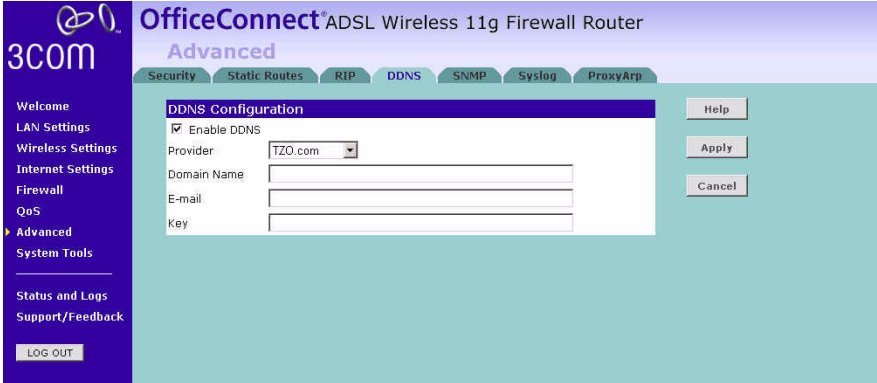


Before you set up DDNS, you must obtain an account, password or key and static domain name from your DDNS provider.

DDNS is disabled by default.

Figure 74 Dynamic Domain Server (DDNS) Screen



The screenshot shows the 'OfficeConnect® ADSL Wireless 11g Firewall Router' web interface in 'Advanced' mode. The 'DDNS' tab is selected in the top navigation bar. On the left, a sidebar menu lists various settings, with 'Advanced' highlighted. The main content area is titled 'DDNS Configuration' and contains the following elements:

- A checked checkbox labeled 'Enable DDNS'.
- A dropdown menu for 'Provider' with 'TZO.com' selected.
- Text input fields for 'Domain Name', 'E-mail', and 'Key'.
- Buttons for 'Help', 'Apply', and 'Cancel' on the right side.

- 1 Check *Enable DDNS*.
- 2 Select the provider, and then enter the necessary information provided by your DDNS provider.
- 3 Click *Apply*.

SNMP SNMP (Simple Network Management Protocol) allows remote management of your router by a PC that has an SNMP management agent installed.

Figure 75 SNMP Screen

SNMP Configuration

Enable SNMP

Please enter the SNMP Community parameters in the following table.

No.	Community	Access	Valid
1	public	Read	<input checked="" type="checkbox"/>
2	private	Write	<input checked="" type="checkbox"/>
3		Read	<input type="checkbox"/>
4		Read	<input type="checkbox"/>
5		Read	<input type="checkbox"/>

Please enter the SNMP Trap parameters in the following table.

No.	IP Address	Community	Version
1	0 . 0 . 0 . 0		Disabled
2	0 . 0 . 0 . 0		Disabled
3	0 . 0 . 0 . 0		Disabled
4	0 . 0 . 0 . 0		Disabled
5	0 . 0 . 0 . 0		Disabled

To Configure SNMP Community:

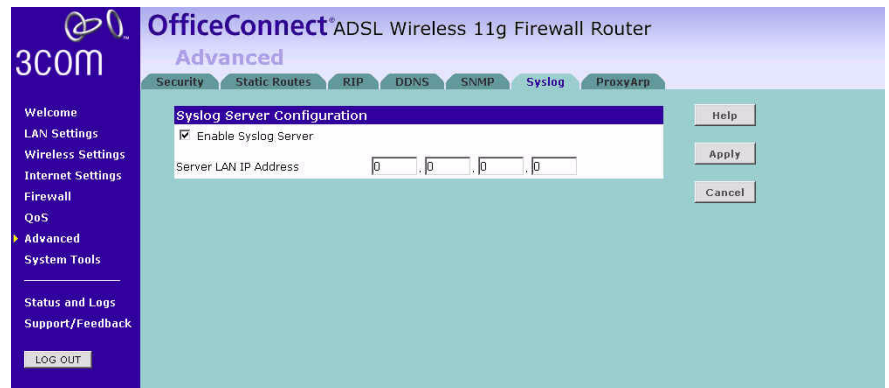
- 1 In the *Community* column, enter the name of the SNMP communication channel. Your SNMP management agent needs to be configured with this name so that it can communicate with your router.
- 2 In the *Access* column, select *Read* to allow the management agent to collect data (for example, bandwidth usage) from your router. Select *Write* to allow the management agent to change the configuration of your router.
- 3 Check the appropriate *Valid* checkbox to enable the communication channel.

You can configure your router to send status messages to the SNMP management agent if a problem occurs on the network. To configure SNMP traps:

- 1 In the *IP Address* field, enter the IP address of the PC to which you want your router to send status messages.
- 2 In the *Community* field, enter the name of the SNMP communication channel to which you want your router to send status messages.
- 3 Set the *Version* field to match the version of trap messaging that your SNMP management agent supports. The router supports V1 and V2c trap messaging.

Syslog Using third party syslog software, this Syslog Server tool will automatically download the Router log to the specified server IP address.

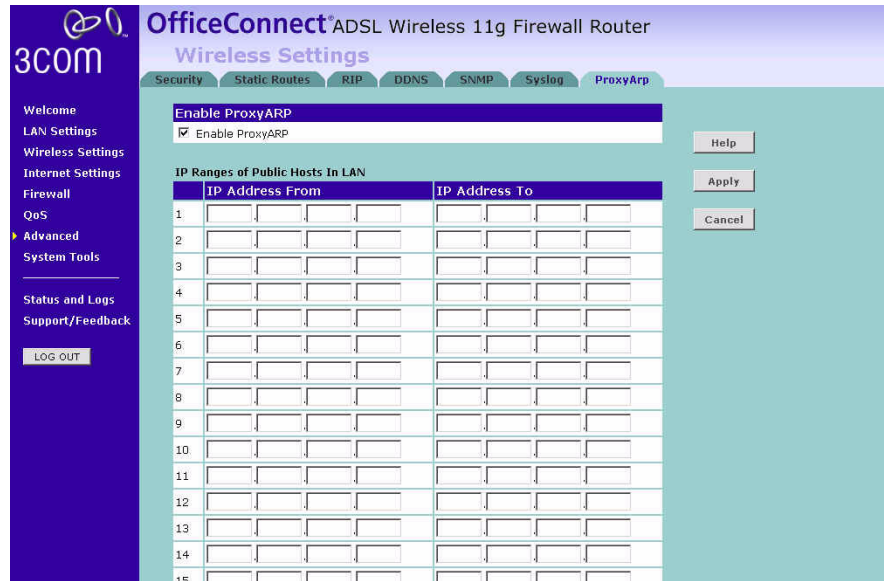
Figure 76 Syslog Server Screen



- 1 Check the *Enable Syslog Server* checkbox.
- 2 Enter the *Server LAN IP Address* in the space provided.
- 3 Click *Apply*.

Proxy ARP Proxy ARP is the technique in which one host, usually a router, answers ARP requests intended for another machine. By "faking" its identity, the router accepts responsibility for routing packets to the "real" or intended destination. This heightens the security for your network.

Figure 77 Proxy ARP Screen



Enter the corresponding IP address in the *IP Address From* and *IP Address To* fields.

System Tools

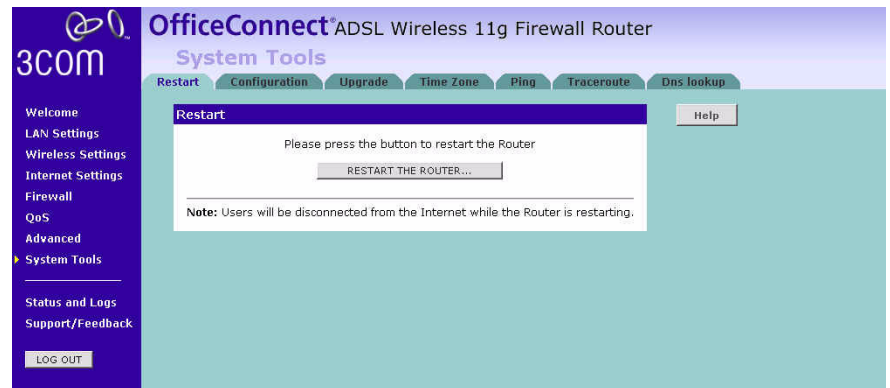
These pages allow you to manage different parameters of the Router and perform certain administrative functions.

Restart Router

Sometimes it may be necessary to restart (or reboot) the Router. Restarting the Router from this screen will not delete any of your configuration settings.

Click the *Restart the Router* button to restart the Router.

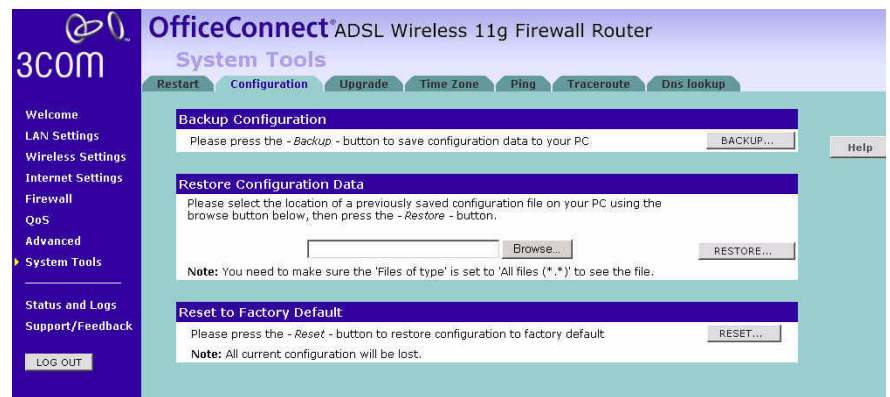
Figure 78 Restart Router Screen



Configuration

Use this configuration screen to backup, restore or reset the configuration details of the Router.

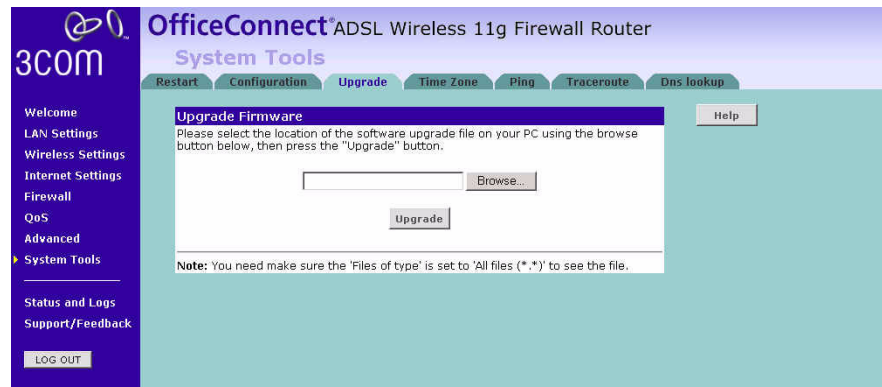
Figure 79 Configuration Screen



- **Backup Configuration** — You can save your current configuration by clicking the *Backup* button. Saving your configuration will allow you to restore it later if your settings are lost or changed. It is recommended that you backup your current configuration before performing a firmware update.
- **Restore Configuration Data** — The Restore Settings option will allow you to restore a previously saved configuration. Please select the configuration file using the *Browse* button and click *Restore*.
- **Reset to Factory Default** — Using this option will reset all of the settings in the Router to the factory default settings. It is recommended that you backup your settings before you restore all of the defaults. To restore the factory default settings, click *Reset*.

Upgrade From time to time 3Com may release new versions of the Router's firmware. Firmware updates contain improvements and fixes to problems that may have existed.

Figure 80 Upgrade Screen



Please download the firmware file to your PC first, and then click *Browse* and select the firmware file. Click *Upgrade* to upload the firmware to the Router.

Time Zone You can set the time settings for the Router in this page.

Figure 81 Time Zone Screen

The screenshot shows the 'Time and Time Zone' configuration page on the OfficeConnect ADSL Wireless 11g Firewall Router. The page has a purple header with the 3COM logo and the title 'OfficeConnect ADSL Wireless 11g Firewall Router System Tools'. Below the header are tabs for 'Restart', 'Configuration', 'Upgrade', 'Time Zone', 'Ping', 'Traceroute', and 'Dns lookup'. The 'Time Zone' tab is selected. On the left is a navigation menu with options like 'Welcome', 'LAN Settings', 'Wireless Settings', 'Internet Settings', 'Firewall', 'QoS', 'Advanced', 'System Tools', 'Status and Logs', and 'Support/Feedback'. The main content area is titled 'Time and Time Zone' and contains the following fields:

- Current time: August 5, 2003 6:13:16 AM
- Base Date: January 1, 2003
- Base Time: 12:00 AM
- Using Time Server (NTP): Enable
- Set Time Zone: (GMT-08:00)Pacific Time (US & Canada), Tijuana
- Synchronization Interval: 6 (1-72 hours)
- Time Server: 192.5.41.41 - North America
- Daylight Savings: Enable

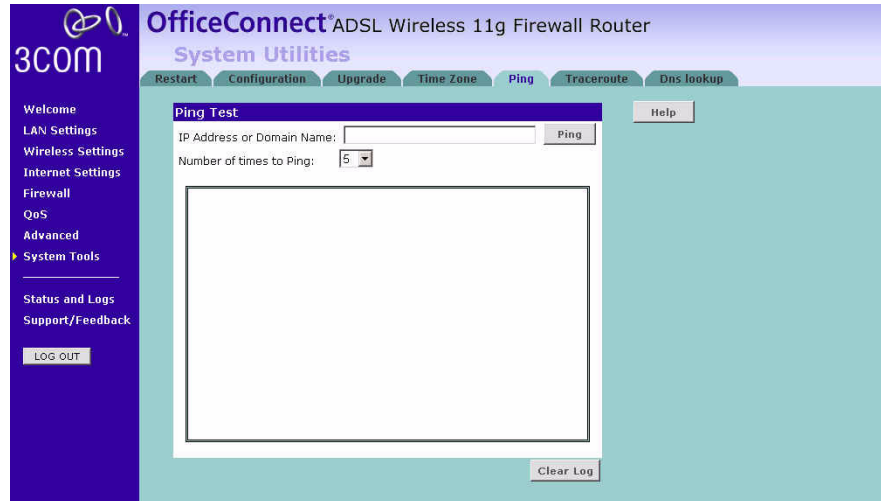
Buttons for 'Help', 'Apply', and 'Cancel' are located on the right side of the form.

The Router keeps time by connecting to a Network Time Protocol (NTP) server. This allows the Router to synchronize the system clock to the Internet. The synchronized clock in the Router is used to record the security log and control client filtering. Select the time zone that you reside in. If you reside in an area that observes Daylight Saving, then check the checkbox for *Enable* Daylight Saving. The system clock may not update immediately. Allow at least 15 minutes for the router to contact the time servers on the Internet and get a response. You cannot set the clock yourself.

You can specify which NTP servers the Router will use to update the system clock, although doing this should only be necessary if you are experiencing difficulty.

Ping The ping tool is used to test if the network is working properly.

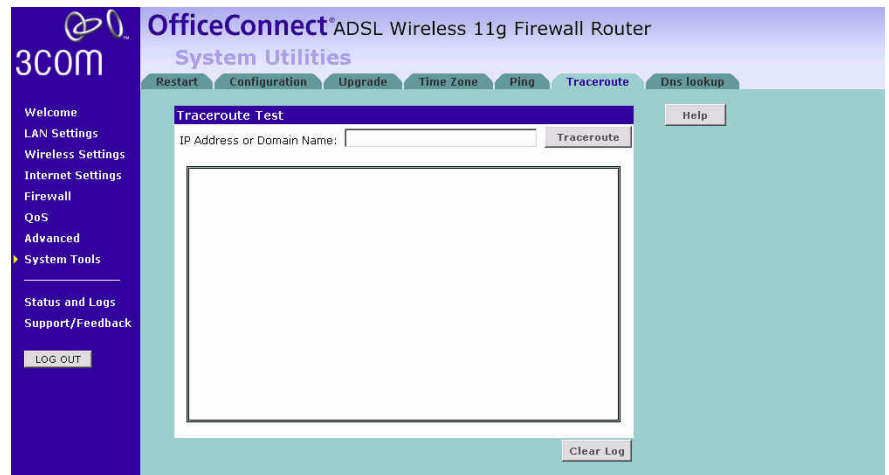
Figure 82 Ping Screen



- 1 Enter the IP address or domain name in the *IP Address or Domain Name* field, and click *Ping*.
- 2 Select from the *Number of times to Ping* drop-down menu.
- 3 The Router keeps a log of the ping test, click *Clear Log* to delete the records.

Traceroute Traceroute is the program that shows you the route over the network between two systems, listing all the intermediate routers a connection must pass through to get to its destination. It can help you determine why your connections to a given server might be poor, and can often help you figure out where exactly the problem is. It also shows you how systems are connected to each other, letting you see how your ISP connects to the Internet as well as how the target system is connected.

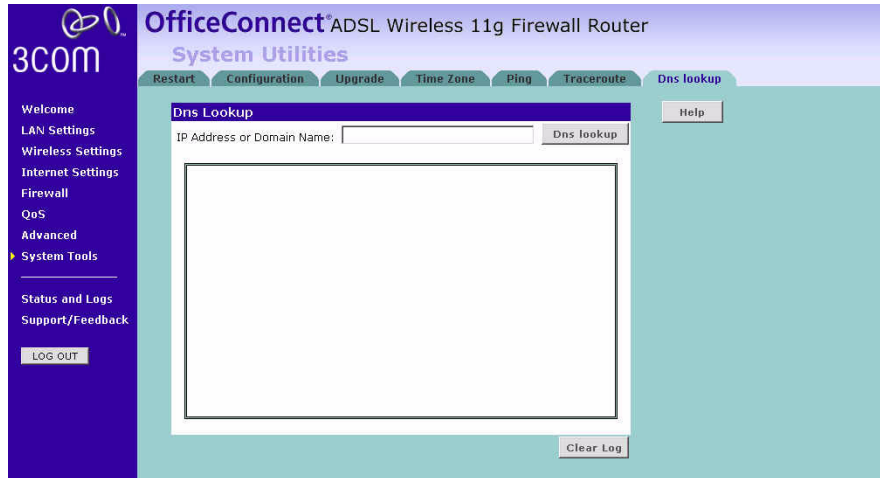
Figure 83 Traceroute Screen



- 1 Enter the IP address or domain name in the *IP Address or Domain Name* field, and click *Traceroute*.
- 2 The Router keeps a log of the trace route test, click *Clear Log* to delete the records.

DNS Lookup DNS Lookup is the process of resolving an IP address (i.e. 192.168.11.137) to a host name (i.e. xxxcompany.net).

Figure 84 DNS Lookup Screen

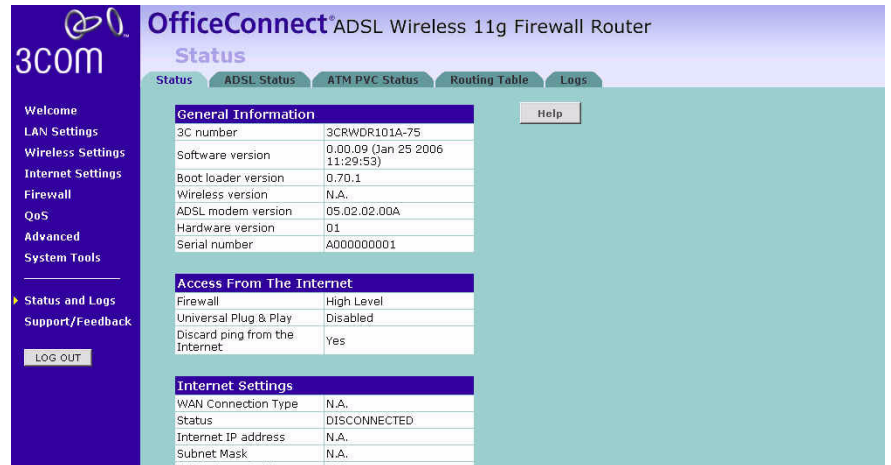


- 1 Enter the IP address or domain name in the *IP Address or Domain Name* field, and click *Dns lookup*.
- 2 The Router keeps a log of the DNS lookup test, click *Clear Log* to delete the records.

Status and Logs

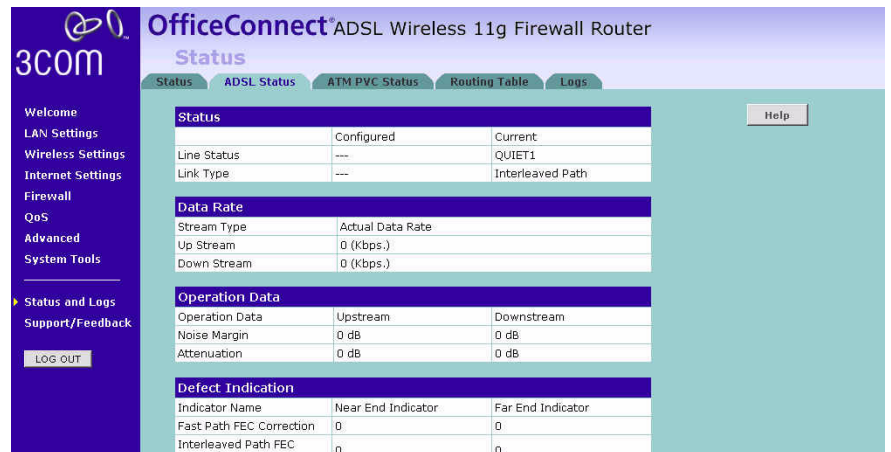
You can use the Status Screen to view version numbers for your Router's software and hardware and check the status of connections to WAN, LAN and WLAN interfaces.

Status Figure 85 Status Screen



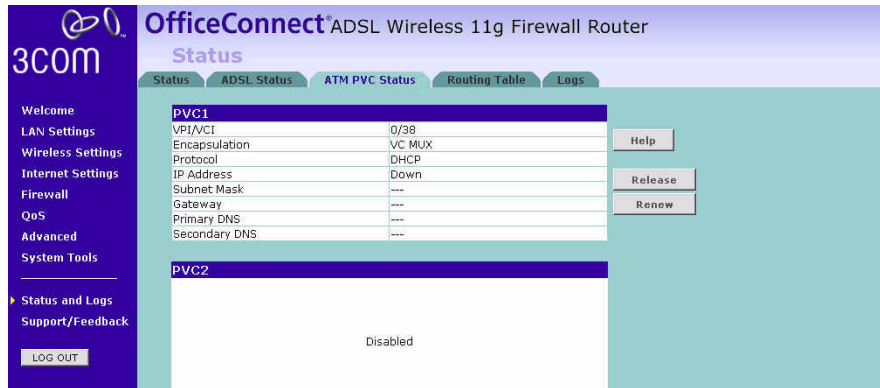
This screen shows Router status and statistics.

ADSL Status Figure 86 ADSL Status Screen



This screen shows ADSL modem status and statistics.

ATM PVC Status Figure 87 ATM PVC Status Screen

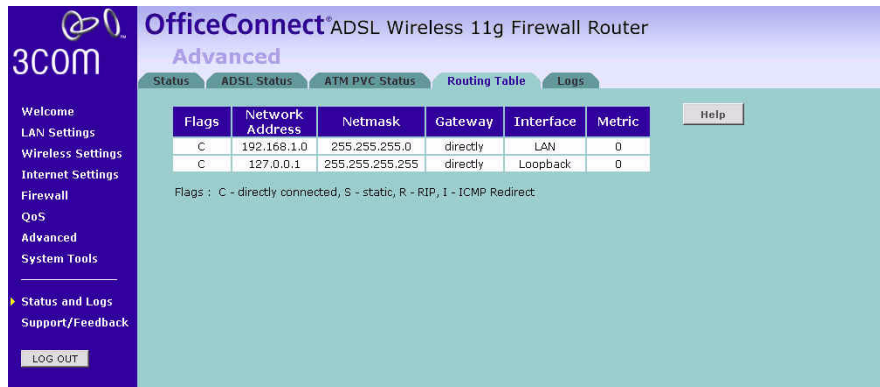


This screen shows ATM PVC status and statistics.

- Click *Release* to release the IP address from your ISP.
- Click *Renew* to obtain the IP address from your ISP.

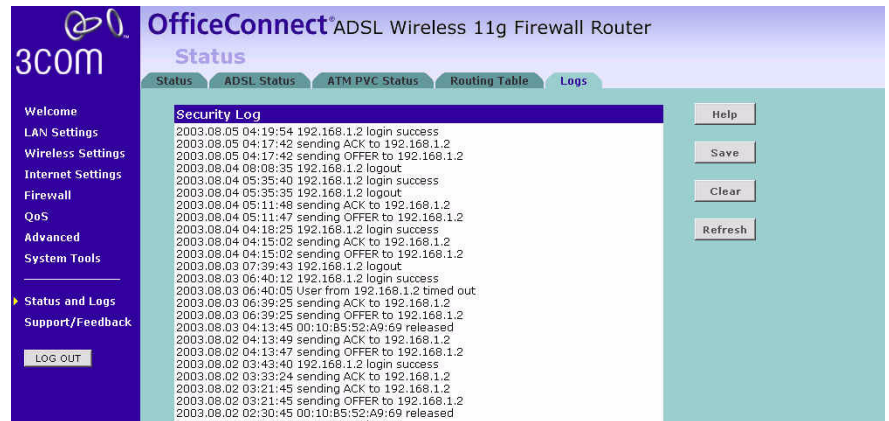
Routing Table This screen displays details for the default routing used by your Router and any routing created using Static Routing or RIP.

Figure 88 Routing Table Screen



Logs This screen shows any attempts that have been made to gain access to your network as well as the system activities.

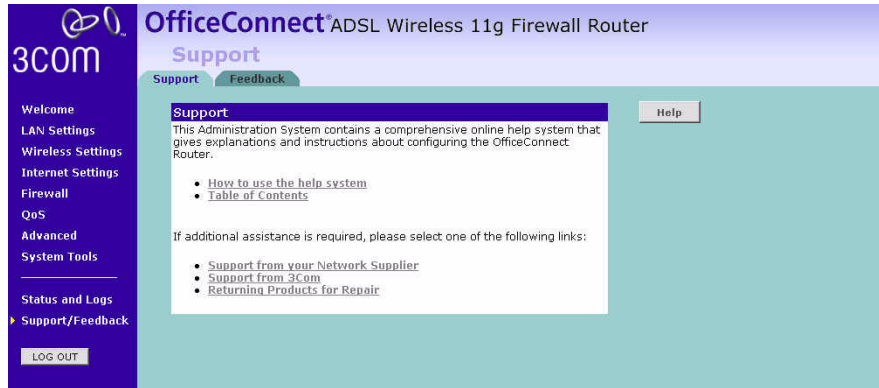
Figure 89 Logs Screen



- Click *Refresh* to update the record.
- Click *Clear* to clear the log (note that all current entries will be erased).
- Click *Save* to save the log to the hard disk as a text file. When prompted for a location to save the file to, specify a filename and location, and then click *OK*.

Support/Feedback

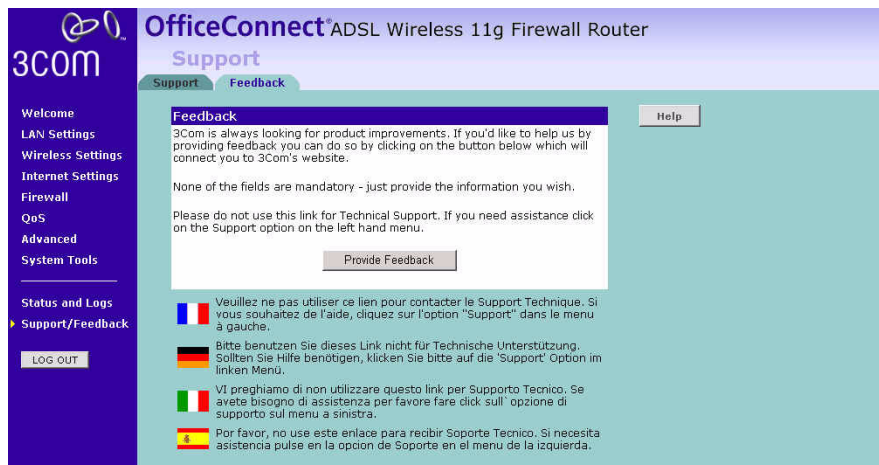
You can use the Support/Feedback screen to obtain support and help, and also provide feedback to 3Com.

Support **Figure 90** Support Screen

This screen shows support information.

Feedback

To provide feedback to 3Com, please click *Provide Feedback*, and this will connect you to 3Com Web site.

Figure 91 Feedback Screen

This screen shows feedback information.

6

TROUBLESHOOTING

Basic Connection Checks

- Check that the Router is connected to your computers and to the telephone line, and that all the equipment is powered on. Check that the LAN Status and SYNC LEDs on the Router are illuminated, and that any corresponding LEDs on the NIC are also illuminated.
- Ensure that the computers have completed their start-up procedure and are ready for use. Some network interfaces may not be correctly initialized until the start-up procedure has completed.
- If the link status LED does not illuminate for a port that is connected, check that you do not have a faulty cable. Try a different cable.

Browsing to the Router Configuration Screens

If you have connected your Router and computers together but cannot browse to the Router configuration screens, check the following:

- Confirm that the physical connection between your computer and the Router is OK, and that the LAN Status LEDs on the Router and network adapter are illuminated and indicating the same speed (10Mbps or 100Mbps). Some NICs do not have status LEDs, in which case a diagnostic program may be available that can give you this information.
- Ensure that you have configured your computer as described in [Chapter 3](#). Restart your computer while it is connected to the Router to ensure that your computer receives an IP address.
- When entering the address of the Router into your web browser, ensure that you use the full URL including the `http://` prefix (e.g. **`http://192.168.1.1`**).
- Ensure that you do not have a Web proxy enabled on your computer. Go to the *Control Panel* and click on *Internet Options*. Select the *Connections* tab and click on the *LAN Settings* button at the bottom. Make sure that the *Proxy Server* option is unchecked.

- If you cannot browse to the Router, use the *winipcfg* utility in Windows 98/ME to verify that your computer has received the correct address information from the Router. From the *Start* menu, choose *Run* and then enter **winipcfg**. Check that the computer has an IP address of the form 192.168.1.xxx (where xxx is in the range 2-254), the subnet mask is 255.255.255.0, and the default Router is 192.168.1.1 (the address of the Router). If these are not correct, use the *Release* and *Renew* functions to obtain a new IP address from the Router. Under Windows 2000 and Windows XP, use the *ipconfig* command-line utility to perform the same functions.

Connecting to the Internet

If you can browse to the Router configuration screens but cannot access web sites on the Internet, check the following:

- Confirm that the physical connection between the Router and the telephone line is OK, and that the DSL LED on the Router is illuminated.
- Ensure that you have entered the correct information into the Router configuration screens as required by your Internet Service Provider. Use the Internet Settings screen to verify this.
- Check that the PPPoE or PPPoA user name and password are correct.
- Ensure that your computers are not configured to use a Web proxy. On Windows computers, this can be found under *Control Panel > Internet Options > Connections*.

Forgotten Password and Reset to Factory Defaults

If you can browse to the Router configuration screen but cannot log on because you do not know or have forgotten the password, follow the steps below to reset the Router to its factory default configuration.



CAUTION: *All your configuration changes will be lost, and you will need to run the configuration wizard again before you can re-establish your Router connection to the Internet. Also, other computer users will lose their network connections whilst this process is taking place, so choose a time when this would be convenient.*

- 1 Power off the Router.
- 2 Disconnect all your computers and the telephone line from the Router.
- 3 Re-apply power to the Router, and wait for it to finish booting up.

- 4 Press and hold the *Reset* button on the rear panel (see [“The rear panel \(Figure 4\) of the Router contains four LAN ports, one ADSL port, a reset button, a power switch, and a power adapter socket.”](#) on [page 15](#)) for 5 seconds.
- 5 The Router will restart, and when the start-up sequence has completed, browse to:
`http://192.168.1.1`
and run the configuration wizard. You may need to restart your computer before you attempt this.
- 6 When the configuration wizard has completed, you may reconnect your network as it was before.

Wireless Networking

- Ensure that you have an 802.11b or 802.11g wireless adapter for each wireless computer, and that it is correctly installed and configured. Verify that each Wireless computer has either Windows 98 or higher or MAC OS 8.5 or higher.
- Verify that your wireless computers are configured to work in Infrastructure mode and not Ad Hoc mode. The Router contains an Access Point that is designed to operate in Infrastructure mode. Ad Hoc mode is not supported by the Router.
- If you have a wired and a wireless NIC in the same computer, ensure that the wired NIC is disabled.
- Check the status of the WLAN LED, it should be lit if wireless is enabled and will flash when there is wireless activity. If not lit go to [“Wireless Settings”](#) on [page 43](#) and enable wireless networking.
- Ensure that the TCP/IP settings for all devices are correct.
- Ensure that the Wireless Clients are using the same SSID or Service Area Name as the Router. The SSID is case-sensitive
- Ensure that the encryption method and level that you use on your clients are the same as those configured on the Router. The Router cannot simultaneously support WPA and WEP encryption.
- Ensure that you have the Wireless computer enabled in the list of allowed MAC addresses if you are using MAC Address Filtering on the Router.
- If you are having difficulty connecting or are operating at a low speed try changing the antenna positions on the rear of the Router. For more

effective coverage you can try reorientating your antennae. Place one antenna vertically and one horizontally to improve coverage. Additionally consider moving the wireless computer closer to the Router to confirm that the building structure or fittings are not adversely affecting the connectivity. If this resolves the problem consider relocating the Wireless computer or the Router, or trying a different channel on the Router.

- Sources of interference: The 2.4Ghz ISM band is used for 802.11b and 802.11g. This is generally a licence free band for low power applications, and you may have other devices at your location that operate in this frequency band. You should take care to ensure that there are no devices like microwave ovens for example close to the Router or wireless computers as this could affect receiver sensitivity and reduce the performance of your network. If you are unsure try relocating both the wireless computers and the Router to establish whether this problem exists.
- Most wireless computer Adapters will scan the channels for the wireless Router. If a wireless computer has not located the Router then try initiating a search manually if the client software supports this feature or manually set the channel on your wireless computer to correspond to the Router channel number. Please refer to your Wireless computer adapter documentation and vendor to do this.
- Speed of connection: The 802.11b and 802.11g standards will automatically choose the best speed depending on the quality of your connection. As the signal quality weakens then the speed falls back to a lower speed. The speeds supported by 802.11g are 54 Mbps, 48 Mbps, 36 Mbps, 24 Mbps, 18 Mbps, 12 Mbps, and 6 Mbps. The speeds supported by 802.11b are 11 Mbps, 5.5 Mbps, 2 Mbps and 1 Mbps. In general the closer you are to the Router the better the speed. If you are not achieving the speed you had anticipated then try moving the antenna on the Router or moving the Wireless computer closer to the Router. In an ideal network the Router should be located in the centre of the network with Wireless computers distributed around it. Applications are generally available with the computer wireless card to carry out a site survey. Use this application to find the optimal siting for your wireless computer. Consult your Computer Card documentation and vendor for more details.

Recovering from Corrupted Software

If the system software has become corrupted, the Router will enter a "recovery" state; DHCP is enabled, and the LAN IP address is set to 192.168.1.1. Follow the instructions below to upload a new copy of the system software to a Router unit in this state.

Ensure that one of your computers has a copy of the new software image file stored on its hard disk or available on CD-ROM.



The latest software is available on 3Com's Web site at:

www.3com.com

- 1** Remove power from the Router and disconnect the telephone line and all your computers, except for the one computer with the software image.
- 2** You will need to reconfigure this computer to obtain an IP address automatically (see "[Obtaining an IP Address Automatically](#)" on [page 23](#))
- 3** Restart the computer, and re-apply power to the Router.
- 4** Using the Web browser on the computer, enter the following URL in the location bar:

`http://192.168.1.1.`

This will connect you to the Recovery utility in the Router.
- 5** Follow the on-screen instructions. Enter the path and filename of the software image file.
- 6** When the upload has completed, the Router will restart, run the self-test and, if successful, resume normal operation.
- 7** Refer to the Installation Guide to reconnect your Router to the telephone line and the computers in your network. Do not forget to reconfigure the computer you used for the software upload.

If the Router does not resume normal operation following the upload, it may be faulty. Contact your supplier for advice.

Frequently Asked Questions

How do I reset the Router to Factory Defaults?

See [“Forgotten Password and Reset to Factory Defaults”](#) on page 104.

How many computers on the LAN does the Router support?

A maximum of 253 computers on the LAN are supported.

How many wireless clients does the Router support?

A maximum of 128 wireless clients are supported.

There are only 4 LAN ports on the Router. How are additional computers connected?

You can expand the number of connections available on your LAN by using hubs, switches and wireless access points connected to the Router. 3Com wireless access points and hubs and switches provide a simple, reliable means of expanding your network; contact your supplier for more information, or visit:

<http://www.3com.com/>

Does the Router support virtual private networks (VPNs)?

The Router supports VPN passthrough, which allows VPN clients on the LAN to communicate with VPN hosts on the Internet. It is also possible to set up VPN hosts on your LAN that clients elsewhere on the Internet can connect to, but this is not a recommended configuration.

Where can I download software updates for the Router?

Updates to the Router software are posted on the 3Com support web site, accessible by visiting:

<http://www.3com.com>

A

IP ADDRESSING

The Internet Protocol Suite

The Internet protocol suite consists of a well-defined set of communications protocols and several standard application protocols. Transmission Control Protocol/Internet Protocol (TCP/IP) is probably the most widely known and is a combination of two of the protocols (IP and TCP) working together. TCP/IP is an internationally adopted and supported networking standard that provides connectivity between equipment from many vendors over a wide variety of networking technologies.

Managing the Router over the Network

To manage a device over the network, the Router must be correctly configured with the following IP information:

- An IP address
- A Subnet Mask

IP Addresses and Subnet Masks

Each device on your network must have a unique IP address to operate correctly. An IP address identifies the address of the device to which data is being sent and the address of the destination network. IP addresses have the format n.n.n.x where n is a decimal number between 0 and 255 and x is a number between 1 and 254 inclusive.

However, an IP Address alone is not enough to make your device operate. In addition to the IP address, you need to set a subnet mask. All networks are divided into smaller sub-networks and a subnet mask is a number that enables a device to identify the sub-network to which it is connected.

For your network to work correctly, all devices on the network must have:

- The same sub-network address.
- The same subnet mask.



The only value that will be different is the specific host device number. This value must always be unique.

An example IP address is '192.168.100.8'. However, the size of the network determines the structure of this IP Address. In using the Router, you will probably only encounter two types of IP Address and subnet mask structures.

Type One

In a small network, the IP address of '192.168.100.8' is split into two parts:

- Part one ('192.168.100') identifies the network on which the device resides.
- Part two ('.8') identifies the device within the network.

This type of IP Address operates on a subnet mask of '255.255.255.0'.

See [Table 3](#) for an example about how a network with three computers and a Router might be configured.

Table 3 IP Addressing and Subnet Masking

Device	IP Address	Subnet Mask
PC 1	192.168.100.8	255.255.255.0
PC 2	192.168.100.33	255.255.255.0
PC 3	192.168.100.188	255.255.255.0
Router	192.168.100.72	255.255.255.0

Type Two

In larger networks, where there are more devices, the IP address of '192.168.100.8' is, again, split into two parts but is structured differently:

- Part one ('192.168') identifies the network on which the device resides.
- Part two ('.100.8') identifies the device within the network.

This type of IP Address operates on a subnet mask of '255.255.0.0'.

See [Table 4](#) for an example about how a network (only four computers represented) and a Router might be configured.

Table 4 IP Addressing and Subnet Masking

Device	IP Address	Subnet Mask
PC 1	192.168.100.8	255.255.0.0
PC 2	192.168.201.30	255.255.0.0
PC 3	192.168.113.155	255.255.0.0
PC 4	192.168.002.230	255.255.0.0
Router	192.168.002.72	255.255.0.0

How does a Device Obtain an IP Address and Subnet Mask?

There are three different ways to obtain an IP address and the subnet mask. These are:

- Dynamic Host Configuration Protocol (DHCP) Addressing
- Static Addressing
- Automatic Addressing (Auto-IP Addressing)

DHCP Addressing

The Router contains a DHCP server, which allows computers on your network to obtain an IP address and subnet mask automatically. DHCP assigns a temporary IP address and subnet mask which gets reallocated once you disconnect from the network.

DHCP will work on any client Operating System such as Windows® 95, Windows 98 or Windows NT 4.0. Also, using DHCP means that the same IP address and subnet mask will never be duplicated for devices on the network. DHCP is particularly useful for networks with large numbers of users on them.

Static Addressing

You must enter an IP Address and the subnet mask manually on every device. Using a static IP and subnet mask means the address is permanently fixed.

Auto-IP Addressing

Network devices use automatic IP addressing if they are configured to acquire an address using DHCP but are unable to contact a DHCP server. Automatic IP addressing is a scheme where devices allocate themselves

an IP address at random from the industry standard subnet of 169.254.x.x (with a subnet mask of 255.255.0.0). If two devices allocate themselves the same address, the conflict is detected and one of the devices allocates itself a new address.

Automatic IP addressing support was introduced by Microsoft in the Windows 98 operating system and is also supported in Windows 2000.

B

TECHNICAL SPECIFICATIONS

This section lists the technical specifications for the OfficeConnect ADSL Wireless 11g Firewall Router.

OfficeConnect ADSL Wireless 11g Firewall Router

Interfaces

DSL connection

LAN connection — four 10Mbps/100Mbps dual speed Ethernet ports (10BASE-T/100BASE-TX)

WLAN Interfaces

Standard IEEE 802.11g, Direct Sequence Spread Spectrum (DSSS)

Transmission rate: 54Mbps, automatic fallback to 48, 36, 24, 18, 12, or 6 Mbps

Maximum channels: 13

Range up to 304.8m (1000ft)

Operating Channel and Frequency:

USA - FCC

2412~2462MHz (Ch1~Ch11)

Canada - IC

2412~2462MHz (Ch1~Ch11)

Europe - ETSI

2412~2472MHz (Ch1~Ch13)

Spain

2457~2462MHz (Ch10~Ch11)

France

2457~2472MHz (Ch10~Ch13)

Japan - STD-T66/STD-33

2412~2484MHz (Ch1~Ch14)

Sensitivity: 6, 12, 18, 24, 36, 48 Mbps: -85 dBm;

54 Mbps -66 dBm typical

Modulation: CCK, BPSK, QPSK, OFDM

Encryption: 40/64 bit WEP, 128 bit WEP, WPA
Maximum clients: 128
O/P Power: 18dBm

Standard IEEE 802.11b, Direct Sequence Spread Spectrum (DSSS)
Transmission rate: 11bps, automatic fallback to 5.5, 2, or 1 Mbps
Maximum channels: 13
Range up to 304.8m (1000ft)
Operating Channel and Frequency:

USA - FCC

2412~2462MHz (Ch1~Ch11)

Canada - IC

2412~2462MHz (Ch1~Ch11)

Europe - ETSI

2412~2472MHz (Ch1~Ch13)

Spain

2457~2462MHz (Ch10~Ch11)

France

2457~2472MHz (Ch10~Ch13)

Japan - STD-T66/STD-33

2412~2484MHz (Ch1~Ch14)

Sensitivity: 1, 2, 5.5 Mbps: -85 dBm; 11 Mbps -82 dBm typical

Modulation: CCK, BPSK, QPSK

Encryption: 40/64 bit WEP, 128 bit WEP, WPA

Maximum clients: 128

O/P Power 16dBm

Operating Temperature

0 °C to 40 °C (32 °F to 105 °F)

Power

8VA, 25 BThU/hr

Humidity

0% to 90% (non-condensing) humidity

Dimensions

- Width = 220 mm (8.7 in.)
- Depth = 133 mm (5.2 in.)
- Height = 38 mm (1.5 in.)

Weight

Approximately 550 g (1.1 lbs)

Standards	Functional:	ISO 8802/3 IEEE 802.3 IEEE 802.11b, 802.11g
	Safety:	EN 60950
	EMC:	EN 55022 Class B EN 55024 FCC Part 15 Class B* ETSI EN 301 489-17
	Radio	ETS 300 328 (2.4 GHz ISM band wide band transmission systems.
	Environmental:	EN 60068 (IEC 68)

*See [“Regulatory Notices”](#) for conditions of operation.

System Requirements Operating Systems

The Router will support the following Operating Systems:

- Windows 98Se
- Windows NT 4.0
- Windows ME
- Windows 2000
- Windows XP
- Mac OS 8.5 or higher
- Unix

Ethernet Performance The Router complies to the IEEE 802.3i, u and x specifications.

- Cable Specifications** The Router supports the following cable types and maximum lengths:
- Category 3 (Ethernet) or Category 5 (Fast Ethernet or Dual Speed Ethernet) Twisted Pair — shielded and unshielded cable types.
 - Maximum cable length of 100m (327.86 ft).

C

SAFETY INFORMATION

Important Safety Information



WARNING: Warnings contain directions that you must follow for your personal safety. Follow all directions carefully. You must read the following safety information carefully before you install or remove the unit:



WARNING: The Router generates and uses radio frequency (rf) energy. In some environments, the use of rf energy is not permitted. The user should seek local advice on whether or not rf energy is permitted within the area of intended use.



WARNING: Exceptional care must be taken during installation and removal of the unit.



WARNING: To ensure compliance with international safety standards, only use the power adapter that is supplied with the unit.



WARNING: The socket outlet must be near to the unit and easily accessible. You can only remove power from the unit by disconnecting the power cord from the outlet.



WARNING: This unit operates under SELV (Safety Extra Low Voltage) conditions according to IEC 60950. The conditions are only maintained if the equipment to which it is connected also operates under SELV conditions.



WARNING: There are no user-replaceable fuses or user-serviceable parts inside the Router. If you have a physical problem with the unit that cannot be solved with problem solving actions in this guide, contact your supplier.



WARNING: Disconnect the power adapter before moving the unit.



WARNING: RJ-45 ports. These are shielded RJ-45 data sockets. They cannot be used as telephone sockets. Only connect RJ-45 data connectors to these sockets.

Wichtige Sicherheitshinweise



VORSICHT: Warnhinweise enthalten Anweisungen, die Sie zu Ihrer eigenen Sicherheit befolgen müssen. Alle Anweisungen sind sorgfältig zu befolgen.

Sie müssen die folgenden Sicherheitsinformationen sorgfältig durchlesen, bevor Sie das Gerat installieren oder ausbauen:



VORSICHT: Der Router erzeugt und verwendet Funkfrequenz (RF). In manchen Umgebungen ist die Verwendung von Funkfrequenz nicht gestattet. Erkundigen Sie sich bei den zustandigen Stellen, ob die Verwendung von Funkfrequenz in dem Bereich, in dem der Bluetooth Access Point eingesetzt werden soll, erlaubt ist.



VORSICHT: Bei der Installation und beim Ausbau des Gerats ist mit hochster Vorsicht vorzugehen.



VORSICHT: Aufgrund von internationalen Sicherheitsnormen darf das Gerat nur mit dem mitgelieferten Netzadapter verwendet werden.



VORSICHT: Die Netzsteckdose mu in der Nahe des Gerats und leicht zuganglich sein. Die Stromversorgung des Gerats kann nur durch Herausziehen des Geratenetzkabels aus der Netzsteckdose unterbrochen werden.



VORSICHT: Der Betrieb dieses Gerats erfolgt unter den SELV-Bedingungen (Sicherheitskleinstspannung) gema IEC 60950. Diese Bedingungen sind nur gegeben, wenn auch die an das Gerat angeschlossenen Gerate unter SELV-Bedingungen betrieben werden.



VORSICHT: Es sind keine von dem Benutzer zu ersetzende oder zu wartende Teile in dem Gerät vorhanden. Wenn Sie ein Problem mit dem Router haben, das nicht mittels der Fehleranalyse in dieser Anleitung behoben werden kann, setzen Sie sich mit Ihrem Lieferanten in Verbindung.



VORSICHT: Vor dem Ausbau des Geräts das Netzadapterkabel herausziehen.



VORSICHT: RJ-45-Anschlüsse. Dies sind abgeschirmte RJ-45-Datenbuchsen. Sie können nicht als Telefonanschlußbuchsen verwendet werden. An diesen Buchsen dürfen nur RJ-45-Datenstecker angeschlossen werden.

Consignes importantes de sécurité



AVERTISSEMENT: Les avertissements présentent des consignes que vous devez respecter pour garantir votre sécurité personnelle. Vous devez respecter attentivement toutes les consignes. Nous vous demandons de lire attentivement les consignes suivantes de sécurité avant d'installer ou de retirer l'appareil:



AVERTISSEMENT: La Router fournit et utilise de l'énergie radioélectrique (radio fréquence -rf). L'utilisation de l'énergie radioélectrique est interdite dans certains environnements. L'utilisateur devra se renseigner sur l'autorisation de cette énergie dans la zone prévue.



AVERTISSEMENT: Faites très attention lors de l'installation et de la dépose du groupe.



AVERTISSEMENT: Pour garantir le respect des normes internationales de sécurité, utilisez uniquement l'adaptateur électrique remis avec cet appareil.



AVERTISSEMENT: La prise secteur doit se trouver à proximité de l'appareil et son accès doit être facile. Vous ne pouvez mettre l'appareil hors circuit qu'en débranchant son cordon électrique au niveau de cette prise.



AVERTISSEMENT: L'appareil fonctionne à une tension extrêmement basse de sécurité qui est conforme à la norme CEI 60950. Ces

conditions ne sont maintenues que si l'équipement auquel il est raccordé fonctionne dans les mêmes conditions.



AVERTISSEMENT: *Il n'y a pas de parties remplaçables par les utilisateurs ou entretenues par les utilisateurs à l'intérieur du moyeu. Si vous avez un problème physique avec le moyeu qui ne peut pas être résolu avec les actions de la résolution des problèmes dans ce guide, contacter votre fournisseur.*



AVERTISSEMENT: *Débranchez l'adaptateur électrique avant de retirer cet appareil.*



AVERTISSEMENT: Ports RJ-45. *Il s'agit de prises femelles blindées de données RJ-45. Vous ne pouvez pas les utiliser comme prise de téléphone. Branchez uniquement des connecteurs de données RJ-45 sur ces prises femelles.*

D

END USER SOFTWARE LICENSE AGREEMENT

3Com Corporation END USER SOFTWARE LICENSE AGREEMENT

YOU SHOULD CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS BEFORE DOWNLOADING, INSTALLING AND USING THIS PRODUCT, THE USE OF WHICH IS LICENSED BY 3COM CORPORATION ("3COM") TO ITS CUSTOMERS FOR THEIR USE ONLY AS SET FORTH BELOW. DOWNLOADING, INSTALLING OR OTHERWISE USING ANY PART OF THE SOFTWARE OR DOCUMENTATION INDICATES THAT YOU ACCEPT THESE TERMS AND CONDITIONS. IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT, DO NOT DOWNLOAD, INSTALL OR OTHERWISE USE THE SOFTWARE OR DOCUMENTATION, DO NOT CLICK ON THE "I AGREE" OR SIMILAR BUTTON. AND IF YOU HAVE RECEIVED THE SOFTWARE AND DOCUMENTATION ON PHYSICAL MEDIA, RETURN THE ENTIRE PRODUCT WITH THE SOFTWARE AND DOCUMENTATION UNUSED TO THE SUPPLIER WHERE YOU OBTAINED IT.

LICENSE: 3Com grants you a nonexclusive, nontransferable (except as specified herein) license to use the accompanying software program(s) in executable form (the "Software") and accompanying documentation (the "Documentation"), subject to the terms and restrictions set forth in this Agreement. You are not permitted to lease, rent, distribute or sublicense (except as specified herein) the Software or Documentation or to use the Software or Documentation in a time-sharing arrangement or in any other unauthorized manner. Further, no license is granted to you in the human readable code of the Software (source code). Except as provided below, this Agreement does not grant you any rights to patents, copyrights, trade secrets, trademarks, or any other rights with respect to the Software or Documentation.

Subject to the restrictions set forth herein, the Software is licensed to be used on any workstation or any network server owned by or leased to you, for your internal use, provided that the Software is used only in connection with this 3Com product. You may reproduce and provide one (1) copy of the Software and Documentation for each such workstation or network server on which the Software is used as permitted hereunder. Otherwise, the Software and Documentation may be copied only as essential for backup or archive purposes in support of your use of the Software as permitted hereunder. Each copy of the Software and Documentation must contain 3Com's and its licensors' proprietary rights and copyright notices in the same form as on the original. You agree not to remove or deface any portion of any legend provided on any licensed program or documentation delivered to you under this Agreement.

ASSIGNMENT; NO REVERSE ENGINEERING: You may transfer the Software, Documentation and the licenses granted herein to another party in the same country in which you obtained the Software and Documentation if the other party agrees in writing to accept and be bound by the terms and conditions of this Agreement. If you transfer the Software and Documentation, you must at the same time either transfer all copies of the Software and Documentation to the party or you must destroy any copies not transferred. Except as set forth above, you may not assign or transfer your rights under this Agreement.

Modification, reverse engineering, reverse compiling, or disassembly of the Software is expressly prohibited. However, if you are a European Union ("EU") resident, information necessary to achieve interoperability of the Software with other programs within the meaning of the EU Directive on the Legal Protection of Computer Programs is available to you from 3Com upon written request.

EXPORT RESTRICTIONS: The Software, including the Documentation and all related technical data (and any copies thereof) (collectively "Technical Data"), is subject to United States Export control laws and may be subject to export or import regulations in other countries. In addition, the Technical Data covered by this Agreement may contain data encryption code which is unlawful to export or transfer from the United States or country where you legally obtained it without an approved U.S. Department of Commerce export license and appropriate foreign export or import license, as required. You agree that you will not export or re-export the Technical Data (or any copies thereof) or any products utilizing the Technical Data in violation of any applicable laws or regulations of the United States or the country where you legally obtained it. You are responsible for obtaining any licenses to export, re-export or import the Technical Data.

In addition to the above, the Product may not be used, exported or re-exported (i) into or to a national or resident of any country to which the U.S. has embargoed; or (ii) to any one on the U.S. Commerce Department's Table of Denial Orders or the U.S. Treasury Department's list of Specially Designated Nationals.

TRADE SECRETS; TITLE: You acknowledge and agree that the structure, sequence and organization of the Software are the valuable trade secrets of 3Com and its suppliers. You agree to hold such trade secrets in confidence. You further acknowledge and agree that ownership of, and title to, the Software and Documentation and all subsequent copies thereof regardless of the form or media are held by 3Com and its suppliers.

UNITED STATES GOVERNMENT LEGENDS: The Software, Documentation and any other technical data provided hereunder is commercial in nature

and developed solely at private expense. The Software is delivered as "Commercial Computer Software" as defined in DFARS 252.227-7014 (June 1995) or as a commercial item as defined in FAR 2.101(a) and as such is provided with only such rights as are provided in this Agreement, which is 3Com's standard commercial license for the Software. Technical data is provided with limited rights only as provided in DFAR 252.227-7015 (Nov. 1995) or FAR 52.227-14 (June 1987), whichever is applicable.

TERM AND TERMINATION: The licenses granted hereunder are perpetual unless terminated earlier as specified below. You may terminate the licenses and this Agreement at any time by destroying the Software and Documentation together with all copies and merged portions in any form. The licenses and this Agreement will also terminate immediately if you fail to comply with any term or condition of this Agreement. Upon such termination you agree to destroy the Software and Documentation, together with all copies and merged portions in any form.

LIMITED WARRANTIES AND LIMITATION OF LIABILITY: All warranties and limitations of liability applicable to the Software are as stated on the Limited Warranty Card or in the product manual, whether in paper or electronic form, accompanying the Software. Such warranties and limitations of liability are incorporated herein in their entirety by this reference.

GOVERNING LAW: This Agreement shall be governed by the laws of the State of California, U.S.A. excluding its conflicts of laws principles and excluding the United Nations Convention on Contracts for the International Sale of Goods.

SEVERABILITY: In the event any provision of this Agreement is found to be invalid, illegal or unenforceable, the validity, legality and enforceability of any of the remaining provisions shall not in any way be affected or impaired and a valid, legal and enforceable provision of similar intent and economic impact shall be substituted therefor.

ENTIRE AGREEMENT: This Agreement sets forth the entire understanding and agreement between you and 3Com and supersedes all prior agreements, whether written or oral, with respect to the Software and Documentation, and may be amended only in a writing signed by both parties.

Should you have any questions concerning this Agreement or if you desire to contact 3Com for any reason, please contact the 3Com subsidiary serving your country, or write:

3Com Corporation, 350 Campus Drive, Marlborough, MA. USA 01752-3064

D

OBTAINING SUPPORT FOR YOUR PRODUCT

Register Your Product

Warranty and other service benefits start from the date of purchase, so it is important to register your product quickly to ensure you get full use of the warranty and other service benefits available to you.

Warranty and other service benefits are enabled through product registration. Register your product at <http://eSupport.3com.com/>. 3Com eSupport services are based on accounts that you create or have authorization to access. First time users must apply for a user name and password that provides access to a number of eSupport features including Product Registration, Repair Services, and Service Request. If you have trouble registering your product, please contact 3Com Global Services for assistance.

Purchase Value-Added Services

To enhance response times or extend warranty benefits, contact 3Com or your authorized 3Com reseller. Value-added services like 3Com ExpressSM and GuardianSM can include 24x7 telephone technical support, software upgrades, onsite assistance or advance hardware replacement. Experienced engineers are available to manage your installation with minimal disruption to your network. Expert assessment and implementation services are offered to fill resource gaps and ensure the success of your networking projects. More information on 3Com maintenance and Professional Services is available at www.3com.com.

Contact your authorized 3Com reseller or 3Com for a complete list of the value-added services available in your area.

Troubleshoot Online

You will find support tools posted on the 3Com Web site at www.3com.com.

3Com Knowledgebase helps you troubleshoot 3Com products. This query-based interactive tool is located at <http://knowledgebase.3com.com> and contains thousands of technical solutions written by 3Com support engineers.

Access Software Downloads

Software Updates are the bug fix/maintenance releases for the version of software initially purchased with the product. In order to access these Software Updates you must first register your product on the 3Com Web site at <http://eSupport.3com.com/>

First time users will need to apply for a user name and password. A link to software downloads can be found at <http://eSupport.3com.com/>, or under the Product Support heading at www.3com.com.

Software Upgrades are the feature releases that follow the software version included with your original product. In order to access upgrades and related documentation you must first purchase a service contract from 3Com or your reseller.

Telephone Technical Support and Repair

To enable telephone support and other service benefits, you must first register your product at <http://eSupport.3com.com/>

Warranty and other service benefits start from the date of purchase, so it is important to register your product quickly to ensure you get full use of the warranty and other service benefits available to you.

When you contact 3Com for assistance, please have the following information ready:

- Product model name, part number, and serial number
- Proof of purchase, if you have not pre-registered your product
- A list of system hardware and software, including revision level
- Diagnostic error messages
- Details about recent configuration changes, if applicable

To send a product directly to 3Com for repair, you must first obtain a return authorization number (RMA). Products sent to 3Com, without authorization numbers clearly marked on the outside of the package, will be returned to the sender unopened, at the sender's expense. If your product is registered and under warranty, you can obtain an RMA number online at <http://eSupport.3com.com/>. First time users will need to apply for a user name and password.

Contact Us

3Com offers telephone, e-mail and internet access to technical support and repair services. To access these services for your region, use the appropriate telephone number, URL or e-mail address from the list below.

Telephone numbers are correct at the time of publication. Find a current directory of contact information posted on the 3Com Web site at <http://csoweb4.3com.com/contactus/>

Country	Telephone Number	Country	Telephone Number
Asia, Pacific Rim Telephone Technical Support and Repair			
Australia	1 800 678 515	Philippines	1235 61 266 2602 or 1800 1 888 9469
Hong Kong	800 933 486	P.R. of China	800 810 3033
India	+61 2 9424 5179 or 000800 650 1111	Singapore	800 6161 463
Indonesia	001 803 61009	S. Korea	080 333 3308
Japan	00531 616 439 or 03 3507 5984	Taiwan	00801 611 261
Malaysia	1800 801 777	Thailand	001 800 611 2000
New Zealand	0800 446 398		
Pakistan	+61 2 9937 5083		
You can also obtain support in this region using the following e-mail: apr_technical_support@3com.com			
Or request a repair authorization number (RMA) by fax using this number:			+ 65 543 6348

Europe, Middle East, and Africa Telephone Technical Support and Repair

From anywhere in these regions, call: +44 (0)1442 435529

From the following countries, you may use the numbers shown:

Country	Telephone Number	Country	Telephone Number
Austria	0800 297 468	Luxembourg	800 23625
Belgium	0800 71429	Netherlands	0800 0227788
Denmark	800 17309	Norway	800 11376
Finland	0800 113153	Poland	00800 4411 357
France	0800 917959	Portugal	800 831416
Germany	0800 182 1502	South Africa	0800 995 014
Hungary	06800 12813	Spain	900 938 919
Ireland	1 800 553 117	Sweden	020 795 482
Israel	1800 945 3794	Switzerland	0800 553 072
Italy	800 879489	U.K.	0800 096 3266

You can also obtain support in this region using the following URL:

<http://emea.3com.com/support/email.html>

Latin America Telephone Technical Support and Repair

Antigua Barbuda	AT&T +800 988 2112	Guadalupe	AT&T +800 998 2112
Argentina Local Number	54 11 5556 3200	Guatemala	AT&T +800 998 2112
Argentina	0 810 444 3COM	Guyana	AT&T +800 998 2112
Argentina	810 44 32 66	Haiti	AT&T +800 998 2112
Aruba	AT&T +800 998 2112	Honduras	AT&T +800 998 2112
Bahamas	AT&T +800 998 2112	Jamaica	AT&T +800 998 2112
Barbados	AT&T +800 998 2112	Mexico Local Number	52 55 52 01 00 04
Belize	AT&T +800 998 2112	Mexico	01 800 849CARE
Bermuda	AT&T +800 998 2112	Mexico	01 800 849 2273
Bolivia	AT&T +800 998 2112	Montserrat	AT&T +800 998 2112
Brazil Local Number	55 11 5643 2700	Nicaragua	AT&T +800 998 2112
Brazil	800 133 266	Panama	AT&T +800 998 2112
British Virgin Islands	AT&T +800 998 2112	Paraguay	AT&T +800 998 2112
Cayman Islands	AT&T +800 998 2112	Peru	AT&T +800 998 2112
Chile	AT&T +800 998 2112	Puerto Rico	AT&T +800 998 2112
Columbia Local Number	57 1 592 5000	Saba Anquila	AT&T +800 998 2112
Colombia	800 011 3266	St. Kitts Neives	AT&T +800 998 2112
Costa Rica	AT&T +800 998 2112	St. Lucia	AT&T +800 998 2112
Curacao	AT&T +800 998 2112	St. Vincent	AT&T +800 998 2112
Dominica	AT&T +800 998 2112	Suriname	AT&T +800 998 2112
Dominique	AT&T +800 998 2112	Trinidad and Tobago	AT&T +800 998 2112
Equador	AT&T +800 998 2112	Turks and Caycos	AT&T +800 998 2112
El Salvador	AT&T +800 998 2112	Uruguay - Montevideo	AT&T +800 998 2112
French Guiana	AT&T +800 998 2112	Venezuela	AT&T +800 998 2112
Grenada	AT&T +800 998 2112	Virgin Islands	AT&T +800 998 2112

You can also obtain support in this region using the following:

Spanish speakers, enter the URL:

<http://lat.3com.com/lat/support/form.html>

Portuguese speakers, enter the URL:

<http://lat.3com.com/br/support/form.html>

English speakers in Latin America should send e-mail to:

lat_support_anc@3com.com

Country	Telephone Number	Country	Telephone Number
US and Canada Telephone Technical Support and Repair			
1 800 876 3266			

GLOSSARY

802.11b The IEEE specification for wireless Ethernet which allows speeds of up to 11 Mbps. The standard provides for 1, 2, 5.5 and 11 Mbps data rates. The rates will switch automatically depending on range and environment.

802.11g The IEEE specification for wireless Ethernet which allows speeds of up to 54 Mbps. The standard provides for 6, 12, 24, 36, 48 and 54 Mbps data rates. The rates will switch automatically depending on range and environment.

10BASE-T The IEEE specification for 10 Mbps Ethernet over Category 3, 4 or 5 twisted pair cable.

100BASE-TX The IEEE specification for 100 Mbps Fast Ethernet over Category 5 twisted-pair cable.

Access Point An Access Point is a device through which wireless clients connect to other wireless clients and which acts as a bridge between wireless clients and a wired network, such as Ethernet. Wireless clients can be moved anywhere within the coverage area of the access point and still connect with each other. If connected to an Ethernet network, the access point monitors Ethernet traffic and forwards appropriate Ethernet messages to the wireless network, while also monitoring wireless client radio traffic and forwarding wireless client messages to the Ethernet LAN.

Ad Hoc mode Ad Hoc mode is a configuration supported by most wireless clients. It is used to connect a peer to peer network together without the use of an access point. It offers lower performance than infrastructure mode, which is the mode the router uses. (see also Infrastructure mode.)

- Auto-negotiation** Some devices in the range support auto-negotiation. Auto-negotiation is where two devices sharing a link, automatically configure to use the best common speed. The order of preference (best first) is: 100BASE-TX full duplex, 100BASE-TX half duplex, 10BASE-T full duplex, and 10BASE-T half duplex. Auto-negotiation is defined in the IEEE 802.3 standard for Ethernet and is an operation that takes place in a few milliseconds.
- Bandwidth** The information capacity, measured in bits per second, that a channel can transmit. The bandwidth of Ethernet is 10 Mbps, the bandwidth of Fast Ethernet is 100 Mbps. The bandwidth for 802.11b wireless is 11Mbps.
- Category 3 Cables** One of five grades of Twisted Pair (TP) cabling defined by the EIA/TIA-586 standard. Category 3 is voice grade cable and can only be used in Ethernet networks (10BASE-T) to transmit data at speeds of up to 10 Mbps.
- Category 5 Cables** One of five grades of Twisted Pair (TP) cabling defined by the EIA/TIA-586 standard. Category 5 can be used in Ethernet (10BASE-T) and Fast Ethernet networks (100BASE-TX) and can transmit data up to speeds of 100 Mbps. Category 5 cabling is better to use for network cabling than Category 3, because it supports both Ethernet (10 Mbps) and Fast Ethernet (100 Mbps) speeds.
- Channel** Similar to any radio device, the Wireless Cable/DSL router allows you to choose different radio channels in the wireless spectrum. A channel is a particular frequency within the 2.4GHz spectrum within which the Router operates.
- Client** The term used to described the desktop PC that is connected to your network.
- DHCP** Dynamic Host Configuration Protocol. This protocol automatically assigns an IP address for every computer on your network. Windows 95, Windows 98 and Windows NT 4.0 contain software that assigns IP addresses to workstations on a network. These assignments are made by the DHCP server software that runs on Windows NT Server, and Windows 95 and Windows 98 will call the server to obtain the address. Windows 98 will allocate itself an address if no DHCP server can be found.

- DNS Server Address** DNS stands for Domain Name System, which allows Internet host computers to have a domain name (such as 3com.com) and one or more IP addresses (such as 192.34.45.8). A DNS server keeps a database of host computers and their respective domain names and IP addresses, so that when a domain name is requested (as in typing "3com.com" into your Internet browser), the user is sent to the proper IP address. The DNS server address used by the computers on your home network is the location of the DNS server your ISP has assigned.
- DSL modem** DSL stands for digital subscriber line. A DSL modem uses your existing phone lines to send and receive data at high speeds.
- Encryption** A method for providing a level of security to wireless data transmissions. The Router uses two levels of encryption; 40/64 bit and 128 bit. 128 bit is a more powerful level of encryption than 40/64 bit.
- ESSID** Extended Service Set Identifier. The ESSID is a unique identifier for your wireless network. You must have the same ESSID entered into the router and each of it's wireless clients.
- Ethernet** A LAN specification developed jointly by Xerox, Intel and Digital Equipment Corporation. Ethernet networks use CSMA/CD to transmit packets at a rate of 10 Mbps over a variety of cables.
- Ethernet Address** See MAC address.
- Fast Ethernet** An Ethernet system that is designed to operate at 100 Mbps.
- Firewall** Electronic protection that prevents anyone outside of your network from seeing your files or damaging your computers.
- Full Duplex** A system that allows packets to be transmitted and received at the same time and, in effect, doubles the potential throughput of a link.
- Half Duplex** A system that allows packets to be transmitted and received, but not at the same time. Contrast with full duplex.

- Hub** A device that regenerates LAN traffic so that the transmission distance of that signal can be extended. Hubs are similar to repeaters, in that they connect LANs of the same type; however they connect more LANs than a repeater and are generally more sophisticated.
- IEEE** Institute of Electrical and Electronics Engineers. This American organization was founded in 1963 and sets standards for computers and communications.
- IETF** Internet Engineering Task Force. An organization responsible for providing engineering solutions for TCP/IP networks. In the network management area, this group is responsible for the development of the SNMP protocol.

Infrastructure mode Infrastructure mode is the wireless configuration supported by the Router. You will need to ensure all of your clients are set up to use infrastructure mode in order for them to communicate with the Access Point built into your Router. (see also Ad Hoc mode)

- IP** Internet Protocol. IP is a layer 3 network protocol that is the standard for sending data through a network. IP is part of the TCP/IP set of protocols that describe the routing of packets to addressed devices. An IP address consists of 32 bits divided into two or three fields: a network number and a host number or a network number, a subnet number, and a host number.

IP Address Internet Protocol Address. A unique identifier for a device attached to a network using TCP/IP. The address is written as four octets separated with periods (full-stops), and is made up of a network section, an optional subnet section and a host section.

IPsec IP Security. Provides IP network-layer encryption. IPsec can support large encryption networks (such as the Internet) by using digital certificates for device authentication. When setting up an IPsec connection between two devices, make sure that they support the same encryption method.

ISP Internet Service Provider. An ISP is a business that provides connectivity to the Internet for individuals and other businesses or organizations.

- LAN** Local Area Network. A network of end stations (such as PCs, printers, servers) and network devices (hubs and switches) that cover a relatively small geographic area (usually not larger than a floor or building). LANs are characterized by high transmission speeds over short distances (up to 1000 metres).
- MAC** Media Access Control. A protocol specified by the IEEE for determining which devices have access to a network at any one time.
- MAC Address** Media Access Control Address. Also called the hardware or physical address. A layer 2 address associated with a particular network device. Most devices that connect to a LAN have a MAC address assigned to them as they are used to identify other devices in a network. MAC addresses are 6 bytes long.
- NAT** Network Address Translation. NAT enables all the computers on your network to share one IP address. The NAT capability of the Router allows you to access the Internet from any computer on your home network without having to purchase more IP addresses from your ISP.
- Network** A Network is a collection of computers and other computer equipment that are connected for the purpose of exchanging information or sharing resources. Networks vary in size, some are within a single room, others span continents.
- Network Interface Card (NIC)** A circuit board installed into a piece of computing equipment, for example, a computer, that enables you to connect it to the network. A NIC is also known as an adapter or adapter card.
- Protocol** A set of rules for communication between devices on a network. The rules dictate format, timing, sequencing and error control.
- PPPoE** Point-to-Point Protocol over Ethernet. Point-to-Point Protocol is a method of data transmission originally created for dial-up connections; PPPoE is for Ethernet connections.
- PPTP** Point-to-Point Tunneling Protocol is a method of secure data transmission between two remote sites over the internet.

- RJ-45** A standard connector used to connect Ethernet networks. The “RJ” stands for “registered jack”.
- Router** A device that acts as a central hub by connecting to each computer's network interface card and managing the data traffic between the local network and the Internet.
- Server** A computer in a network that is shared by multiple end stations. Servers provide end stations with access to shared network services such as computer files and printer queues.
- SSID** Service Set Identifier. Some vendors of wireless products use SSID interchangeably with ESSID.
- Subnet Address** An extension of the IP addressing scheme that allows a site to use a single IP network address for multiple physical networks.
- Subnet mask** A subnet mask, which may be a part of the TCP/IP information provided by your ISP, is a set of four numbers configured like an IP address. It is used to create IP address numbers used only within a particular network (as opposed to valid IP address numbers recognized by the Internet, which must be assigned by InterNIC).
- Subnets** A network that is a component of a larger network.
- Switch** A device that interconnects several LANs to form a single logical LAN that comprises of several LAN segments. Switches are similar to bridges, in that they connect LANs of a different type; however they connect more LANs than a bridge and are generally more sophisticated.
- TCP/IP** Transmission Control Protocol/Internet Protocol. This is the name for two of the most well-known protocols developed for the interconnection of networks. Originally a UNIX standard, TCP/IP is now supported on almost all platforms, and is the protocol of the Internet.
- TCP relates to the content of the data travelling through a network — ensuring that the information sent arrives in one piece when it reaches its destination. IP relates to the address of the end station to which data is being sent, as well as the address of the destination network.

Traffic	The movement of data packets on a network.
universal plug and play	Universal plug and play is a system which allows compatible applications to read some of their settings from the Router. This allows them to automatically configure some, or all, of their settings and need less user configuration.
URL Filter	A URL Filter is a feature of a firewall that allows it to stop its clients from browsing inappropriate Web sites.
WAN	Wide Area Network. A network that connects computers located in geographically separate areas (for example, different buildings, cities, or countries). The Internet is an example of a wide area network.
WDS	Wireless Distribution System. WDS enables one or more Access Points to rebroadcast received signals to extend range and reach, though this can affect the overall throughput of data.
WECA	Wireless Ethernet Compatibility Alliance. An industry group formed to certify cross vendor interoperability and compatibility of 802.11b and 802.11g wireless networking products and to promote the standard for enterprise, small business and home environments. (see also 802.11b, 802.11g, Wi-Fi)
WEP	Wired Equivalent Privacy. A shared key encryption mechanism for wireless networking. Encryption strength is 40/64 bit or 128 bit.
Wi-Fi	Wireless Fidelity. This is the certification granted by WECA to products that meet their interoperability criteria. (see also 802.11b, WECA)
Wireless Client	The term used to describe a desktop or mobile PC that is wirelessly connected to your wireless network.
Wireless LAN Service Area	Another term for ESSID (Extended Service Set Identifier).
Wizard	A Windows application that automates a procedure such as installation or configuration.

WLAN Wireless Local Area Network. A WLAN is a group of computers and devices connected together by wireless in a relatively small area (such as a house or office).

WPA Wi-Fi Protected Access. A dynamically changing encryption mechanism for wireless networking. Encryption strength is 256 bit.

REGULATORY NOTICES

FOR THE OFFICECONNECT ADSL WIRELESS 11G FIREWALL ROUTER

GENERAL STATEMENTS

The 3Com OfficeConnect ADSL 11g Firewall Router, Model Number: WL-552 (3CRWDR100A-72, 3CRWDR100A-72, 3CRWDR100A-72) must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

This product contains encryption. It is unlawful to export out of the U.S. without obtaining a U.S. Export License.

This product does not contain any user serviceable components. Any unauthorized product changes or modifications will invalidate 3Com's warranty and all applicable regulatory certifications and approvals.

EXPOSURE TO RADIO FREQUENCY RADIATION

This device generates and radiates radio-frequency energy. In order to comply with FCC radio-frequency exposure guidelines for an uncontrolled environment, this equipment must be installed and operated while maintaining a minimum body to antenna distance of 20 cm (approximately 8 in).

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hc-sc.gc.ca/rpb.

This product must maintain a minimum body to antenna distance of 20 cm. Under these conditions this product will meet the Basic Restriction limits of 1999/519/EC [Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)].

US - RADIO FREQUENCY REQUIREMENTS

This device must not be co-located or operated in conjunction with any other antenna or transmitter.

US FEDERAL COMMUNICATIONS COMMISSION (FCC) EMC COMPLIANCE

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

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

The user may find the following booklet prepared by the Federal Communications Commission helpful: The Interference Handbook

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 004-000-0034504.

3Com is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this 3Com OfficeConnect ADSL 11g Firewall Router, Model Number: WL-552 (3CRWDR100A-72, 3CRWDR100A-72, 3CRWDR100A-72), or the substitution or attachment of connecting cables and equipment other than specified by 3Com.

The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

Changes or modifications not expressly approved by 3Com could void the user's authority to operate this equipment.

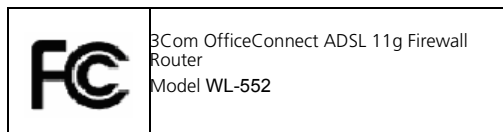
US MANUFACTURER'S FCC DECLARATION OF CONFORMITY

3Com Corporation
350 Campus Drive
Marlborough, MA 01752-3064, USA
(508) 323-5000
Date: July 19, 2005

Declares that the Product:

Brand Name: 3Com Corporation
Model Number: WL-552
Equipment Type: OfficeConnect ADSL 11g Firewall Router

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



INDUSTRY CANADA - RF COMPLIANCE

This device complies with RSS 210 of Industry Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

L' utilisation de ce dispositif est autorisee seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l' utilisateur du dispositif doit etre pret a accepter tout brouillage radioelectrique recu, meme si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication. To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empecher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit etre utilise a l'interieur et devrait etre place loin des fenetres afin de Fournir un ecran de blindage maximal. Si le materiel (ou son antenne d'emission) est installe a l'exterieur, il doit faire l'objet d'une licence.

INDUSTRY CANADA - EMISSIONS COMPLIANCE STATEMENT

This Class B digital apparatus complies with Canadian ICES-003.

AVIS DE CONFORMITÉ À LA RÉGLEMENTATION D'INDUSTRIE CANADA

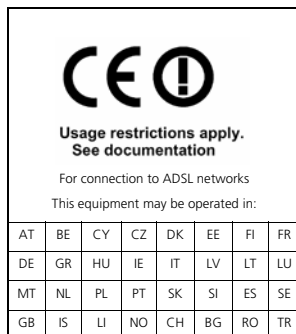
Cet appareil numérique de la classe B est conform à la norme NMB-003 du Canada.

SAFETY COMPLIANCE NOTICE

This device has been tested and certified according to the following safety standards and is intended for use only in Information Technology Equipment which has been tested to these or other equivalent standards:

- UL Standard 60950 (3rd Edition) or 60950
- CAN/CSA C22.2 No. 60950 or 60950
- IEC 60950
- EN 60950

EU COMPLIANCE



Intended use: ADSL 802.11g/b Firewall Router

For connection to ADSL networks

NOTE: To ensure product operation is in compliance with local regulations, select the country in which the product is installed. Refer to 3CRWDR100A-72, 3CRWDR100A-72, 3CRWDR100A-72 User Guide.

English	Hereby, 3Com Corporation, declares that this LAN device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Finnish	3Com Corporation vakuuttaa täten että LAN device tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Dutch	Hierbij verklaart 3Com Corporation dat het toestel LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG Bij deze verklaart 3Com Corporation dat deze LAN device voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
French	Par la présente 3Com Corporation déclare que l'appareil LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE Par la présente, 3Com Corporation déclare que ce LAN device est conforme aux exigences essentielles et aux autres dispositions de la directive 1999/5/CE qui lui sont applicables
Swedish	Härmed intygar 3Com Corporation att denna LAN device står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG
German	Hiermit erklärt 3Com Corporation, dass sich dieser/diese/dieses Managed Acccess Point in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMW) Hiermit erklärt 3Com Corporation die Übereinstimmung des Gerätes LAN device mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG. (Wien)
Greek	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ 3Com Corporation ΔΗΛΩΝΕΙ ΟΤΙ LAN device ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΑΕ
Italian	Con la presente 3Com Corporation dichiara che questo LAN device è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Spanish	Por medio de la presente 3Com Corporation declara que el LAN device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE
Portuguese	3Com Corporation declara que este LAN device está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Malti	Hawnhekk, 3Com Corporation, jiddikjara li dan LAN device jikkonforma mal-htgijiet essenzjali u ma provvedimenti orajn relevanti li hemm fid-Dirrettiva 1999/5/EC
Estonian	Käesolevaga kinnitab 3Com Corporation seadme LAN device vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Hungarian	Alulírótt, 3Com Corporation nyilatkozom, hogy a LAN device megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Slovak	3Com Corporation týmto vyhlasuje, že LAN device spĺňa základné po_iaadvky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Czech	3Com Corporation tímto prohlašuje, že tento LAN device je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Slovene	Šiuo 3Com Corporation deklaruoja, kad šis LAN device atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Lithuanian	Šiuo 3Com Corporation deklaruoja, kad šis LAN device atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Latvian	Ar šo 3Com Corporation deklarāc, ka LAN device atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

A copy of the signed Declaration of Conformity can be downloaded from the Product Support web page for the 3Com OfficeConnect ADSL 11g Firewall Router (3CRWDR100A-72, 3CRWDR100A-72, 3CRWDR100A-72) at <http://www.3com.com>.

**EU - RESTRICTIONS FOR USE
IN THE 2.4GHZ BAND**

This device may be operated indoors or outdoors in all countries of the European Community using the 2.4GHz band: Channels 1 - 13, except where noted below.

- In Italy the end-user must apply for a license from the national spectrum authority to operate this device outdoors.
- In Belgium outdoor operation is only permitted using the 2.46 - 2.4835 GHz band: Channel 13.
- In France outdoor operation is only permitted using the 2.4 - 2.454 GHz band: Channels 1 - 7.

BRAZIL RF COMPLIANCE

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não causar interferência a sistema operando em caráter primário.

INDEX

Numbers

128-bit WEP 46
128-bit WEP Screen 46
1483 Bridge Mode 55
64-bit WEP Screen 47

A

Access Control Screen 62
Add PC Screen 63
Add Schedule Rule Screen 65
Addresses
 IP 85
Admin Password Screen 75
ADSL Status Screen 77
Advanced Screen 68
Automatic Addressing 87

B

Backup/Restore Settings Screen 74
Bridge Mode for Single PC Screen 53
Bridged Mode Configuration Screen 33

C

Cable Specifications 91
Channels 111
Configuration Summary Screen 37
Connection Type Screen 29, 50
Conventions
 notice icons, About This Guide 8
 text, About This Guide 8

D

DDNS 70
DHCP 87
DHCP Clients List 42
DHCP server 25, 42
disabling 26
DMZ Screen 67
DNS 24

DNS Screen 55
DSL mode 29
Dynamic Domain Server (DDNS) Screen 70
Dynamic IP Address 34
Dynamic/Fixed IP for Bridge Mode Screen 35, 55
DYNDNS 70

E

Editing DHCP Clients List Screen 42
Encryption Screen 44
Encryption, disabling 45

F

Firewall Screen 59
Forgotten Password 80

H

Hostname
 configuring 56
Hostname and MAC Address Screen 56

I

Internet
 addresses 85
Internet Properties Screen 26
Internet Protocol (TCP/IP) Properties Screen 24
IP Address 41, 85
IPSEC 68

L

LAN Settings Screen 41
LED 14
LEDs 14
Local Area Properties Screen 24
Logs Screen 77

M

MAC Address 56

configuring 56
 MAC Address Filtering Screen 66
 mode 30

N

NAT (Network Address Translation) 68
 NAT-T (NAT Traversal) 68
 Network
 addresses 85
 Networking
 wireless 81
 NIC
 wireless 14

P

Password 27, 75
 Poison Reverse 58
 PPPoA 31
 PPPoA Screen 31
 PPPoA Settings Screen 52
 PPPoE 26, 30, 31
 PPPoE Screen 30
 PPPoE Settings Screen 51

R

Remote Admin 68
 Reset to Factory Default Screen 73
 Reset to Factory Defaults 80
 Restart Router Screen 73
 RFC 1483 Bridged Mode 32, 53
 RFC 1483 Routed Mode 34
 RIP (Routing Information Protocol) 57
 RIP Parameter Screen 58
 Router Login Screen 28
 Routing Mode Screen 34
 Routing Table Screen 59

S

Schedule Rule Screen 65
 Setup Wizard 27
 SNMP Community Screen 71
 SNMP Trap Screen 72
 Special Applications Screen 60
 Specifications
 technical 89
 SSID 31, 32, 33, 35, 36, 43
 Static Addressing 87
 Static Route Parameters Screen 57
 Status Screen 28, 40

Subnet Mask 85

T

TCP/IP 23, 25, 85
 Technical
 specifications 89
 standards 89
 Time and Time Zone screen 76
 TZO.com 70

U

Universal Plug and Play 68
 Upgrade Screen 74
 URL Blocking Screen 64

V

Virtual Servers Screen 61
 VPI/VCI 30, 32, 33, 34, 36

W

WAN Ping Blocking 68
 WDS 49
 Web Browser Location Field 27
 Web Proxy 26
 WiFi Protected Access 45, 48
 Wireless
 networking 81
 NIC 14
 Wireless Configuration Screen 43
 Wireless Settings Screen 31, 32, 33, 35, 36, 43
 Wireless WDS Settings Screen 49
 WPA (with RADIUS Server) Screen 48
 WPA-PSK (no server) Screen 45