



INTRODUCTION

About This Guide:

This Guide takes you through the basic steps necessary to install and configure your OfficeConnect Wireless Cable/DSL Gateway, and establish a connection from your computers to the Internet. Throughout this guide the OfficeConnect Wireless Cable/DSL Gateway is simply referred to as the Gateway.

Note: 3Com recommends that the Gateway is configured from a wired Ethernet computer during the initial set-up.

Your package contains:

- One OfficeConnect Wireless Cable/DSL Gateway
- One power adapter for use with the Gateway
- Four rubber feet
- One Ethernet cable
- One CD-ROM containing the Gateway Discovery program and the User Guide
- This Installation Guide
- One Support and Safety Information Sheet
- One Warranty Flyer

System Requirements

Before starting, you must ensure the following:

- You already have a cable or DSL broadband connection to the Internet, with a suitable modem, and that this connection works properly. The modem must have an Ethernet port for connection to your Gateway.
- You have a computer that has an Ethernet connection available and is already correctly configured for communication with the Internet. Your computer must be able to connect to the Internet via the modem, and must have a Web browser installed.
- There are no other DHCP server devices on your local network that are responsible for allocating IP addresses to your computers and other network-connected devices. Your Gateway will now perform this function by default.
- You have a computer with a wireless 802.11b adapter card installed.

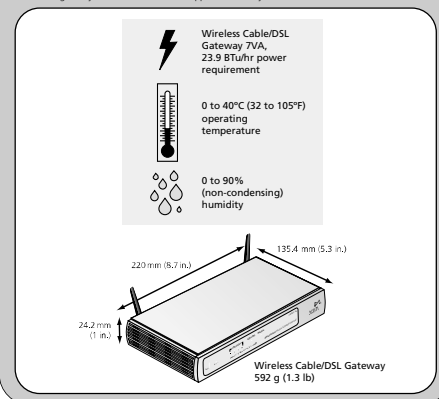
If one or more of these conditions are not met, refer to the comprehensive Gateway User Guide provided on the accompanying CD-ROM for further guidance.

DIMENSIONS AND STANDARDS

Dimensions and Operating Conditions

Standards	ISO 8802/3, IEEE 802.3, 802.3u, 802.11b, WiFi
Functional:	UL 1950, EN 60950, CSA 22.2 #950, IEC60950
Safety:	EN 55022 Class B, EN 55024, FCC Part 15 Class B*
EMC:	ICES-003 Class B, CNS 13438 Class A, ETS 300-826
Environmental:	EN 60068 (IEC 68)
Radio:	CFR47 FCC Part 15.207, 15.209, 15.247 and 15.249
	ETS 300 328 (2.4 Ghz ISM band Wide band transmission systems)

* Refer to Regulatory Notices section in the Support and Safety Information sheet



POSITIONING YOUR GATEWAY

Safety Information

- ⚠ **WARNING:** Please read the 'Important Safety Information' section in the Support and Safety Information sheet before you start.
- ⚠ **VORSICHT:** Bitte lesen Sie den Abschnitt 'Wichtige Sicherheitsinformationen' sorgfältig durch, bevor Sie das Gerät einschalten.
- ⚠ **AVERTISSEMENT:** Veuillez lire attentivement la section 'Consignes importantes de sécurité' avant de mettre en route.

When positioning your Gateway, ensure:

- The unit is centrally located to the wireless computers that will connect to the Gateway. A suitable location might be on top of a high shelf or similar furniture to optimise wireless connections to computers in both horizontal and vertical directions, allowing coverage throughout.
- It is out of direct sunlight and away from sources of heat.
- Cabling is away from power lines, fluorescent lighting fixtures, and sources of electrical noise such as radios, transmitters and broadband amplifiers.
- In order to meet FCC radiation exposure regulations the Gateway should be located in a position that maintains a minimum distance of 20 cm (8 inches) from any personnel (refer to the User Guide for details).
- Water or moisture cannot enter the case of the unit.
- Air flow around the unit and through the vents in the side of the case is not restricted. We recommend you provide a minimum of 25 mm (1 in.) clearance.

Using the Rubber Feet

Use the four self-adhesive rubber feet to prevent your Gateway from moving around on your desk or when stacking with other flat top OfficeConnect units. Only stick the feet to the marked areas at each corner of the underside of your Gateway.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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 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.

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

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

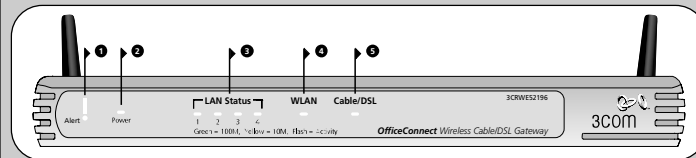
IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

ABOUT YOUR GATEWAY

Wireless Cable/DSL Gateway - Front



1 Alert LED (orange)

Indicates a number of different conditions, as described below.

Off - The Gateway is operating normally.

Flashing quickly - Indicates one of the following conditions:

- The Gateway has just been started up and is running a self-test routine, or
- The administrator has invoked the *Reset to Factory Defaults* command, or
- The system software is in the process of being upgraded

In each of these cases, wait until the Gateway has completed the current operation and the alert LED is Off.

Flashing slowly - The Gateway has completed the *Reset to Factory Defaults* process, and is waiting for you to reset the unit. To do this, remove power, wait 10 seconds and then re-apply power. The Gateway will then enter

the start-up sequence and resume normal operation.

On for 2 seconds, and then off - The Gateway has detected and prevented a hacker from attacking your network from the Internet.

Continuously on - A fault has been detected with your Gateway during the start-up process. Refer to the main User Guide.

2 Power LED (green)

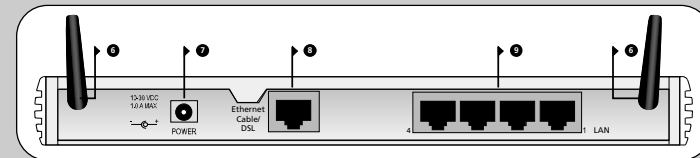
Indicates that the Gateway is powered on.

3 Four LAN Status LEDs

green (100Mbps link) / yellow (10Mbps link)

If the LED is on, the link between the port and the next piece of network equipment is OK. If the LED is flashing, the link is OK and data is being transmitted or received. If the LED is off, nothing is connected, or the connected device is switched off, or there is a problem with the connection (refer to the "Problem Solving" section). The port will automatically adjust to the correct speed and duplex.

Wireless Cable/DSL Gateway - Rear



4 Wireless LAN (WLAN) Status LED (yellow)

If the LED is on it indicates that wireless networking is enabled. If the LED is flashing, the link is OK and data is being transmitted or received. If the LED is off, the Wireless LAN has been disabled in the Gateway, or there is a problem (refer to the User Guide).

5 Cable/DSL Status LED

green (100Mbps link) / yellow (10Mbps link)

If the LED is on, the link between the Gateway and the cable or DSL modem is OK. If the LED is flashing, the link is OK and data is being transmitted or received. If the LED is off, nothing is connected, the modem is switched off or there is a problem (refer to the "Problem Solving" section).

6 Wireless Antennae

The antennae on the product should be placed in a "V" position when initially installed.

7 Power Adapter socket

Only use the power adapter that is supplied with this Gateway. Do not use any other adapter.

8 Ethernet Cable/DSL port

The Ethernet Cable/DSL port is configured as MDI, for connection to your modem with the supplied straight-through patch cable. The port will automatically adjust to the correct speed and duplex.

9 Four 10/100 LAN ports

Using suitable RJ45 cable, you can connect your Gateway to a computer, or to any other piece of equipment that has an Ethernet connection (for example, a hub or a switch). The LAN ports are configured as MDIX, for connection to a computer with a straight through RJ-45 cable.



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1 INSTALLING YOUR GATEWAY

Connecting Your Gateway

1. Connect the power adapter to the Gateway and wait for the Alert LED to stop flashing.
2. Ensure that your modem and computer are both switched on.
3. Use the supplied cable to connect the Gateway's Ethernet Cable/DSL port to the modem. Check that the Cable/DSL Status LED lights.
4. Connect your computer to one of the 10/100 LAN ports on the Gateway. Check that the LAN Port Status LED lights.

Connecting to a Hub or Switch

To share your Gateway with more than four users you will need an additional Hub or Switch. To connect your Gateway to a Hub or Switch on the LAN side you must either:

- use a Hub or Switch with Auto MDIX ports, for example, the OfficeConnect Dual Speed Switch 8 Plus, or
- connect a straight-through cable to a Hub or Switch which has a cross-over port and set it to the "Uplink" or "MDI" position, or
- use a cross-over cable.

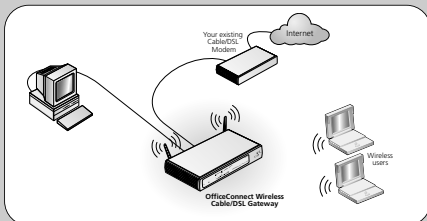


Figure 1 Example Network with OfficeConnect Wireless Cable/DSL Gateway.

2 CHANGING YOUR COMPUTER'S CONFIGURATION

You may need to make some changes to the configuration of your computers in order to communicate with the Gateway.

DSL users with PPPoE or PPTP Client Software

If you have PPPoE or PPTP client software installed on your computer, you will need to disable it. To do this:

1. From the Windows Start menu, select **Settings > Control Panel**.
2. Double click on **Internet Options**.
3. Select the **Connections** Tab. A screen similar to Figure 2 should be displayed.
4. Select the **Never Dial a Connection** option and click OK.

You may wish to remove the PPPoE client software from your computer to free resources, as it is not required for use with the Gateway.

Obtaining an IP Address automatically

Follow the instructions below for your particular operating system to ensure that your computers are configured to obtain an IP address automatically.

For computers using **Windows 2000**.

1. From the Windows Start Menu, select **Settings > Control Panel**.
2. Double click on **Network and Dial-Up connections**.
3. Double click on **Local Area Connection**.
4. Click on **Properties**.
5. A screen similar to Figure 3 should be displayed. Select **Internet Protocol TCP/IP** and click on **Properties**.
6. Ensure that the options **Obtain an IP Address automatically**, and **Obtain DNS servers automatically** are both selected as shown in Figure 4. Click OK.
7. Restart your computer.

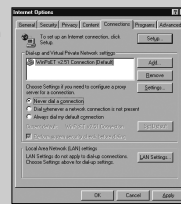


Figure 2

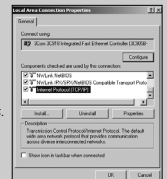


Figure 3

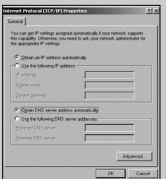


Figure 4

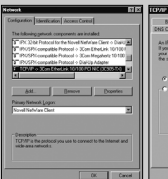


Figure 5



Figure 6

For computers using **Windows 95, 98 and ME**.

1. From the Windows Start Menu, select **Settings > Control Panel**.
2. Double click on **Network**. Select the **TCP/IP** item for your network card as shown in Figure 5 and click on **Properties**.
3. In the TCP/IP dialog, select the **IP Address** tab, and ensure that **Obtain IP address automatically** is selected as shown in Figure 6. Click OK.
4. Restart your computer.

For computers using **Windows XP**.

1. From the Windows Start menu, select **Control Panel**.
2. Click on **Network and Internet Connections**.
3. Click on the **Network Connections** icon.
4. Double click on **LAN or High Speed Connection** icon. A screen titled **Local Area Connection Status** will appear.
5. Select **Internet Protocol TCP/IP** and click on **Properties**.
6. Ensure that the options **Obtain an IP Address automatically**, and **Obtain DNS servers automatically** are both selected as shown in Figure 4. Click OK.
7. Restart your computer.

4 RUNNING THE SETUP WIZARD

1. If you haven't already done so, restart your computer.
2. Launch your web browser and attempt to contact the Gateway by typing the following URL in the location bar: **http://192.168.1.1**. If you can access the Login page, then your computer has correctly received an IP address from the Gateway.
3. Login using the default password **admin**. The Wizard will attempt to launch automatically, but if it fails, select the **Wizard** tab and click on the **Wizard...** button.
4. Where possible, the Wizard will recommend settings for most parameters. However, there are some settings which you must provide. Most of these will have been provided to you by your ISP when you set the account up.
5. By default, 3Com recommends that you leave the LAN IP address for the Gateway as 192.168.1.1. However, if you should choose to change it, make a note of the new address:

Gateway's LAN IP Address: _____

6. When the DHCP Server Settings page is displayed, make sure that the **Enable the DHCP Server with the following settings** option is selected.

Connecting to the Internet

When the Wizard has completed, attempt to browse to an Internet web site, such as **www.3com.com**. If you can successfully access this site, then your computer, Gateway and Cable/DSL modem have been correctly configured. Refer to the Problem Solving section if you cannot make contact with the Gateway or the Internet.

5 CONNECTING TO THE WIRELESS LAN

1. Now you have configured the Gateway via the wired computer, you can connect to the Gateway via a wireless computer. The Gateway and wireless clients must have both the same SSID and the same WEP settings. All wireless clients must use Infrastructure mode. The default wireless settings for the Gateway are:

Service Area Name / SSID is 3Com Channel 11 WEP Encryption is off.

2. If you do not have a Wireless LAN you can use the Gateway's default settings. Ensure that your wireless clients have the default SSID, channel and WEP as detailed above. If you have an existing Wireless LAN, configure the Gateway to use the same SSID and WEP settings to be compatible with your existing wireless network.

Service Area Name/SSID: _____
Channel Number: _____

3. If your computer has both a wired and wireless NIC installed, you must ensure that only one NIC is used to communicate with the LAN. To use the wireless NIC, unplug the Ethernet cable and reboot your computer.
4. Launch your web browser and attempt to browse to an internet web site such as **www.3com.com**. If you can successfully access this site, then your wireless computer, Gateway and Cable/DSL modem have been successfully configured.
5. 3Com strongly recommends that you enable WEP encryption to improve the security of your wireless network and you change the SSID to something other than the default. Consult the on line help or the User Guide for details.

PROBLEM SOLVING

If you are experiencing difficulties with your installation, try the following:

- **Ensure all networking equipment is switched on.** The Gateway should be showing a green Power LED. If it is not, check the power adapter connection. Do not use any power adapter with your Gateway other than the one supplied.
- **Ensure the Cable/DSL Modem is connected.** The Gateway should be displaying a green or yellow Cable/DSL Status LED. If no LED is displayed, check that your modem is switched on and that it is connected to the Cable/DSL port with an Ethernet cable.
- **Ensure that the computer is connected to the Gateway.** The Gateway should be displaying a green or yellow LAN Status LED. If it is not, check that the computer is connected to one of the Gateway's LAN ports with an Ethernet cable.
- **Ensure your computer is configured correctly.** Make sure that the computer obtains an IP address automatically. See Section 2 for details. Ensure that the NIC card is configured for autonegotiation.
- **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 **Use Proxy Server** option is unchecked.
- **If you are unable to access the Gateway's Web interface.** Launch a web browser and enter **http://192.168.1.1**. If you chose a different IP address, use that instead. Ensure that you include the **http://** prefix.
- **If you cannot remember the Gateway IP address.** Run the Gateway Discovery application from a wired computer. The application can be found on the CD-ROM. This will always connect you to the Gateway.
- **If you have connected your Gateway to a Switch and the Link LED is not lit.** Refer to Section 1 "Connecting to a Hub or Switch".

3 ISP CONNECTION METHODS

Before you can configure the Gateway you need to know the IP information allocation method used by your ISP. There are four different ways that ISPs allocate IP information, as described below:

1. Dynamic IP Address (DSL or Cable)

Dynamic IP addressing (or DHCP) automatically assigns the Gateway IP information. This method is popular with Cable providers. This method is also used if your modem has a built in DHCP server.

2. PPPoE (DSL only)

If the installation instructions that accompany your modem ask you to install a PPPoE client on your PC then select this option. Note that when you install the Gateway, you will not need to use the PPPoE software on your PC. To configure the Gateway you will need to know the following: Username, Password, and Service Name (if required by your ISP).

3. Static IP Address (DSL or Cable)

The ISP provides the IP addressing information for you to enter manually. To configure the Gateway you will need to know the following: IP Address, Subnet Mask, ISP Gateway Address, and DNS address(es).

4. PPTP (DSL or Cable)

PPTP is only used by some European providers. If the installation instructions that accompany your modem ask you to setup a dialup connection using a PPTP VPN tunnel then select this option. Note that when you install the Gateway, you will not need to use the dialup VPN on your PC anymore. To configure the Gateway you will need to know the following: Username, Password, Service Name (if required by your ISP), and VPN Server address (usually your modem).

You will be asked for the IP Allocation Mode when you run the Setup Wizard.

Cable Internet Connections.

- Some Cable providers authenticate to the user's computer MAC address. If this is required, go to **Internet Settings** and select **Clone the MAC Address**. This will copy the MAC address of your computer onto the Internet port of the Gateway.
- Some Cable providers authenticate to the user's Host Name. If this is required, go to **Internet Settings** and enter the host name of your computer into the **Host Name** field.

DSL Internet Connections.

- If you have an existing DSL line and have PPPoE or PPTP client software installed on your computer, you will need to disable it. See section 2.
- If your DSL line uses PPPoE or PPTP, go to **Internet Settings** and ensure that the correct **IP Allocation mode** is selected. Check that your **Username** and **Password** are correct.
- Some DSL providers require the use of a PPPoE Service Name. If this is required, go to **Internet Settings** and enter the PPPoE Service Name in the field provided. If it is not required, you must leave it blank.

Wireless Configuration. If you are unable to access the wireless LAN:

- Ensure that the wireless client is set to infrastructure mode.
- If you have a wired and wireless NIC in the same computer, ensure that the wired NIC is disabled. See section 5 for details.
- Ensure that the Service Area Name / SSID is the same for the wireless client and the Gateway.
- Ensure that the Gateway WLAN LED is on. If not, go to the **Wireless Settings** menu and enable **Wireless Networking**.
- Ensure that WEP (Wired Equivalent Privacy) is the same for the wireless client and the Gateway. If there are problems, turn WEP off in the client and the Gateway until you have established a wireless connection.