

ADSL Wireless Router



AR-6024WG

User's Manual

Table of Contents

Specification	3
Package Contents	9
General Setting	12
OnePage Setup	16
Wireless	22
Status	24
Network Statistics	24
Connection Status	26
System Log	27
Advanced Setting	28
LAN Setup	28
DHCP Configuration	28
Management IP	29
Firewall/NAT Services	30
WAN Setup	31
Add New Connection	31
Advanced	37
UPnP	37
Multicast	38
LAN Clients	39
Web Filters	40
Bridge Filters	41
Modem Setup	42
Static Routing	43
Access Control	44
Port Forwarding	47
Dynamic Routing	50
Wireless Security	51
Advanced Security	53
Wireless Management	54
Tools	55
Ping Test	55
Remote Log	56
Modem Test	57

UI Preferences	58
Update Gateway	59
User Management	60
System Commands	61
Status	62
System Log	62
DHCP Clients	63
Modem Status	64
Network Statistics	65
Connection Status	67
Product Information	68
Appendix	69

Specification

ADSL Wireless-g Broadband Router

Features

◆ ADSL Standards

DMT modulation and demodulation

Tone detection for low power mode

ITU 992.1 (G.dmt) Annex A, B, C

ITU 992.2 (G.lite)

ITU 992.3 ADSL2 (G.dmt.bis)

ITU 992.4 ADSL2 (G.lite.bis)

ITU 992.5 ADSL2+

ANSI T1.413 Issue 2

Dying Gasp (Optional)

◆ Full-rate adaptive modem

Maximum downstream rate of 24 Mbps (ADSL2+)

Maximum upstream rate of 1 Mbps

◆ G.lite adaptive modem

Maximum downstream rate of 1.5 Mbps

Maximum upstream rate of 512 Kbps

WAN Mode Support

PPP over ATM (RFC 2364)

PPP over Ethernet (RFC 2516)

◆ LAN Mode Support

Bridged/routed Ethernet over ATM (RFC 2684/1483)

Classical IP over ATM (RFC 1577) and PPP over Ethernet (RFC 2516)

Bridge Mode Support

Ethernet to ADSL self-learning Transparent Bridging (IEEE 802.1D)

Supports up to 128 MAC learning addresses

Router Mode Support

IP routing-RIPv2 (backward compatible with RIPv1)

Static routing

DHCP Server and Client

NAPT (Network Address and Port Translation)

NAT (Network Address Translation)

ICMP (Internet Control Message Protocol)

Simultaneous USB and Ethernet operation

IGMP (Internet Group Management Protocol)

♦ 802.11g Wireless Access Point

54Mbps Access Point for wireless connectivity

Interoperable with IEEE 802.11g (PBCC & OFDM Modulation

Technology supports) 2.4GHz compliant equipment

Supports full mobility and seamless roaming from cell to cell

Support Ad hoc and Infrastructure mode

Support AP client architecture

Support WEP (64/128 bit)

Provides up to 30 users wireless connection

Work range: per node indoors approximately 30m~100m,

Outdoor (line of sight) 200m~300m depending on data rates

External antenna: one 2dbi detachable antennas with diversity support (Reverse SMA connector)

♦ RF Specification

Frequency band 2400-24835 MHZ (ISM), DSSS spreading, CCK, OFDM modulation

Max Power Transmission 100mW

1 internal antenna, 1 external antenna

◆ Ethernet Features

Four RJ-45 connectors for 10/100 Mbps Ethernet LAN connection,

DMZ function can be set up between them

Complies with IEEE 802.3u specification

Supports Auto-Negotiation

Supports Auto-MDIX, Auto-MDI

Supports IEEE 802.3x Flow control in Full Duplex mode

♦ <u>Security & Firewall Functions</u>

WEP/Firewall + MAC filter

Specification

Hardware

Line Connection: RJ-11, RJ-45 Connection

Power: Input: 90~120V or 200~240V, 50/60Hz

Output: 7.5VDC/1.5A

OS: Windows 98SE/ 2000/ ME/ XP

System Requirement: PII-266 + 32M RAM

LED Indication: PWR, ADSL LINK, WLAN, LAN Software Upgrade: Upgrade by Ethernet Port

◆ <u>Certification</u>

FCC Part 15, CE,

ADSL Wireless Router

4 Ports LAN

Features

ADSL Standards

DMT modulation and demodulation

Tone detection for low power mode

ITU 992.1 (G.dmt) Annex A, B, C

ITU 992.2 (G.lite)

ITU 992.3 ADSL2 (G.dmt.bis)

ITU 992.4 ADSL2 (G.lite.bis)

ITU 992.5 ADSL2+

ANSI T1.413 Issue 2

Dying Gasp (Optional)

◆ Full-rate adaptive modem

Maximum downstream rate of 24 Mbps (ADSL2+)

Maximum upstream rate of 1 Mbps

◆ G.lite adaptive modem

Maximum downstream rate of 1.5 Mbps

Maximum upstream rate of 512 Kbps

WAN Mode Support

PPP over ATM (RFC 2364)

PPP over Ethernet (RFC 2516)

◆ LAN Mode Support

Bridged/routed Ethernet over ATM (RFC 2684/1483)

Classical IP over ATM (RFC 1577) and PPP over Ethernet (RFC 2516)

◆ Bridge Mode Support

Ethernet to ADSL self-learning Transparent Bridging (IEEE 802.1D)

Supports up to 128 MAC learning addresses

◆ Router Mode Support

IP routing-RIPv2 (backward compatible with RIPv1)

Static routing

DHCP Server and Client

NAPT (Network Address and Port Translation)

NAT (Network Address Translation)

ICMP (Internet Control Message Protocol)

Simultaneous USB and Ethernet operation

IGMP (Internet Group Management Protocol)

◆ 802.11g Wireless Access Point

54Mbps Access Point for wireless connectivity

Interoperable with IEEE 802.11g (PBCC & OFDM Modulation

Technology supports) 2.4GHz compliant equipment

Supports full mobility and seamless roaming from cell to cell

Support Ad hoc and Infrastructure mode

Support AP client architecture

Support WEP (64/128 bit)

Provides up to 30 users wireless connection

Work range: per node indoors approximately 30m~100m,

Outdoor (line of sight) 200m~300m depending on data rates

External antenna: one 2dbi detachable antennas with diversity support (Reverse SMA connector)

◆ RF Specification

Frequency band 2400-24835 MHZ (ISM), DSSS spreading, CCK, OFDM modulation

Max Power Transmission 100mW

1 internal antenna, 1 external antenna

◆ Ethernet Features

Four RJ-45 connectors for 10/100 Mbps Ethernet LAN connection,

DMZ function can be set up between them

Complies with IEEE 802.3u specification

Supports Auto-Negotiation

Supports Auto-MDIX, Auto-MDI

Supports IEEE 802.3x Flow control in Full Duplex mode

Security & Firewall Functions

WEP/Firewall + MAC filter

Specification

♦ <u>Hardware</u>

Line Connection: RJ-11 (2 wires) RJ-45 (4 port) Connection

Power: Input: 90~120V or 200~240V, 50/60Hz

Output: 7.5VDC/1.5A

OS: WIN 98SE ; WIN 2000 ; WIN ME ; WIN XP

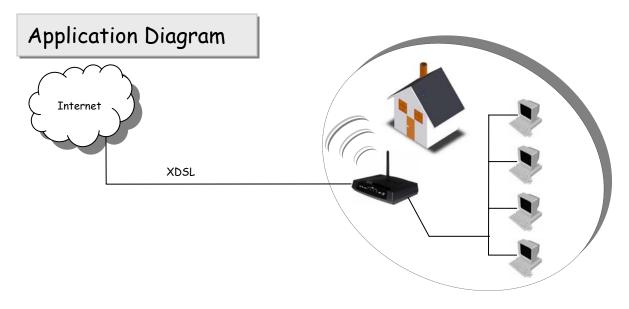
System Requirement: PII-266 + 32M RAM

LED Indication: PWR, ADSL LINK, WLAN, LAN 1~4

Software Upgrade: Upgrade by Ethernet Port

◆ <u>Certification</u>

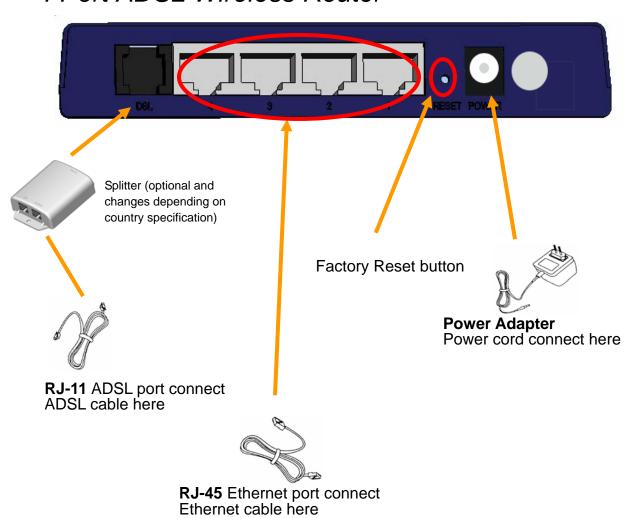
FCC Part 15, CE,



Package Contents

- ◆ ADSL Wireless Router
- ◆ CD-ROM containing Manual
- ◆ Ethernet Cable (CAT.5 UTP Straight-Through)
- ◆ ADSL Cable (Standard telephone cable)
- Power Adapter
- ◆ Quick Installation Guide

4 Port ADSL Wireless Router



10



4 Port ADSL Wireless Router

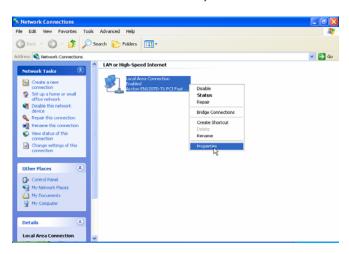
Label	Meaning	Status	Indicates
Power	Power	On	Power is on
		Off	Power is off
WLAN	Wireless LAN	Flashing	Check wireless device.
LAN 1/ LAN 2/	LAN Link	Flashing	Flashes when data is being sent or
LAN 3/ LAN 4			received on the LAN connection.
		On	Indicates a link to your LAN or Network card is active.
		Off	Indicates no link to LAN
ADSL	Link	Link	A valid ADSL connection.
	Active	Act	An active WAN session.

General Setting

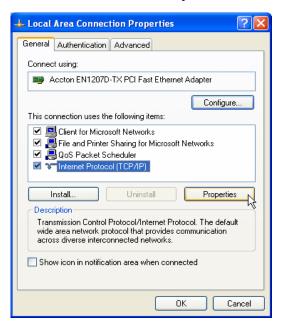
Move your cursor as following sequence **Start \ Settings \ Control Panel** and click **Control Panel**. Then double-click on the **Network Connections**



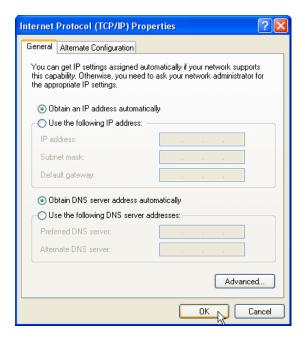
In the *LAN or High-Speed Internet* window, right-click on icon corresponding to your network interface card (NIC) and select *Properties*. (This icon may be labeled Local Area Connection).



In the *General* Tab of the *Local Area Connection Properties* menu. Highlight *Internet Protocol (TCP/IP)* under "This connection uses the following items." by click on it once. Click on the *Properties* button.

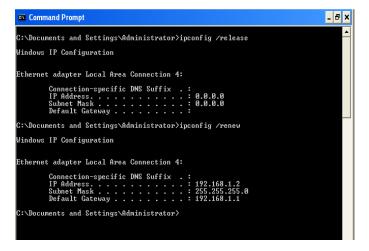


Select *Obtain an IP Address automatically:* by clicking once in the circle. Click *OK* button to confirm and save your changes, and the close the Control Panel.





Release IP & Renew IP, then Check Default Gateway: 192.168.1.1.

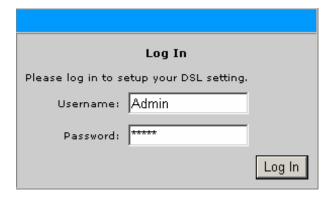


Step 6

Launch your PC web browser and enter the URL: http://192.168.1.1



In the *User name/Password* prompt, please type in *Admin/Admin* as default.



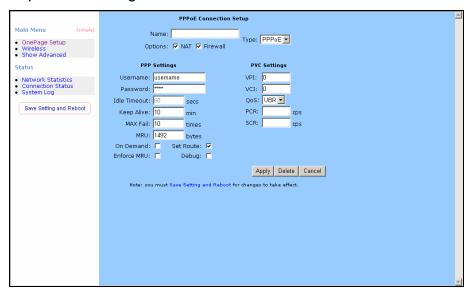


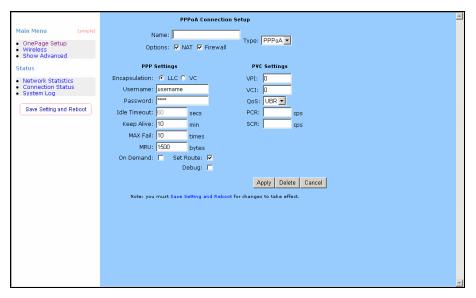
Please wait for the *Home* page to appear.



OnePage Setup

When working with wide area connections, the first thing you must do is to have the handle of the connection. Once you have the handle for a Connection you must define the PVC and protocol settings for it.





Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

PPP Settings

Encapsulation: Select you encapsulation type. (Supplied by your ISP).

Username: Enter the username provided by your ISP. **Password:** Enter the password provided by your ISP.

Idle Timeout: Idle timeout means the router will disconnect after being idle for a

preset amount of time. The default is 60 seconds. If you set the time to 0, the ISDN connection will remain always connected to the ISP.

Keep Alive: If mode is LCP, This is the Keep Alive timer. If a reply to the LCP echo is not received in this amount if time, the connection is dropped. The Default is 10.

Authentication: Set the required authentication protocol. (Auto/ CHAP/ PAP)

MRU: Maximum Receive Unit indicates the peer of PPP connection the maximum size of the PPP information field this device can be received. The default value is 1492 and is used in the beginning of the PPP negotiation. In the normal negotiation, the peer will accept this MRU and will not send packet with information field larger than this value.

PVC Settings

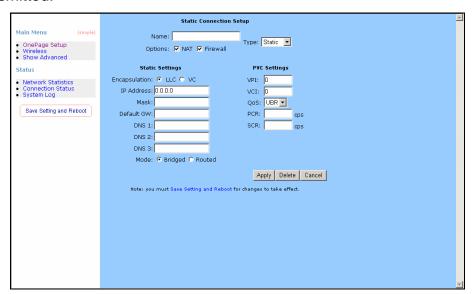
VPI: If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.

VCI: If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.

QoS: Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.

PCR: Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.

SCR: The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.



Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

Static Settings

Encapsulation: Select you encapsulation type. (Supplied by your ISP).

IP Address: Private IP address for connecting to a local private network (Default: 192.168.1.1).

Netmask: Netmask for the local private network (Default: 255.255.255.0).

Default Gateway: This field is optional. Enter in the IP address of the router on your network.

DNS: Sets the IP address of the DNS server.

Mode: Bridged and Routed

PVC Settings

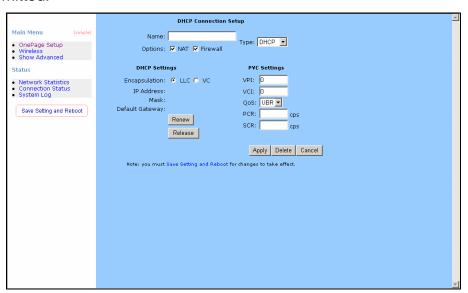
VPI: If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.

VCI: If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.

QoS: Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.

PCR: Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.

SCR: The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.



Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

DHCP Settings

Encapsulation: Select you encapsulation type. (Supplied by your ISP).

IP Address: Private IP address for connecting to a local private network (Default: 192.168.1.1).

PVC Settings

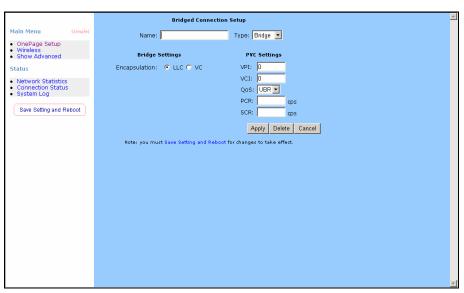
VPI: If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.

VCI: If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.

QoS: Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.

PCR: Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.

SCR: The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.



Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

Bridge Settings

Encapsulation: Select you encapsulation type. (Supplied by your ISP).

PVC Settings

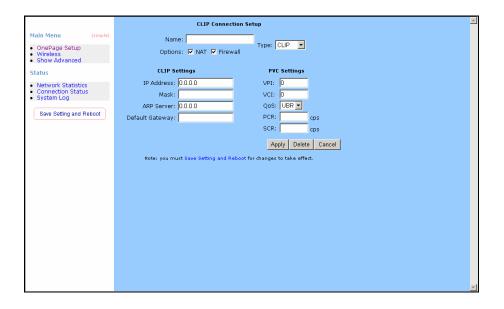
VPI: If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.

VCI: If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.

QoS: Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.

PCR: Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.

SCR: The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.



Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

CLIP Settings

IP Address: Private IP address for connecting to a local private network (Default: 192.168.1.1).

Netmask: Netmask for the local private network (Default: 255.255.255.0).

ARP Server: Translating an IP address to an ATM address.

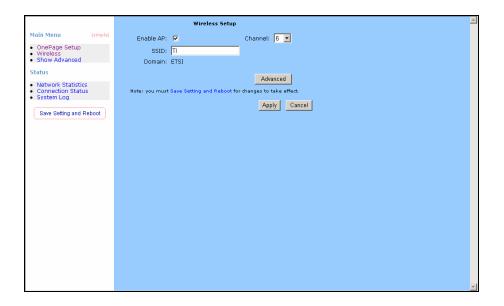
Default Gateway: This field is optional. Enter in the IP address of the router on your network.

PVC Settings

- **VPI:** If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.
- **VCI:** If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.
- **QoS:** Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.
- **PCR:** Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.
- **SCR:** The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.
- *Apply:* Click Apply to save the changes.

Wireless

This page allow you to enable and disable the wireless LAN function, create a SSID, and select the channel for wireless communications..

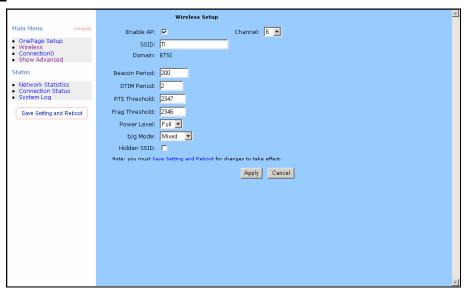


Channel: Select a transmission channel for wireless communications. The channel of any wireless device must match the channel selected here in order for the wireless device to access the LAN and WAN via the router.

SSID: Type an SSID in the text box. The SSID of any wireless device must match the SSID typed here in order for the wireless device to access the LAN and WAN via the router.

Apply: Click Apply to save the changes.

Advanced



Beacon Period: Type the Beacon Period in the text box. You can specify a value from 0 to 65535. The default Beacon Period is 200.

DTIM Period: Type a DTIM (Delivery Traffic Indication Message) Period in the text box. You can specify a value between 1 and 255. The default value is 2.

RTS Threshold: Type the RTS (Request-To-Send) threshold in the text box. You can specify a value from 0 to 4096. The default value is 2347.

Frag Threshold: Type the fragmentation in the text box. You can specify a value from 0 to 4096. The default value is 2346.

Power Level: Adjust the power of the antenna transmission by selecting from the dropping list.

b/g Mode: Select mode from the dropping list. (Mixed/b/b+/11g only)

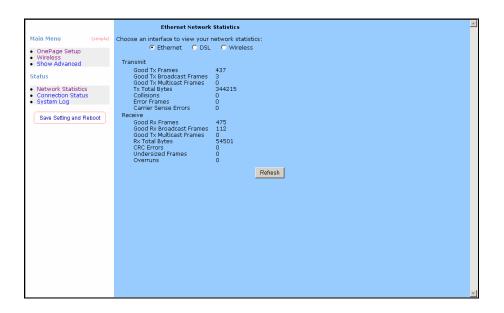
Hidden SSID: Select it to hidden your SSID.

Apply: Click Apply to save the changes.

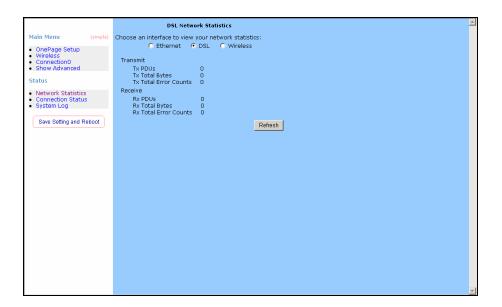
Status

Network Statistics

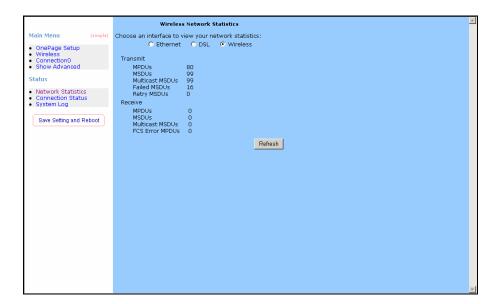
The Ethernet Network Statistics page shows the statistics for the Ethernet connection.



The DSL Network Statistics page shows the statistics for the DSL connection.

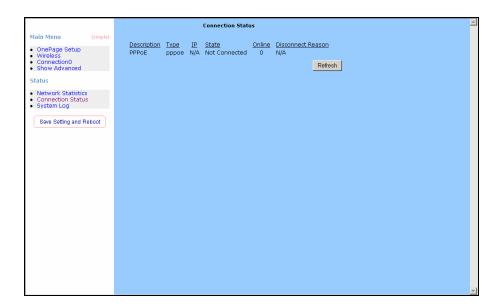


The Wireless Network Statistics page shows the statistics for the Wireless connection.



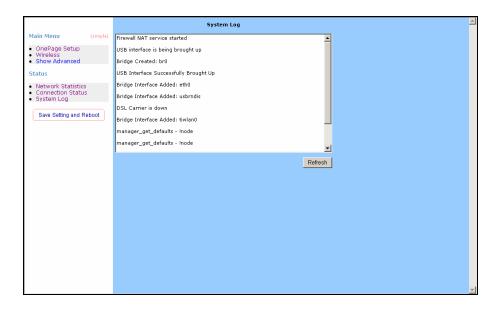
Connection Status

The Connection Status page shows the status of PPP for each PPP interface.



System Log

The System Log page shows the events triggered by the system.



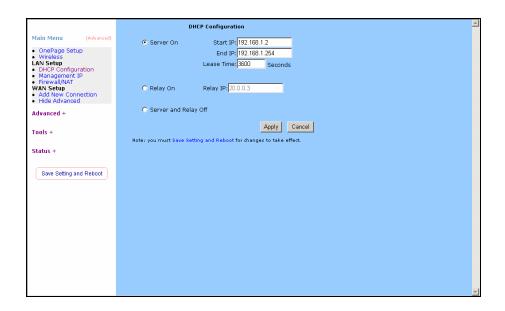
Advanced Setting

LAN Setup

The following is displayed LAN Setup.

DHCP Configuration

DHCP stands for Dynamic Host Configuration Protocol. It can automatically dispatch related IP settings to any local user configured as a DHCP client.



Server On: Enables the DHCP server.

Start IP: Sets the start IP address of the IP address pool.

End IP: Sets the end IP address of the IP address pool.

Lease time: The lease time is the amount of time of a network user will be allowed to connect with DHCP server. If all fields are 0, the allocated IP address will be effective forever.

Relay On: Allow PCs on LAN to request IP from other DHCP server.

Relay IP: Sets the other DHCP server IP address.

Apply: Click Apply to save the changes.

Management IP

The Management IP page shows the ADSL physical layer status.



IP Address: Private IP address for connecting to a local private network (Default: 192.168.1.1).

Netmask: Netmask for the local private network (Default: 255.255.25.0).

Default Gateway: This field is optional. Enter in the IP address of the router on your network.

Host Name: Required by some ISPs. If the ISP does not provide the Host name, please leave it blank.

Domain Name: www.dynsns.org will provide you with a Domain Name. Enter this name in the "Domain Name" field.

Physical Port: There are five kinds of mode for data transfer (Auto)(10/Half Duplex)(10/Full Duplex)(100/Half Duplex)(100/Full Duplex).

Apply: Click Apply to save the changes.

Firewall/NAT Services

Network Address Translation (NAT): Is a method of mapping one or more IP addresses and/or IP service ports into different specified values.

Firewall: In addition to the built-in NAT mechanism.



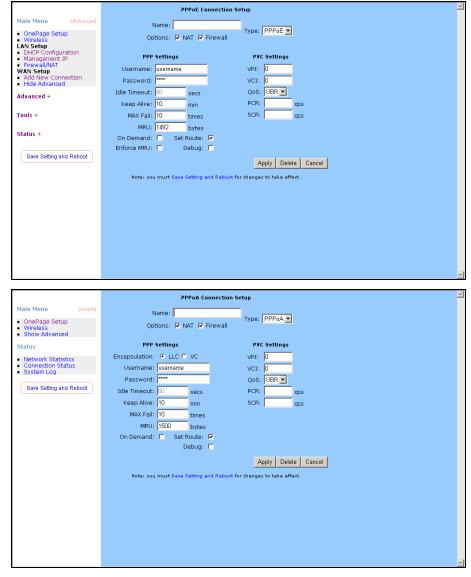
Firewall/NAT Services: Select Enable to turn on the Firewall/NAT Service. *Apply:* Click Apply to save the changes.

WAN Setup

The following is displayed WAN Setup.

Add New Connection

When working with wide area connections, the first thing you must do is to have the handle of the connection. Once you have the handle for a Connection you must define the PVC and protocol settings for it.



Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

PPP Settings

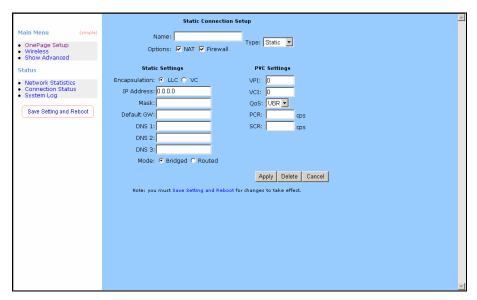
Encapsulation: Select you encapsulation type. (Supplied by your ISP).

Username: Enter the username provided by your ISP.

- **Password:** Enter the password provided by your ISP.
- *Idle Timeout:* Idle timeout means the router will disconnect after being idle for a preset amount of time. The default is 60 seconds. If you set the time to 0, the ISDN connection will remain always connected to the ISP.
- **Keep Alive:** If mode is LCP, This is the Keep Alive timer. If a reply to the LCP echo is not received in this amount if time, the connection is dropped. The Default is 10.
- **Authentication:** Set the required authentication protocol. (Auto/ CHAP/ PAP)
- MRU: Maximum Receive Unit indicates the peer of PPP connection the maximum size of the PPP information field this device can be received. The default value is 1492 and is used in the beginning of the PPP negotiation. In the normal negotiation, the peer will accept this MRU and will not send packet with information field larger than this value.

PVC Settings

- **VPI:** If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.
- **VCI:** If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.
- **QoS:** Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.
- **PCR:** Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.
- **SCR:** The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.



Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

Static Settings

Encapsulation: Select you encapsulation type. (Supplied by your ISP).

IP Address: Private IP address for connecting to a local private network (Default: 192.168.1.1).

Netmask: Netmask for the local private network (Default: 255.255.255.0).

Default Gateway: This field is optional. Enter in the IP address of the router on your network.

DNS: Sets the IP address of the DNS server.

Mode: Bridged and Routed

PVC Settings

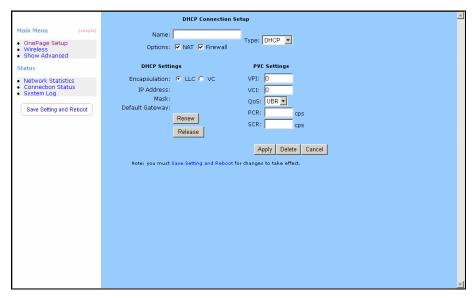
VPI: If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.

VCI: If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.

QoS: Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.

PCR: Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.

SCR: The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.



Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

DHCP Settings

Encapsulation: Select you encapsulation type. (Supplied by your ISP).

IP Address: Private IP address for connecting to a local private network (Default: 192.168.1.1).

PVC Settings

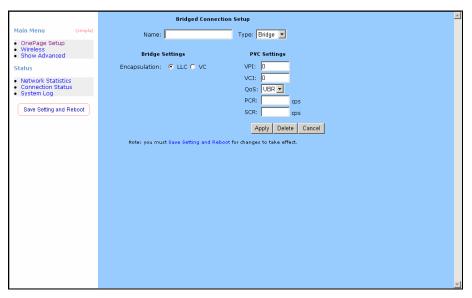
VPI: If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.

VCI: If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.

QoS: Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.

PCR: Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.

SCR: The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.



Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

Bridge Settings

Encapsulation: Select you encapsulation type. (Supplied by your ISP).

PVC Settings

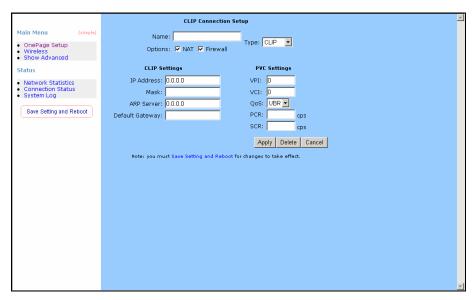
VPI: If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.

VCI: If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.

QoS: Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.

PCR: Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.

SCR: The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.



Name: Enter the name of your ISP. This information is for identification purposes only.

Type: There six kinds of method (PPPoE/ PPPoA/ Static/ DHCP/ Bridge/ CLIP).

CLIP Settings

IP Address: Private IP address for connecting to a local private network (Default: 192.168.1.1).

Netmask: Netmask for the local private network (Default: 255.255.255.0).

ARP Server: Translating an IP address to an ATM address.

Default Gateway: This field is optional. Enter in the IP address of the router on your network.

PVC Settings

VPI: If instructed to change this, type in the VPI value for the initial connection (using PVC 0). Default = **0**.

VCI: If instructed to change this, type in the VCI value for the initial connection (using PVC 0). Default = **0**.

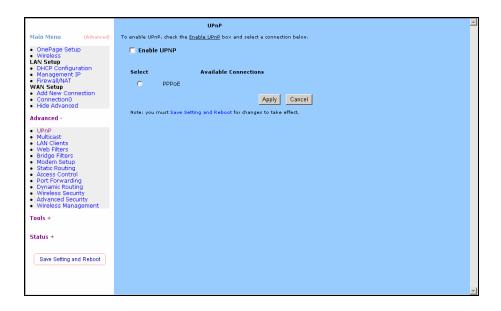
QoS: Quality of Service type. Select CBR (Continuous Bit Rate) to specify fixed (always-on) bandwidth for voice or data traffic. Select UBR (Unspecified Bit Rate) for applications that are non-time sensitive, such as e-mail. Select VBR (Variable Bit Rate) for burst traffic and bandwidth sharing with other applications.

PCR: Divide the DSL line rate (bps) by 424 (the size of an ATM cell) to find the Peak Cell Rate (PCR). This is the maximum rate at which the sender can send cells.

SCR: The Sustain Cell Rate (SCR) sets the average cell rate (long-term) that can be transmitted.

Advanced UPnP

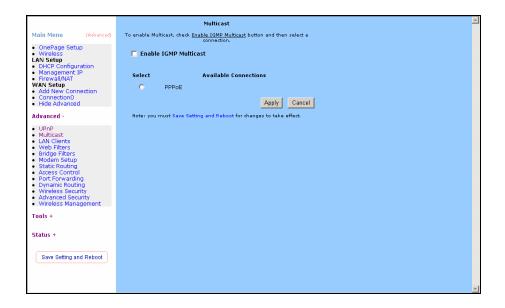
Universal Plug and Play (UPnP) is a distributed, open networking standard that uses TCP/IP for simple peer-to –peer network connectivity between devices a UPnP device can dynamically join a network, obtain and IP address, convey is capabilities and learn about other devices on the network. In turn, a device can leave a network smoothly and automatically when it is no longer in use.



Enable UPNP: Enable the UPnP.

Multicast

The NSP is capable of proxying for applications that are using multicast IP for accessing Video content. This application needs to be run when NAT is enabled.



Enable IGMP Multicast: Enable or Disable IGMP Multicast.

LAN Clients

The LAN Clients page allows you to set the configuration for the LAN port.

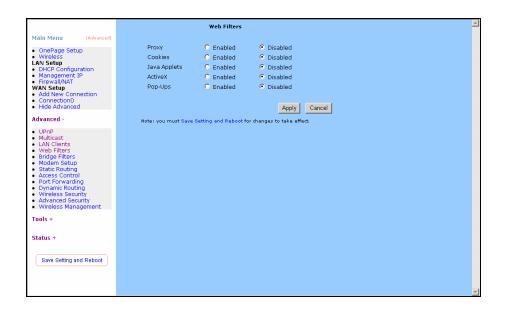


New IP Address: Enter the IP Address.

Hostname: Enter the Hostname.

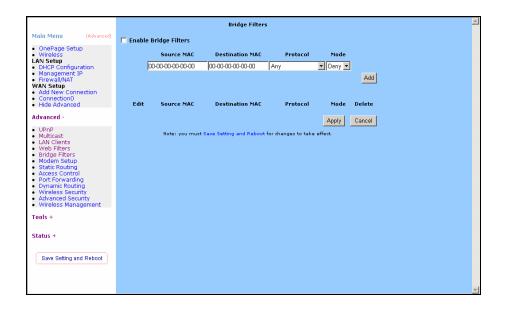
Web Filters

The following queries manage the Content Filtering capabilities of the NSP.



Bridge Filters

The bridge filtering page allows users to set the configuration of IP filtering.



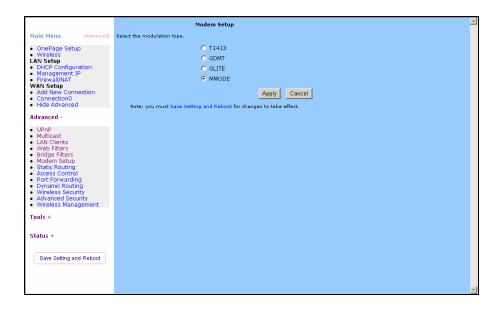
Source MAC: When the bridge filtering is enabled, enter the Source MAC address, select **Block** and click **Add**. Then all incoming WAN and LAN Ethernet packets matched with this source MAC address will be filtered out. If the **Forward** is selected, then the packets will be forwarded to the destination PC.

Destination MAC: When the bridge filtering is enabled, enter the Destination MAC address, select **Block** and click **Add.** Then all incoming WAN and LAN Ethernet packets matched with this destination MAC address will be filtered out. If the **Forward** is selected, then the packets will be forwarded to the destination PC.

Type: Enter the hexadecimal number for the Ethernet type field in Ethernet_II packets. For example, 0800 is for IP protocol.

Modem Setup

Select ADSL Transmission Rate.



T1413: Full-Rate (ANSI T1.413 Issue 2) with line rate support of up to 8 Mbps downstream and 832 Kbps upstream.

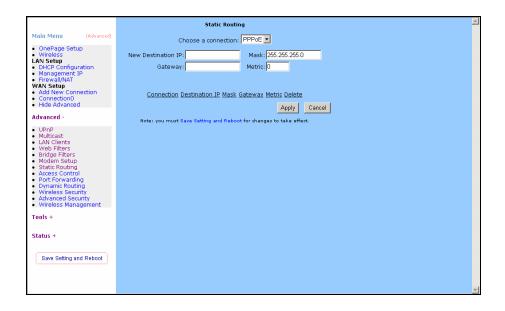
GDMT: Full-Rate (G.dmt, G992.1) with line rate support of up to 8 Mbps downstream and 832 Kbps upstream.

GLITE: G.lite (G.992.2) with line rate support of up to 1.5 Mbps downstream and 512 Kbps upstream.

MMODE: Support Multi-Mode standard (ANSI T1.413 Issue 2; G.dmt(G.992.1); G.lite(G.992.2)).

Static Routing

The following queries manage the RIP routing application and static routing entries for the NSP. The RIP application supports both version 1 and 2.

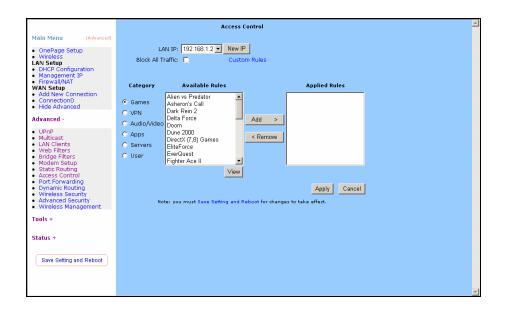


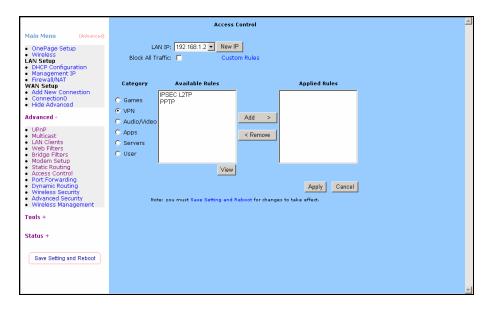
New Destination IP: Enter the New Destination IP.

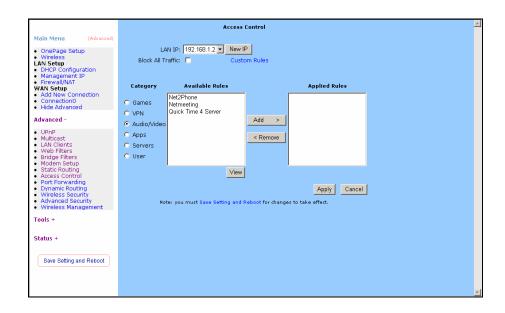
Gateway: Enter the IP Address of the Gateway.

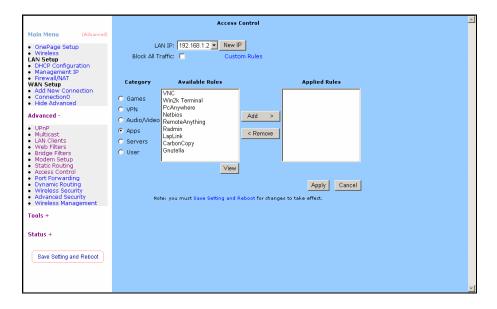
Access Control

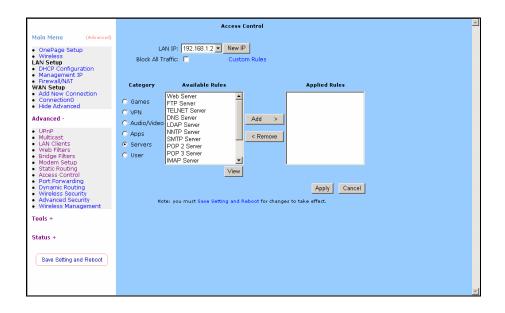
Access Control allows users to define the outgoing traffic permitted or denied access through the WAN interface. The default is to permit all outgoing traffic.

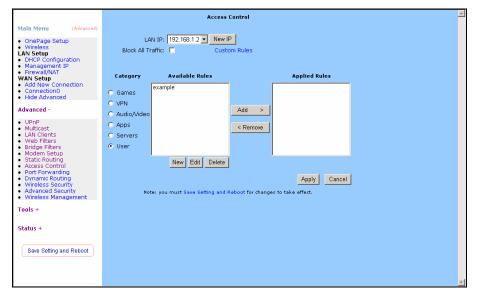








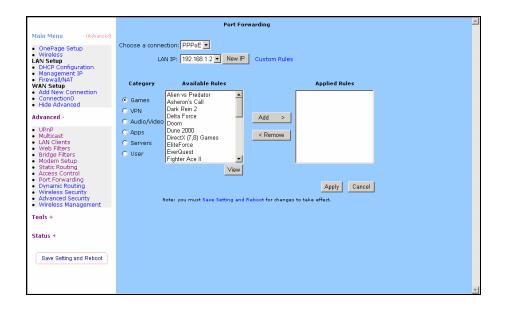


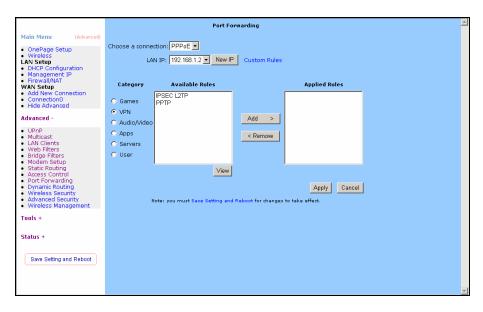


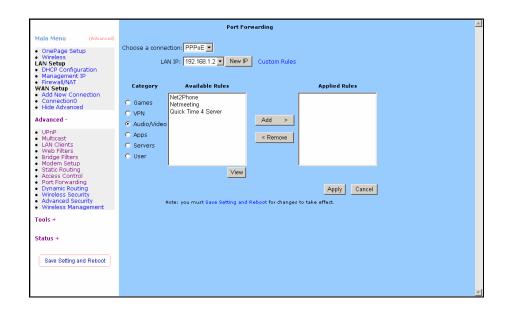
Apply: Click Apply to save the changes.

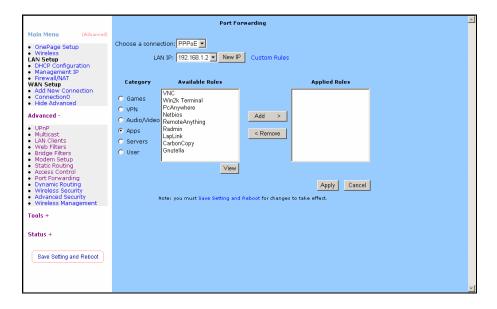
Port Forwarding

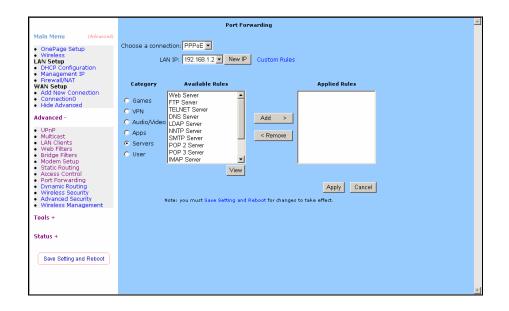
The Port Forwarding page allows the user define a port forwarding rule without using the firewall policy database definitions and apply it to the connection.

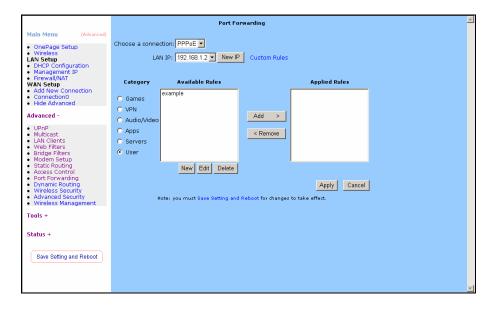










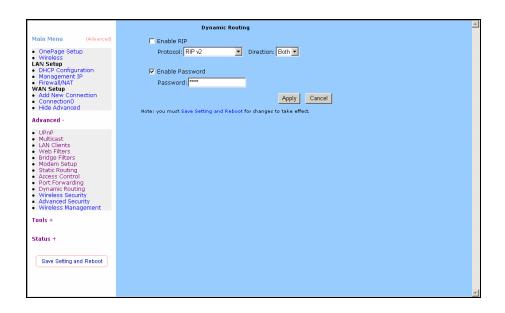


Choose a connection: You can choose a connection to do this.

LAN IP: type your LAN IP. For example 192.168.1.2.

Dynamic Routing

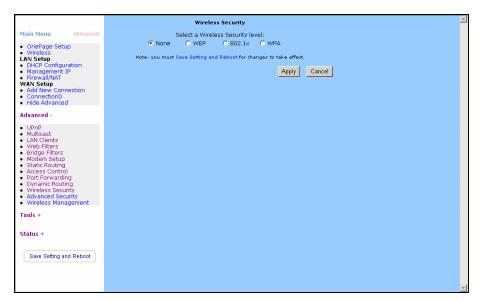
The following queries manage the RIP routing application and static routing entries for the NSP. The RIP application supports both version 1 and 2.



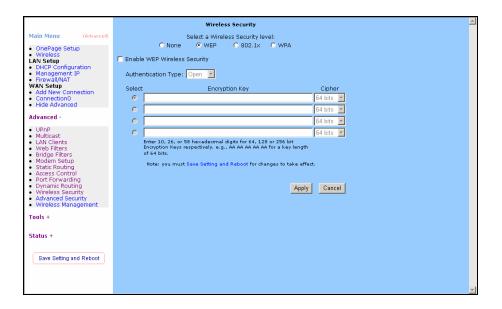
Apply: Click Apply to save the changes.

Wireless Security

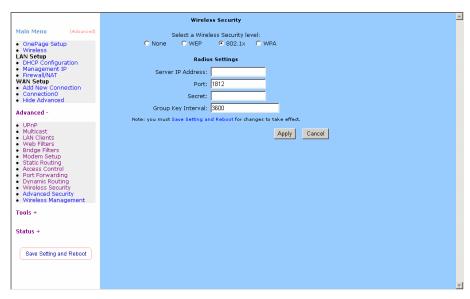
Select a Wireless Security level



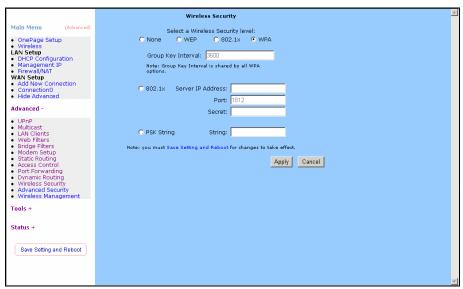
None: Disable Wireless encryption.



WEP: WEP encryption scrambles the data transmitted between the wireless stations and the access points to keep network communications private. It encrypts unicast and multicast communications in a network. Both the wireless stations and the access points must use the same WEP key for data encryption and decryption.



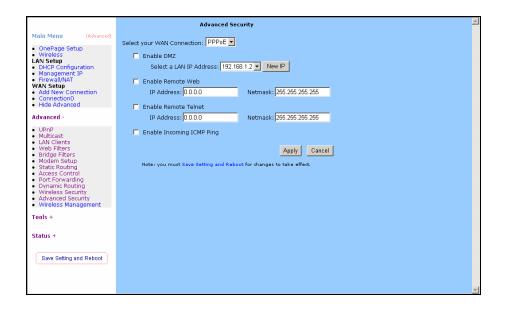
802.1x: The IEEE 802.1x standards outline enhanced security methods for both the authentication of wireless stations and encryption key management.



WPA: Wi-Fi Protected Access (WPA) is a subset of the IEEE 802.11i security specification draft. Key differences between WPA and WEP are user authentication and improved data encryption.

Advanced Security

The Advanced Security page provides advanced rules that can be applied to a particular Connection.



Enable DMZ: Enable or Disable DMZ.

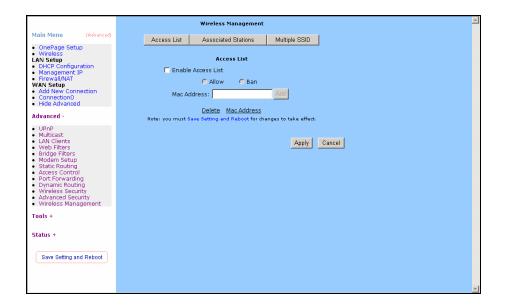
Enable Remote Web: Allow or deny incoming access to the modems Web pages remotely.

Enable Remote Telnet: Allow or deny incoming access to the modems Telnet Interface remotely.

Enable Incoming ICMP Ping: Allow or deny incoming Pings to the Modem.

Wireless Management

The Wireless Management page allows your prestige can check the MAC addresses of Wireless stations against a list of allowed or denied MAC addresses.



Enable Access List: Enable the Wireless Management by Access List.

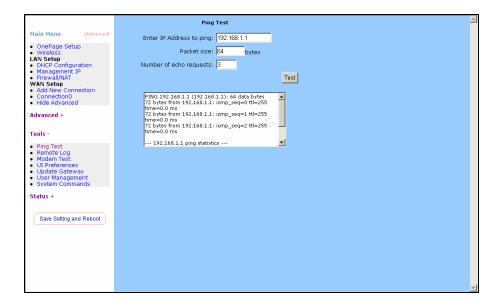
MAC Address: Enter the MAC Address.

Tools

The Tools section allows you to save the configuration, restart the gateway, update the gateway firmware, setup user and remote log information and run Ping and Modem tests.

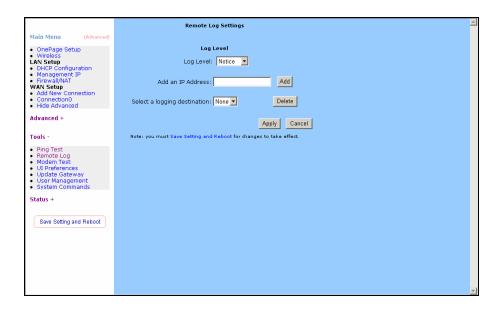
Ping Test

Packet INternet Groper is protocol that sends out ICMP echo requests to test whether or not a remote host is reachable.



Remote Log

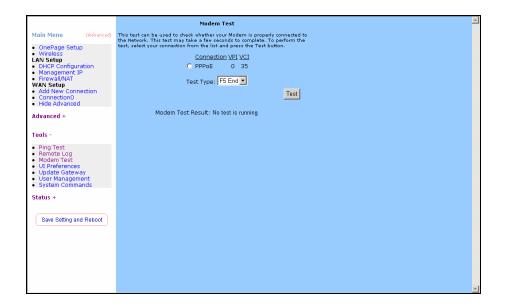
The Router Table page displays routing table and allows the user to manually enter the routing entry. The routing table will display the routing status of Destination, Netmask, Gateway and Interface. The interface br0 means the USB interface; Io0 means the loopback interface and ppp1 means the PPP interface. The Gateway is the learned Gateway.



Apply: Click Apply to save the changes.

Modem Test

This test can be used to check whether your Modem is properly connected to the Network. This test may take a few seconds to complete. To perform the test, select your connection from the list and press the Test button.



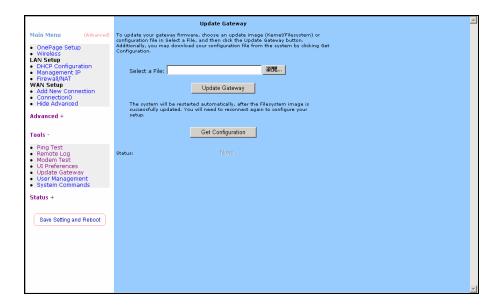
UI Preferences

The UI preferences page allows user to set screen size.



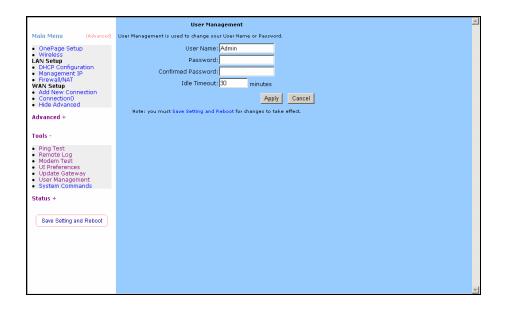
Update Gateway

To update your gateway firmware, choose an update image (Kernel/ File system) or configuration file In Select a File, and then click the Update Gateway button. Additionally, you may download your configuration file from the system by clicking Get Configuration.



User Management

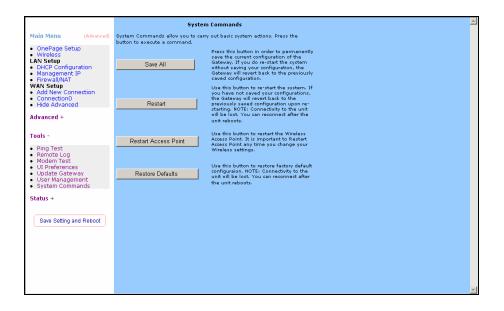
User Management is used to change your User Name or Password.



User Name: Default is 'Admin'. Password: Default is 'Admin'.

System Commands

System commands allow you to carry out basic system actions. Press the button to execute a command.

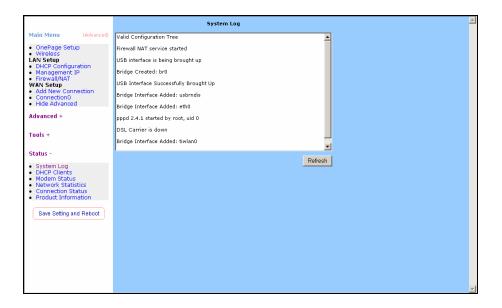


Status

The Status section allows you to view the Status/Statistics of different connections and interfaces.

System Log

The System Log page shows the events triggered by the system.



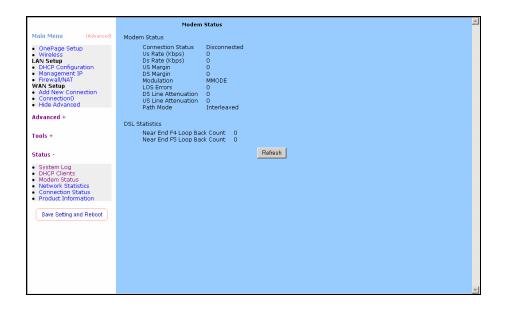
DHCP Clients

The DHCP Clients page shows the MAC Address, IP Address, Host Name and Lease Time.



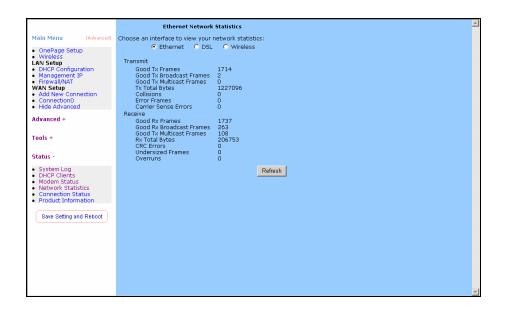
Modem Status

The Modem Status page shows the modem status and DSL statistics.

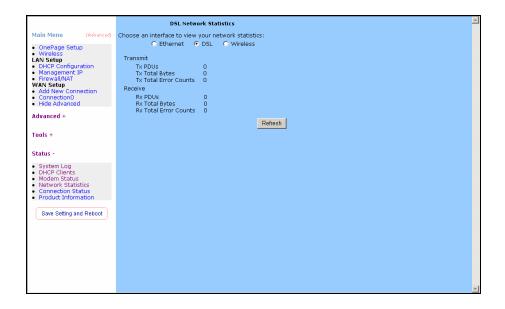


Network Statistics

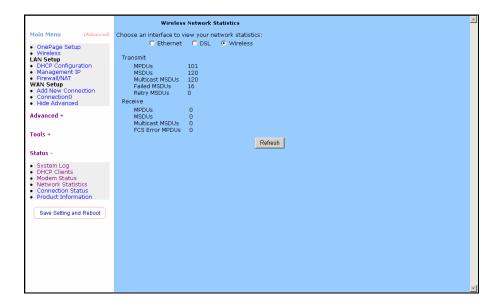
The Ethernet Network Statistics page shows the statistics for the Ethernet connection.



The DSL Network Statistics page shows the statistics for the DSL connection.

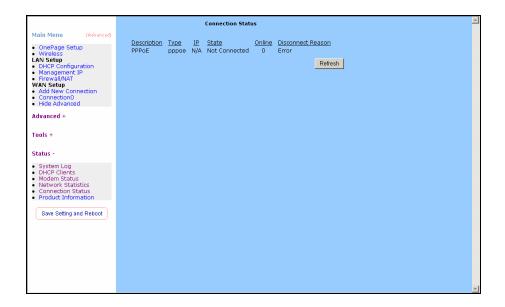


The Wireless Network Statistics page shows the statistics for the Wireless connection.



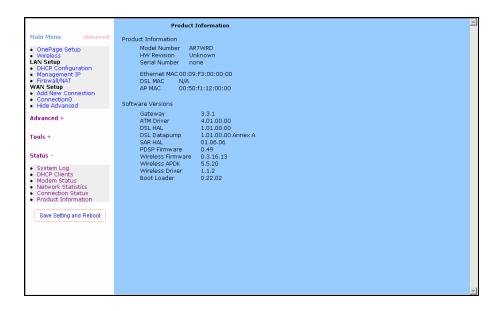
Connection Status

The Connection Status page shows the status of PPP for each PPP interface.



Product Information

The Product Information page shows the product information and software versions.



Appendix

Country	ISP	PVC
Australia	All Internet providers	VPI:8
	7 iii iiiioiiiot providoro	VCI:35
Belgium		VPI:0
		VCI:33
Canada	Telus	VPI:0
Cariaua	Telus	VCI:35
	Cybercity	VPI:8
Danmark		VCI:35
Dailliaik	Tiscali	VPI:8
	Tiscali	VCI:35
	1 & 1 Internet DSL	VPI:1
	T & T IIIterriet DOL	VCI:32
	AOL DSL	VPI:1
	AOL DOL	VCI:32
	Arcor DSL	VPI:8
	Alcoi DSL	VCI:35
	Freenet DSL	VPI:1
		VCI:32
	Fireline networks	VPI:1
Deutschland		VCI:32
	GMX Internet	VPI:1
		VCI:32
	Hansenet	VPI:8
	Папъепеі	VCI:35
	Netcologne	VPI:8
		VCI:35
	Schlund	VPI:1
		VCI:35
	Snafu ADSL	VPI:1
		VCI:32
<u> </u>		

Country	ISP	PVC
	Tiscali	VPI:1
		VCI:32
	T-online	VPI:1
		VCI:32
	Andoror Anhiotor	VPI:1
	Anderer Anbieter	VCI:32
	Wannadoo	VPI:8
France		VCI:35
France	v	VPI:8
	Tiscali	VCI:35
ISRAEL	KPN PPPoE LLC	VPI:8
ISKAEL	KPN PPPOE LLC	VCI:48
	Talagam Italia	VPI:8
Italian	Telecom Italia	VCI:35
Italian	Doct oil procente	VPI:8
	Rest oil presente	VCI:35
	KPN PPPoA VC-MuX	VPI:8
		VCI:48
Netherlands	BBeyond Bridge LLC	VPI:0
ivemenanus		VCI:33
	BBeyond PPPoA VC-MuX	VPI:0
		VCI:35
New Zealand	New Zealand Telecom	VPI:0
New Zealand		VCI:100
Dortugal	Todos os apresentador	VPI:0
Portugal		VCI:35
	Albura	VPI:1
		VCI:32
Spanish	Colt Teeccom	VPI:0
		VCI:35
	Earth	VPI:8
		VCI:32

Country	ISP	PVC
Spanish	Eresmas	VPI:8
	2.0011100	VCI:35
	Jazztel	VPI:8
	Jazziei	VCI:35
	Ola Internet	VPI:8
	Ola Internet	VCI:35
	Retevision	VPI:0
		VCI:35
	Terra	VPI:8
	lella	VCI:32
	Tiscali	VPI:1
	HSCall	VCI:32
	Telefornica	VPI:8
	Telefornica	VCI:32
	Tolongo	VPI:8
	Telepac	VCI:35
	Uni2	VPI:1
		VCI:33
	Ya.com	VPI:8
		VCI:32
	Wanadoo	VPI:8
		VCI:32
	Island ssimi	VPI:0
		VCI:35
Suomi	Landssimi	VPI:8
Suomi	Landssimi	VCI:48
	Vortex	VPI:8
		VCI:48
Switsorland	Alle anbieter	VPI:1
Switserland		VCI:32
Sverige	Skanova	VPI:8
		VCI:35

Country	ISP	PVC
Taiwan	Hinet	VPI:0
		VCI:33
	Seednet	VPI:0
		VCI:33
United Arab Emirates	Etisalat Classical IP Single	VPI:8
	User	VCI:35
	Etisalat Classical IP for	VPI:8
	Business	VCI:35
United Kingdom	British Telecom	VPI:0
		VCI:38