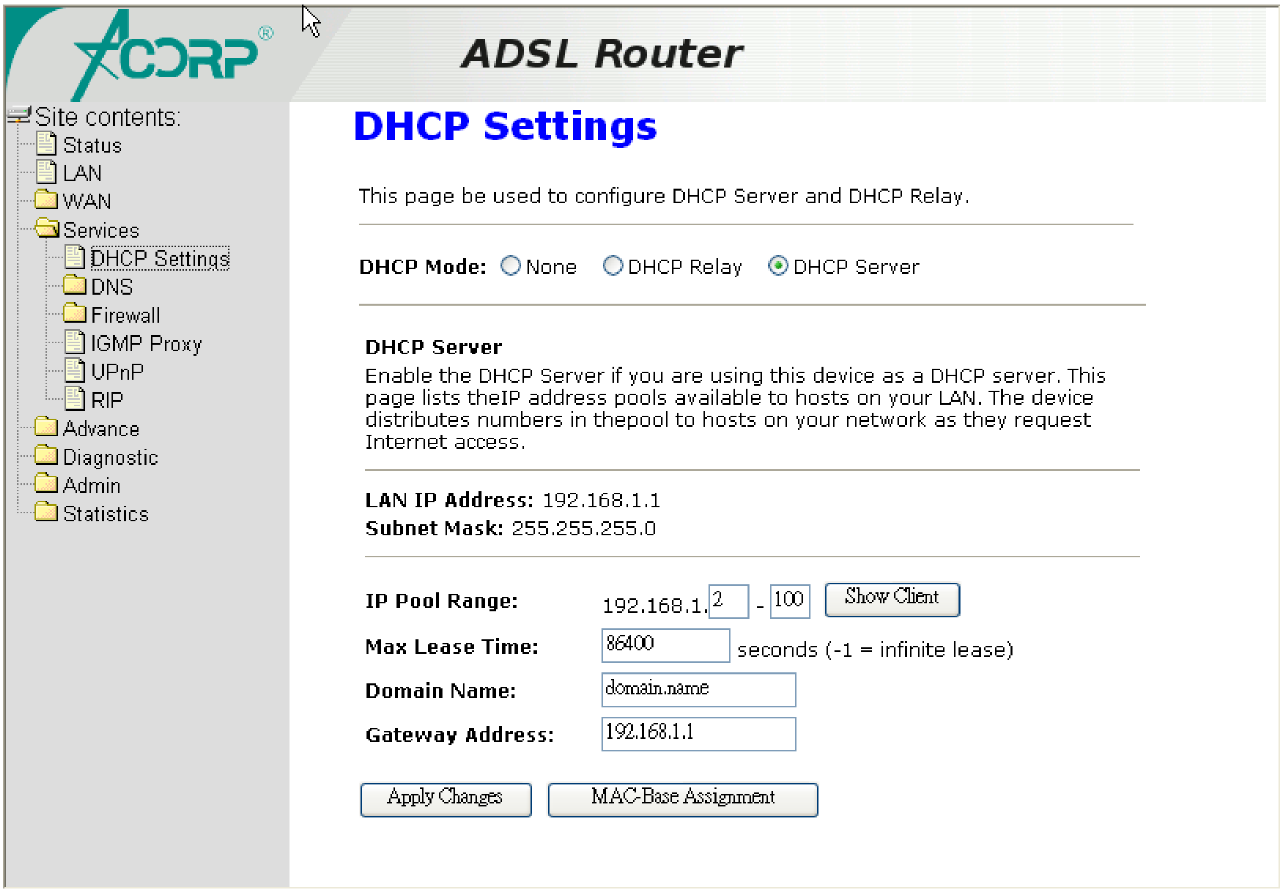
Apply Changes

Click to save the setting to the configuration and the modem will be retrained.

3.3 Services Configuration

3.3.1 DHCP Settings

You can configure your network and DSL device to use the Dynamic Host Configuration Protocol (DHCP). This page provides DHCP instructions for implementing it on your network by selecting the role of DHCP protocol that this device wants to play. There are two different DHCP roles that this device can act as: DHCP Server and DHCP Relay.



DHCP Settings

This page be used to configure DHCP Server and DHCP Relay.

DHCP Mode: ○ None ○ DHCP Relay ● DHCP Server

DHCP Server
Enable the DHCP Server if you are using this device as a DHCP server. This page lists theIP address pools available to hosts on your LAN. The device distributes numbers in thepool to hosts on your network as they request Internet access.

LAN IP Address: 192.168.1.1
Subnet Mask: 255.255.255.0

IP Pool Range:	192.168.1.2 - 100
Max Lease Time:	86400 seconds (-1 = infinite lease)
Domain Name:	domain.name
Gateway Address:	192.168.1.1

3.3.1.1 DHCP Server Configuration

By default, the device is configured as a DHCP server, with a predefined IP address pool of 192.168.1.2 through 192.168.1.100 (subnet mask 255.255.255.0).

Fields in this page:

Field	Description
IP Pool Range	Specify the lowest and highest addresses in the pool.
Max Lease Time	The Lease Time is the amount of time that a network user is allowed to maintain a network connection to the device using the current dynamic IP address. At the end

	of the Lease Time, the lease is either renewed or a new IP is issued by the DHCP server. The amount of time is in units of seconds. The default value is 86400 seconds (1 day). The value –1 stands for the infinite lease.
Domain Name	A user-friendly name that refers to the group of hosts (subnet) that will be assigned addresses from this pool.

Function buttons in this page:

Apply Changes

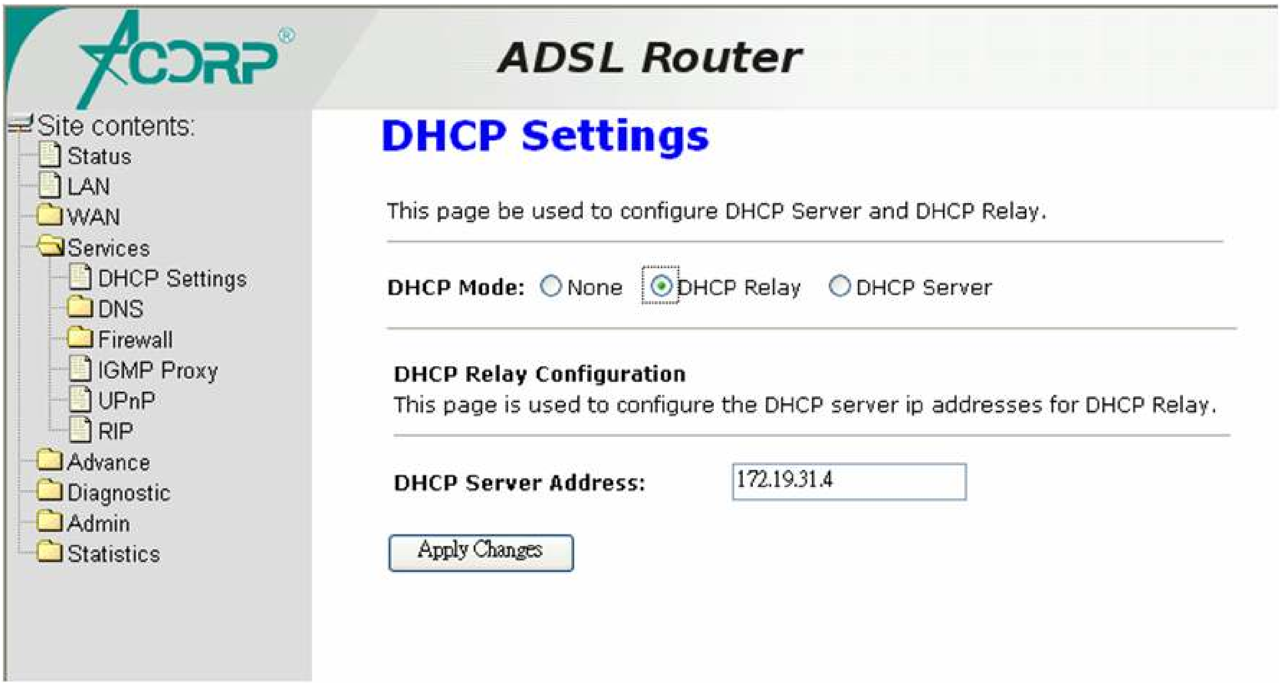
Set new DHCP server configuration. New parameters will take effect after save into flash memory and reboot the system. See section "Admin" for save details.

Undo

Discard your changes.

3.3.1.2 DHCP Relay Configuration

Some ISPs perform the DHCP relay function for their customers' home/small office network. In this case, you can configure this device to act as a DHCP relay agent. When a host on your network requests Internet access, the device contacts your ISP to obtain the IP configuration, and then forward that information to the host. You should set the DHCP mode after you configure the DHCP relay.



DHCP Settings

This page be used to configure DHCP Server and DHCP Relay.

DHCP Mode: ○ None ● DHCP Relay ○ DHCP Server

DHCP Relay Configuration

This page is used to configure the DHCP server ip addresses for DHCP Relay.

DHCP Server Address: 172.19.31.4

Fields in this page:

Field	Description
DHCP Server Address	Specify the IP address of your ISP's DHCP server. Requests for IP information from your LAN will be passed to the default gateway, which should route the request appropriately.

Apply Changes

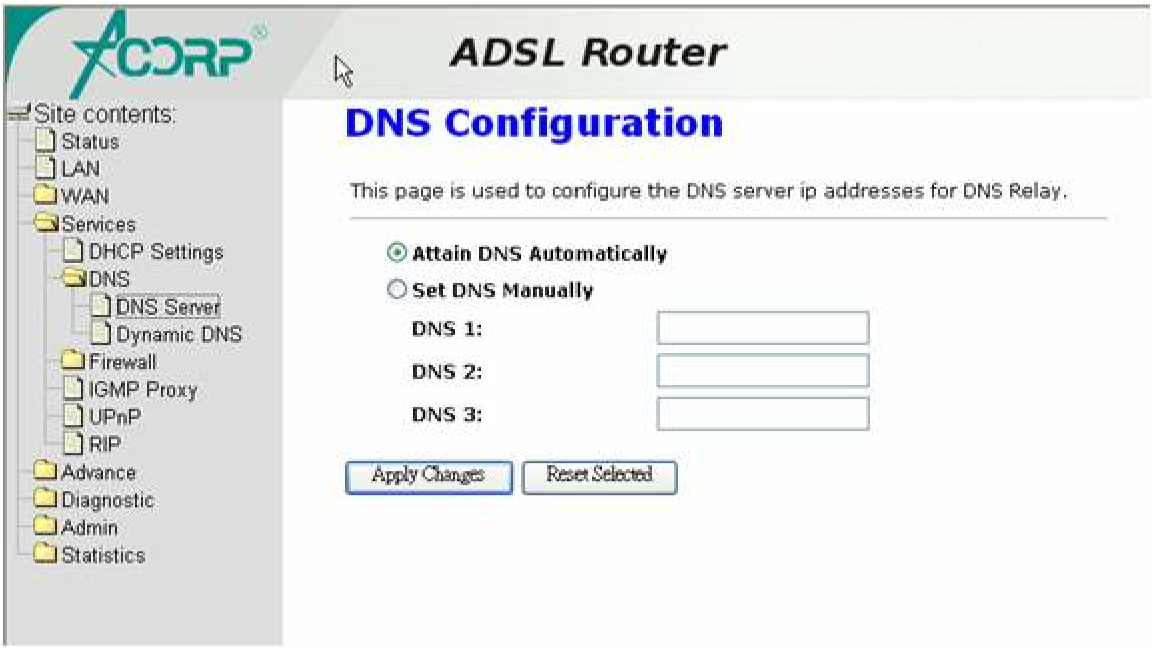
Click here to save the setting to the configuration

3.3.2 DNS Configuration

There are two submenus for the DNS Configuration: [DNS Server] and [Dynamic DNS]

3.3.2.1 DNS Server

This page is used to select the way to obtain the IP addresses of the DNS servers.



DNS Configuration

This page is used to configure the DNS server ip addresses for DNS Relay.

● Attain DNS Automatically
○ Set DNS Manually
DNS 1:
DNS 2:
DNS 3:

Fields in this page:

Field	Description
Attain DNS Automatically	Select this item if you want to use the DNS servers obtained by the WAN interface via the auto-configuration mechanism.
Set DNS Manually	Select this item to configure up to three DNS IP addresses.

Function buttons in this page:

Apply Changes

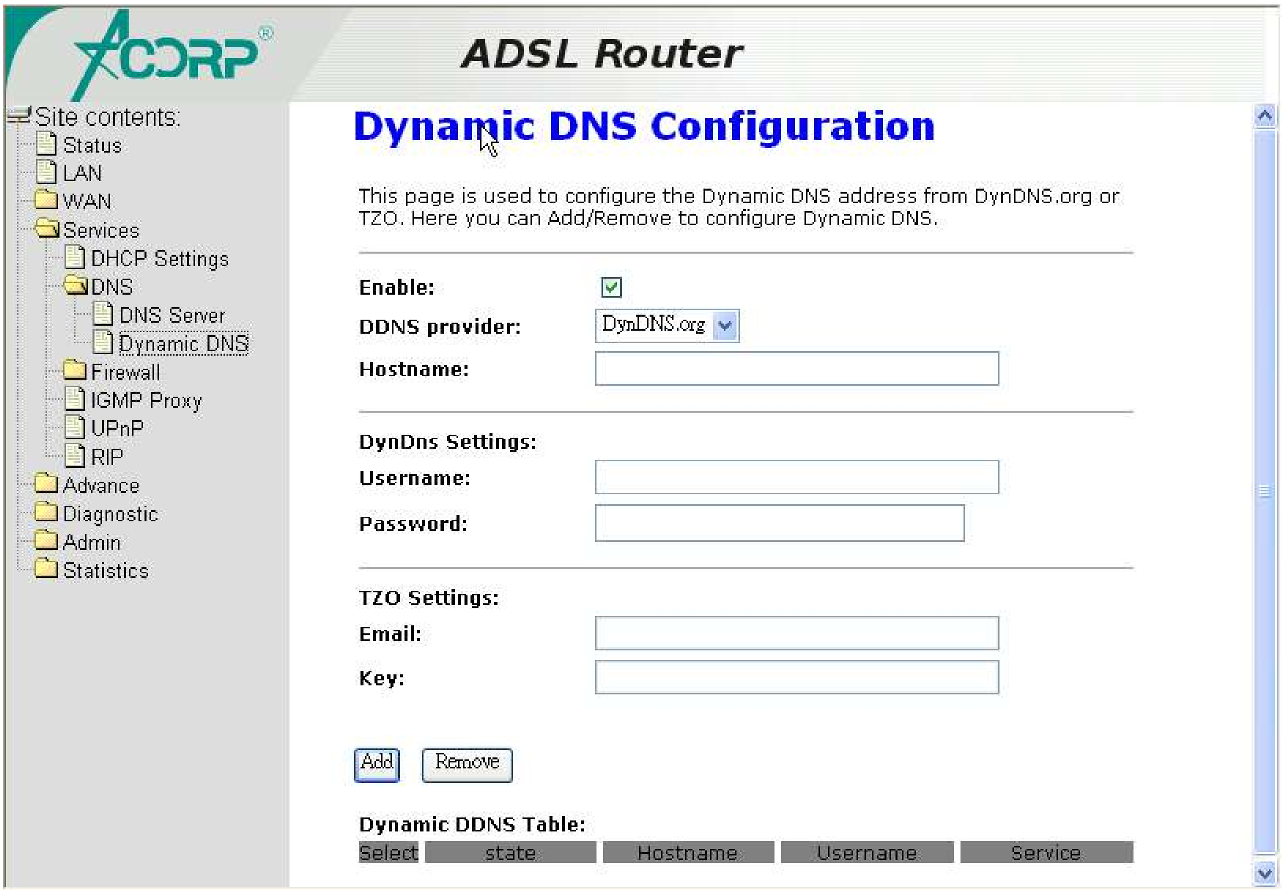
Set new DNS relay configuration. New parameters will take effect after save into flash memory and reboot the system. See section "Admin" for save details.

Undo

Discard your changes.

3.3.2.2 Dynamic DNS

Each time your device connects to the Internet, your ISP assigns a different IP address to your device. In order for you or other users to access your device from the WAN-side, you need to manually track the IP that is currently used. The Dynamic DNS feature allows you to register your device with a DNS server and access your device each time using the same host name. The **Dynamic DNS** page allows you to enable/disable the Dynamic DNS feature.



Dynamic DNS Configuration

This page is used to configure the Dynamic DNS address from DynDNS.org or TZO. Here you can Add/Remove to configure Dynamic DNS.

Enable: ☑

DDNS provider: DynDNS.org

Hostname:

DynDns Settings:

Username:

Password:

TZO Settings:

Email:

Key:

Add | Remove

Dynamic DDNS Table:

Select	state	Hostname	Username	Service

On the **Dynamic DNS** page, configure the following fields:

Field	Description
Enable	Check this item to enable this registration account for the DNS server.
DDNS provider	There are two DDNS providers to be selected in order to register your device with: DynDNS and TZO. A charge may occurs depends on the service you select.
Hostname	Domain name to be registered with the DDNS server.
Username	User-name assigned by the DDNS service provider.
Password	Password assigned by the DDNS service provider.

Function buttons in this page:

Add

Add this registration into the configuration.

Remove

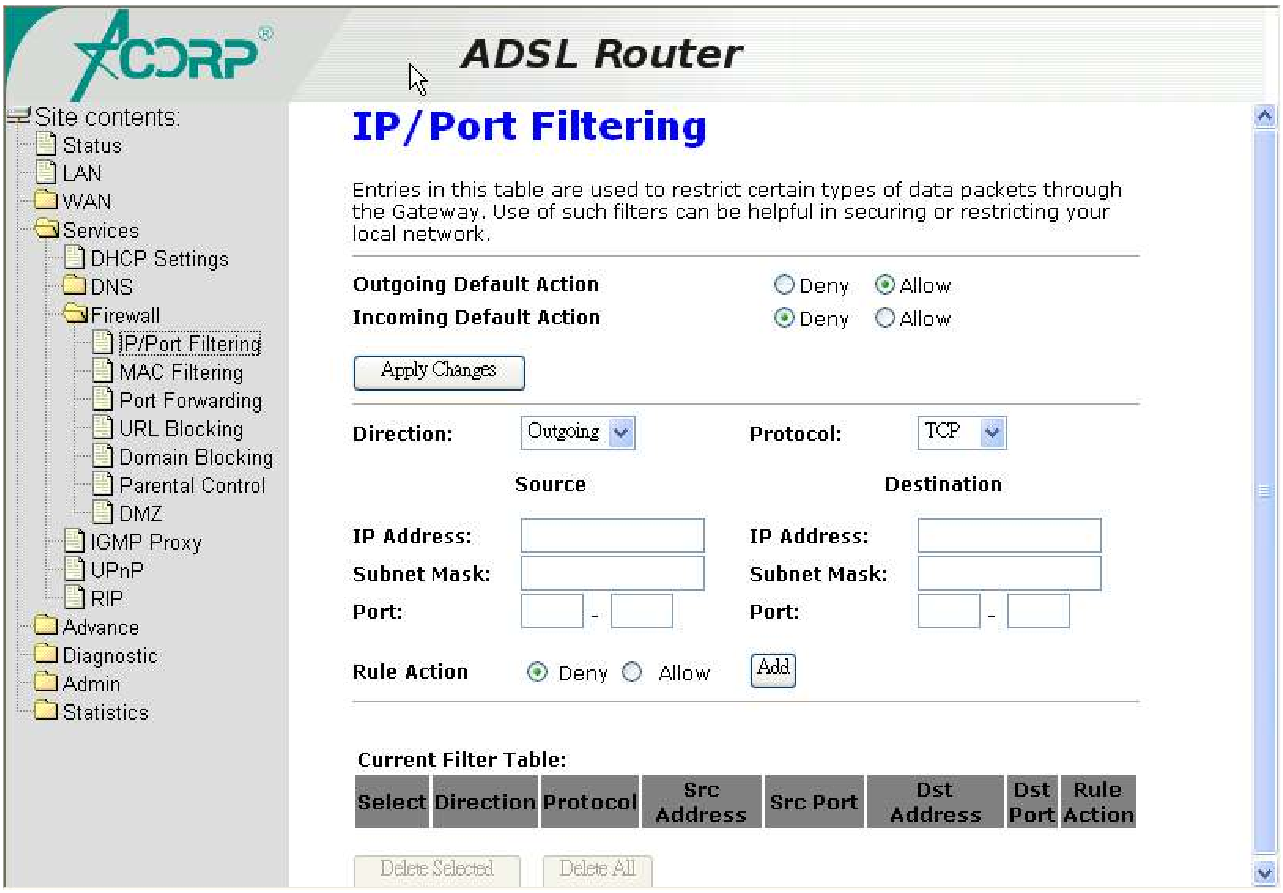
Remove the selected registration from the **Dynamic DNS Table**.

3.3.3 Firewall Configuration

Firewall contains several features that are used to deny or allow traffic from passing through the device.

3.3.3.1 IP/Port Filtering

The IP/Port filtering feature allows you to deny/allow specific services or applications in the forwarding path.



IP/Port Filtering

Entries in this table are used to restrict certain types of data packets through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

Outgoing Default Action ○ Deny ● Allow
Incoming Default Action ● Deny ○ Allow

Direction: Outgoing　Protocol: TCP

Source: IP Address: Subnet Mask: Port: -
Destination: IP Address: Subnet Mask: Port: -

Rule Action ● Deny ○ Allow

Current Filter Table:

Select	Direction	Protocol	Src Address	Src Port	Dst Address	Dst Port	Rule Action

Fields on the first setting block:

Field	Description
Outgoing Default Action	Specify the default action on the LAN to WAN forwarding path.
Incoming Default Action	Specify the default action on the WAN to LAN forwarding path.

Function button for this first setting block:

Apply Changes

Click to save the setting of default actions to the configuration.

Fields on the second setting block:

Field	Description
Rule Action	Deny or allow traffic when matching this rule.
Direction	Traffic forwarding direction.
Protocol	There are 3 options available: TCP, UDP and ICMP.
(Source) IP Address	The source IP address assigned to the traffic on which filtering is applied.
(Source) Subnet Mask	Subnet-mask of the source IP.
(Source) Port	Starting and ending source port numbers.
(Destination) IP Address	The destination IP address assigned to the traffic on which filtering is applied.
(Destination) Subnet Mask	Subnet-mask of the destination IP.
(Destination) Port	Starting and ending destination port numbers.

Function buttons for this second setting block:

Add

Click to save the rule entry to the configuration.

Function buttons for the **Current Filter Table**:

Delete Selected

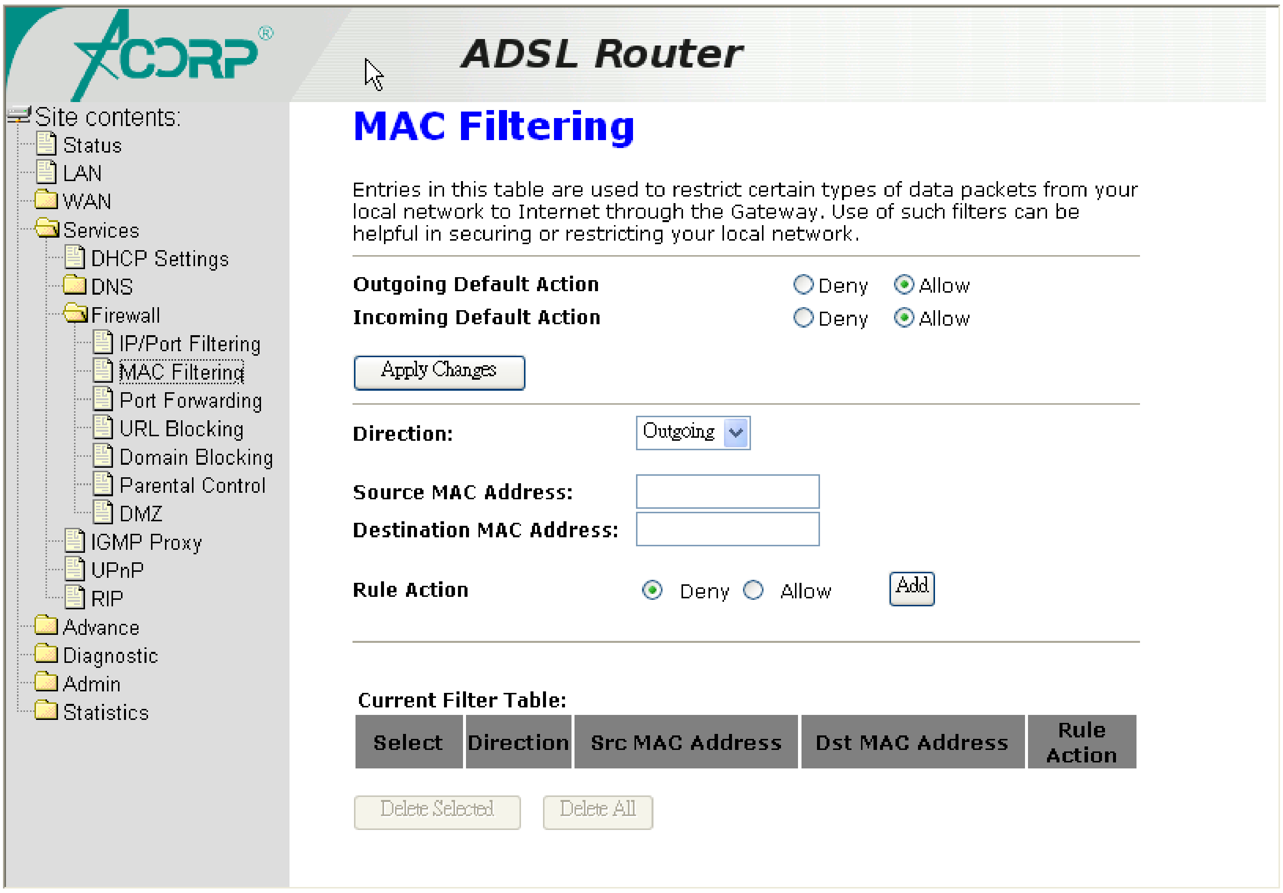
Delete selected filtering rules from the filter table. You can click the checkbox at the **Select** column to select the filtering rule.

Delete All

Delete all filtering rules from the filter table.

3.3.3.2 MAC Filtering

The MAC filtering feature allows you to define rules to allow or deny frames through the device based on source MAC address, destination MAC address, and traffic direction.



MAC Filtering

Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

Outgoing Default Action ○ Deny ● Allow
Incoming Default Action ○ Deny ● Allow

Apply Changes

Direction: Outgoing

Source MAC Address:
Destination MAC Address:

Rule Action ● Deny ○ Allow Add

Current Filter Table:

Select	Direction	Src MAC Address	Dst MAC Address	Rule Action

Delete Selected Delete All

Fields on the first setting block:

Field	Description
Outgoing Default Action	Specify the default action on the LAN to WAN bridging/forwarding path.
Incoming Default Action	Specify the default action on the WAN to LAN bridging/forwarding path.

Function button for this first setting block:

Apply Changes

Click to save the setting of default actions to the configuration.

Fields on the second setting block:

Field	Description
Rule Action	Deny or allow traffic when matching this rule.
Direction	Traffic bridging/forwarding direction.
Source MAC Address	he source MAC address. It must be xxxxxxxxxxxx format. Blanks can be used in the MAC address space and are considered as don't care.
Destination MAC Address	The destination MAC address. It must be xxxxxxxxxxxx format. Blanks can be used in the MAC address space and are considered as don't care.

Function buttons for this second setting block:

Add

Click to save the rule entry to the configuration.

Function buttons for the **Current Filter Table**:

Delete Selected

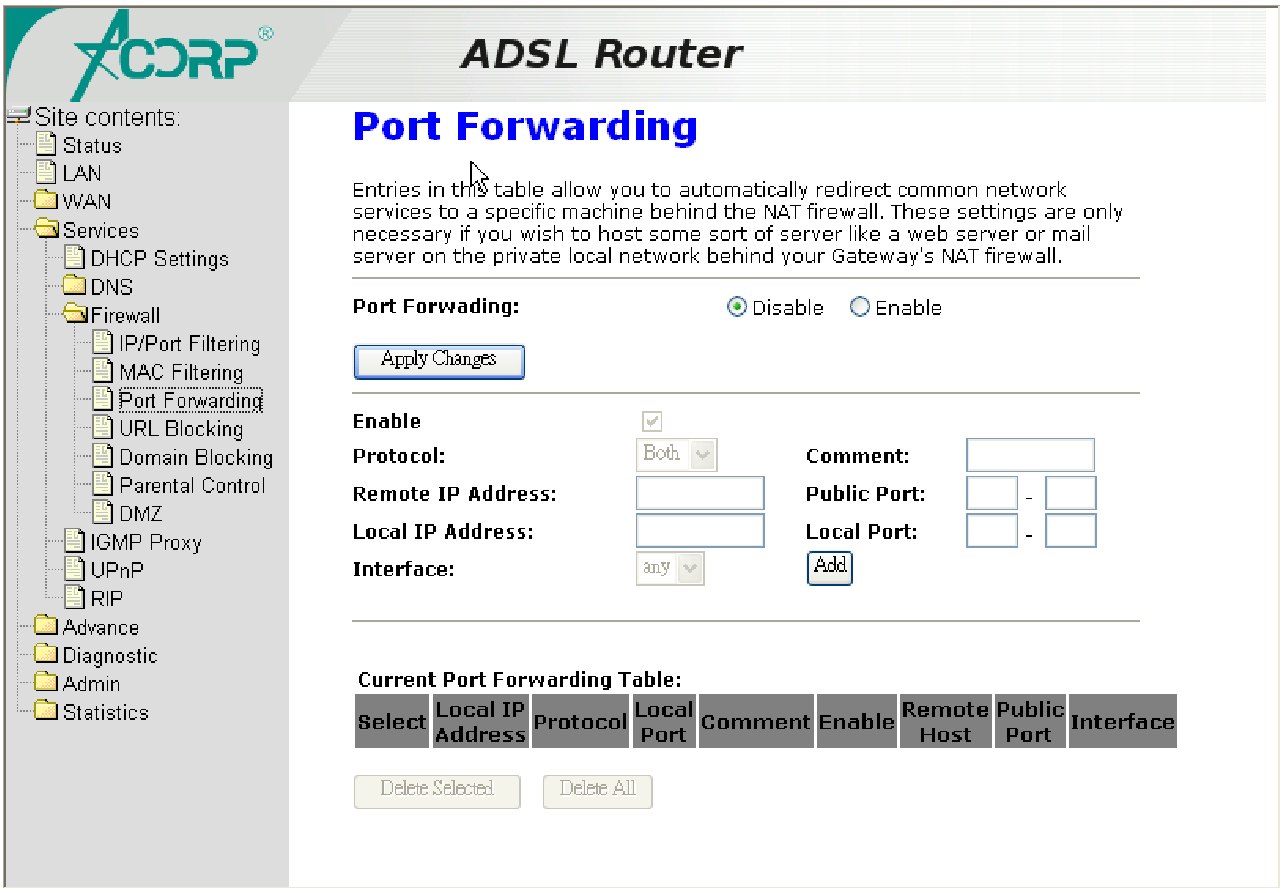
Delete selected filtering rules from the filter table. You can click the checkbox at the **Select** column to select the filtering rule.

Delete All

Delete all filtering rules from the filter table.

3.3.3.3 Port Forwarding

Firewall keeps unwanted traffic from the Internet away from your LAN computers. Add a Port Forwarding entry will create a tunnel through your firewall so that the computers on the Internet can communicate to one of the computers on your LAN on a single port.



Port Forwarding

Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.

Port Forwading: ● Disable ○ Enable

Enable ☑

Protocol: Both

Comment:

Remote IP Address:

Public Port: -

Local IP Address:

Local Port: -

Interface: any

Current Port Forwarding Table:

Select	Local IP Address	Protocol	Local Port	Comment	Enable	Remote Host	Public Port	Interface

Fields in this page:

Field	Description
Port Forwarding	Enable / Disable the port-forwarding feature.
Protocol	There are 3 options available: TCP, UDP and Both.
Enable	Check this item to enable this entry.
Remote IP Address	The source IP address from which the incoming traffic is allowed. Leave blank for all.
Public Port	The destination port number that is made open for this application on the WAN-side
Local IP Address	IP address of your local server that will be accessed by Internet.
Local Port	The destination port number that is made open for this application on the LAN-side.
Interface	Select the WAN interface on which the port-forwarding rule is to be applied.

Function buttons for the setting block:

Add

Click to save the rule entry to the configuration.

Function buttons for the **Current Port Forwarding Table**:

Delete Selected

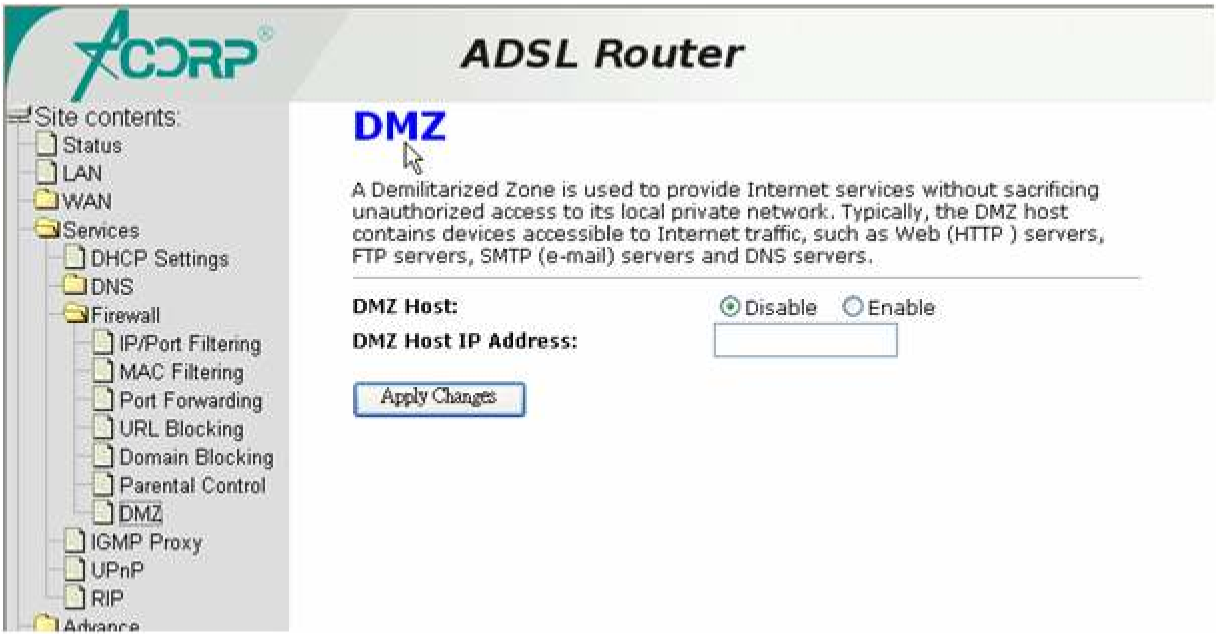
Delete the selected port forwarding rules from the forwarding table. You can click the checkbox at the **Select** column to select the forwarding rule.

Delete All

Delete all forwarding rules from the forwarding table.

3.3.3.4 DMZ

A DMZ (Demilitarized Zone) allows a single computer on your LAN to expose ALL of its ports to the Internet. Enter the IP address of that computer as a DMZ (Demilitarized Zone) host with unrestricted Internet access. When doing this, the DMZ host is no longer behind the firewall.



DMZ

A Demilitarized Zone 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.

DMZ Host: ● Disable ○ Enable

DMZ Host IP Address:

Fields in this page:

Field	Description
DMZ HOST	Enable / Disable the DMZ feature.
DMZ Host IP Address	IP address of the local host. This feature sets a local host to be exposed to the Internet.

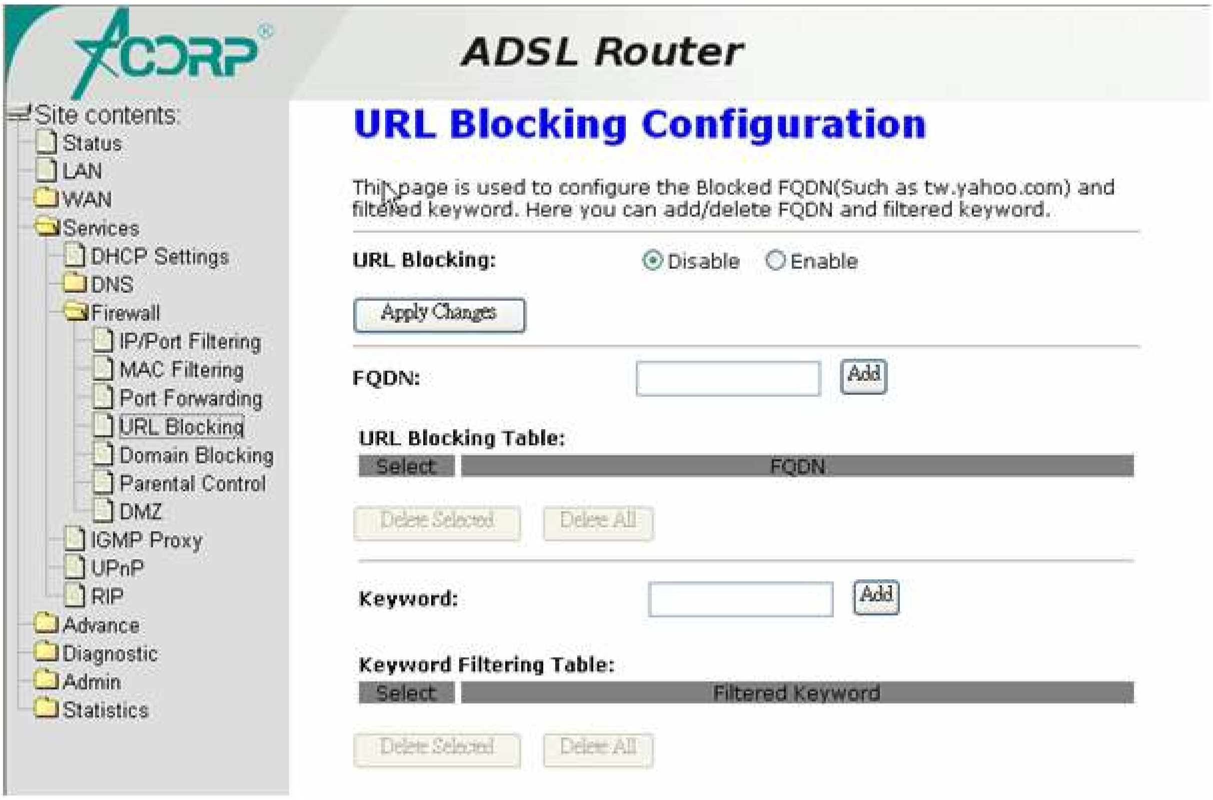
Function buttons in this page:

Apply Changes

Click to save the setting to the configuration.

3.3.3.5 URL Blocking

The URL Blocking is the web filtering solution. The firewall includes the ability to block access to specific web URLs based on string matches. This can allow large numbers of URLs to be blocked by specifying only a FQDN (such as tw.yahoo.com). The URL Blocking enforce a Web usage policy to control content downloaded from, and uploaded to, the Web.



URL Blocking Configuration

This page is used to configure the Blocked FQDN(Such as tw.yahoo.com) and filtered keyword. Here you can add/delete FQDN and filtered keyword.

URL Blocking: ● Disable ○ Enable

FQDN:

URL Blocking Table:

Select	FQDN

Keyword:

Keyword Filtering Table:

Select	Filtered Keyword

Fields in this page:

Field	Description
URL Blocking	Enable / Disable the URL Blocking feature.
FQDN	A **fully qualified domain name** (or **FQDN**) is an unambiguous domain name that specifies the node's position in the DNS tree hierarchy absolutely, such as tw.yahoo.com. The FQDN will be blocked to access.
Keyword	The filtered keyword such as yahoo. If the URL includes this keyword, the URL will be blocked to access.

Function buttons in this page:

Apply Changes

Click to disable/enable the URL Blocking capability

Add (FQDN)

Add FQDN into URL Blocking table.

Delete Selected (FQDN)

Delete the selected FQDN from the URL Blocking table. You can click the checkbox at the **Select** column to select the Blocked FQDN.

Delete All (FQDN)

Delete all selected FQDN from the URL Blocking table.

Add (Keyword)

Add filtered keyword into Keyword Filtering table.

Delete Selected (Keyword)

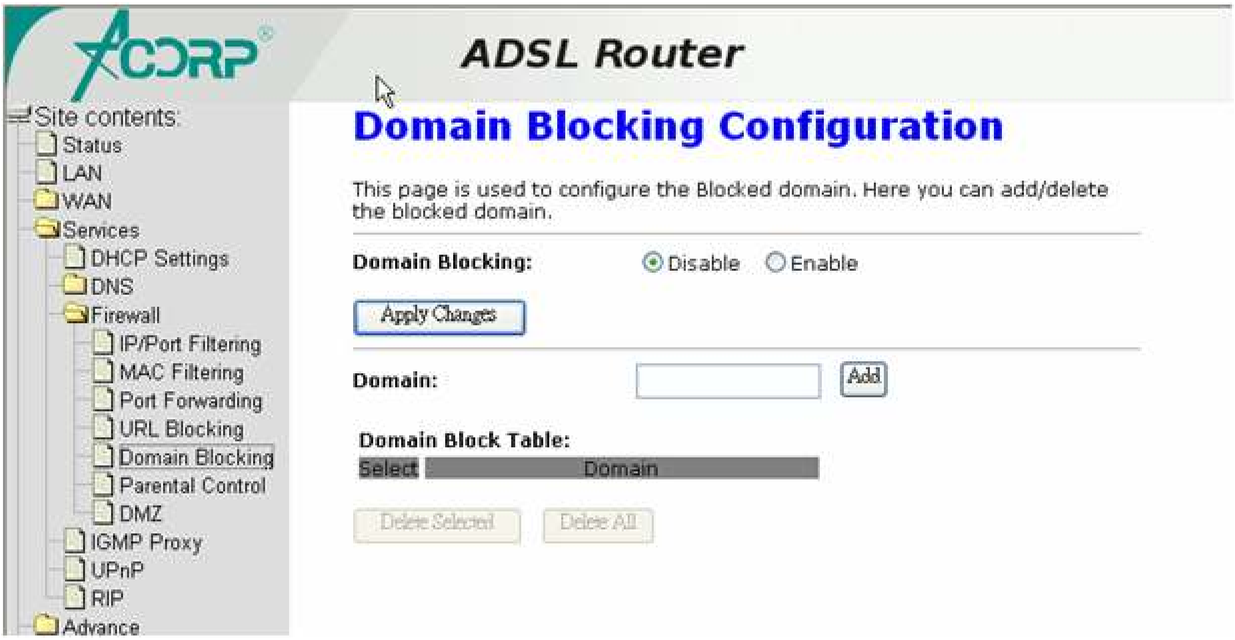
Delete the selected keyword from the keyword Filtering table. You can click the checkbox at the **Select** column to select the filtered keyword.

Delete All (Keyword)

Delete all selected keyword from the keyword Filtering table.

3.3.3.6 Domain blocking

The firewall includes the ability to block access to specific domain based on string matches. For example, if the URL of Taiwan Yahoo web site is "tw.yahoo.com" and you enter "yahoo.com", the firewall will block all the DNS queries with "yahoo.com" string. So the Host will be blocked to access all the URLs belong to "yahoo.com" domain. That means you can protect your computer, your house, your office and anything else that uses DNS from being able to service domains that you don't want to load.



Domain Blocking Configuration

This page is used to configure the Blocked domain. Here you can add/delete the blocked domain.

Domain Blocking: ● Disable ○ Enable

Apply Changes

Domain: Add

Domain Block Table:

Select	Domain

Delete Selected Delete All

Fields in this page:

Field	Description
Domain Blocking	Enable / Disable the Domain Blocking feature.
Domain	The blocked domain. e.g. If the URL of Taiwan Yahoo web site is tw.yahoo.com, the domain can be yahoo.com.

Function buttons in this page:

Apply Changes

Click to disable/enable the Domain Block capability

Add

Add domain into Domain Block table.

Delete Selected

Delete the selected domain from the Domain Block table. You can click the checkbox at the **Select** column to select the Blocked domain.

Delete All

Delete all selected blocked domains.

3.3.4 IGMP Proxy Configuration

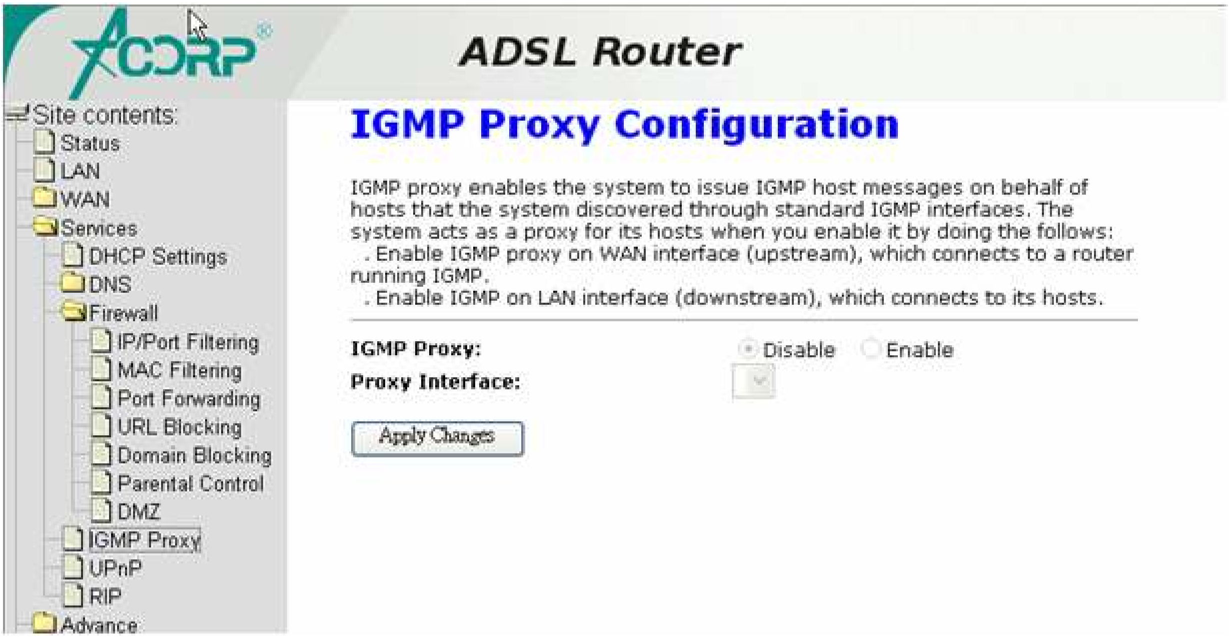
Multicasting is useful when the same data needs to be sent to more than one hosts. Using multicasting as opposed to sending the same data to the individual hosts uses less network bandwidth. The multicast feature also enables you to receive multicast video stream from multicast servers.

IP hosts use Internet Group Management Protocol (IGMP) to report their multicast group memberships to neighboring routers. Similarly, multicast routers use IGMP to discover which of their hosts belong to multicast groups. This device supports IGMP proxy that handles IGMP messages. When enabled, this device acts as a proxy for a LAN host making requests to join and leave multicast groups, or a multicast router sending multicast packets to multicast group on the WAN side.

When a host wishes to join a multicast group, it sends IGMP REPORT message to the device's IGMP downstream interface. The proxy sets up a multicast route for the interface and host requesting the video content. It then forwards the Join to the upstream multicast router. The multicast IP traffic will then be forwarded to the requesting host. On a leave, the proxy removes the route and then forwards the leave to the upstream multicast router.

The IGMP Proxy page allows you to enable multicast on WAN and LAN interfaces. The LAN interface is always served as downstream IGMP proxy, and you can configure one of the available WAN interfaces as the upstream IGMP proxy.

- Upstream: The interface that IGMP requests from hosts are sent to the multicast router.
- Downstream: The interface data from the multicast router are sent to hosts in the multicast group database.



IGMP Proxy Configuration

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 when you enable it by doing the follows:
. Enable IGMP proxy on WAN interface (upstream), which connects to a router running IGMP.
. Enable IGMP on LAN interface (downstream), which connects to its hosts.

IGMP Proxy: ● Disable ○ Enable

Proxy Interface:

Fields in this page:

Field	Description
IGMP Proxy	Enable/disable IGMP proxy feature
Proxy Interface	The upstream WAN interface is selected here.

Function buttons in this page:

Apply Changes

Click to save the setting to the configuration.

Undo

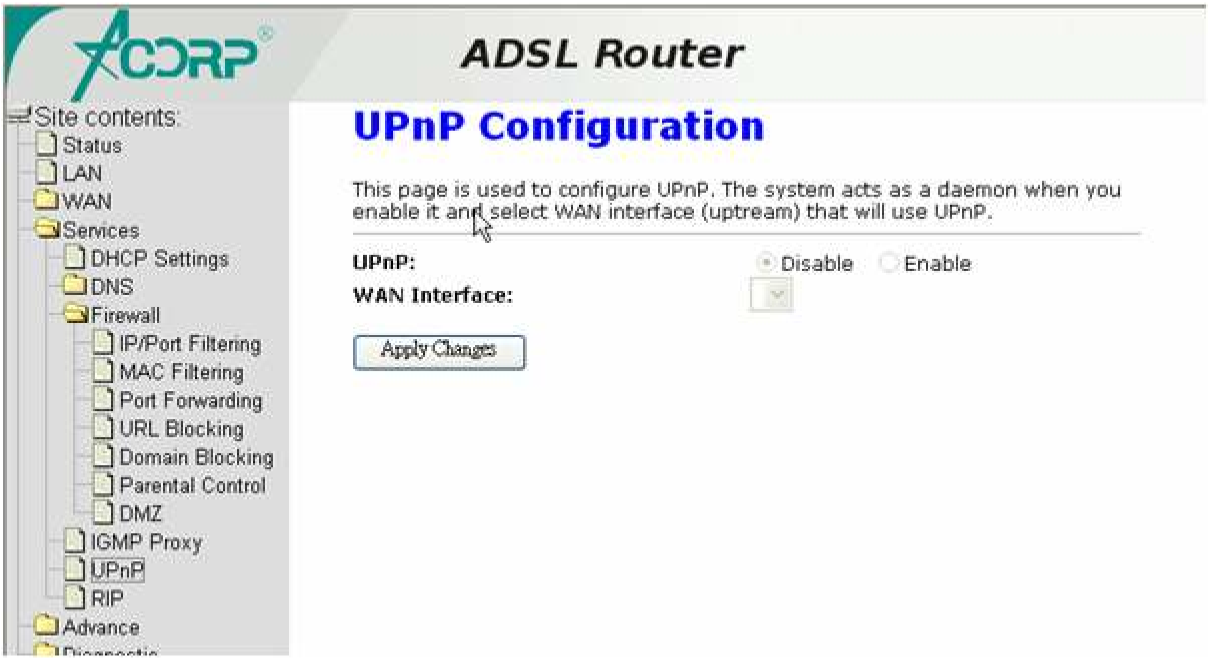
Discard your settings.

3.3.5 UPnP Configuration

The DSL device supports a control point for Universal Plug and Play (UPnP) version 1.0, and supports two key features: **NAT Traversal** and **Device Identification**. This feature requires one active WAN interface. In addition, the host should support this feature. In the presence of multiple WAN interfaces, select an interface on which the incoming traffic is present.

With NAT Traversal, when an UPnP command is received to open ports in NAT, the application translates the request into system commands to open the ports in NAT and the firewall. The interface to open the ports on is given to UPnP when it starts up and is part of the configuration of the application.

For Device Identification, the application will send a description of the DSL device as a control point back to the host making the request.



UPnP Configuration

This page is used to configure UPnP. The system acts as a daemon when you enable it and select WAN interface (uptream) that will use UPnP.

UPnP: ● Disable ○ Enable

WAN Interface:

Fields in this page:

Field	Description
UPnP Daemon	Enable/disable UPnP feature.
WAN Interface	Select WAN interface that will use UPnP from the drop-down lists.

Function buttons in this page:

Apply Changes

Click to save the setting to the system configuration.

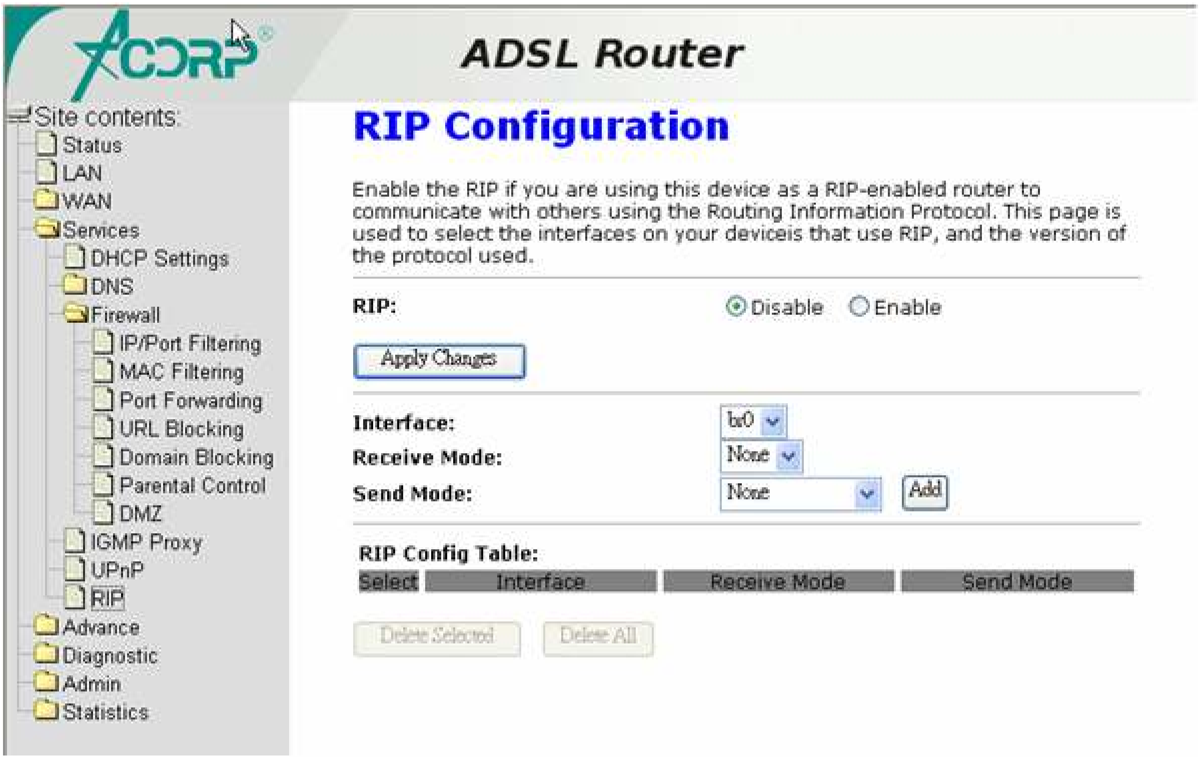
3.3.6 RIP Configuration

RIP is an Internet protocol you can set up to share routing table information with other routing devices on your LAN, at your ISP's location, or on remote networks connected to your network via the ADSL line.

Most small home or office networks do not need to use RIP; they have only one router, such as the ADSL Router, and one path to an ISP. In these cases, there is no need to share routes, because all Internet data from the network is sent to the same ISP gateway.

You may want to configure RIP if any of the following circumstances apply to your network:

- Your home network setup includes an additional router or RIP-enabled PC (other than the ADSL Router). The ADSL Router and the router will need to communicate via RIP to share their routing tables.
- Your network connects via the ADSL line to a remote network, such as a corporate network. In order for your LAN to learn the routes used within your corporate network, they should both be configured with RIP.
- Your ISP requests that you run RIP for communication with devices on their network..



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. This page is used to select the interfaces on your deviceis that use RIP, and the version of the protocol used.

RIP: ● Disable ○ Enable

Apply Changes

Interface: br0
Receive Mode: None
Send Mode: None
Add

RIP Config Table:

Select	Interface	Receive Mode	Send Mode

Delete Selected   Delete All

Fields on the first setting block:

Field	Description
RIP	Enable/disable RIP feature.

Function buttons for the second setting block in this page:

Apply Changes

Click to save the setting of this setting block to the system configuration

Fields on the second setting block:

Field	Description
Interface	The name of the interface on which you want to enable RIP.
Receive Mode	Indicate the RIP version in which information must be passed to the DSL device in order for it to be accepted into its routing table.
Send Mode	Indicate the RIP version this interface will use when it sends its route information to other devices.

Function buttons for the second setting block in this page:

Add

Add a RIP entry and the new RIP entry will be display in the table

Delete Selected Entry

Delete a selected RIP entry. The RIP entry can be selected on the **Select** column of the **RIP Config Table.**

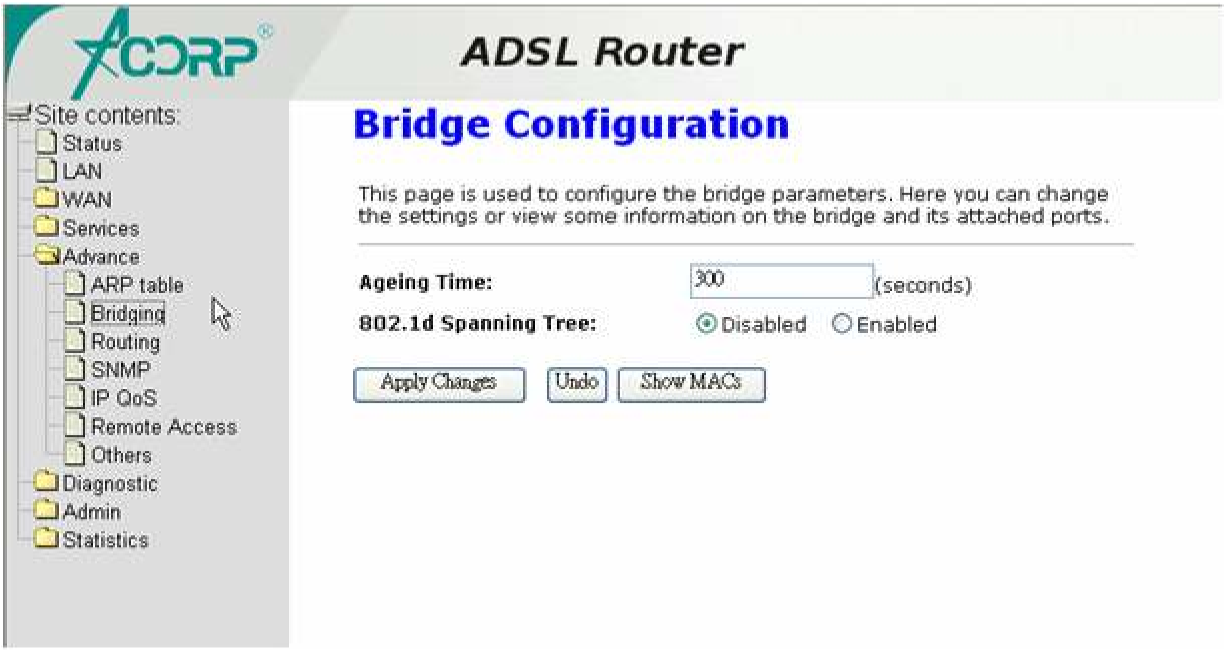
Delete All

Delete all selected RIP entry.

3.4 Advance Configuration

3.4.1 Bridging

You can enable/disable Spanning Tree Protocol and set MAC address aging time in this page.



Bridge Configuration

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 Time: 300 (seconds)

802.1d Spanning Tree: ● Disabled ○ Enabled

Fields in this page:

Field	Description
Ageing Time	Set the Ethernet address ageing time, in seconds. After [Ageing Time] seconds of not having seen a frame coming from a certain address, the bridge will time out (delete) that address from Forwarding DataBase (fdb).
802.1d Spanning Tree	Enable/disable the spanning tree protocol

Function buttons in this page:

Apply Changes

Save this bridge configuration. New configuration will take effect after saving into flash memory and rebooting the system. See section "Admin" for details.

Show MACs

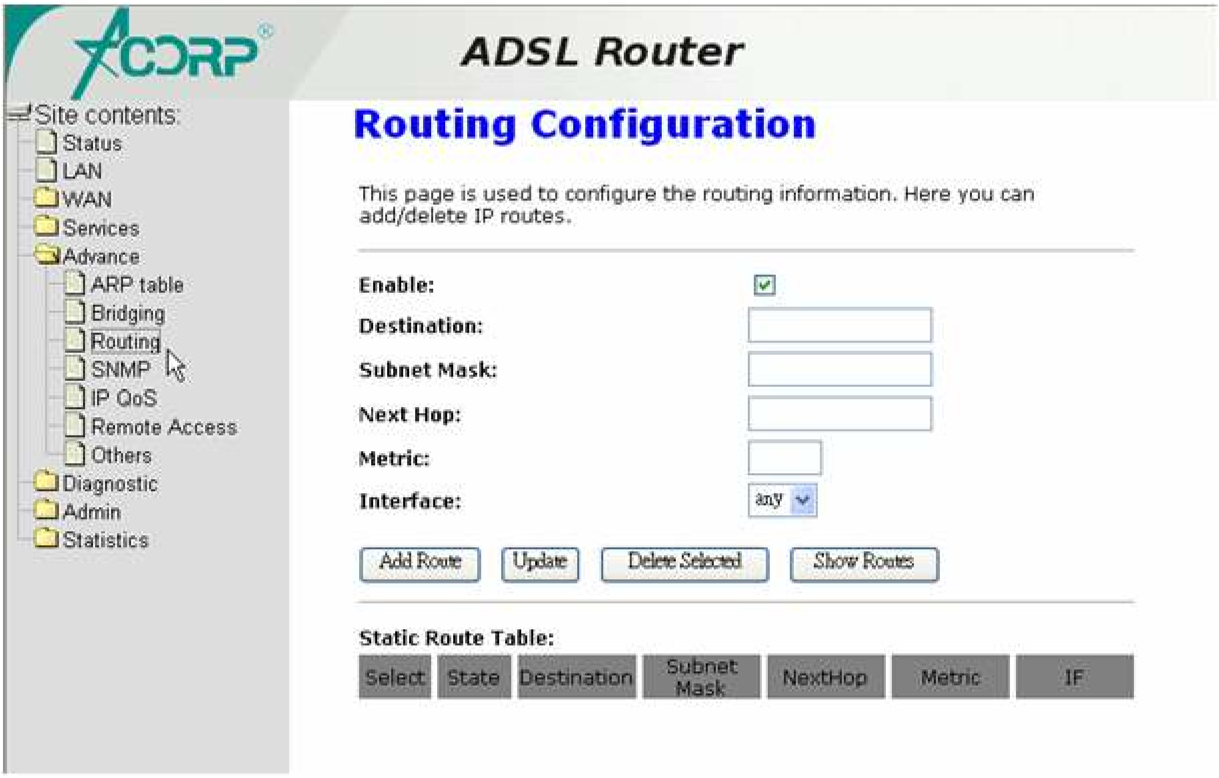
List MAC address in forwarding table.

3.4.2 Routing

The Routing page enables you to define specific route for your Internet and network data. Most users do not need to define routes. On a typical small home or office LAN, the existing routes that set up the default gateways for your LAN hosts and for the DSL device provide the most appropriate path for all your Internet traffic.

- On your LAN hosts, a default gateway directs all Internet traffic to the LAN port(s) on the DSL device. Your LAN hosts know their default gateway either because you assigned it to them when you modified your TCP/IP properties, or because you configured them to receive the information dynamically from a server whenever they access the Internet.
- On the DSL device itself, a default gateway is defined to direct all outbound Internet traffic to a route at your ISP. The default gateway is assigned either automatically by your ISP whenever the device negotiates an Internet access, or manually by user to setup through the configuration.

You may need to define routes if your home setup includes two or more networks or subnets, if you connect to two or more ISP services, or if you connect to a remote corporate LAN.



Routing Configuration

This page is used to configure the routing information. Here you can add/delete IP routes.

Enable: ☑
Destination:
Subnet Mask:
Next Hop:
Metric:
Interface: any

Static Route Table:

Select	State	Destination	Subnet Mask	NextHop	Metric	IF

Fields in this page:

Field	Description
Enable	Check to enable the selected route or route to be added.

Destination	The network IP address of the subnet. The destination can be specified as the IP address of a subnet or a specific host in the subnet. It can also be specified as all zeros to indicate that this route should be used for all destinations for which no other route is defined (this is the route that creates the default gateway).
Subnet Mask	The network mask of the destination subnet. The default gateway uses a mask of 0.0.0.0.
Next Hop	The IP address of the next hop through which traffic will flow towards the destination subnet.
Metric	Defines the number of hops between network nodes that data packets travel. The default value is 0, which means that the subnet is directly one hop away on the local LAN network.
Interface	The WAN interface to which a static routing subnet is to be applied.

Function buttons in this page:

Add Route

Add a user-defined destination route.

Update

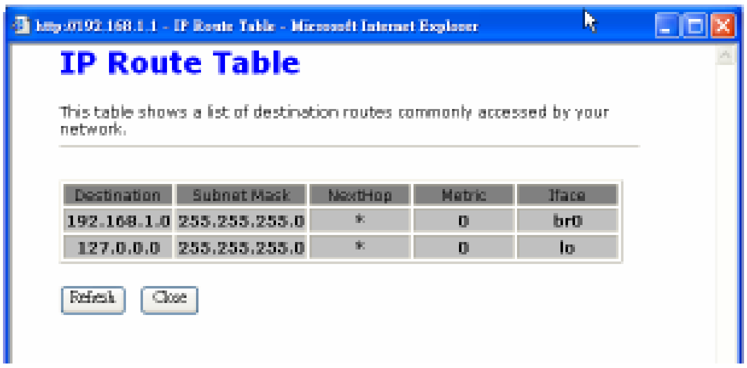
Update the selected destination route on the **Static Route Table**.

Delete Selected

Delete a selected destination route on the **Static Route Table**.

Show Routes

Click this button to view the DSL device's routing table. The IP Route Table displays, as shown in Figure.


http://192.168.1.1 - IP Route Table - Microsoft Internet Explorer
Refresh
Close

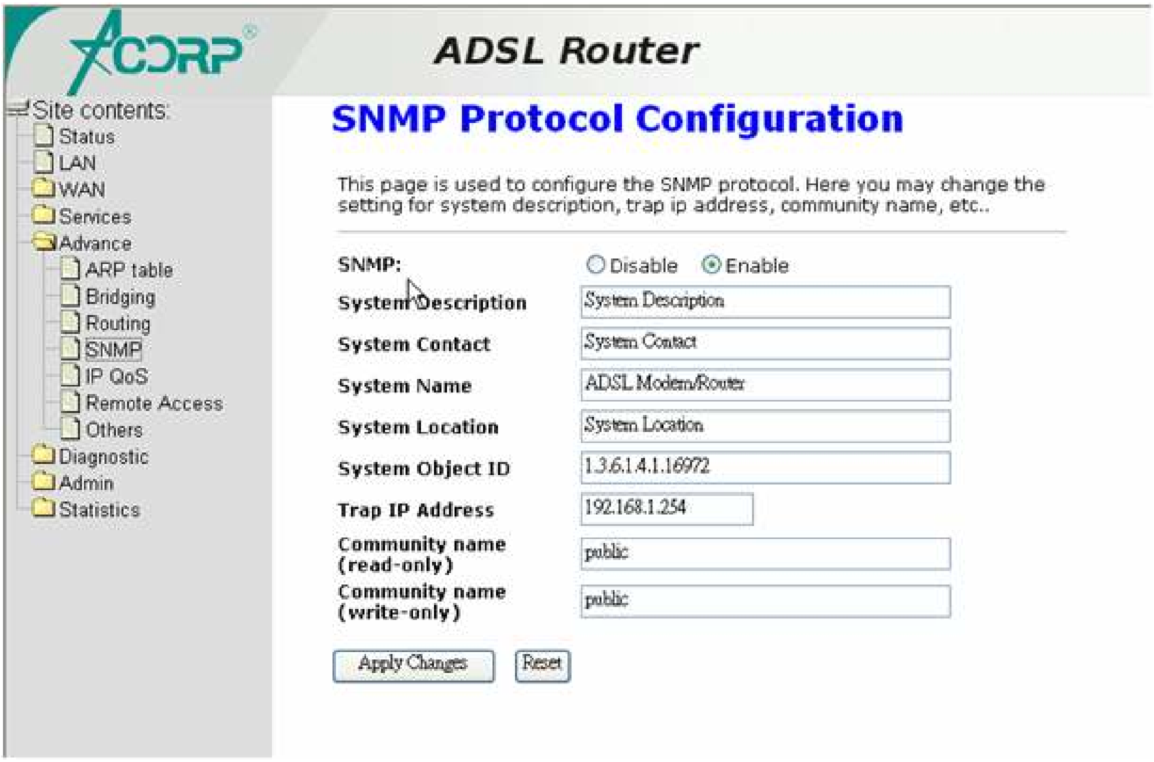
IP Route Table

This table shows a list of destination routes commonly accessed by your network.

Destination	Subnet Mask	NextHop	Metric	Iface
192.168.1.0	255.255.255.0	*	0	br0
127.0.0.0	255.255.255.0	*	0	lo

3.4.3 SNMP Configuration

Simple Network Management Protocol (SNMP) is a troubleshooting and management protocol that uses the UDP protocol on port 161 to communicate between clients and servers. The DSL device can be managed locally or remotely by SNMP protocol.



SNMP Protocol Configuration

This page is used to configure the SNMP protocol. Here you may change the setting for system description, trap ip address, community name, etc..

SNMP: ○ Disable ● Enable

System Description: System Description

System Contact: System Contact

System Name: ADSL Modem/Router

System Location: System Location

System Object ID: 1.3.6.1.4.1.16972

Trap IP Address: 192.168.1.254

Community name (read-only): public

Community name (write-only): public

Fields in this page:

Field	Description
System Description	System description of the DSL device.
System Contact	Contact person and/or contact information for the DSL device.
System Name	An administratively assigned name for the DSL device.
System Location	The physical location of the DSL device.
System Object ID	Vendor object identifier. The vendor's authoritative identification of the network management subsystem contained in the entity.
Trap IP Address	Destination IP address of the SNMP trap.
Community name (read-only)	Name of the read-only community. This read-only community allows read operation to all objects in the MIB.
Community name (write-only)	Name of the write-only community. This write-only community allows write operation to the objects defines as read-writable in the MIB.

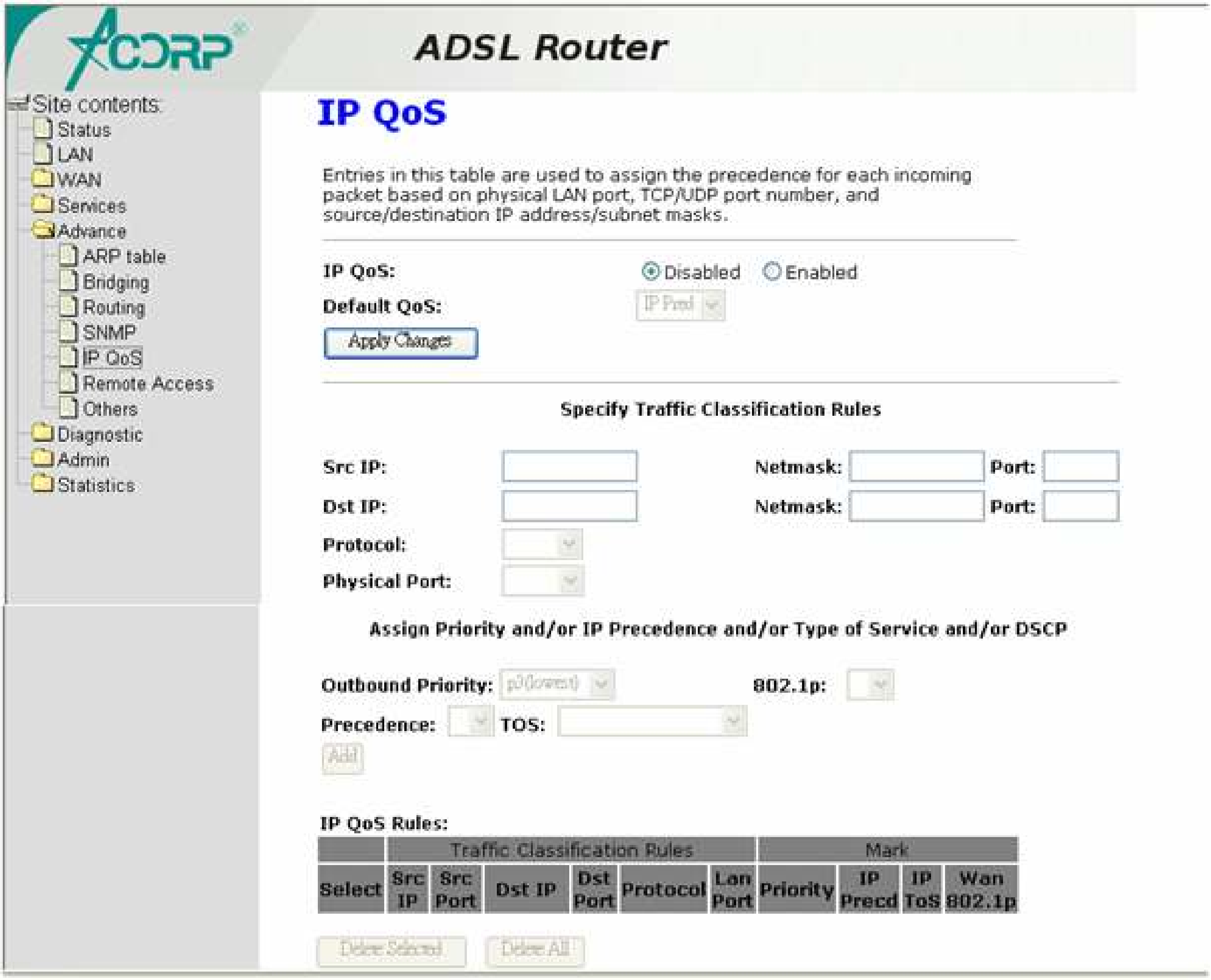
Function buttons in this page:

Apply Changes

Save SNMP configuration. New configuration will take effect after saving into flash memory and rebooting the system. See section "Admin" for details.

3.4.4 IP QoS

The DSL device provides a control mechanism that can provide different priority to different users or data flows. The QoS is enforced by the QoS rules in the QoS table. A QoS rule contains two configuration blocks: **Traffic Classification** and **Action**. The **Traffic Classification** enables you to classify packets on the basis of various fields in the packet and perhaps the physical ingress port. The **Action** enables you to assign the strictly priority level for and mark some fields in the packet that matches the Traffic Classification rule. You can configure any or all field as needed in these two QoS blocks for a QoS rule.



IP QoS

Entries in this table are used to assign the precedence for each incoming packet based on physical LAN port, TCP/UDP port number, and source/destination IP address/subnet masks.

IP QoS: ● Disabled ○ Enabled

Default QoS: IP Pred

Specify Traffic Classification Rules

Src IP: Netmask: Port:

Dst IP: Netmask: Port:

Protocol:

Physical Port:

Assign Priority and/or IP Precedence and/or Type of Service and/or DSCP

Outbound Priority: p3(lowest) 802.1p:

Precedence: TOS:

IP QoS Rules:

	Traffic Classification Rules						Mark			
Select	Src IP	Src Port	Dst IP	Dst Port	Protocol	Lan Port	Priority	IP Precd	IP ToS	Wan 802.1p

Fields on the first setting block of this page:

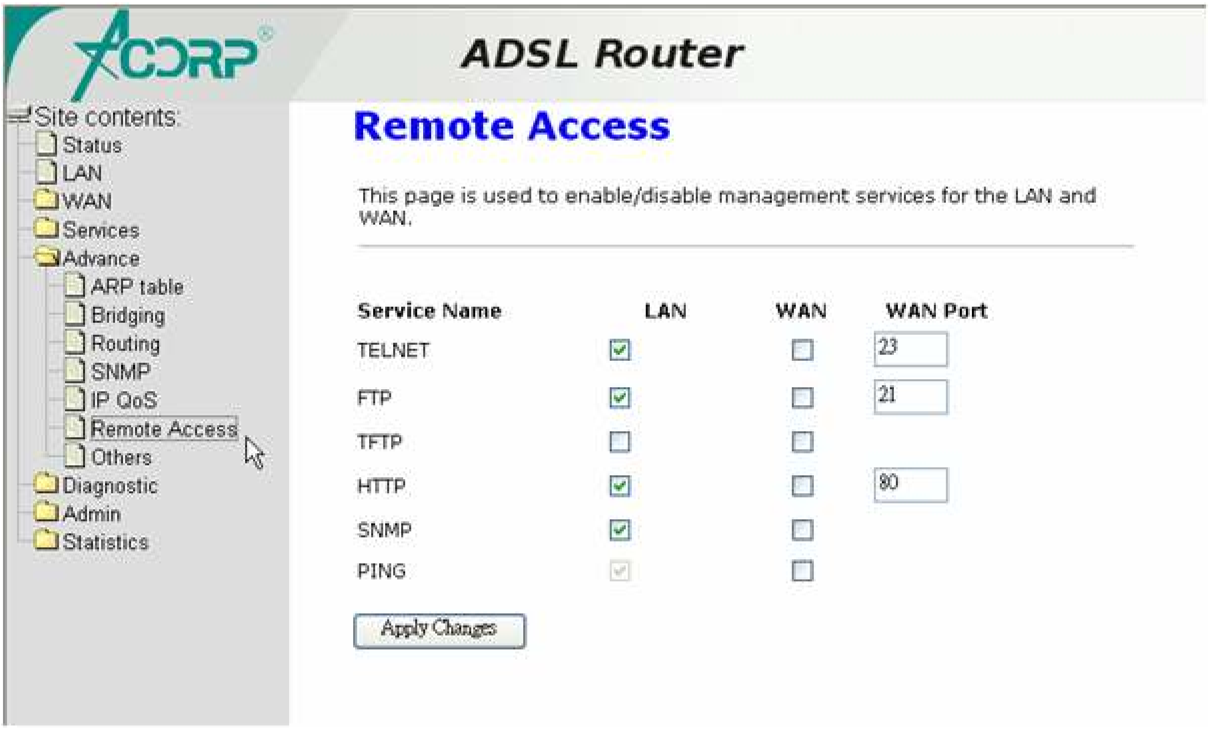
Field	Description
IP QoS	Enable/disable the IP QoS function.
Src IP	The IP address of the traffic source.
(Src) Netmask	The source IP netmask. This field is required if the source IP has been entered.
(Src) Port	The source port of the selected protocol. You cannot configure this field without entering the protocol first.
Dst IP	The IP address of the traffic destination.
(Dst) Netmask	The destination IP netmask. This field is required if the destination IP has been entered.
(Dst) Port	The destination port of the selected protocol. You cannot configure this field without entering the protocol first.
Protocol	The selections are TCP, UDP, ICMP and the blank for none. This field is required if the source port or destination port has been entered.
Physical Port	The incoming ports. The selections include LAN ports, wireless port, and the blank for not applicable.

Fields on the second setting block of this page:

Field	Description
Outbound Priority	The priority level for the traffic that matches this classification rule. The possible selections are (in the descending priority): p0, p1, p2, p3.
Precedence	Select this field to mark the IP precedence bits in the packet that match this classification rule.
TOS (IP Type of Service)	Select this field to mark the IP TOS bits in the packet that match this classification rule.
802.1p	Select this field to mark the 3-bit user-priority field in the 802.1p header of the packet that match this classification rule. Note that this 802.1p marking is workable on a given PVC channel only if the VLAN tag is enabled in this PVC channel.

3.4.5 Remote Access

The Remote Access function can secure remote host access to your DSL device from LAN



Remote Access

This page is used to enable/disable management services for the LAN and WAN.

Service Name	LAN	WAN	WAN Port
TELNET	☑	□	23
FTP	☑	□	21
TFTP	□	□	
HTTP	☑	□	80
SNMP	☑	□	
PING	☑	□	

Fields in this page:

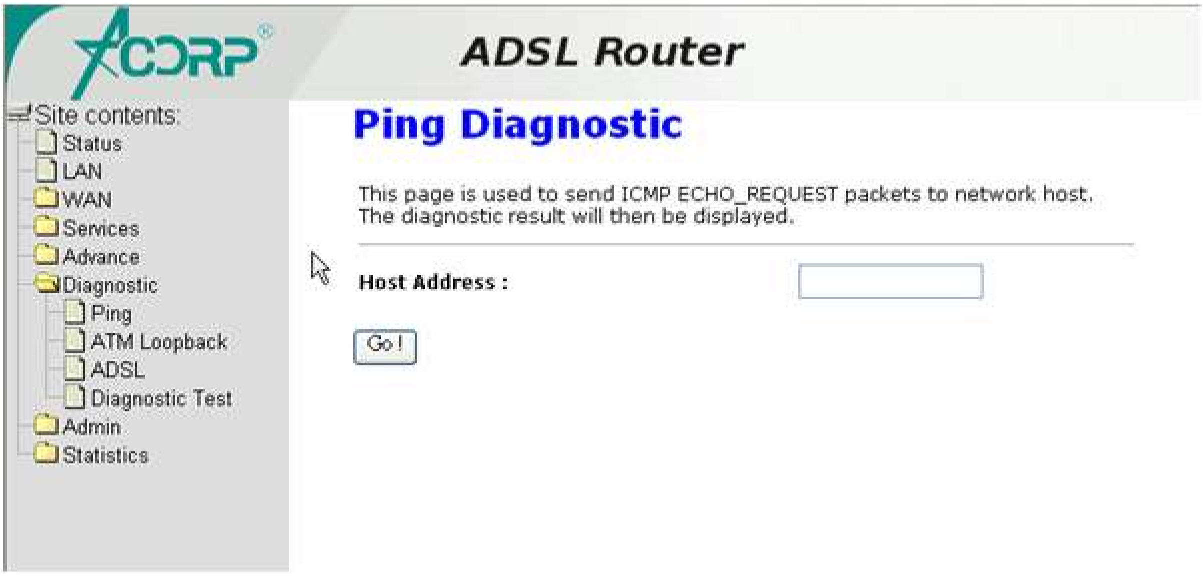
Field	Description
LAN	Check/un-check the services on the LAN column to allow/un-allow the services access from LAN side; and "WAN":
WAN	Check/un-check the services on the WAN column to allow/un-allow the services access from WAN side.
WAN Port	This field allows the user to specify the port of the corresponding service. Take the HTTP service for example; when it is changed to 8080, the HTTP server address for the WAN side is http://dsl_addr:8080, where the dsl_addr is the WAN side IP address of the DSL device.

3.5 Diagnostic

The DSL device supports some useful diagnostic tools.

3.5.1 Ping

Once you have your DSL device configured, it is a good idea to make sure you can ping the network. A ping command sends a message to the host you specify. If the host receives the message, it sends messages in reply. To use it, you must know the IP address of the host you are trying to communicate with and enter the IP address in the Host Address field. Click Go! To start the ping command, the ping result will then be shown in this page.



Ping Diagnostic

This page is used to send ICMP ECHO_REQUEST packets to network host. The diagnostic result will then be displayed.

Host Address :

Fields in this page:

Field	Description
Host Address	The IP address you want to ping.

3.5.2 ATM Loopback

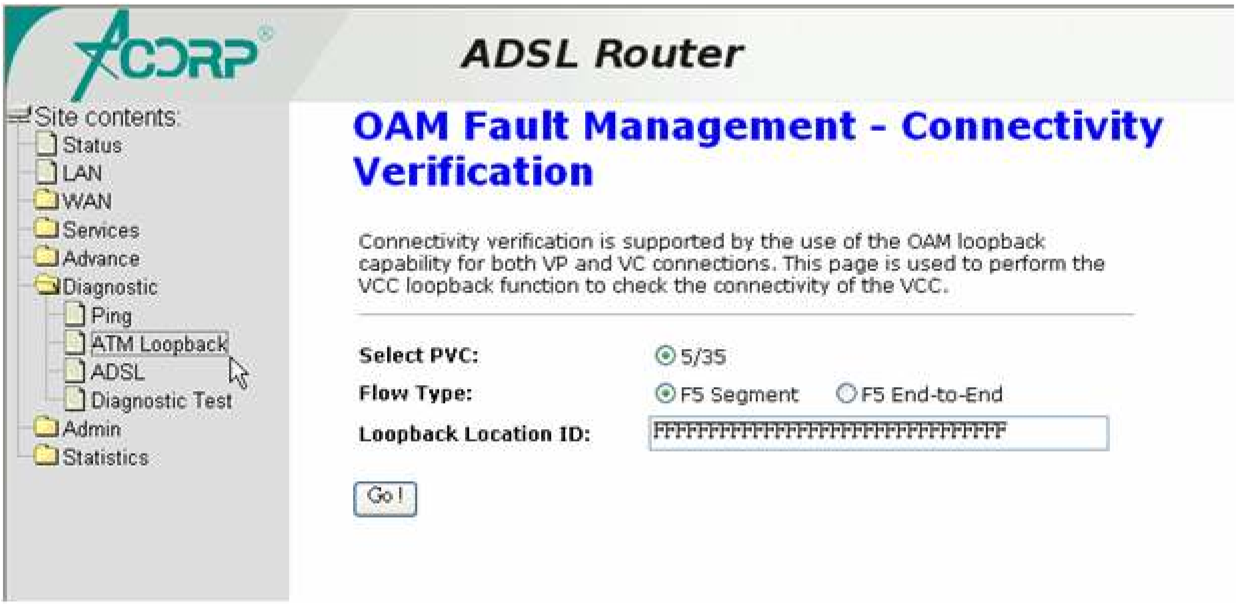
In order to isolate the ATM interface problems, you can use ATM OAM loopback cells to verify connectivity between VP/VC endpoints, as well as segment endpoints within the VP/VC. ATM uses F4 and F5 cell flows as follows:

- F4: used in VPs
- F5: used in VCs

An ATM connection consists of a group of points. This OAM implementation provides management for the following points:

- Connection endpoint: the end of a VP/VC connection where the ATM cell are terminated
- Segment endpoint: the end of a connection segment

This page allows you to use ATM ping, which generates F5 segment and end-to-end loop-back cells to test the reachability of a segment endpoint or a connection endpoint.



OAM Fault Management - Connectivity Verification

Connectivity verification is supported by the use of the OAM loopback capability for both VP and VC connections. This page is used to perform the VCC loopback function to check the connectivity of the VCC.

Select PVC: ● 5/35

Flow Type: ● F5 Segment ○ F5 End-to-End

Loopback Location ID: FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF

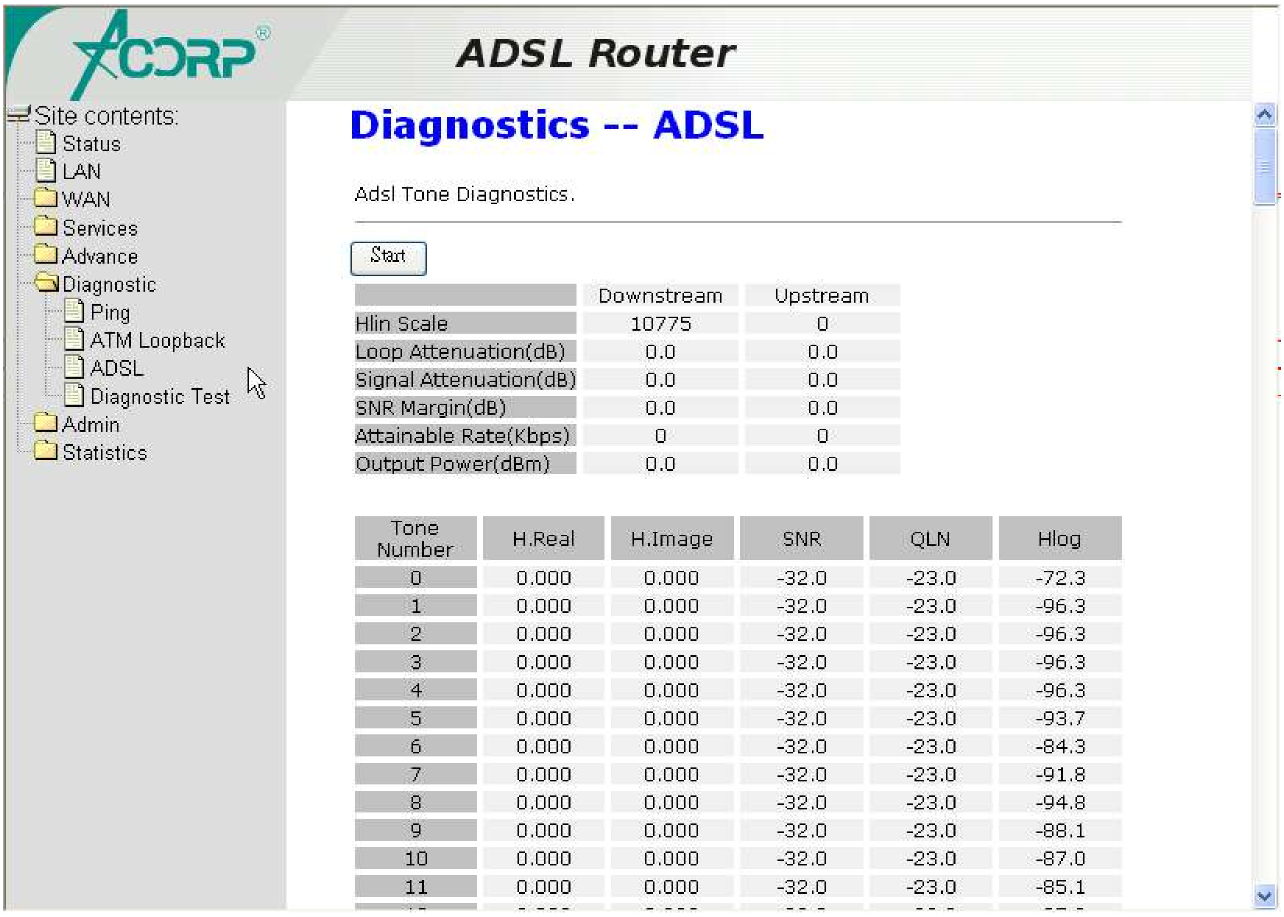
Go !

Fields in this page:

Field	Description
Select PVC	Select the PVC channel you want to do the loop-back diagnostic.
Flow Type	The ATM OAM flow type. The selection can be F5 Segment or F5 End-to-End.
Loopback Location ID	The loop-back location ID field of the loop-back cell. The default value is all 1s (ones) to indicate the endpoint of the segment or connection.

3.5.3 ADSL

This page shows the ADSL diagnostic result. Click **Start** button to start the ADSL diagnostic.



Diagnostics -- ADSL

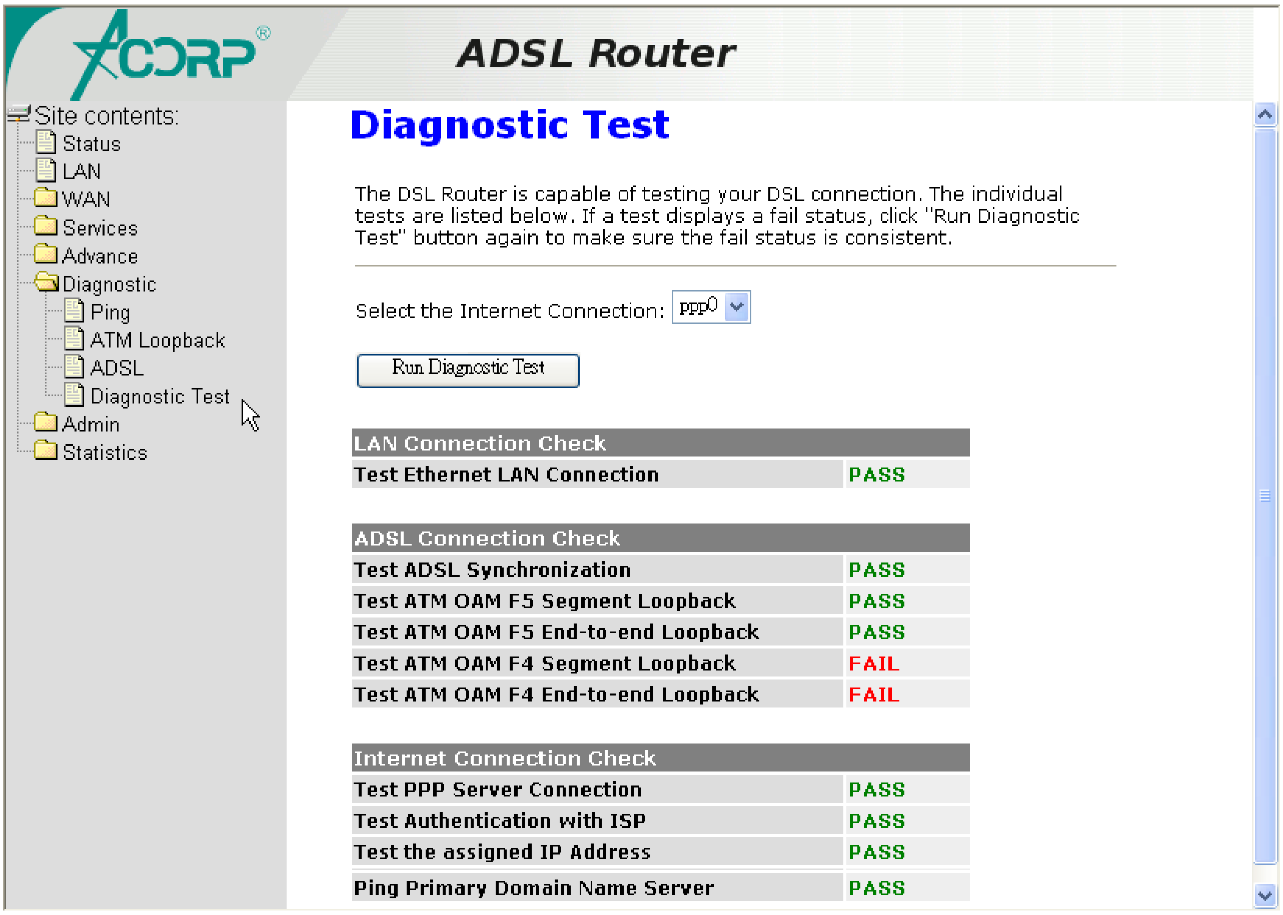
Adsl Tone Diagnostics.

	Downstream	Upstream
Hlin Scale	10775	0
Loop Attenuation(dB)	0.0	0.0
Signal Attenuation(dB)	0.0	0.0
SNR Margin(dB)	0.0	0.0
Attainable Rate(Kbps)	0	0
Output Power(dBm)	0.0	0.0

Tone Number	H.Real	H.Image	SNR	QLN	Hlog
0	0.000	0.000	-32.0	-23.0	-72.3
1	0.000	0.000	-32.0	-23.0	-96.3
2	0.000	0.000	-32.0	-23.0	-96.3
3	0.000	0.000	-32.0	-23.0	-96.3
4	0.000	0.000	-32.0	-23.0	-96.3
5	0.000	0.000	-32.0	-23.0	-93.7
6	0.000	0.000	-32.0	-23.0	-84.3
7	0.000	0.000	-32.0	-23.0	-91.8
8	0.000	0.000	-32.0	-23.0	-94.8
9	0.000	0.000	-32.0	-23.0	-88.1
10	0.000	0.000	-32.0	-23.0	-87.0
11	0.000	0.000	-32.0	-23.0	-85.1

3.5.4 Diagnostic Test

The Diagnostic Test page shows the test results for the connectivity of the physical layer and protocol layer for both LAN and WAN sides.



Diagnostic Test

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 Internet Connection: ppp0

LAN Connection Check	
Test Ethernet LAN Connection	PASS

ADSL Connection Check	
Test ADSL Synchronization	PASS
Test ATM OAM F5 Segment Loopback	PASS
Test ATM OAM F5 End-to-end Loopback	PASS
Test ATM OAM F4 Segment Loopback	FAIL
Test ATM OAM F4 End-to-end Loopback	FAIL

Internet Connection Check	
Test PPP Server Connection	PASS
Test Authentication with ISP	PASS
Test the assigned IP Address	PASS
Ping Primary Domain Name Server	PASS

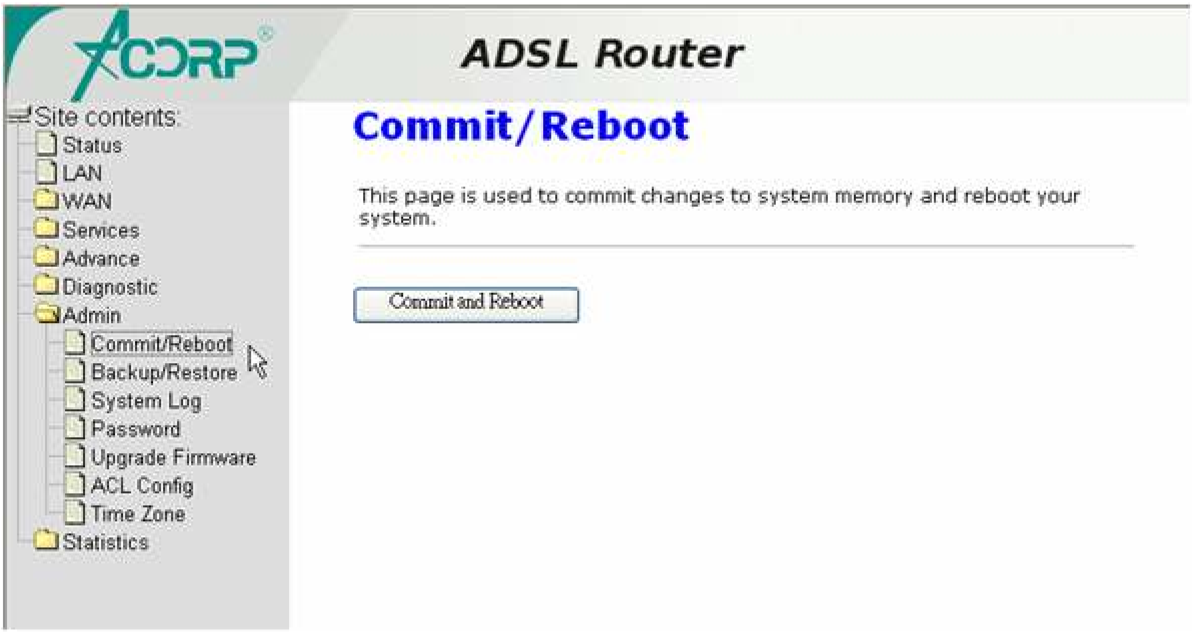
Fields in this page:

Field	Description
Select the Internet Connection	The available WAN side interfaces are listed. You have to select one for the WAN side diagnostic.

3.6 Admin

3.6.1 Commit/Reboot

Whenever you use the Web configuration to change system settings, the changes are initially placed in temporary storage. These changes will be lost if the device is reset or turn off. To save your change for future use, you can use the commit function.



Commit/Reboot

This page is used to commit changes to system memory and reboot your system.

Function buttons in this page:

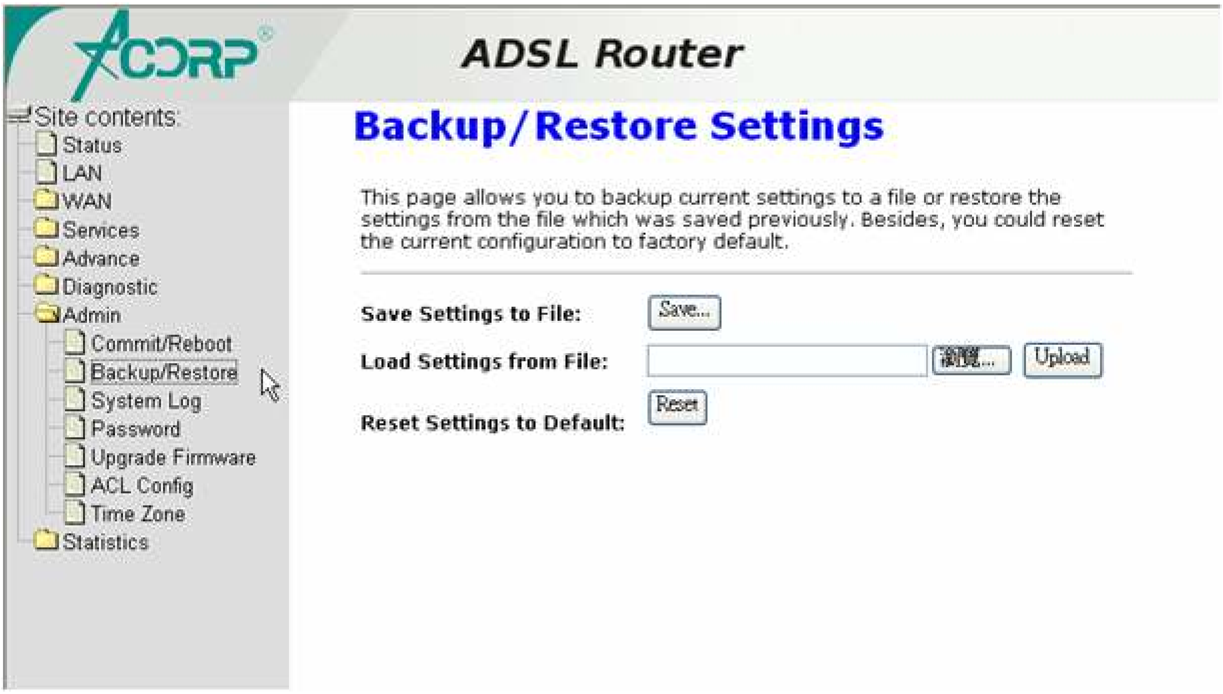
Commit and Reboot

Whenever you use the web console to change system settings, the changes are initially placed in temporary storage. To save your changes for future use, you can use the Commit/Reboot function. This function saves your changes from RAM to flash memory and reboot the system.

IMPORTANT! Do not turn off your modem or press the Reset button while this procedure is in progress.

3.6.2 Backup/Restore

This page allows you to backup and restore your configuration into and from file in your host.



Backup/Restore Settings

This page allows you to backup current settings to a file or restore the settings from the file which was saved previously. Besides, you could reset the current configuration to factory default.

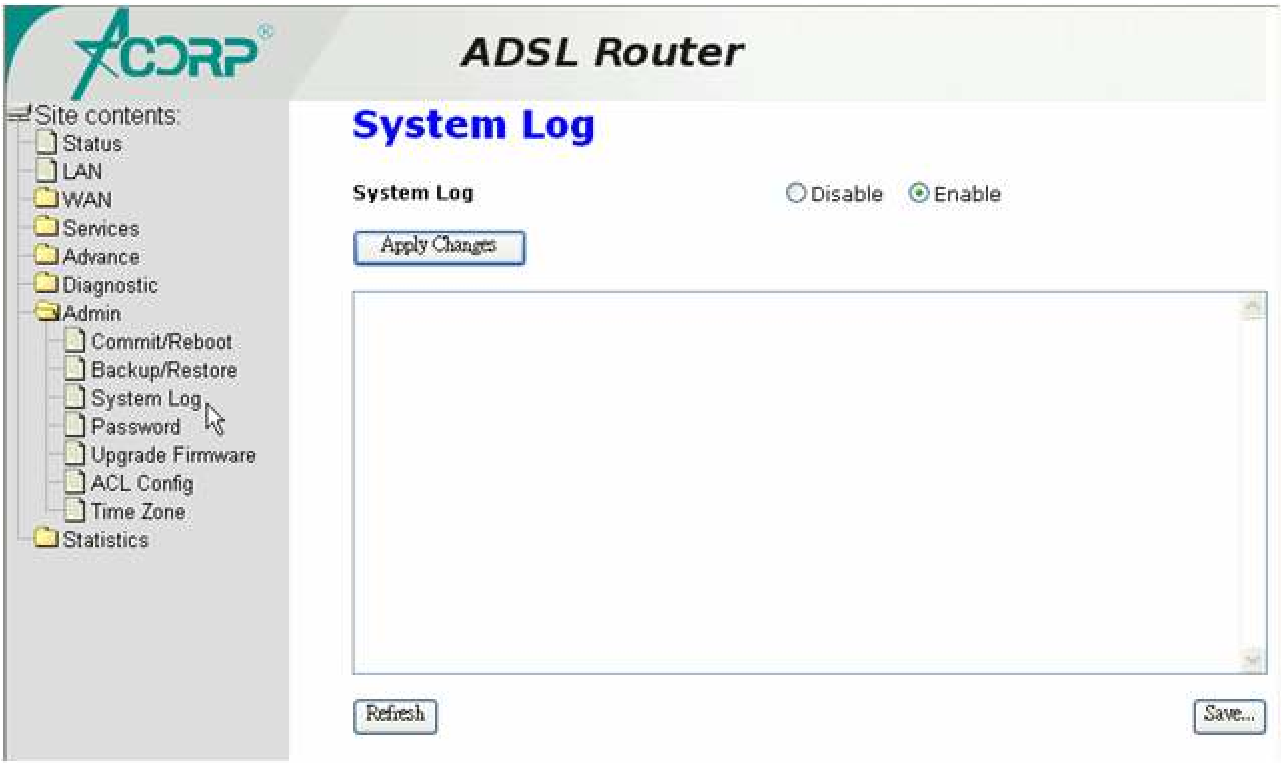
Save Settings to File: Save...

Load Settings from File: 瀏覽... Upload

Reset Settings to Default: Reset

3.6.3 System Log

This page shows the system log.



System Log

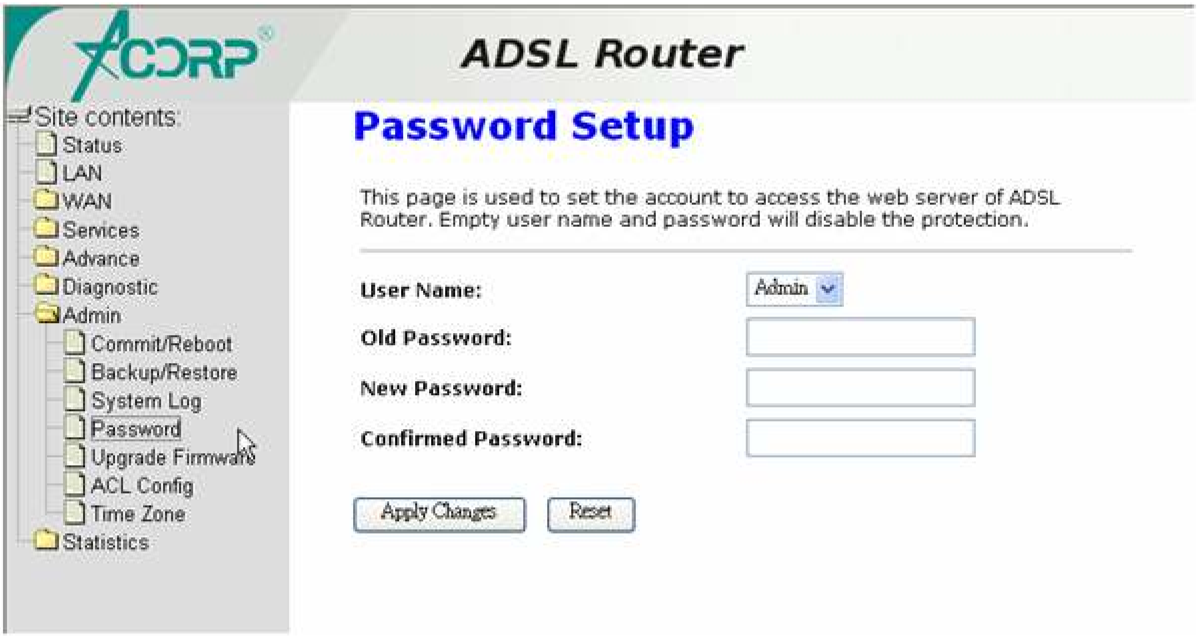
System Log ○ Disable ● Enable

Apply Changes

Refresh Save...

3.6.4 Password

The first time you log into the system, you use the default password. There are two-level logins: **admin** and **user**. The **admin** and **user** password configuration allows you to change the password for administrator and user.



Password Setup

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: Admin

Old Password:

New Password:

Confirmed Password:

Fields in this page:

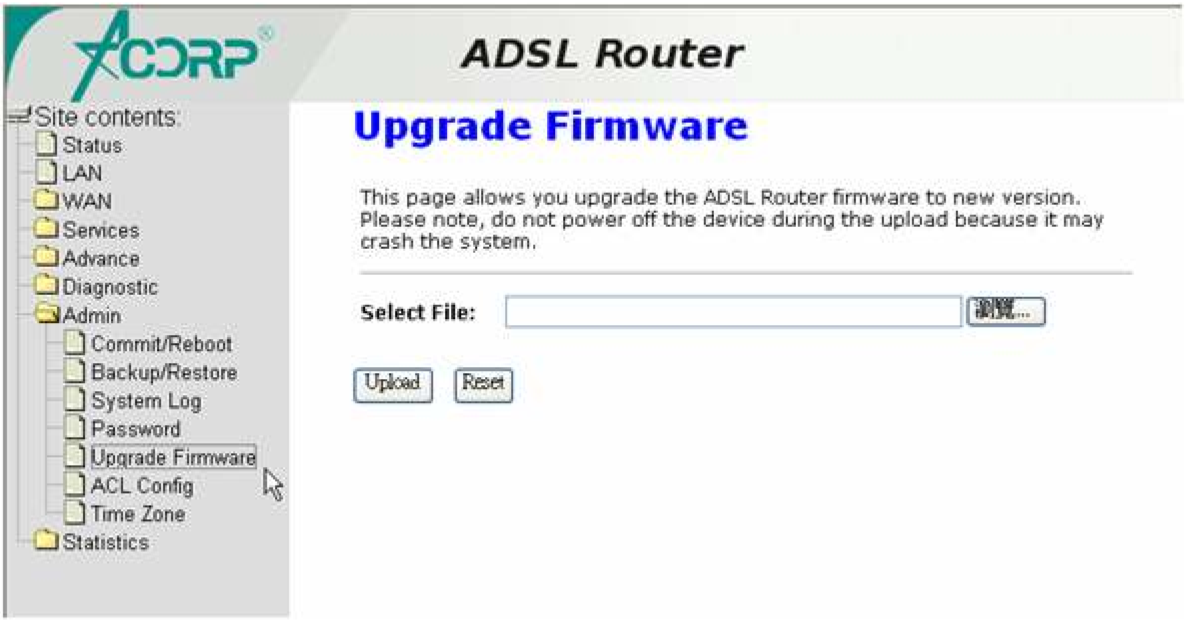
Field	Description
User Name	Selection of user levels are: admin and user.
Old Password	Enter the old password for this selected login.
New Password	Enter the new password here.
Confirmed Password	Enter the new password here again to confirm.

3.6.5 Upgrade Firmware

To upgrade the firmware for the DSL device:

- Click the **Browse** button to select the firmware file.
- Confirm your selection.
- Click the **Upload** button to start upgrading.

IMPORTANT! Do not turn off your DSL device or press the Reset button while this procedure is in progress.



Upgrade Firmware

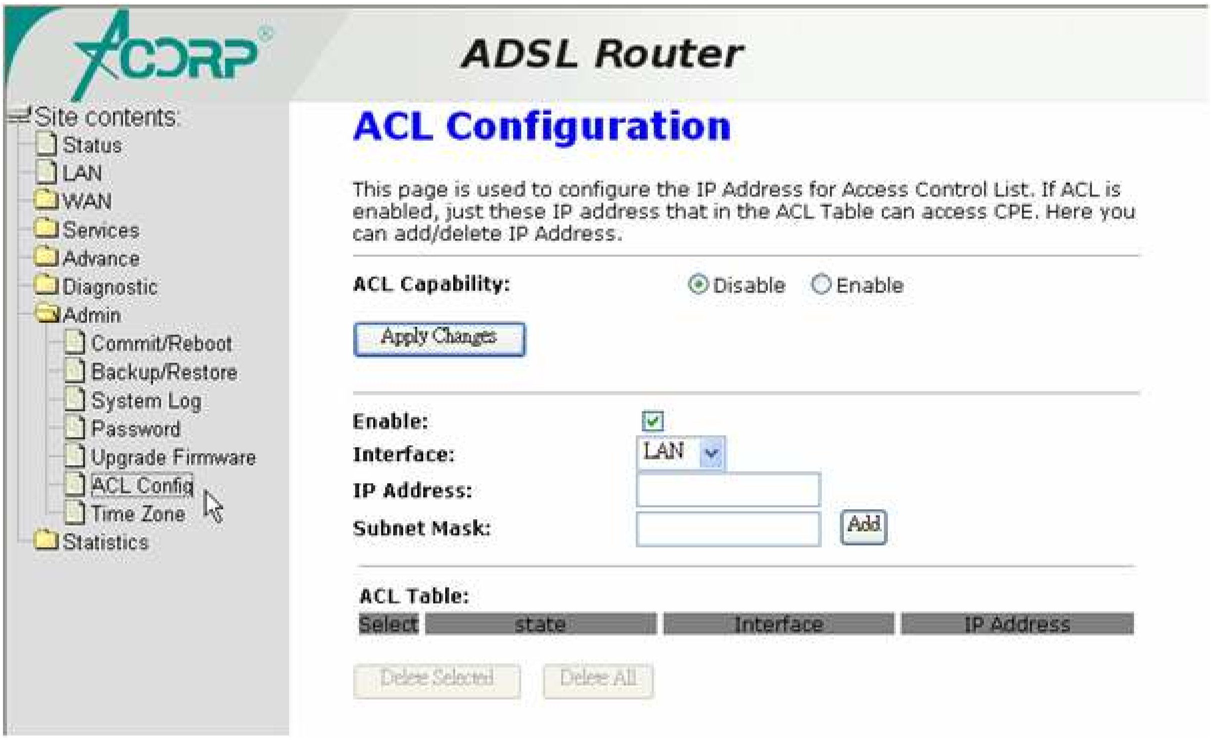
This page allows you upgrade the ADSL Router firmware to new version. Please note, do not power off the device during the upload because it may crash the system.

Select File: 瀏覽...

Upload Reset

3.6.6 ACL

The Access Control List (ACL) is a list of permissions attached to the DSL device. The list specifies who is allowed to access this device. If ACL is enabled, all hosts cannot access this device except for the hosts with IP address in the ACL table.



ACL Configuration

This page is used to configure the IP Address for Access Control List. If ACL is enabled, just these IP address that in the ACL Table can access CPE. Here you can add/delete IP Address.

ACL Capability: ● Disable ○ Enable

Apply Changes

Enable: ☑
Interface: LAN
IP Address:
Subnet Mask: Add

ACL Table:

Select	state	Interface	IP Address

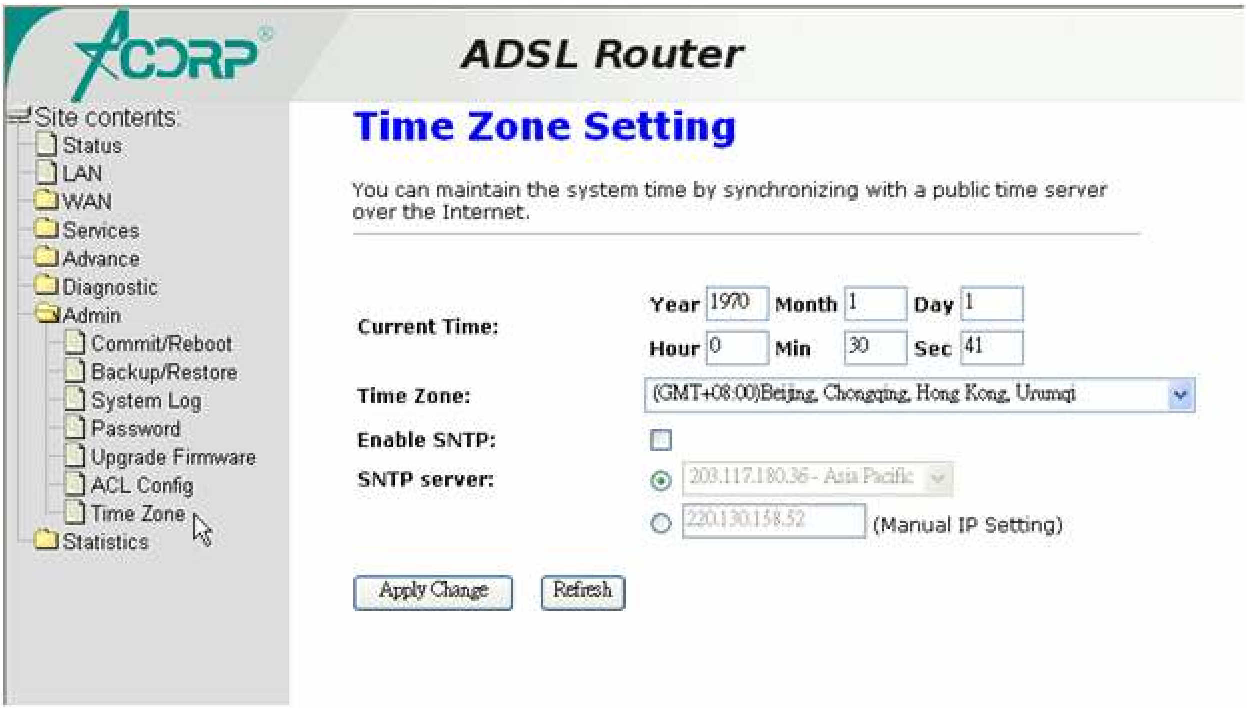
Delete Selected Delete All

Fields in this page:

Field	Description
ACL Capability	Enable/disable the ACL function
Enable	Check to enable this ACL entry
Interface	Select the interface domain: LAN or WAN
IP Address	Enter the IP address that allow access to this device.
Subnet Mask	Enter the subnet mask of the IP address

3.6.7 Time Zone

Simple Network Timing Protocol (SNTP) is a protocol used to synchronize the system time to the public SNTP servers. The DSL device supports SNTP client functionality in compliance with IETF RFC2030. SNTP client functioning in daemon mode which issues sending client requests to the configured SNTP server addresses periodically can configure the system clock in the DSL device



Time Zone Setting

You can maintain the system time by synchronizing with a public time server over the Internet.

Current Time: Year 1970 Month 1 Day 1
Hour 0 Min 30 Sec 41

Time Zone: (GMT+08:00)Beijing, Chongqing, Hong Kong, Urumqi

Enable SNTP: □

SNTP server: ● 203.117.180.36 - Asia Pacific
○ 220.130.158.52 (Manual IP Setting)

Fields in this page:

Field	Description
Current Time	The current time of the specified time zone. You can set the current time by yourself or configured by SNTP.

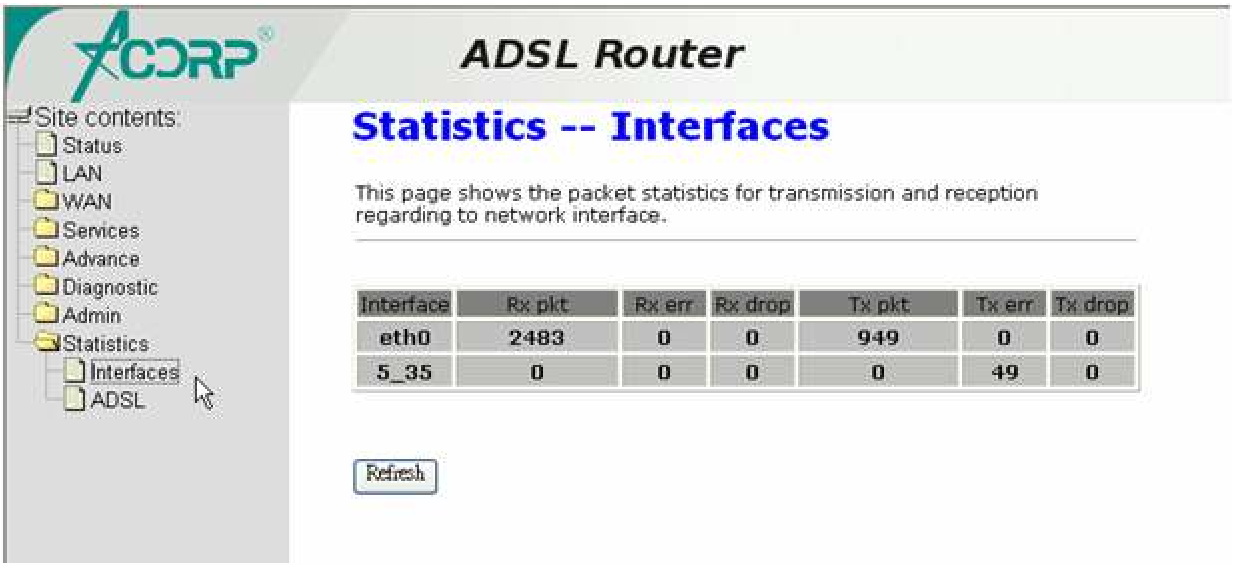
Time Zone	The time zone in which the DSL device resides.
Enable SNTP	Enable the SNTP client to update the system clock.
SNTP server	The IP address or the host name of the SNTP server. You can select from the list or set it manually.

3.7 Statistics

The DSL device shows the different layer of network statistics information.

3.7.1 Interfaces

You can view statistics on the processing of IP packets on the networking interfaces. You will not typically need to view this data, but you may find it helpful when working with your ISP to diagnose network and Internet data transmission problems.



Statistics -- Interfaces

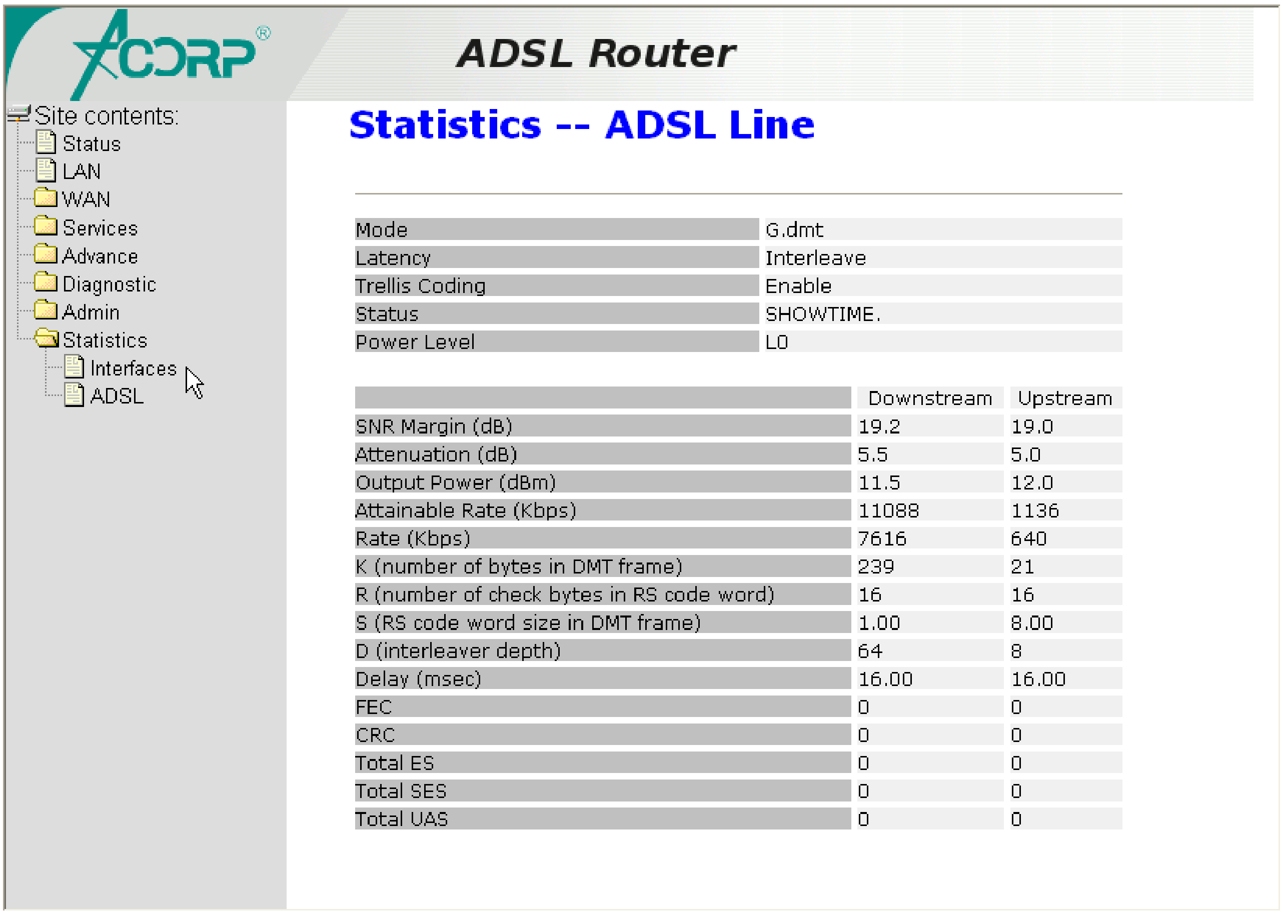
This page shows the packet statistics for transmission and reception regarding to network interface.

Interface	Rx pkt	Rx err	Rx drop	Tx pkt	Tx err	Tx drop
eth0	2483	0	0	949	0	0
5_35	0	0	0	0	49	0

To display updated statistics showing any new data since you opened this page, click **Refresh**.

3.7.2 ADSL

This page shows the ADSL line statistic information.



Statistics -- ADSL Line

Mode	G.dmt
Latency	Interleave
Trellis Coding	Enable
Status	SHOWTIME.
Power Level	L0

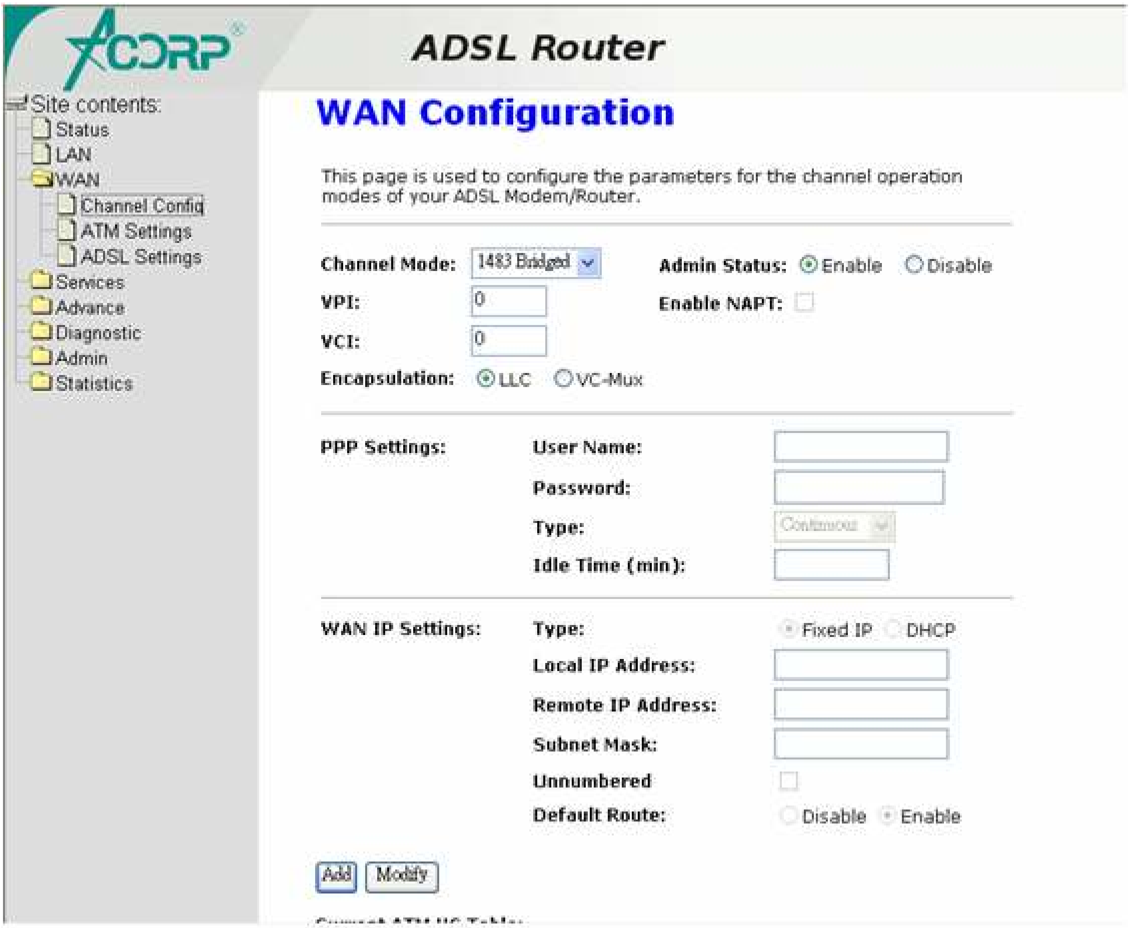
	Downstream	Upstream
SNR Margin (dB)	19.2	19.0
Attenuation (dB)	5.5	5.0
Output Power (dBm)	11.5	12.0
Attainable Rate (Kbps)	11088	1136
Rate (Kbps)	7616	640
K (number of bytes in DMT frame)	239	21
R (number of check bytes in RS code word)	16	16
S (RS code word size in DMT frame)	1.00	8.00
D (interleaver depth)	64	8
Delay (msec)	16.00	16.00
FEC	0	0
CRC	0	0
Total ES	0	0
Total SES	0	0
Total UAS	0	0

4 Channel Mode Configuration

ADSL router supports multiple channel operation modes. This section will show procedures to configure the router.

4.1 Bridge Mode

ADSL modem/router is bridge mode enabled by factory default. There is a 1483-bridged mode PVC 5/35 in system.



WAN Configuration

This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router.

Channel Mode: 1483 Bridged   Admin Status: ● Enable ○ Disable

VPI: 0   Enable NAPT: □

VCI: 0

Encapsulation: ● LLC ○ VC-Mux

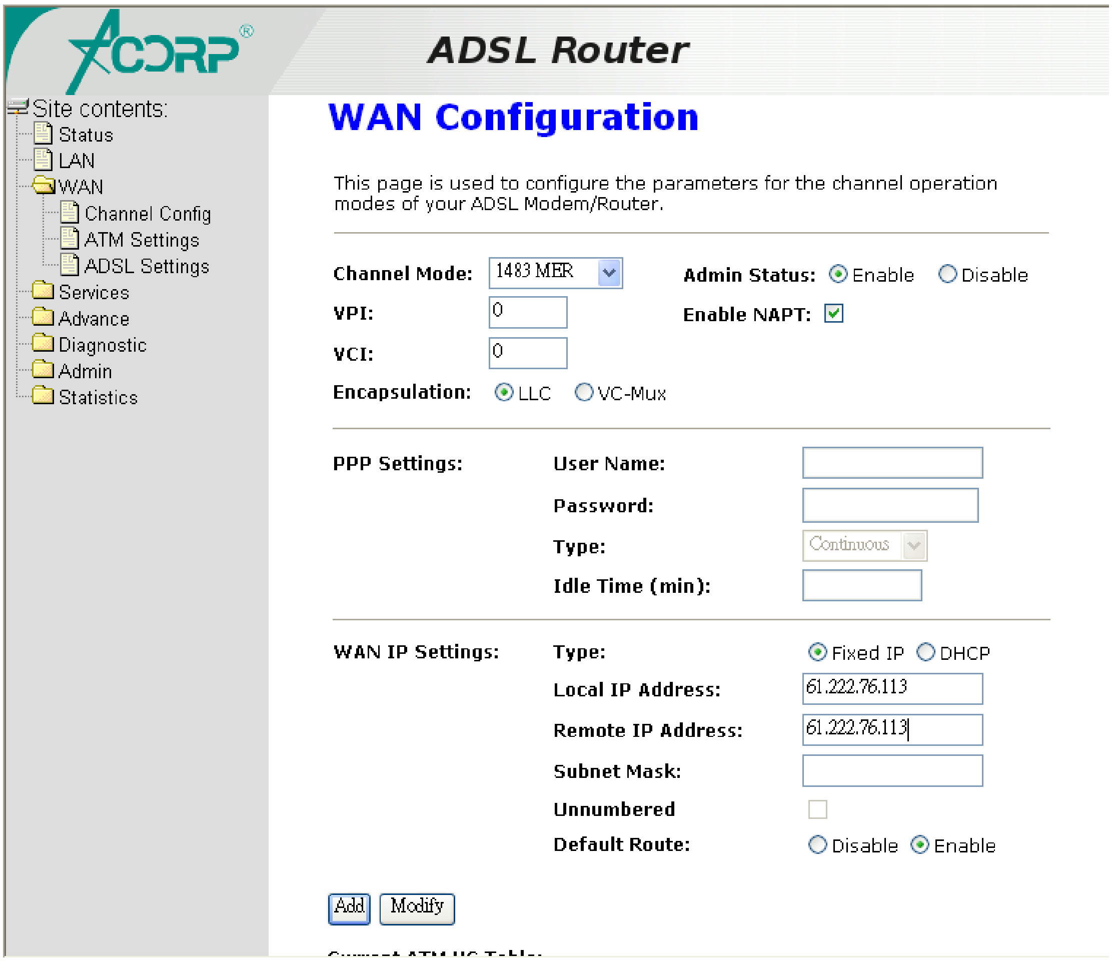
PPP Settings:
User Name:
Password:
Type: Continuous
Idle Time (min):

WAN IP Settings:
Type: ● Fixed IP ○ DHCP
Local IP Address:
Remote IP Address:
Subnet Mask:
Unnumbered □
Default Route: ○ Disable ● Enable

Current ATM VC Table:

1. Open the WEB page at “WAN /Channel Config”.
2. Select the Channel Mode to “1483 Bridged”. Set the parameters VPI/VCI and Encapsulation mode according to the CO DSLAM’s setting.
3. Click “Add” button to add this channel into VC table.
4. Open the WEB page at “Admin/ Commit/Reboot”. Press “Commit” to save the settings into flash memory.
5. The new settings will take effect after reboot the system.

4.2 MER (Mac Encapsulating Routing) Mode



Site contents:
- Status
- LAN
- WAN
  - Channel Config
  - ATM Settings
  - ADSL Settings
- Services
- Advance
- Diagnostic
- Admin
- Statistics

WAN Configuration

This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router.

Channel Mode: 1483 MER　　Admin Status: ● Enable ○ Disable

VPI: 0　　Enable NAPT: ☑

VCI: 0

Encapsulation: ● LLC ○ VC-Mux

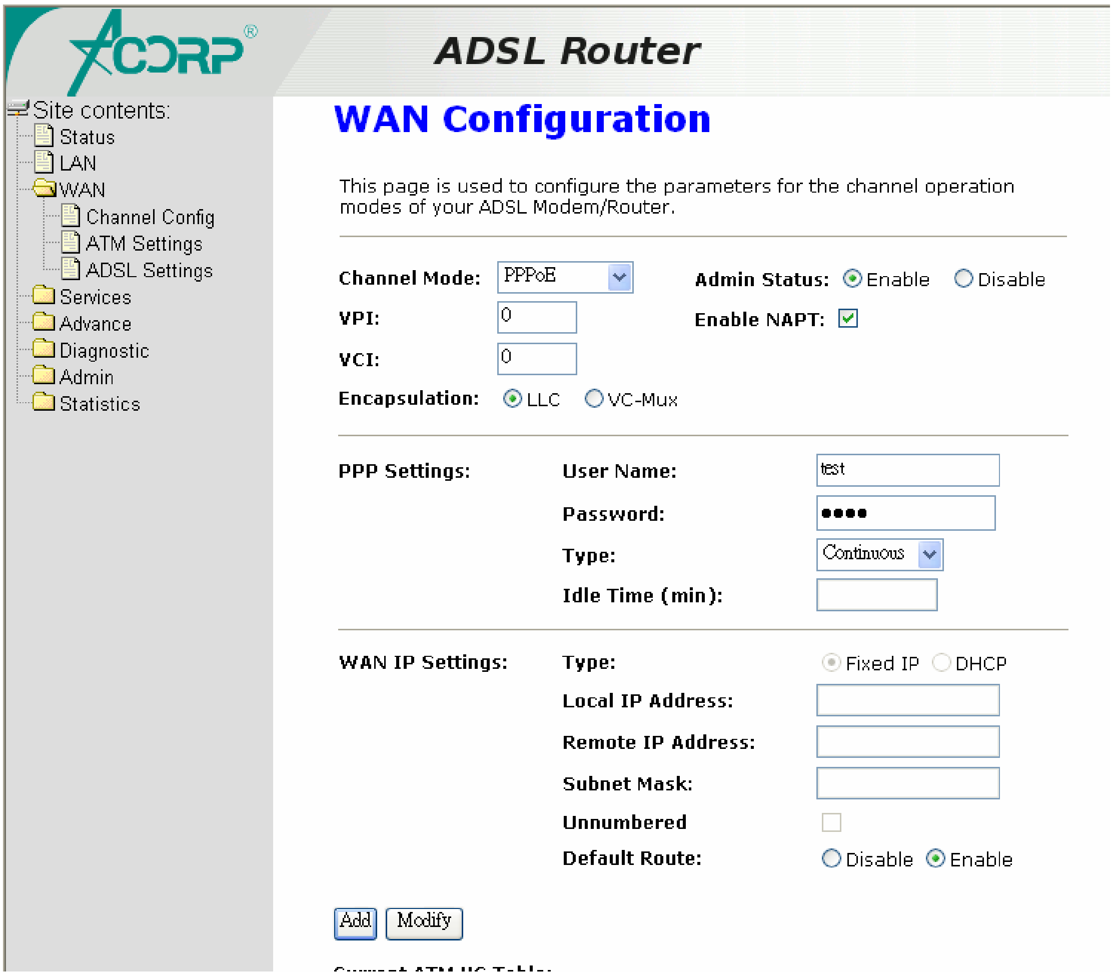
PPP Settings:
User Name:
Password:
Type: Continuous
Idle Time (min):

WAN IP Settings:
Type: ● Fixed IP ○ DHCP
Local IP Address: 61.222.76.113
Remote IP Address: 61.222.76.113
Subnet Mask:
Unnumbered □
Default Route: ○ Disable ● Enable

Current ATM VC Table:

1. Open the WEB page at "WAN /Channel Config".
2. Select the Channel Mode to "1483 MER". Set the parameters VPI/VCI and Encapsulation mode according to the CO DSLAM's setting.
3. Set "Local IP Address:" according to the IP that ISP assigned for your router. Set "Remote IP Address" to the ISP's gateway.
4. Click "Add" button to add this channel into VC table.
5. Open the WEB page at "Admin/ Commit/Reboot". Press "Commit" to save the settings into flash memory.
6. The new settings will take effect after reboot the system.

4.3 PPPoE Mode



WAN Configuration

This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router.

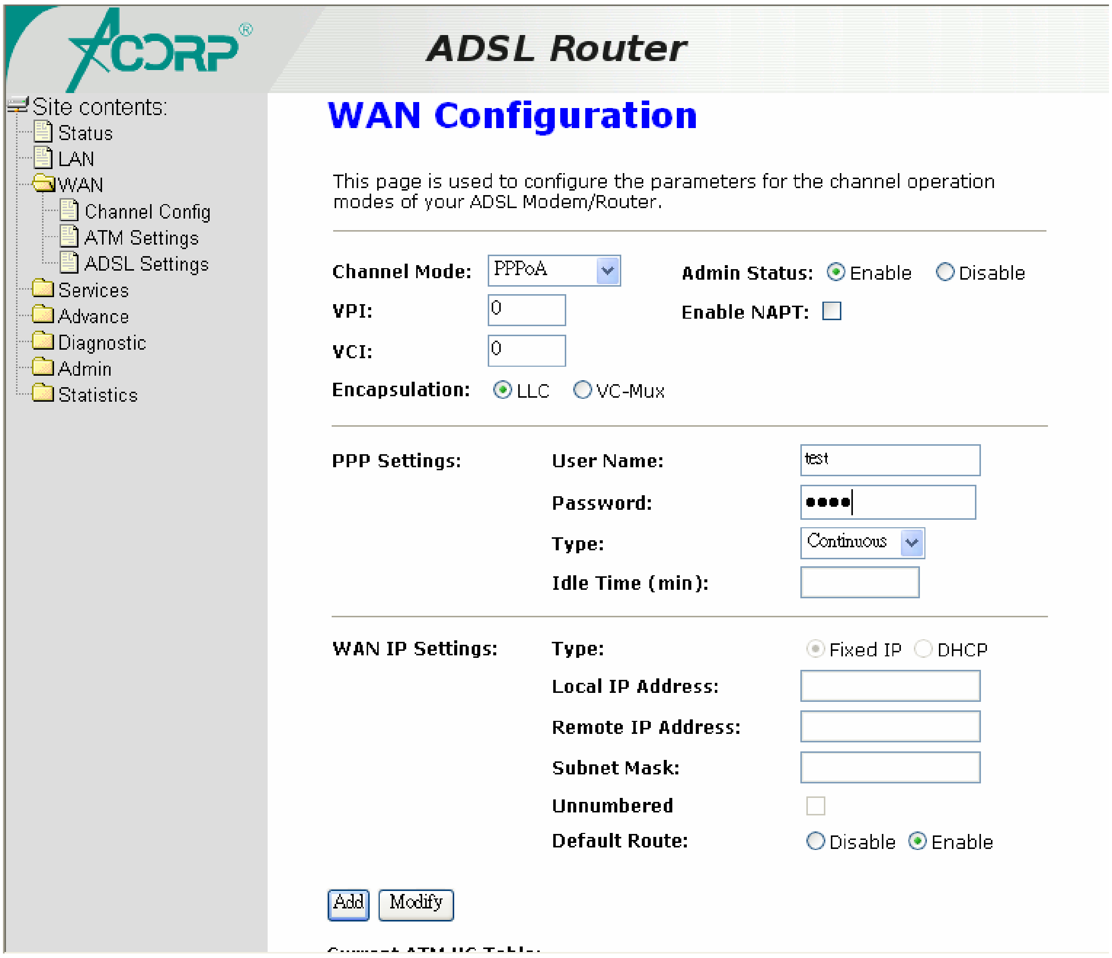
Channel Mode: PPPoE
Admin Status: ● Enable ○ Disable
VPI: 0
Enable NAPT: ☑
VCI: 0
Encapsulation: ● LLC ○ VC-Mux

PPP Settings:
User Name: test
Password: ●●●●
Type: Continuous
Idle Time (min):

WAN IP Settings:
Type: ● Fixed IP ○ DHCP
Local IP Address:
Remote IP Address:
Subnet Mask:
Unnumbered □
Default Route: ○ Disable ● Enable

1. Open the WEB page at "WAN /Channel Config".
2. Select the Channel Mode to "PPPoE". Set the parameters VPI/VCI and Encapsulation mode according to the CO DSLAM's setting.
3. Enter User Name/password from your ISP.
4. Click "Add" button to add this channel.
5. Enable DHCP server to allow the local PCs share the PPP connection. Reference to section 3.3.1.1 DHCP Server Configuration.
6. Set DNS address from your ISP. Reference to section 3.3.2 DNS Configuration.
7. Open the WEB page at "Admin/ Commit/Reboot". Press "Commit" to save the settings into flash memory.
8. The new settings will take effect after reboot the system.

4.4 PPPoA Mode



WAN Configuration

This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router.

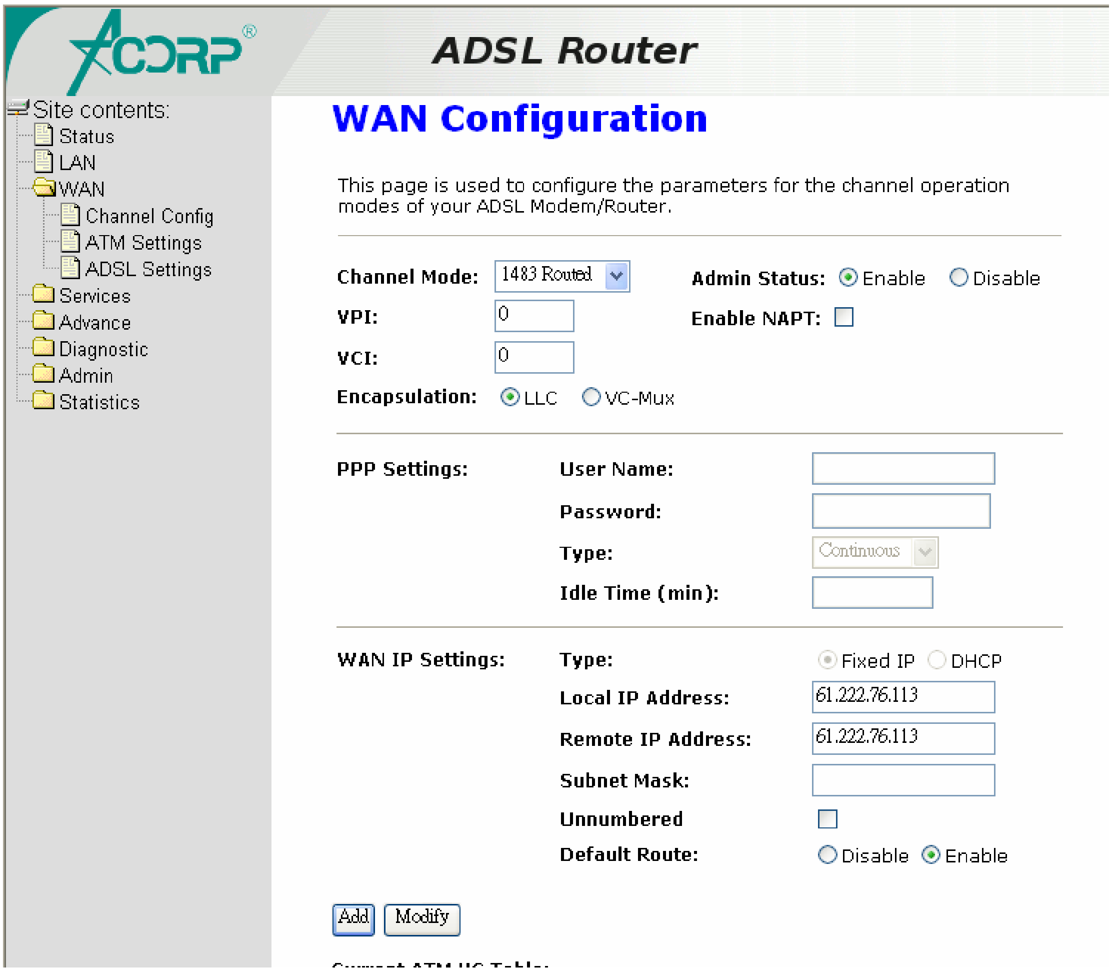
Channel Mode: PPPoA
Admin Status: ● Enable ○ Disable
VPI: 0
Enable NAPT: □
VCI: 0
Encapsulation: ● LLC ○ VC-Mux

PPP Settings:
User Name: test
Password: ••••
Type: Continuous
Idle Time (min):

WAN IP Settings:
Type: ● Fixed IP ○ DHCP
Local IP Address:
Remote IP Address:
Subnet Mask:
Unnumbered □
Default Route: ○ Disable ● Enable

1. Open the WEB page at "WAN /Channel Config".
2. Select the Channel Mode to "PPPoA". Set the parameters VPI/VCI and Encapsulation mode according to the CO DSLAM's setting.
3. Enter User Name/password from your ISP.
4. Click "Add" button to add this channel.
5. Enable DHCP server to allow the local PCs share the PPP connection. Reference to section 3.3.1.1 DHCP Server Configuration.
6. Set DNS address from your ISP. Reference to section 3.3.2 DNS Configuration.
7. Open the WEB page at "Admin/ Commit/Reboot". Press "Commit" to save the settings into flash memory.
8. The new settings will take effect after reboot the system.

4.5 1483 Routed Mode



WAN Configuration

This page is used to configure the parameters for the channel operation modes of your ADSL Modem/Router.

Channel Mode: 1483 Routed ▾ Admin Status: ● Enable ○ Disable

VPI: 0 Enable NAPT: □

VCI: 0

Encapsulation: ● LLC ○ VC-Mux

PPP Settings: User Name:

Password:

Type: Continuous ▾

Idle Time (min):

WAN IP Settings: Type: ● Fixed IP ○ DHCP

Local IP Address: 61.222.76.113

Remote IP Address: 61.222.76.113

Subnet Mask:

Unnumbered □

Default Route: ○ Disable ● Enable

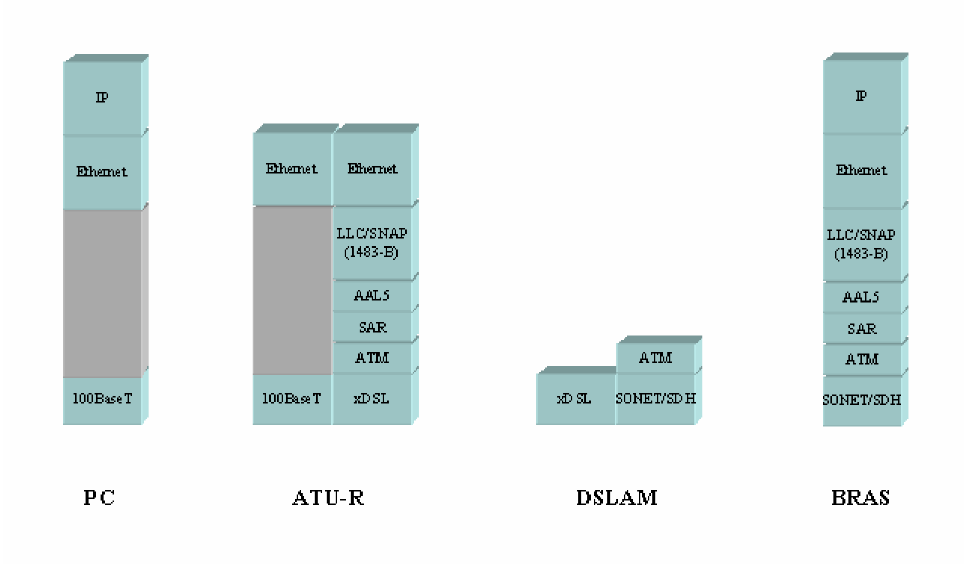
Current ATM VC Table:

1. Open the WEB page at “WAN /Channel Config”.
2. Select the Channel Mode to “1483 Routed”. Set the parameters VPI/VCI and Encapsulation mode according to the CO DSLAM’s setting.
3. In WAN IP settings, give the local and remote IP address from your ISP or use DHCP to get them automatically if your ISP support it. Local IP is the address of ADSL router. Remote IP is the ISP’s gateway address.
4. Click “Add” button to add this channel.
5. Open the WEB page at “Admin/ Commit/Reboot”. Press “Commit” to save the settings into flash memory.
6. The new settings will take effect after reboot the system.

Appendices

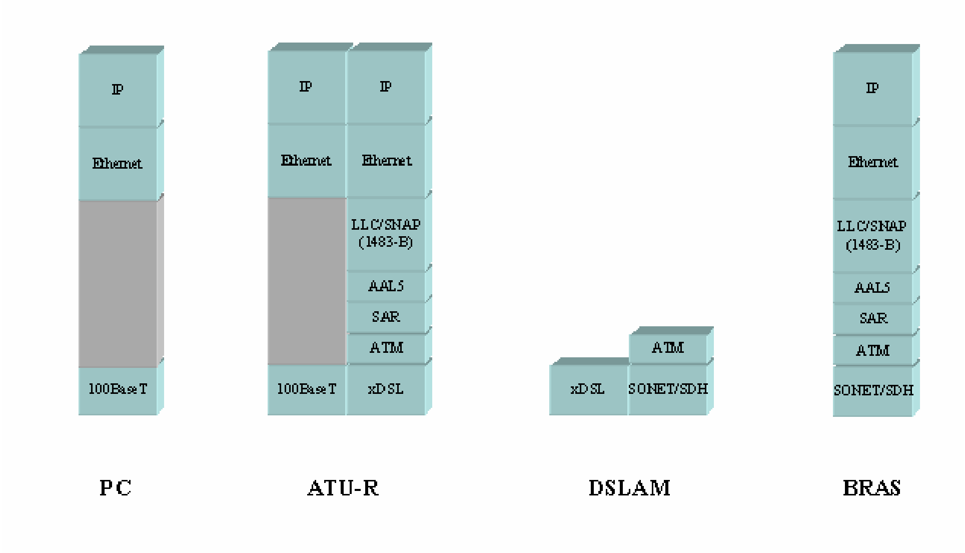
Appendix : Protocol Stacks

A.1 1483 Bridged Model



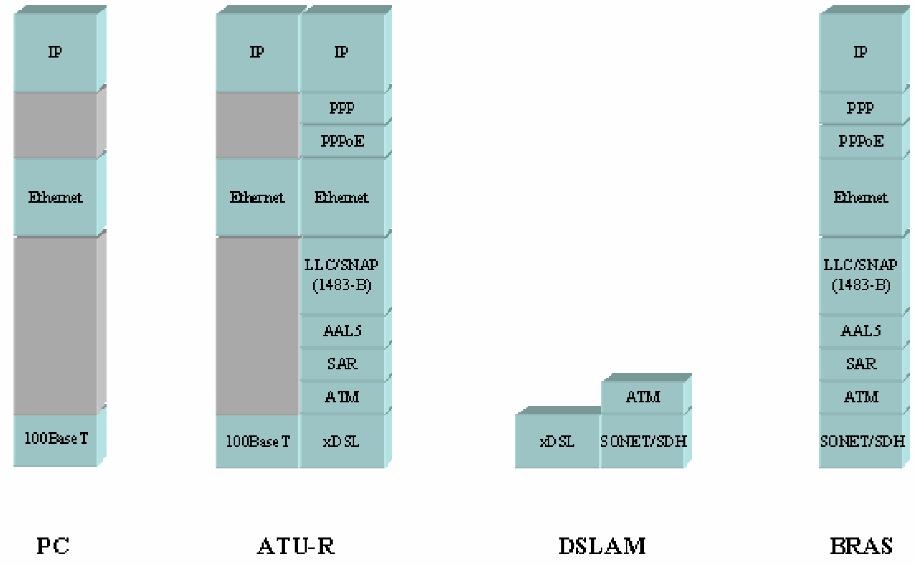
1483 Bridged Channel Mode Scenario

A.2 1483 MER Model



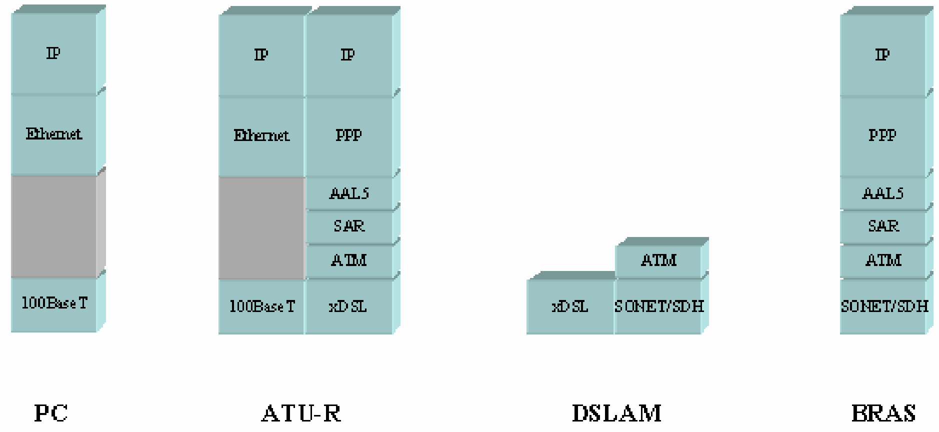
1483 MER Channel Mode Scenario

A.3 PPPoE Model



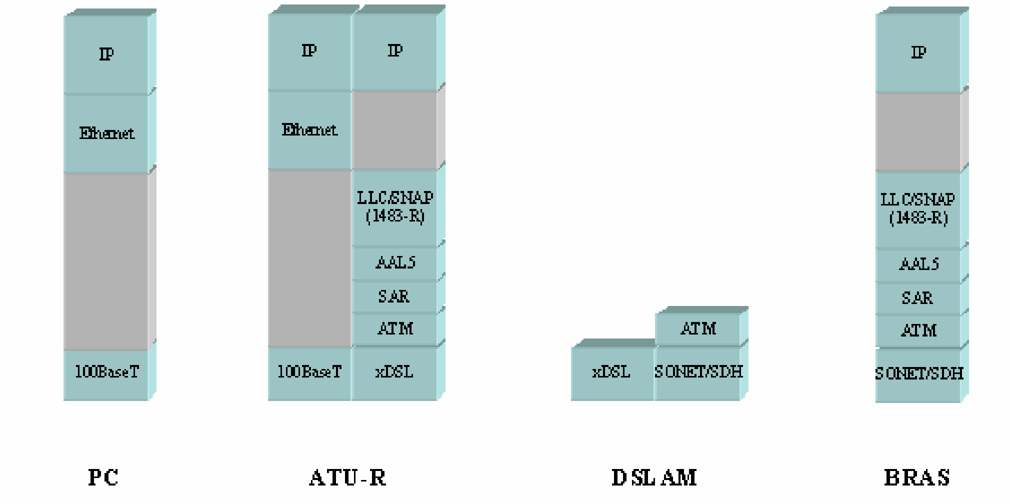
PPPoE Channel Mode Scenario

A.4 PPPoA Model



PPPoA Channel Mode Scenario

A.5 1483 Routed Model



1483 Routed Channel Mode Scenerio