Wireless Cable Gateway CG3100

User Manual

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USA

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v1.0

P/N: Part Number TBD v1.0

Technical Support

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Table of Contents

Chapter 1 Connect to the Internet

Chapter 2 Wireless Configuration

Chapter 3 Content Filtering

Chapter 4 Manage Your Network

Chapter 5 Advanced Settings

Chapter 6 Troubleshooting

Appendix A Technical Specifications

Appendix B Notification of Compliance

Index

Connect to the Internet

1

This chapter describes how to configure your gateway's Internet connection and includes these sections:

- *Gateway Front Panel*
- *Gateway Rear Panel*
- *Log In to Your Gateway*
- *View the Gateway Status*

For information about product features and compatible NETGEAR products, see the NETGEAR website at *http://www.netgear.com*.

For information about the topics covered in this manual, visit the Support website at *http://support.netgear.com*

For help installing the gateway, see the *Wireless Cable Gateway CG3100 Quick Install Guide*

Note: For optimal performance, place the gateway vertically in the stand. Do not mount this unit to a wall; it is not suitable for wall mounting.

Gateway Front Panel

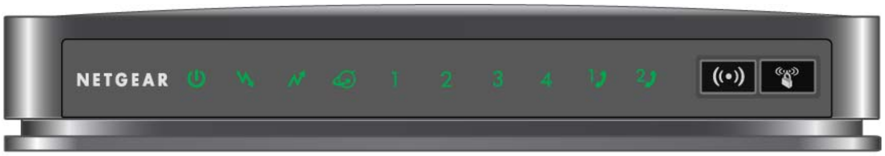


Figure 1. Gateway front view

You can use the LEDs to verify status and connections. The following table lists and describes each LED and button on the front panel of the gateway..

LED	Description
Power	• **Green**. Power is supplied to the cable modem. • **Blinking**. Power on self-test. • **Off**: No power.
Downstream	• **Green solid**. One or more downstream channels is locked. • **Green slow blink**. The unit is scanning for a downstream channel. • **Green blink**. Data is being transmitted or received. • **Off**: No downstream channel is locked.
Upstream	• **Green solid**. One or more upstream channels is locked. • **Green slow blink**. The unit is scanning for an upstream channel. • **Green blink**:. Data is being transmitted or received. • **Off**:. No upstream channel is locked.
Internet	• **Solid green**. The cable modem is online. • **Blinking**. The cable modem is synchronizing with the cable provider's CMTS. • **Off**. The cable modem is offline.
4 LAN (Ethernet)	Green indicates 1,000 Mbps. Amber indicates 100/10 Mbps. • **Solid**. An Ethernet device is connected and powered on. • **Blinking**. Data is being transmitted or received on the Ethernet port. • **Off**: No Ethernet device is detected on the Ethernet port.
Phone Port	• **Green Solid**. Registered with the Call Agent. • **Green Blink**. There is an active call. • **Green Slow Blink**. Phone is on-hook, registration with Call Agent is in progress. • **Off**. No phones are connected to the phone port.
Button	**Description**
((•)) Wireless On/Off	Turn the wireless radio in the gateway on and off. The wireless radio is on by default. The LED located below this button indicates if the wireless radio is on or off.
WPS	Pushing this button opens a 2-minute window for the gateway to connect with other WPS-enabled devices. For more information, about using the WPS method to implement security, see the *Push 'N' Connect (WPS) Wireless Setup* on page 12

Gateway Rear Panel

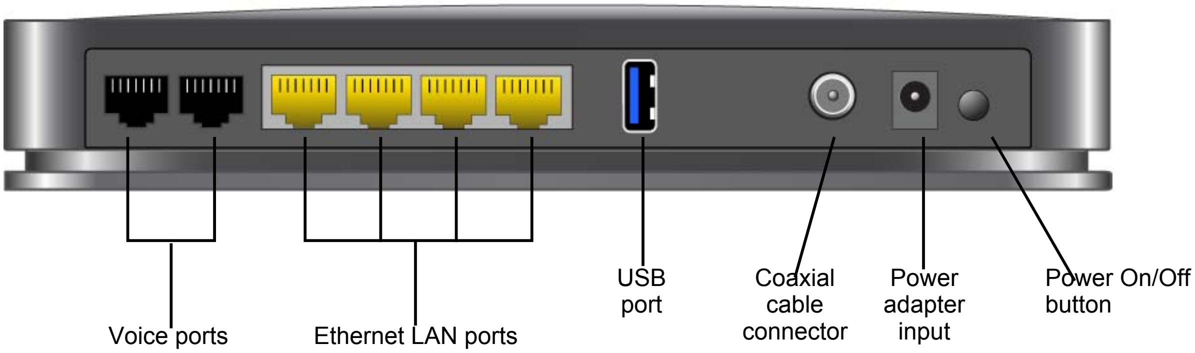


Figure 2. Gateway rear panel

The rear panel includes the following connections, viewed from left to right:

- **Two voice/phone ports.** WIth VoIP service, connect one or two handsets to these ports.
- **Four Gigabit-Ethernet LAN ports**. Use these ports to connect local computers.
- **USB port**: The USB port is a USB host and can be used for connecting a USB printer.

> ***Note:*** *USB functionality is only available with future firmware upgrades.*

- **Power**. Power adapter input.
- **Power On/Off button**.

> **Note:** You can return the gateway to its factory settings. On the bottom of the gateway, press and hold the Restore Factory Settings button ○ for over 7 seconds. The gateway resets, and returns to its factory settings. See *Factory Default Settings* in Appendix A.

Install the Voice Gateway

Installation is the four-step process summarized here and described in the headings that follow. Make sure you complete the installation in this order.

1. Check the Installation Requirements.
2. Cable the Gateway.
3. Log in to the Gateway.
4. Connect to the Internet.and VoIP.

After installation, set up the wireless connection as explained in *Chapter 2, Wireless Configuration*.

Check the Installation Requirements

Check the requirements listed below before installing the gateway:

- **Local Computer**. During installation, you need a local computer to connect to the gateway via Ethernet.
  - This computer should be set up to access the cable modem Internet service.
  - This computer must be set up to use DHCP to get its TCP/IP configuration from the gateway.
- **Cabling**. Use a Category 5 (CAT5) cable such as the one provided with your gateway for your LAN connections.
- **Cable Modem Service**. There must be active Data Over Cable Internet service provided by cable modem account.
- **Internet Service Provider (ISP) Configuration**. Depending on how the ISP set up the Internet account, you will need one or more of these configuration settings to connect the gateway to the Internet:
  - Host and Domain Names
  - ISP Domain Name Server (DNS) Addresses
  - Fixed or Static IP Address
- **Computers on the Network**. Each computer that will connect to the gateway must have either an installed Ethernet Network Interface Card (NIC), or 802.11b/g/n wireless adapter.

Cable the Gateway

To install the gateway, connect it to a computer by an Ethernet cable according to the guidelines below.

Ethernet Connection

If you are connecting a computer to the gateway with an Ethernet cable, following these instructions.

1. Turn off your computer.
2. Use the coaxial cable provided by your cable company to connect the wireless voice gateway cable port to your cable line splitter or outlet.
3. Connect the LAN port (for example, LAN port 4) on the gateway to your computer with the Ethernet cable included in the box.
4. Plug in the gateway and wait about 30 seconds for the lights to stop blinking.
5. Turn on your computer. If software usually logs you in to your Internet connection, do not run that software or cancel it if it starts automatically.

6. Verify the following:
    a. The power light ⏻ is lit after turning on the gateway.
    b. The Internet light is solid green, indicating a link has been established to the cable network.
    c. The LAN LED 4 is lit for the port where you connected the computer.

Log In to Your Gateway

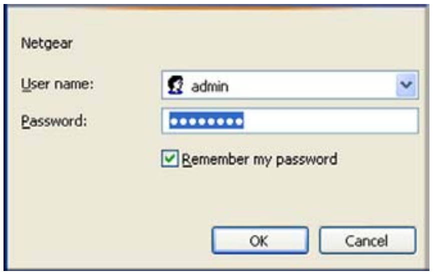
You can log in to the gateway to view its settings. A link to the documentation is also available in the gateway main menu.

Note: To connect to the gateway you must use a computer configured for DHCP (most computers are).

When you have logged in, if you do not click **Logout**, the gateway waits for 5 minutes after no activity before it automatically logs you out.

1. On the computer that is connected to the gateway with an Ethernet cable, type **http://192.168.1.1** in the address field of your Internet browser.

   A login window opens.



Netgear

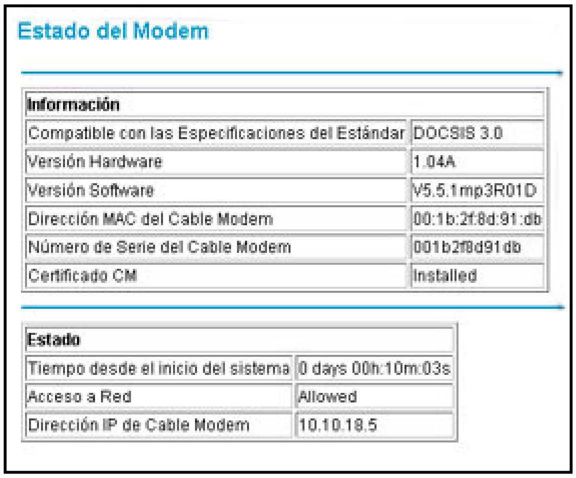
User name: admin

Password: ••••••••

☑ Remember my password

2. Log in with the user name **admin** and its default password of **password**.

   When you connect to the gateway the Gateway Status screen displays.



Estado del Modem

Información	
Compatible con las Especificaciones del Estándar	DOCSIS 3.0
Versión Hardware	1.04A
Versión Software	V5.5.1mp3R01D
Dirección MAC del Cable Modem	00:1b:2f:8d:91:db
Número de Serie del Cable Modem	001b2f8d91db
Certificado CM	Installed

Estado	
Tiempo desde el inicio del sistema	0 days 00h:10m:03s
Acceso a Red	Allowed
Dirección IP de Cable Modem	10.10.18.5

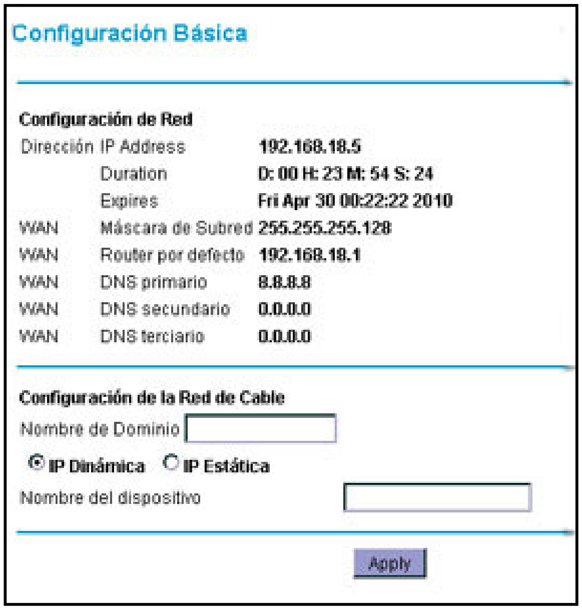
To view the gateway’s settings for the Internet connection, see the following section, *View the Gateway Status* on page 10.

Connect to the Internet and VoIP

If you have VoIP service, connect the phone to Voice Port 1☎. If your service includes a second line, you can connect that phone to Voice Port 2.

View the Gateway Status

The Gateway Status screen shows the network configuration for the gateway. Select **Gateway Status** from the main menu. The Network Configuration section is in the middle of the page.



Configuración Básica

Configuración de Red

Dirección IP Address		192.168.18.5
	Duration	D: 00 H: 23 M: 54 S: 24
	Expires	Fri Apr 30 00:22:22 2010
WAN	Máscara de Subred	255.255.255.128
WAN	Router por defecto	192.168.18.1
WAN	DNS primario	8.8.8.8
WAN	DNS secundario	0.0.0.0
WAN	DNS terciario	0.0.0.0

Configuración de la Red de Cable

Nombre de Dominio

◉ IP Dinámica ○ IP Estática

Nombre del dispositivo

Wireless Configuration

2

This chapter describes how to use the Wireless Settings screens to add devices and to view and change (if needed) your wireless network settings.

This chapter includes:

Connecting Devices

To wirelessly connect to the gateway, a computer or wireless device requires the same wireless settings as the gateway.

- The default wireless network name (SSID) for the gateway is shown on the product label. This product comes with a preconfigured Wi-Fi SSID and passphrase.
- By default the gateway works with WPA and WPA 2 wireless security. The default passphrase is shown on the product label.

To use Push 'N' Connect (WPS), your wireless computers and equipment have to support WPS technology.

Push 'N' Connect (WPS) Wireless Setup

Push 'N' Connect (WPS) can be a quick way to automatically set up your gateway’s wireless network and set up your wireless computer to connect to it at the same time. WPS, also called Wi-Fi Protected Setup, is a relatively new technology, so before you decide to use it, check to make sure your wireless computers and devices support WPS. Look for the symbol on all the computers that will connect wirelessly to the gateway.

If you do not see the symbol on all the computers that will connect to the wireless network, then you should manually set up your network first (see *Wireless Configuration*). After that, you can still use WPS to set up the wireless connection for the computers that support WPS.

Note: All WPS-capable products should be compatible with the gateway. For more detailed information about the WPS standard, see *http://www.wi-fi.org*).

To use Push 'N' Connect (WPS), your wireless computers and equipment must support WPS technology. There are two Push 'N' Connect methods, Push Button and PIN (personal identification number).

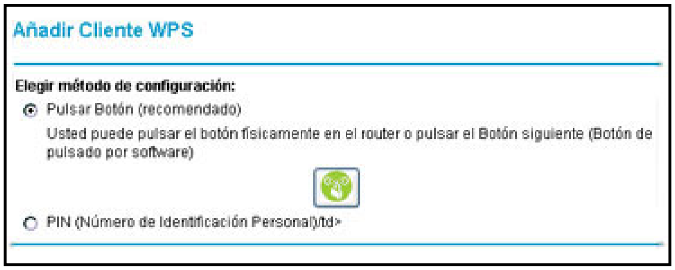
- **Push Button**. This is the preferred method.
- **PIN** described below.

WPS Button

You can use the WPS button to automatically set up wireless settings in your gateway and to set up your wireless computer to connect to it.

1. Make sure you know how WPS works on your computer or wireless device. If it works with WPS, it has a WPS utility and might also have a WPS button that you can press.

2. Select **Add WPS Client** and then click **Next**. The Add WPS Client screen displays:



Añadir Cliente WPS

Elegir método de configuración:

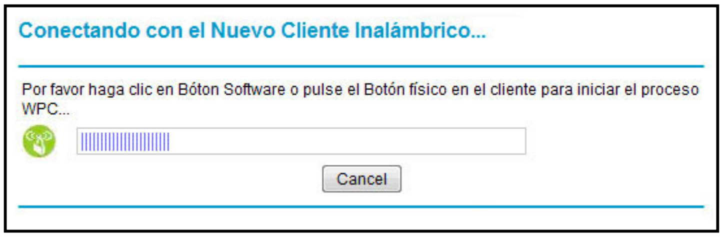
● Pulsar Botón (recomendado)

Usted puede pulsar el botón físicamente en el router o pulsar el Botón siguiente (Botón de pulsado por software)

○ PIN (Número de Identificación Personal)/td>

Any computer or wireless device that wirelessly connects to the gateway is a client. After it is added as a client, it will be able to automatically connect to the gateway.

3. Either click the WPS button, or press the button on the front of the gateway.



Conectando con el Nuevo Cliente Inalámbrico...

Por favor haga clic en Bóton Software o pulse el Botón físico en el cliente para iniciar el proceso WPC...

- The WPS LED on the front of the gateway begins to blink.
- The gateway tries to communicate with the wireless computer or device for 2 minutes.
- If the Security Option in the Wireless Settings screen was set to Disabled, it is automatically changed to WPA-PSK [TKIP] + WPA2-PSK [AES] including a random wireless security password.

4. Go to the wireless computer, and run its WPS configuration utility. Follow the utility's instructions to click a WPS button.

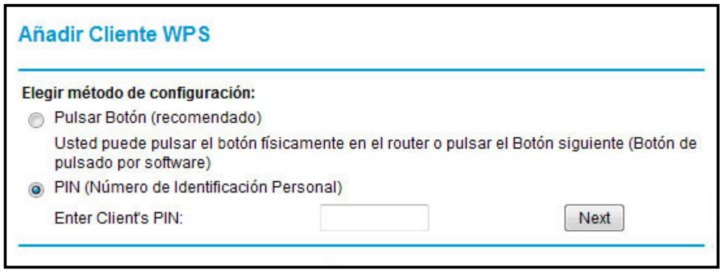
   When the computer connects to the wireless network, the gateway sends its SSID and WPA-PSK or WPA2-PSK configuration to that computer.

5. On the computer that just joined the wireless network, make sure you can connect to the Internet. You should see the gateway's Internet LED blink, showing that its Internet connection is in use.

PIN Connection

1. First, make sure you know how WPS works on your computer or wireless device. If it works with WPS, it has a WPS utility. Use this utility to determine the PIN for your wireless computer or device.

2. Select **WPS Settings** and then click **Next**. The Add WPS Client screen displays.



Añadir Cliente WPS

Elegir método de configuración:

○ Pulsar Botón (recomendado)

Usted puede pulsar el botón físicamente en el router o pulsar el Botón siguiente (Botón de pulsado por software)

● PIN (Número de Identificación Personal)

Enter Client's PIN: [Next]

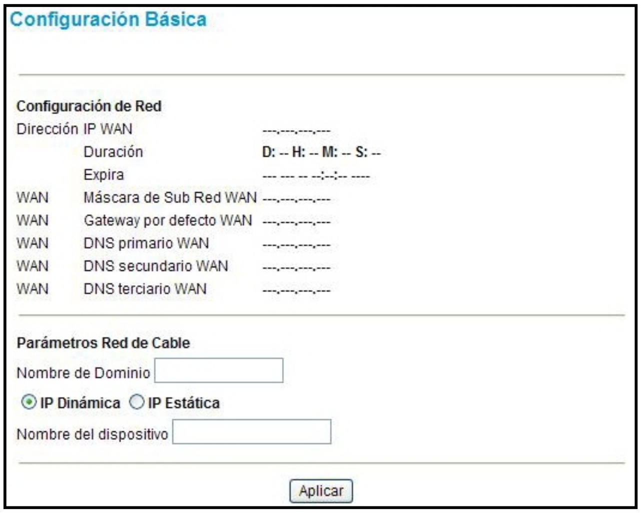
Any computer or wireless device that will wirelessly connect to the gateway is a client. After it is added as a client, it will be able to automatically connect to the gateway.

3. Select the **PIN** radio button.
4. Type the PIN that you located in Step 1 in the **Enter Client's PIN** field, and then click **Next**.
   - The WPS LED on the front of the gateway begins to blink.
   - The gateway tries to communicate with the wireless computer or device for 4 minutes.
   - If the Security Option in the Wireless Settings screen was set to Disabled, it is automatically changed to WPA-PSK (including a PSK security password).

   When the computer connects to the wireless network, the gateway sends its SSID and WPA-PSK or WPA2-PSK configuration to that computer.
5. On the computer that just joined the wireless network, make sure you can connect to the Internet. You should see the gateway's Internet LED blink, showing that its Internet connection is in use.

Basic Configuration

Select **Configuration > Basic** to configure and monitor your network configuration.



Configuración Básica

Configuración de Red

Dirección IP WAN		---.---.---.---
	Duración	**D: -- H: -- M: -- S: --**
	Expira	--- --- -- --:--:-- ----
WAN	Máscara de Sub Red WAN	---.---.---.---
WAN	Gateway por defecto WAN	---.---.---.---
WAN	DNS primario WAN	---.---.---.---
WAN	DNS secundario WAN	---.---.---.---
WAN	DNS terciario WAN	---.---.---.---

Parámetros Red de Cable

Nombre de Dominio

● **IP Dinámica** ○ **IP Estática**

Nombre del dispositivo

[Aplicar]

Network Configuration. The screeh shows the current network settings on the WAN side of the gateway. If you are using dynamic IP addressing, this configuration has been assigned by your ISP. If you are using static IP addressing, this setting matches the cable network that follows.

Network Configuration Cable. You can define settings for the WAN side of your gateway in this section.

Dynamic IP / Static IP. Select **Dynamic IP** If you want to get the settings dynamically from your ISP. Select **Static IP** if you want to manually configure the network.

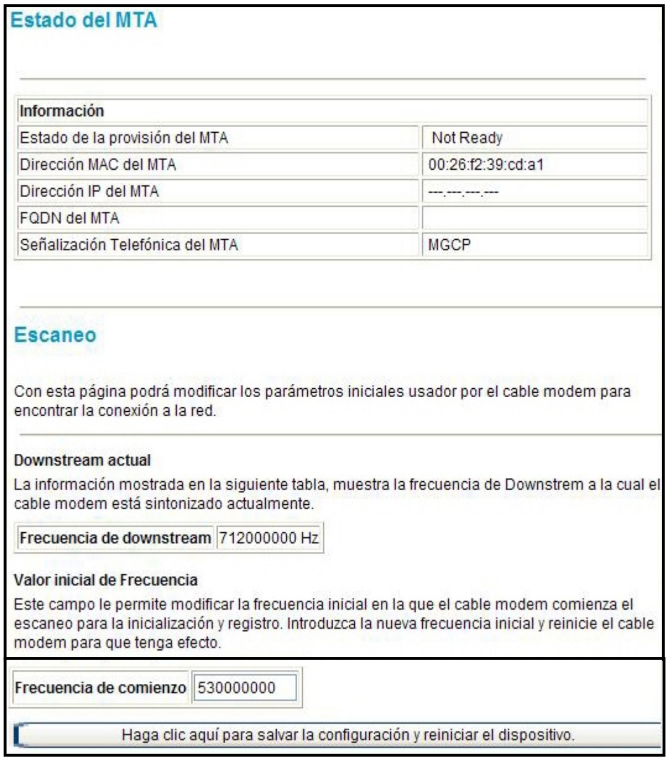
If you select Static IP, you have to set the following values.

- **Static IP Address**. Enter the WAN IP address of your gateway.
- **Subnet Mask**. Enter subbred mask the IP WAN.
- **Default Gateway**. Type the IP address of the default gateway.
- **Primary DNS**. Enter the IP address of primary server.
- **Secondary DNS**. Enter the IP address of secondary DNS.
- **Tertiary DNS**. Enter the IP address of the tertiary DNS.
- **Device Name**. Enter the name or alias for the router. You can find the name of the router in Windows Vista and in the web browser for all Windows systems.

Click **Apply** when you are finished changing your settings.

MTA Configuration

Select **Configuration > MTA Status** to display the Multimedia Terminal Adaptor (MTA) Status screen. This page refreshes every 15 seconds to update the status.



Estado del MTA

Información	
Estado de la provisión del MTA	Not Ready
Dirección MAC del MTA	00:26:f2:39:cd:a1
Dirección IP del MTA	---.---.---.---
FQDN del MTA	
Señalización Telefónica del MTA	MGCP

Escaneo

Con esta página podrá modificar los parámetros iniciales usador por el cable modem para encontrar la conexión a la red.

Downstream actual

La información mostrada en la siguiente tabla, muestra la frecuencia de Downstrem a la cual el cable modem está sintonizado actualmente.

Frecuencia de downstream	712000000 Hz

Valor inicial de Frecuencia

Este campo le permite modificar la frecuencia inicial en la que el cable modem comienza el escaneo para la inicialización y registro. Introduzca la nueva frecuencia inicial y reinicie el cable modem para que tenga efecto.

Frecuencia de comienzo	530000000

Haga clic aquí para salvar la configuración y reiniciar el dispositivo.

MTA Provision Status. Shows which of your telephone lines are active and registered with your service provider.

MTA MAC Address. The MAC address of the MTA interface.

MTA IP Address. The IP MTA address.

MTA FQDN. The fully qualified domain name of the MTA (only in the domain name).

MTA Telephony Signaling. The type of telephony signaling the MTA currently uses.

Scan.This page refreshes every 15 seconds to update the status

Current Downstream. The downstream frequency to which the cable modem is tuned.

Initial Value Frequency. The frequency at which the cable modem starts its scanning during initialization and registration.

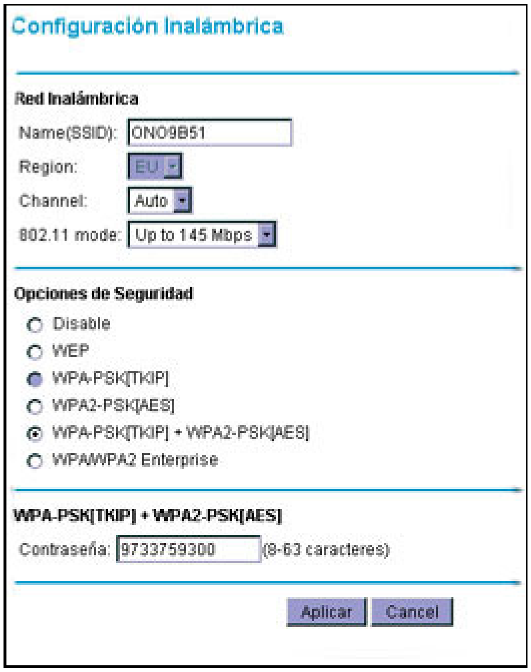
Wireless Configuration

You can manually configure the wireless settings and security for your gateway from the Wireless Configuration screen.

1. If you are located near the gateway, use an Ethernet cable to connect your computer to the gateway while you are changing the wireless settings.

Note: If you connect wirelessly to the gateway and then change its wireless network name (SSID) or wireless security, you will be disconnected after you click **Apply**.

2. Select **Setup > Wireless Settings** to display this screen.
3. Specify the Wireless Network settings.
   - **Name (SSID)**. The name of the wireless network.
   - **Region**. The location where the gateway will operate.
   - **Channel**. The available channels depend on the region. Some countries have laws specifying which channels should be used.
   - **802.11 Mode**. This can is set to 145 Mbps by default. For help with Security Options, see the following sections.
4. If you made changes, click **Apply** so that they take effect.



Configuración Inalámbrica

Red Inalámbrica

Name(SSID): ONO9B51

Region: EU

Channel: Auto

802.11 mode: Up to 145 Mbps

Opciones de Seguridad

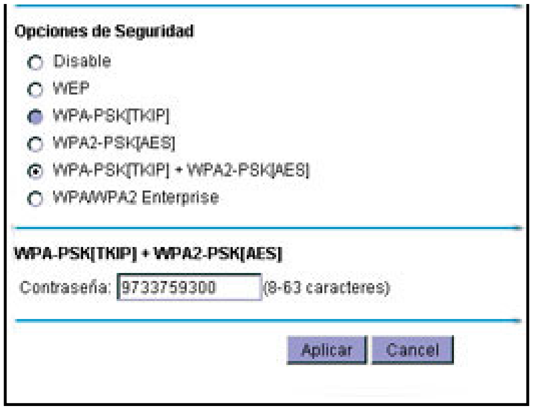
○ Disable
○ WEP
● WPA-PSK[TKIP]
○ WPA2-PSK[AES]
◉ WPA-PSK[TKIP] + WPA2-PSK[AES]
○ WPA/WPA2 Enterprise

WPA-PSK[TKIP] + WPA2-PSK[AES]

Contraseña: 9733759300 (8-63 caracteres)

WPA or WPA2 Wireless Security

By default the gateway is set up to work with both WPA and WPA2 wireless security. (This security option is already selected.) You can specify the Network Key, which works like a password to access the wireless network.



Opciones de Seguridad

○ Disable
○ WEP
● WPA-PSK[TKIP]
○ WPA2-PSK[AES]
◉ WPA-PSK[TKIP] + WPA2-PSK[AES]
○ WPA/WPA2 Enterprise

WPA-PSK[TKIP] + WPA2-PSK[AES]

Contraseña: 9733759300 (8-63 caracteres)

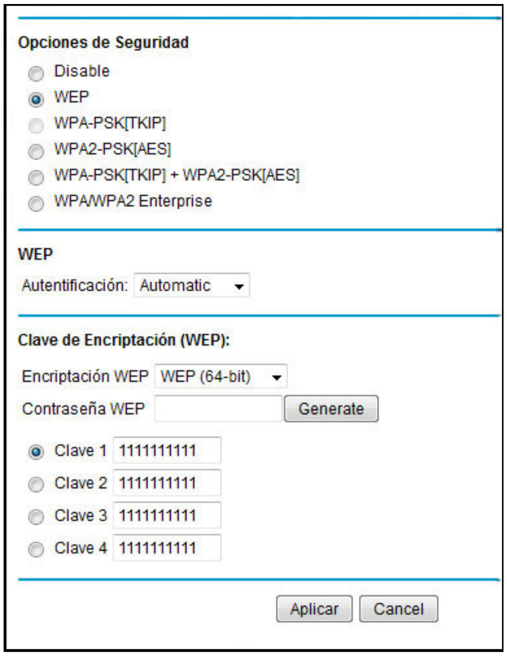
1. In the Security Options section of the Wireless Settings screen, leave the default setting or select one of the WPA settings:
   - **WPA-PSK**. This setting provides the TKIP encryption type and a pre-shared key passphrase.
   - **WPA2-PSK**. This setting provides the AES encryption type and a pre-shared key passphrase.
2. Depending on the WPA settings that you select, enter the required information.

   For WPA-PSK or WPA2-PSK, enter the pre-shared key, which is a passphrase between 8 and 63 characters. This product comes with a preconfigured WPA passphrase.
3. Click **Apply** to save your settings.
4. Configure your wireless computers with the same WPA2 or WPA settings as your gateway so that you will be able to connect.

WEP Security

Note: By default, the gateway is set up to work with WPA and WPA2 wireless security, both of which are newer than WEP. Typically, the only reason you might need to set up WEP would be to allow access to older wireless computers or devices that cannot support WPA.

1. In the Security Options section of the Wireless Settings screen, select the **WEP** radio button.
2. Select the Authentication from the drop-down list.The default is Automatic.
3. Depending on the encryption strength that you want, select one of these **WEP Encryption** options:
   - 64-bit encryption
   - 128-bit encryption
4. Enter a Passphrase (recommended) or WEP Keys:
   - To use a passphrase and generate keys, enter a passphrase and click **Generate**.
   - To enter the keys, fill in the Key 1 through Key 4 fields. Write down the keys and keep them in a secure location.
     - For 64-bit WEP, enter 10 hexadecimal digits (any combination of 0–9 or A–F). For 128-bit WEP, enter 26 hexadecimal digits.
     - Select which key will be the default, which will be used to encrypt data transmissions. The other keys can only be used to decrypt received data.
5. Click **Apply** to save your settings.



Opciones de Seguridad

○ Disable
● WEP
○ WPA-PSK[TKIP]
○ WPA2-PSK[AES]
○ WPA-PSK[TKIP] + WPA2-PSK[AES]
○ WPA/WPA2 Enterprise

WEP

Autentificación: Automatic

Clave de Encriptación (WEP):

Encriptación WEP: WEP (64-bit)
Contraseña WEP: Generate

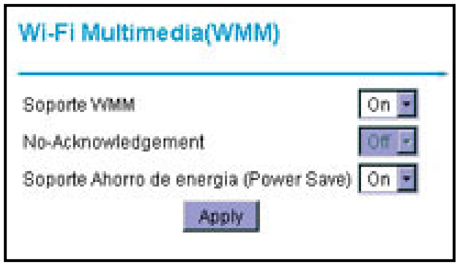
● Clave 1 1111111111
○ Clave 2 1111111111
○ Clave 3 1111111111
○ Clave 4 1111111111

Configure your wireless computers with the same WEP settings as your gateway so that you will be able to connect. If you entered the keys, you will need to type them exactly as you did when you set up the gateway.

Wi-Fi Multimedia

You can use the Multimedia page to set up wireless multimedia Quality of Service (QoS).

1. Log in to the gateway as described in *Log In to Your Gateway* on page 9.
2. In the main menu, under Setup, select Wi-Fi Multimedia.



Wi-Fi Multimedia(WMM)

Soporte WMM: On

No-Acknowledgement: Off

Soporte Ahorro de energia (Power Save): On

3. In the **WMM Support** field, select **On** to enable WMM.
4. In the **No-Acknowledgement** field, select **Off** or **On** to specify whether acknowledgement (ACK) messages are used.

   Usually, this field is set to **Off**. This might improve the efficiency of packet transmission. If wireless communication quality is poor at your location (this could happen if there is a lot of interference), set this field to **On** so that you are notified when a package is lost.

5. To conserve battery power in smaller devices that are connected to the gateway, set the Power Save Support field to **On**.
6. Click Apply to save your settings.

3. Content Filtering

3

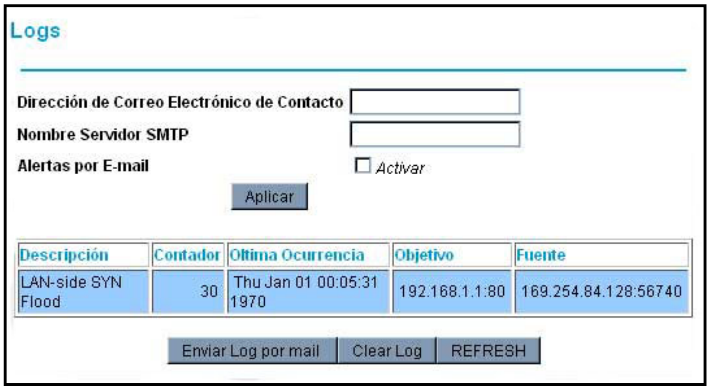
This chapter describes how to use content filtering s for the gateway. This chapter includes:

- *View or Email Logs*
- *Block Keywords, Sites, and Services*
- *Services*

View or Email Logs

Your gateway logs security-related events such as Denial of Service (DoS) attacks, hacker probes, and administrator logins, based on the settings on the Logs screen. If you set up content filtering on the Block Sites screen, you can also log when someone on your network tried to access a blocked site. You can specify which events are logged and you can send the logs to the specified email address.

1. Select **Content Filtering > Logs**.
2. To use email, fill in the **Contact Email Address** and **SMTP Server Name** fields.
3. Select the **Enable** check box for **E-mail Alerts**.
4. Click **Apply** so your changes take effect.
5. To email the log now, click **E-mail Log.**



Dirección de Correo Electrónico de Contacto

Nombre Servidor SMTP

Alertas por E-mail □ *Activar*

Descripción	Contador	Oltima Ocurrencia	Objetivo	Fuente
LAN-side SYN Flood	30	Thu Jan 01 00:05:31 1970	192.168.1.1:80	169.254.84.128:56740

To delete all log entries. click **Clear Log**. To see the most recent entries, click **Refresh**.

Block Keywords, Sites, and Services

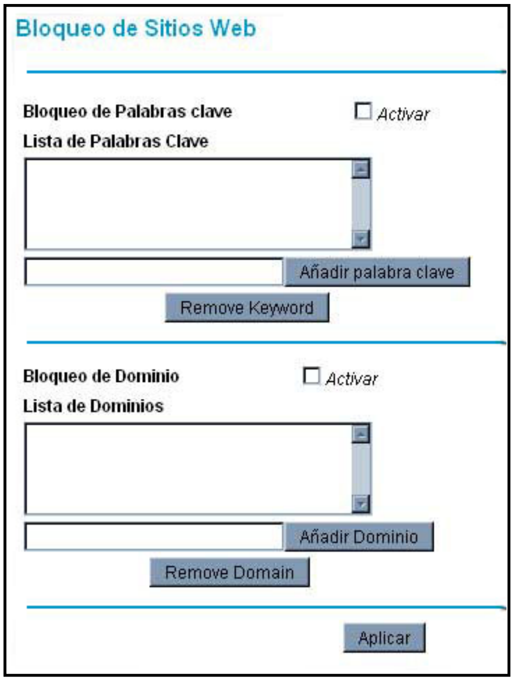
With its content filtering feature, the gateway prevents objectionable content from reaching your computers. The gateway allows you to control access to Internet content by screening for keywords within Web addresses. It can also block access to all sites except those that are explicitly allowed. For example, you can set up the gateway to do the following:

- Block access from to Internet locations that contain keywords that you specify.
- Block access to websites that you specify as off-limits.
- Allow access to only websites that you specify as allowed.

Block Keywords and Domains

The gateway allows you to restrict access to Internet content based on functions such as Web address keywords and Web domains. A domain name is the name of a particular website. For example, for the address www.NETGEAR.com, the domain name is NETGEAR.com.

1. Select **Content Filtering > Block Sites**.

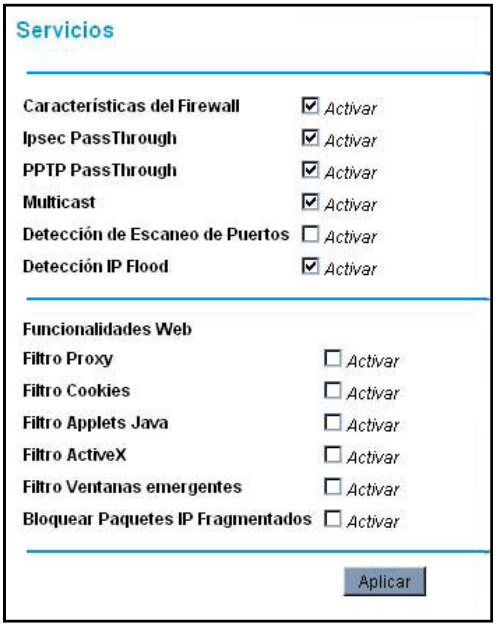


2. To block keywords, select the **Keyword Blocking Enable** check box. Type the keyword and then click **Add Keyword**.
   - If the keyword XXX is specified, the URL www.zzzyyqq.com/xxx.html is blocked.
   - If the keyword .com is specified, only websites with other domain suffixes (such as .edu, .org, or .gov) can be viewed.
   - Enter the keyword "." to block all Internet browsing access.
   - To remove a keyword from the Keyword List, select it, and click **Remove Keyword**.
3. To block domains, select the **Domain Blocking Enable** check box. Enter a domain and click **Add Domain**.
   - If the domain www.zzzyyqq.com is specified, the URL <http://www.zzzyyqq.com/xxx.html> is blocked, along with all other URLs in the www.zzzyyqq.com site.
   - To remove a domain from the Domain List, select the domain, and then click **Remove Domain**.
4. Click **Apply** to save your settings.

Services

You can use the Services screen to disable certain gateway features.

1. Select **Content Filtering > Services**.
2. To disable a feature, clear its check box.
3. Click **Apply** for your changes to take effect.



Servicios

Características del Firewall ☑ Activar
Ipsec PassThrough ☑ Activar
PPTP PassThrough ☑ Activar
Multicast ☑ Activar
Detección de Escaneo de Puertos ☐ Activar
Detección IP Flood ☑ Activar

Funcionalidades Web
Filtro Proxy ☐ Activar
Filtro Cookies ☐ Activar
Filtro Applets Java ☐ Activar
Filtro ActiveX ☐ Activar
Filtro Ventanas emergentes ☐ Activar
Bloquear Paquetes IP Fragmentados ☐ Activar

The following Services are available in this screen:

- **Firewall Features**. The gateway performs Stateful Packet Inspection (SPI) and protect against Denial of Service (DoS) attacks.
- **IPSec Pass-Through**. IPSec traffic is forwarded. If you clear this check box then this traffic will be blocked.
- **PPTP Pass-Through**. PPTP traffic is forwarded. If you clear this check box then this traffic will be blocked.
- **Multicast**. The gateway can pass multicasting streams through the firewall.
- **Port Scan Detection**. When enabled, the gateway can respond to Internet-based port scans.
- **IP Flood Detection**. Allows the is gateway to block malicious devices that are attempting to flood devices.
- You can use the Web Features to set certain Web-oriented cookies, java scripts, and pop-up windows to be blocked by the firewall.

Manage Your Network

4

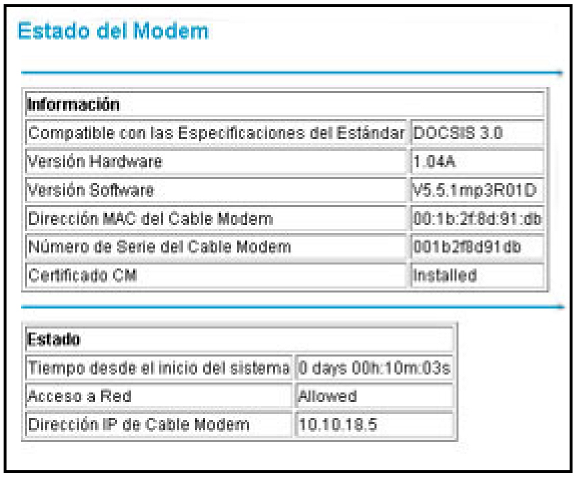
This chapter describes how to perform network management tasks with your gateway. When you log in to the gateway (see *Log In to Your Gateway* on page 9), these tasks are grouped under Maintenance.

This chapter includes:

- *Gateway Status*
- *Connection Status*
- *Change Passwords*
- *Back Up and Restore Your Settings*
- *Event Log*
- *Diagnostic Ping Utility*

Gateway Status

Select **Maintenance > Gateway Status** to see hardware and firmware details about the gateway and basic status information.



Estado del Modem

Información	
Compatible con las Especificaciones del Estándar	DOCSIS 3.0
Versión Hardware	1.04A
Versión Software	V5.5.1mp3R01D
Dirección MAC del Cable Modem	00:1b:2f:8d:91:db
Número de Serie del Cable Modem	001b2f8d91db
Certificado CM	Installed

Estado	
Tiempo desde el inicio del sistema	0 days 00h:10m:03s
Acceso a Red	Allowed
Dirección IP de Cable Modem	10.10.18.5

The following table describes the fields displayed in this screen.

Information:

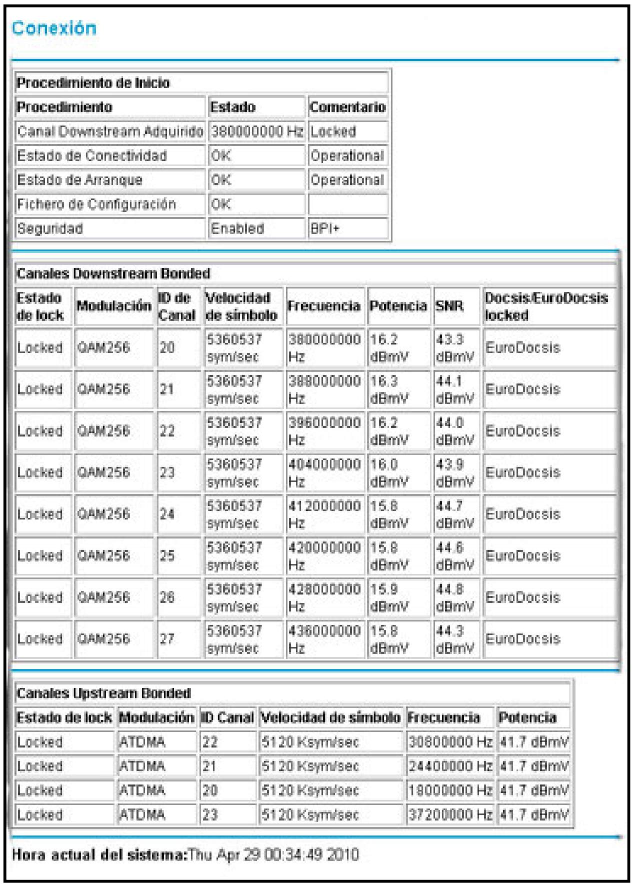
Modem Status Field	**Description**
Standard Specification Compliant	DOCSIS 3.0
Hardware Version	The hardware version of the gateway.
Software Version	The version of firmware currently running on the gateway.
Cable MAC Address	The MAC address used by the cable modem port of the gateway. This MAC address may need to be registered with your cable service provider.
Device MAC address	The MAC address used by the cable modem.
Cable Modem Serial number	The serial number of the gateway hardware.
CM Certificate	If the cable modem certificate is Installed, it is possible for the service provider to upgrade your Data Over Cable service securely.

Status:

Modem Status Field	**Description**
System Up Time	Time since the last boot up.
Network Access	Shows whether traffic can be forwarded from the LAN to the network
Cable Modem IP Address	The current Internet IP address. If assigned dynamically and not connected to the Internet, this field is blank.

Connection Status

Select **Maintenance > Connection Status** to view connection status information.



Conexión

Procedimiento de Inicio		
Procedimiento	**Estado**	**Comentario**
Canal Downstream Adquirido	380000000 Hz	Locked
Estado de Conectividad	OK	Operational
Estado de Arranque	OK	Operational
Fichero de Configuración	OK	
Seguridad	Enabled	BPI+

Canales Downstream Bonded							
Estado de lock	**Modulación**	**ID de Canal**	**Velocidad de simbolo**	**Frecuencia**	**Potencia**	**SNR**	**Docsis/EuroDocsis locked**
Locked	QAM256	20	5360537 sym/sec	380000000 Hz	16.2 dBmV	43.3 dBmV	EuroDocsis
Locked	QAM256	21	5360537 sym/sec	388000000 Hz	16.3 dBmV	44.1 dBmV	EuroDocsis
Locked	QAM256	22	5360537 sym/sec	396000000 Hz	16.2 dBmV	44.0 dBmV	EuroDocsis
Locked	QAM256	23	5360537 sym/sec	404000000 Hz	16.0 dBmV	43.9 dBmV	EuroDocsis
Locked	QAM256	24	5360537 sym/sec	412000000 Hz	15.8 dBmV	44.7 dBmV	EuroDocsis
Locked	QAM256	25	5360537 sym/sec	420000000 Hz	15.8 dBmV	44.6 dBmV	EuroDocsis
Locked	QAM256	26	5360537 sym/sec	428000000 Hz	15.9 dBmV	44.8 dBmV	EuroDocsis
Locked	QAM256	27	5360537 sym/sec	436000000 Hz	15.8 dBmV	44.3 dBmV	EuroDocsis

Canales Upstream Bonded					
Estado de lock	**Modulación**	**ID Canal**	**Velocidad de simbolo**	**Frecuencia**	**Potencia**
Locked	ATDMA	22	5120 Ksym/sec	30800000 Hz	41.7 dBmV
Locked	ATDMA	21	5120 Ksym/sec	24400000 Hz	41.7 dBmV
Locked	ATDMA	20	5120 Ksym/sec	18000000 Hz	41.7 dBmV
Locked	ATDMA	23	5120 Ksym/sec	37200000 Hz	41.7 dBmV

Hora actual del sistema: Thu Apr 29 00:34:49 2010

Use the Connection screen to track the gateway’s initialization procedure, and to get details about the downstream and upstream cable channel. The time is displayed after the gateway is initialized.

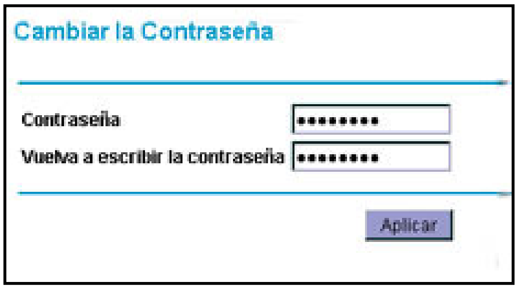
The gateway automatically goes through the following steps in the provisioning process:

- Scan and lock the downstream frequency, and then link back in upstream direction.
- Obtain an IP address for the gateway itself. Then the gateway assigns an IP address for the connected PC.
- Connect to the Internet.

Change Passwords

For security reasons, the gateway has its own user names and passwords. NETGEAR recommends that you change the default passwords to more secure passwords. The ideal passwords should contain no dictionary words from any language, and should be a mixture of both upper and lower case letters, numbers, and symbols. Your passwords can be up to 30 characters.

1. Select **Maintenance > Set Password**.



Cambiar la Contraseña

Contraseña ••••••••

Vuelva a escribir la contraseña ••••••••

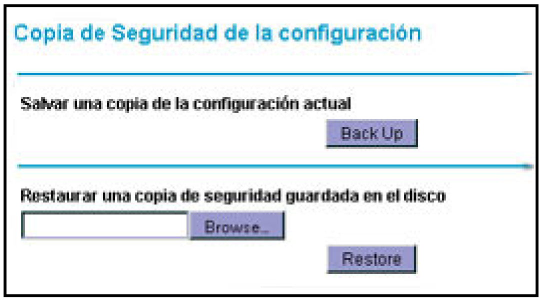
2. To change the password, enter the new password twice.
3. Click **Apply** to save your changes.

Note: After changing the password, you will be required to log in again to continue the configuration. If you have backed up the gateway settings previously, you should do a new backup so that the saved settings file includes the new password.

Back Up and Restore Your Settings

The configuration settings of the gateway are stored in a configuration file in the gateway.

1. Select **Maintenance > Backup Settings**.



Copia de Seguridad de la configuración

Salvar una copia de la configuración actual

Restaurar una copia de seguridad guardada en el disco

2. You can save the current configuration settings or restore saved settings:
   - To save the current configuration settings, click **Back Up**.

- To restore the saved configuration settings from a backup file, click **Browse**, locate and select the previously saved backup file. Then click **Restore**.

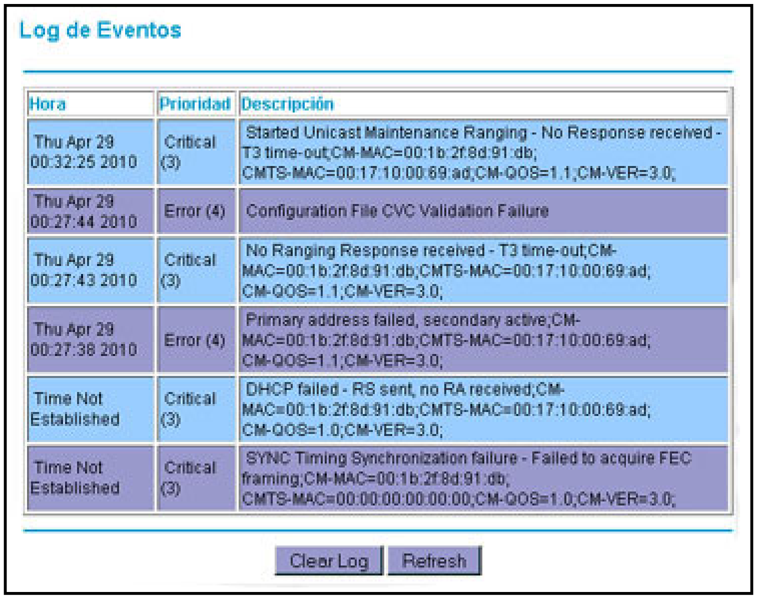
A message notifies you when the gateway has been restored to previous settings. Then, the gateway restarts, which takes about one minute.

Note: When restoring configuration settings, do not interrupt the process by going online, turning off the gateway, or shutting down the computer.

Event Log

The gateway logs security-related events such as denied incoming service requests and hacker probes.

1. Select **Maintenance > Event Log**.



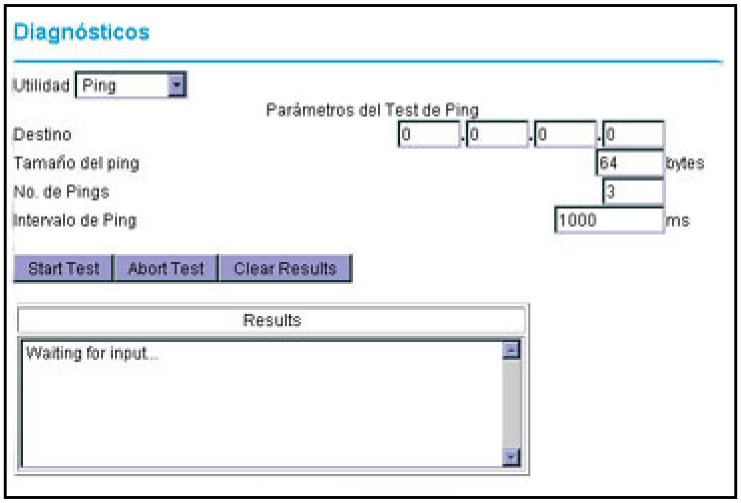
Log de Eventos

Hora	Prioridad	Descripción
Thu Apr 29 00:32:25 2010	Critical (3)	Started Unicast Maintenance Ranging - No Response received - T3 time-out;CM-MAC=00:1b:2f:8d:91:db;CMTS-MAC=00:17:10:00:69:ad;CM-QOS=1.1;CM-VER=3.0;
Thu Apr 29 00:27:44 2010	Error (4)	Configuration File CVC Validation Failure
Thu Apr 29 00:27:43 2010	Critical (3)	No Ranging Response received - T3 time-out;CM-MAC=00:1b:2f:8d:91:db;CMTS-MAC=00:17:10:00:69:ad;CM-QOS=1.1;CM-VER=3.0;
Thu Apr 29 00:27:38 2010	Error (4)	Primary address failed, secondary active;CM-MAC=00:1b:2f:8d:91:db;CMTS-MAC=00:17:10:00:69:ad;CM-QOS=1.1;CM-VER=3.0;
Time Not Established	Critical (3)	DHCP failed - RS sent, no RA received;CM-MAC=00:1b:2f:8d:91:db;CMTS-MAC=00:17:10:00:69:ad;CM-QOS=1.0;CM-VER=3.0;
Time Not Established	Critical (3)	SYNC Timing Synchronization failure - Failed to acquire FEC framing;CM-MAC=00:1b:2f:8d:91:db;CMTS-MAC=00:00:00:00:00:00;CM-QOS=1.0;CM-VER=3.0;

2. To clear the log, click **Clear Log**; to refresh the log, click **Refresh**.

Diagnostic Ping Utility

1. Select **Maintenance > Diagnostics**.



Utilidad: Ping

Destino: 0 . 0 . 0 . 0

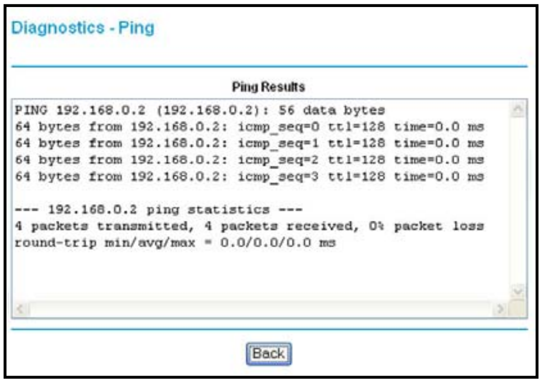
Tamaño del ping: 64 bytes

No. de Pings: 3

Intervalo de Ping: 1000 ms

Waiting for input...

2. To start a ping test, enter the IP address in the Diagnostics screen, and click the **Ping** button. The Ping Results are displayed:



```
PING 192.168.0.2 (192.168.0.2): 56 data bytes
64 bytes from 192.168.0.2: icmp_seq=0 ttl=128 time=0.0 ms
64 bytes from 192.168.0.2: icmp_seq=1 ttl=128 time=0.0 ms
64 bytes from 192.168.0.2: icmp_seq=2 ttl=128 time=0.0 ms
64 bytes from 192.168.0.2: icmp_seq=3 ttl=128 time=0.0 ms

--- 192.168.0.2 ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 0.0/0.0/0.0 ms
```

3. To return to the Diagnostics screen and stop the test, click **Back** and then click **Abort Test**.

5. Advanced Settings

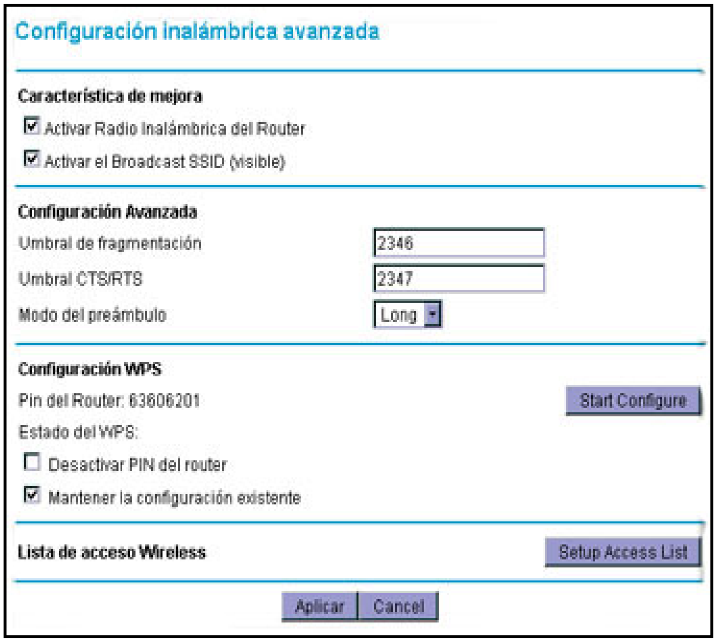
5

This chapter describes how to customize your network through the advanced settings on your gateway. When you log in to the gateway (see *Log In to Your Gateway* on page 9), these tasks are grouped under Advanced.

This chapter includes:

Wireless Settings

Select **Advanced > Wireless Settings** to display the following screen where you can configure the wireless radio settings, and other advanced settings:



Configuración inalámbrica avanzada

Característica de mejora

☑ Activar Radio Inalámbrica del Router

☑ Activar el Broadcast SSID (visible)

Configuración Avanzada

Umbral de fragmentación: 2346

Umbral CTS/RTS: 2347

Modo del preámbulo: Long

Configuración WPS

Pin del Router: 63606201

Estado del WPS:

☐ Desactivar PIN del router

☑ Mantener la configuración existente

Lista de acceso Wireless

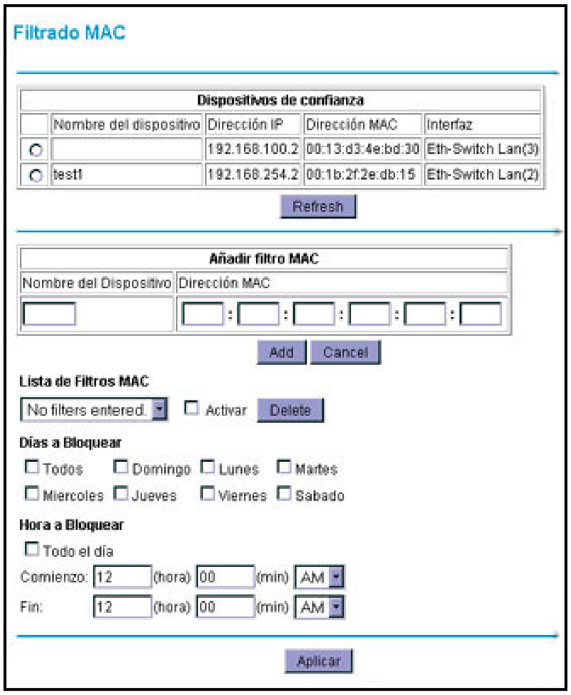
The following table describes the fields in the Advanced Wireless Settings screen.

Advanced Wireless Settings		**Description**
Wireless Access Point	Enable Wireless Access Point	By default this checkbox is selected so that the gateway works as a wireless access point. You can turn off the wireless radio to disable access through this device. This can be helpful for configuration, network tuning, or troubleshooting activities.
	Enable SSID Broadcast	By default this checkbox is selected so that the gateway broadcasts it’s Wi-Fi network name (SSID) so devices can find it. Deselect this checkbox if you do not want wireless devices to find this gateway unless they have the same SSID.
Advanced Configuration	• Fragmentation Threshold • CTS/RTS Threshold • Preamble Mode	The default settings for these fields usually work fine. Change them only if you have a specific reason for doing so.
WPS Settings	Router’s PIN	The PIN that WPS clients use to connect to the gateway using the PIN method.
Wireless Card Access List	Set up Access List	Access control is disabled by default so that any computer that is configured with the correct SSID can connect. For information about access control, see the following section.

MAC Filtering

By default, the gateway allows any connected PC to access the Internet through. The MAC Filtering screen lets you block specific computers, based on their MAC address, from access to the Internet on selected days and times.

Block a Computer



Filtrado MAC

Dispositivos de confianza				
	Nombre del dispositivo	Dirección IP	Dirección MAC	Interfaz
○		192.168.100.2	00:13:d3:4e:bd:30	Eth-Switch Lan(3)
○	test1	192.168.254.2	00:1b:2f:2e:db:15	Eth-Switch Lan(2)

Añadir filtro MAC	
Nombre del Dispositivo	Dirección MAC
	: : : : :

Lista de Filtros MAC

No filters entered. □ Activar

Días a Bloquear

□ Todos □ Domingo □ Lunes □ Martes
□ Miercoles □ Jueves □ Viernes □ Sabado

Hora a Bloquear

□ Todo el día

Comienzo: 12 (hora) 00 (min) AM

Fin: 12 (hora) 00 (min) AM

1. Select **Advanced > MAC Filtering**.

   The Trusted Devices table shows computers that have access to the Internet through the gateway. Click **Refresh** to update the Trusted Devices table.

2. In the Add MAC Filter table, you can use either of these methods to specify computers to block:

   - If the computer is in the Trusted Devices table, click its radio button. The MAC address will be added into the Add MAC Filter table.
   - Fill in the Device Name and MAC address fields.

3. Click **Add**.

   The MAC Filter List **Enable** checkbox is automatically selected for that computer.

4. Select the days and times to block the computer:

   - **Day(s) to Block**. Select the days to block the computer selected in the **MAC Filter List**. The default is Everyday.
   - **Time of Day to Block**. You can specify the time of day to block the computer. The default is All Day. Be sure that you clear the **All Day** checkbox if you want to enter specific times. The selected period applies to each day that you selected.

5. Click **Apply** to save your settings.
6. Repeat these steps for all computers that you want to block.

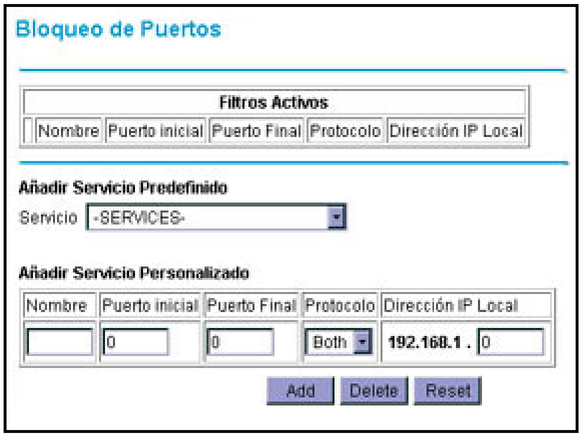
Unblock A Computer

- To stop blocking a computer, select it from the **MAC Filter List** field, and then clear its **Enable** check box. This leaves the computer in the list but ensures that it is not blocked.
- To remove a computer from the list, select it from the **MAC Filter List** field, and then click **Delete**.

Port Blocking

You can use port blocking to block outbound traffic on specific ports. Outbound traffic rules control access to outside resources from local users.The default rule is to allow all access from the LAN side to the outside. You can use port blocking to add predefined or custom rules to specify exceptions to the default rule.

Note: Any outbound traffic that is not blocked by rules that you have created is allowed by the default rule.



Bloqueo de Puertos

Filtros Activos					
	Nombre	Puerto inicial	Puerto Final	Protocolo	Dirección IP Local

Añadir Servicio Predefinido

Servicio: -SERVICES-

Añadir Servicio Personalizado

Nombre	Puerto inicial	Puerto Final	Protocolo	Dirección IP Local
	0	0	Both	192.168.1 . 0

1. Select **Advanced > Port Blocking**.
2. In the **Services** field, select a service from the drop-down list. (For example, FTP, which uses TCP ports 20 and 21.)
3. To add a custom rule that is not in the list of services, specify these settings in the Add Custom Rules table:
   - **Name**. Enter a name for the service.
   - **Start Port**. Enter the start port for the service.
   - **End Port**.Enter the end port for the service.
   - **Protocol**. Select the protocol for the ports:
     - **TCP**. Select TCP only.
     - **UDP**. Select UDP only.
     - **Both**. Select both TCP and UDP.
   - **Local IP Address**. Complete the local IP address for the computer that is using the service.
4. Perform one of the following actions:
   - Click **Add** to save your settings. The Active Filters table now displays the list of ports that are currently forwarded.
   - To delete a service, select the radio button in the Active Filters table for the service that you want to delete, and then click **Delete**.
   - To reset the selection in the Services drop-down list and to clear all the fields in the Add Custom Rules table, click **Reset**.

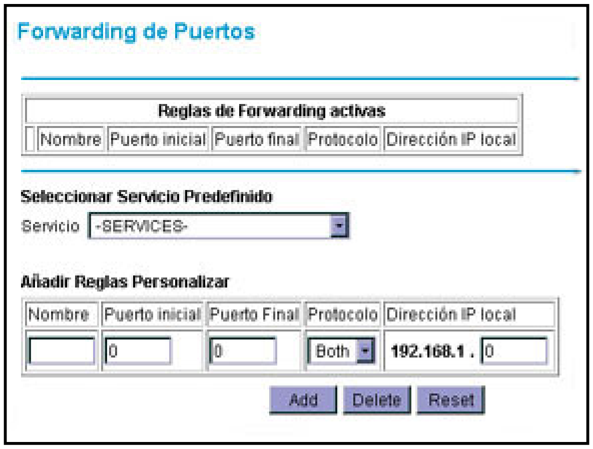
Port Forwarding

A firewall has default rules for inbound traffic (WAN to LAN) and for outbound traffic. Port forwarding affects the inbound rules. These rules restrict access from outsiders. By default, the gateway blocks access from outside except responses to requests from the LAN side. You can use port forwarding to add rules to specify exceptions to the default rule.

Because the gateway uses Network Address Translation (NAT), your network presents only one IP address to the Internet, and outside users cannot directly address any of your local computers. However, by defining an inbound rule you can make a local server (for example, a web server or game server) or computer visible and available to the Internet. The rule tells the Gateway to direct inbound traffic for a particular service to one local server or computer based on the destination port number. This is also known as port forwarding.

Some residential broadband ISPs do not allow you to run server processes (such as a Web or FTP server) from your location. Your ISP might check for servers and suspend your account if it finds active services at your location. See your ISP’s Acceptable Use policy.

1. Select **Advanced > Port Forwarding**.
2. In the **Service** field, select a service from the drop-down list. (For example, FTP, which uses TCP ports 20 and 21.)



Forwarding de Puertos

Reglas de Forwarding activas

	Nombre	Puerto inicial	Puerto final	Protocolo	Dirección IP local

Seleccionar Servicio Predefinido

Servicio -SERVICES-

Añadir Reglas Personalizar

Nombre	Puerto inicial	Puerto Final	Protocolo	Dirección IP local
	0	0	Both	192.168.1 . 0

3. To add a custom rule that is not in the list of services, specify these settings in the Add Custom Rules table:
   - **Name**. Enter a name for the service.
   - **Start Port**. Enter the start port for the service.
   - **End Port**. Enter the end port for the service.
   - **Protocol**. Select the protocol for the ports:
     - **TCP**. Select TCP only.
     - **UDP**. Select UDP only.
     - **Both**. Select both TCP and UDP.
   - **Local IP Address**. Complete the local IP address for the computer that is using the service.
4. Perform one of these actions:
   - Click **Add**. The Active Forwarding Rules table displays the list of forwarded ports.
   - To delete a service, select the radio button in the Active Forwarding Rules table for the service that you want to delete, and then click **Delete**.
   - To reset the selection in the **Services** field and to clear all the fields in the Add Custom Rules table, click **Reset**.

Considerations for Port Forwarding

- If the IP address of the local server PC is assigned by DHCP, it might change when the PC is rebooted. To avoid this, you can assign a static IP address to your server outside the range that is assigned by DHCP, but in the same subnet as your LAN. By default, the IP addresses from 192.168.1.2 through 192.168.1.9 are reserved for this purpose.
- Local PCs must access the local server using the PCs' local LAN address (192.168.1.XXX, by default). Attempts by local PCs to access the server using the external WAN IP address will fail.
- Port forwarding opens holes in your firewall. Only enable ports that are necessary.

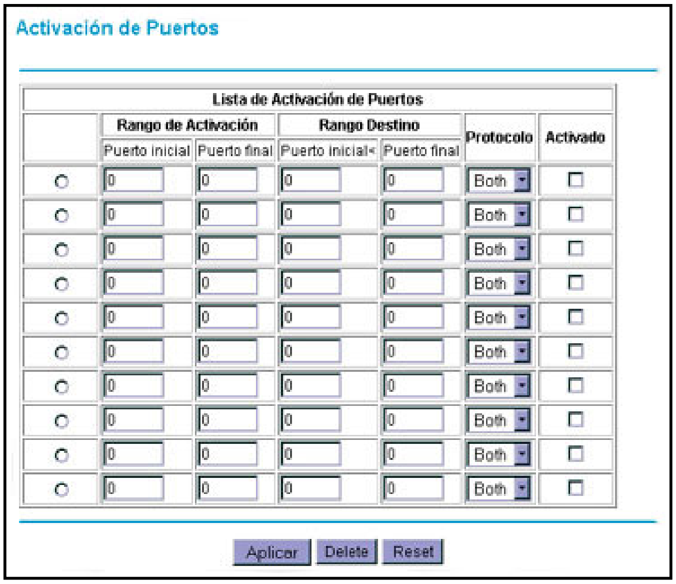
Port Triggering

Port triggering is an advanced feature that you can use to allow gaming and other Internet applications that would otherwise be blocked by the firewall. You must know the port numbers that are used by the application. Port triggering operates as follows:

1. A computer makes an outgoing connection using a port number defined in the Port Triggering table.
2. The gateway records this connection, opens the incoming port or ports associated with this entry in the Port Triggering List, and associates them with the PC.
3. The remote system receives the PCs request, and responds using a different port number.
4. The gateway matches the response to the previous request, and forwards the response to the PC. (Without port triggering, this response would be treated as a new connection request rather than a response. As such, it would be handled in accordance with the port forwarding rules.)

Note: Only one computer at a time can use port triggering. After a computer finishes using a port triggering application, there is a short time-out period before the application can be used by another PC.

1. Select **Advanced > Port Triggering**.



Activación de Puertos

Lista de Activación de Puertos

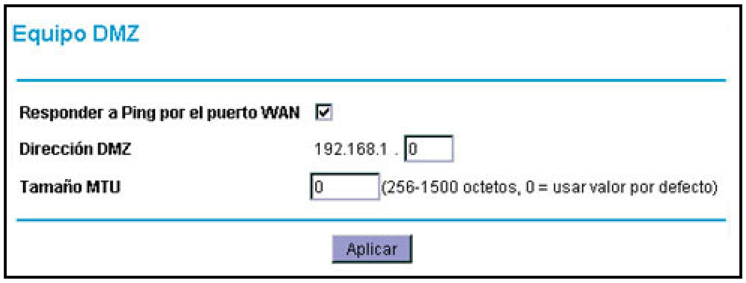
	Rango de Activación		Rango Destino		Protocolo	Activado
	Puerto inicial	Puerto final	Puerto inicial<	Puerto final		
○	0	0	0	0	Both	□
○	0	0	0	0	Both	□
○	0	0	0	0	Both	□
○	0	0	0	0	Both	□
○	0	0	0	0	Both	□
○	0	0	0	0	Both	□
○	0	0	0	0	Both	□
○	0	0	0	0	Both	□
○	0	0	0	0	Both	□
○	0	0	0	0	Both	□

2. For each port trigger, enter the settings in the Port Trigger List:
   - **Trigger Range**. To specify the range of outgoing ports that will be monitored to trigger the incoming port forwarding rule, enter the **Start Port** and **End Port**.
   - **Target Range**. To specify the range of incoming ports that will be opened when triggered, enter the **Start Port** and **End Port**.
   - **Protocol**. Select the protocol for the ports:
3. Select the **Enable** checkbox for the port trigger.
4. Perform one of the following actions:
   - Click **Apply** to save your settings and activate the port triggers.
   - To remove a port trigger, select it’s radio button and click **Delete**.
   - To return all trigger and target ranges to zero, click **Reset**.

DMZ Host

You can use the DMZ Host screen to set up a default DMZ computer. Specifying a default DMZ computer allows you to set up a PC that is available to anyone on the Internet for services that you have not defined. There are security issues with doing this, so only set up the DMZ host if you are willing to risk open access. If you do not define a DMZ host the gateway discards any undefined service requests.

1. Select **Advanced > DMZ Host**.



Equipo DMZ

Responder a Ping por el puerto WAN ☑

Dirección DMZ 192.168.1 . 0

Tamaño MTU 0 (256-1500 octetos, 0 = usar valor por defecto)

2. If desired, select the **Respond to Ping on WAN Port** checkbox.
3. Type the last digit(s) of the IP address in the **DMZ Address** field.
4. Click **Apply**.

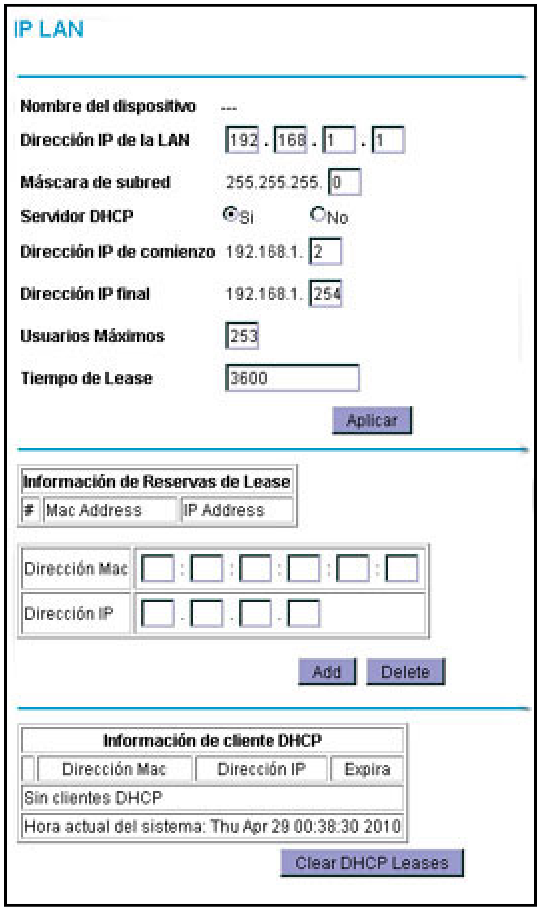
LAN IP Setup

The LAN IP screen allows you to configure LAN services such as the IP address of the gateway and DHCP. The TCP/IP and DHCP default values work fine in most cases.

Note: If you disable the DHCP server, you will need to assign to your computer a static IP address to reconnect to the gateway and enable the DHCP server again.

1. Select **Advanced > LAN IP**.
2. Specify these settings:
   - **LAN IP Address**. The factory default setting is 192.168.1.1.
   - **Subnet Mask**. The network number portion of an IP address. Unless you are implementing subnetting, use 255.255.255.0 as the subnet mask.
   - **DHCP Server**: The **Yes** radio button is selected by default so the gateway acts as a DHCP server, providing the TCP/IP configuration for all the computers connected to it.

     If you will assign IP addresses manually, or you have another DHCP server on your network, select the **No** radio button.
   - **Starting IP Address** and **Ending IP Address**. These fields specify the range in the IP address pool.
   - **Max Users**. The maximum number of users on the network.
   - **DHCP Lease**. See the following section, *Reserving an IP Address for DHCP Use* .
3. Click **Apply** to save your LAN settings



IP LAN

Nombre del dispositivo ---

Dirección IP de la LAN 192 . 168 . 1 . 1

Máscara de subred 255.255.255. 0

Servidor DHCP ● Si ○ No

Dirección IP de comienzo 192.168.1. 2

Dirección IP final 192.168.1. 254

Usuarios Máximos 253

Tiempo de Lease 3600

Información de Reservas de Lease		
#	Mac Address	IP Address

Dirección Mac	□ : □ : □ : □ : □ : □
Dirección IP	□ . □ . □ . □

Información de cliente DHCP			
	Dirección Mac	Dirección IP	Expira
Sin clientes DHCP			
Hora actual del sistema: Thu Apr 29 00:38:30 2010			

Reserving an IP Address for DHCP Use

To reserve an IP address for DHCP use, enter the DHCP server reservation settings for the private LAN under DHCP Reservation Lease Info in the LAN Setup screen.

1. Enter the MAC address of the computer for which you want to reserve an IP address.
2. Enter the permanent IP address for the computer.
3. Click **Add** to save your settings.

The MAC address and IP address are displayed in the DHCP Client Lease Info table. The current system time is also displayed.

To delete an IP address from the DHCP Client Lease Info table:

1. In the DHCP Client Lease Info table, click the radio button for the MAC and IP address that you want to remove.
2. Click **Delete** to remove the information for the selected MAC and IP address from the DHCP Client Lease Info table.

   To remove all information from the DHCP Client Lease Info table, click **Clear DHCP Leases**.

Remote Management

With remote management, you can allow a user or users on the Internet to configure, upgrade, and check the status of the gateway.

> **Note:** Use very secure passwords if you enable remote management. Passwords should contain no dictionary words from any language, and should be a mixture of letters (both upper and lower case), numbers, and symbols. Your password can be up to 16 characters.

To manage this gateway through the Internet, you need its public IP Address, as seen from the Internet. This public IP address is allocated by your ISP. But if your ISP account uses a dynamic IP address, the address can change each time you connect to your ISP. There are two solutions to this problem:

- Have your ISP allocate you a fixed IP address.
- Use the DDNS (Dynamic DNS) feature so you can connect using a domain name, rather than an IP address.

1. Select **Advanced > Remote Management**.
2. Select one of the **Allow Remote Management** check boxes.
3. Fill in the **Remote User Name** and **Remote Password** fields.
4. Specify the port numbers to access the gateway remotely in your browser when you connect. To specify the port numbers:

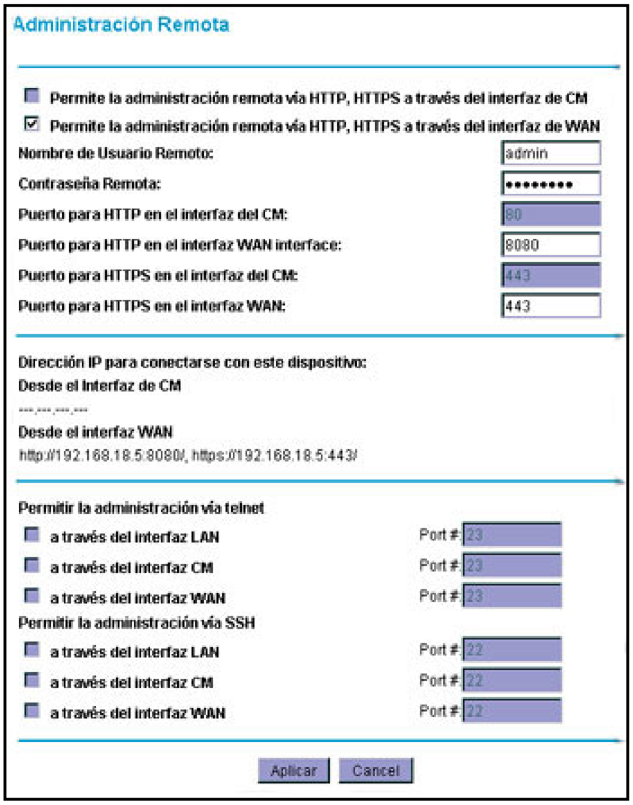
   a. From a remote location, start a browser.

   b. In the Address or Location field, enter the Internet IP address of this gateway (NOT the LAN IP address), followed by a colon and the port number, as follows:

   http://ip_address:pn || https://ip_address:pn

   where: ip_address is the Internet IP address of this gateway.

   pn is the port number assigned on this screen.



Administración Remota

□ Permite la administración remota vía HTTP, HTTPS a través del interfaz de CM
☑ Permite la administración remota vía HTTP, HTTPS a través del interfaz de WAN

Nombre de Usuario Remoto:	admin
Contraseña Remota:	••••••••
Puerto para HTTP en el interfaz del CM:	80
Puerto para HTTP en el interfaz WAN interface:	8080
Puerto para HTTPS en el interfaz del CM:	443
Puerto para HTTPS en el interfaz WAN:	443

Dirección IP para conectarse con este dispositivo:
Desde el Interfaz de CM
---.---.---.---
Desde el interfaz WAN
http://192.168.18.5:8080/, https://192.168.18.5:443/

Permitir la administración vía telnet

□ a través del interfaz LAN	Port #: 23
□ a través del interfaz CM	Port #: 23
□ a través del interfaz WAN	Port #: 23

Permitir la administración vía SSH

□ a través del interfaz LAN	Port #: 22
□ a través del interfaz CM	Port #: 22
□ a través del interfaz WAN	Port #: 22

c. You are prompted for the password for this gateway.

5. If you want the ability to reset to factory default settings remotely, and then log in again remotely, select the **Allow Remote management after Factory Default Reset** checkbox.
6. Click **Apply** to save your changes.

Table 1.

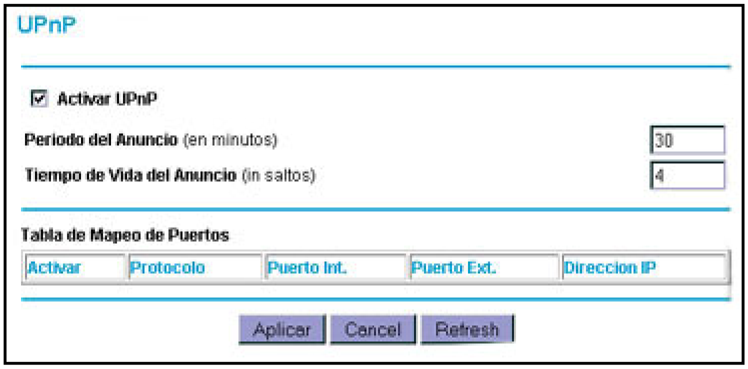
Remote Management Settings	Description
Allow Remote Management (HTTP/HTTPS) CM interface	If selected, remote management is enabled, and connection from the Internet to this gateway with HTTP and HTTPS is possible. The correct port number must be used when connecting
Allow Remote Management (HTTP/HTTPS) CM interface	If selected, remote management is enabled, and connection from the Internet to this gateway with HTTP and HTTPS is possible.
Remote User Name and Remote Password	Enter the User Name and Password that will be used from the remote PC to manage the gateway. Use a very secure password.
Port Number fields	Web browser access normally uses the standard HTTP service port 80. NETGEAR recommends that you use a different port number for remote management, as using port 80 will prevent the use of a Web Server on your LAN, and can be more readily discovered by hackers. Use the default (8080) or choose a port number between 1 and 65535.
Revert to factory default settings	Allow Remote management after Factory Default Reset
IP Address to connect this device	The gateway's public IP address so you can manage this gateway from the Internet. Note that if your ISP account uses a dynamic IP address, this value changes each time you connect to your ISP. You can either request your IP allocate a fixed IP address to you or use the Dynamic DNS (DDNS) feature to connect with a domain name instead of an IP address.

Universal Plug and Play (UPnP)

Universal Plug and Play (UPnP) helps devices, such as Internet appliances and computers, access the network and connect to other devices as needed. UPnP devices can automatically discover the services from other registered UPnP devices on the network. With UPnP you can specify:

- **Advertisement Period**. This specifies how often the gateway broadcasts its UPnP information. The default is 30 minutes. Lower numbers ensure that control points have current device status at the expense of additional network traffic. Larger numbers may compromise the freshness of the device status but can significantly reduce network traffic.
- **Advertisement Time to Live**. The time to live for the advertisement, measured in hops (steps) for each UPnP packet that is sent. A hop is the number of steps that are allowed to propagate for each UPnP advertisement before it disappears. The number of hops can range from 1 to 255. The default value for the advertisement time to live is 4 hops, which should be fine for most home networks. If you notice that some devices are not being updated or reached correctly, you might need to increase this value slightly.

1. Select **Advanced > UPnP**.



UPnP

☑ Activar UPnP

Periodo del Anuncio (en minutos) 30

Tiempo de Vida del Anuncio (in saltos) 4

Tabla de Mapeo de Puertos

Activar	Protocolo	Puerto Int.	Puerto Ext.	Direccion IP

2. Select the **Turn UPnP On** check box. The default setting is disabled, which prevents the gateway from allowing any device to automatically control of its the resources, such as port forwarding.
3. Fill in the **Advertisement Period** and **Advertisement Time to Live** fields.

   The UPnP Portmap Table displays the IP address of each UPnP device that is currently accessing the gateway and which internal and external ports of the gateway were opened by that device. The UPnP Portmap Table also displays the protocol for the port that was opened and if that port is still active for each IP address.

4. Perform one of the following actions:
   - Click **Apply** to save your settings.
   - Click **Cancel** to disregard any unsaved changes.
   - Click **Refresh** to update the UPnP Portmap Table and to show the active ports that are currently opened by UPnP devices.

6. Troubleshooting 6

This chapter gives information about troubleshooting your NETGEAR Wireless Cable Gateway. For the common problems listed, go to the section indicated.

- Have I connected the gateway correctly?

  Go to *Basic Functions* on page 44.

- I cannot access the gateway configuration with my browser.

  Go to *Connect to the Main Menu* on page 45.

- I have configured the gateway but I cannot access the Internet.

  Go to *Troubleshoot the ISP Connection* on page 46.

- I cannot remember the gateway's configuration password or I want to clear the configuration and start over again.

  Go to *Factory Default Settings* in Appendix A.

Tip: NETGEAR provides helpful articles, documentation, and the latest software updates at *http://www.netgear.com/support*.

Basic Functions

After you have turned on power to the gateway, you should do the following:

1. Check to see that the Power LED is on.
2. Check that the numbered Ethernet LEDs come on momentarily.
3. After a few seconds, check that the local port link LEDs are lit for any local ports that are connected.

   If any of these conditions does not occur, refer to the appropriate following section.

Using LEDs to Troubleshoot

The following table provides help when using the LEDs for troubleshooting.

LED Behavior	Action
All LEDS are off when the gateway is plugged in.	Make sure that the power cord is properly connected to your gateway and that the power supply adapter is properly connected to a functioning power outlet. Check that you are using the 12VDC power adapter supplied by NETGEAR for this product. If the error persists, you have a hardware problem and should contact technical support.
All LEDs Stay On	• Clear the gateway’s configuration to factory defaults. This will set the gateway’s IP address to 192.168.1.1. See *Factory Default Settings* in Appendix A. • If the error persists, you might have a hardware problem and should contact technical support.
LAN LED is off for a port with an Ethernet connection.	• Make sure that the Ethernet cable connections are secure at the gateway and at the hub or PC. • Make sure that power is turned on to the connected hub or PC. • Be sure you are using the correct cable.
Internet LED is off and the gateway is connected to the cable television cable.	• Make sure that the coaxial cable connections are secure at the gateway and at the wall jack. • Make sure that your cable internet service has been provisioned by your cable service provider. Your provider should verify that the signal quality is good enough for cable modem service. • Remove any excessive splitters you may have on your cable line. It may be necessary to run a “home run” back to the point where the cable enters your home.

Connect to the Main Menu

If you are unable to access the gateway’s main menu from a computer on your local network, check the following:

- Check the Ethernet connection between the computer and the gateway as described in the previous section.
- Make sure that your PC’s IP address is on the same subnet as the gateway. If you are using the recommended addressing scheme, your PC’s address should be in the range of 192.168.1.2 to 192.168.0.254.

Note: If your PC’s IP address is shown as 169.254.x.x:
Recent versions of Windows and MacOS will generate and assign an IP address if the computer cannot reach a DHCP server. These auto-generated addresses are in the range of 169.254.x.x. If your IP address is in this range, check the connection from the PC to the gateway and reboot your PC.

- If your gateway’s IP address has been changed and you don’t know the current IP address, clear the gateway’s configuration to factory defaults. This will set the gateway’s IP address to 192.168.1.1. This procedure is explained in *Factory Default Settings* in Appendix A.
- Make sure your browser has Java, JavaScript, or ActiveX enabled. If you are using Internet Explorer, click Refresh to make sure that the Java applet is loaded.
- Try quitting the browser and launching it again.
- Make sure you are using the correct login information. The gateway user name **admin** is lower-case (**Caps Lock** should be off). The default password of **password**.

If the gateway does not save changes you have made, check the following:

- When entering configuration settings, be sure to click the **Apply** button before moving to another screen, or your changes are lost.
- Click the Refresh or Reload button in the Web browser. The changes may have occurred, but the Web browser may be caching the old configuration.

Troubleshoot the ISP Connection

If your gateway is unable to access the Internet and your Cable Link LED is on, you may need to register the cable MAC address and/or device MAC address of you gateway with your cable service provider.

Additionally, your PC may not have the gateway configured as its TCP/IP gateway. If your PC obtains its information from the gateway by DHCP, reboot the PC and verify the gateway address.

Troubleshoot a TCP/IP Network with The Ping Utility

Most TCP/IP terminal devices and routers contain a ping utility that sends an echo request packet to the designated device. The device responds with an echo reply. Troubleshooting a TCP/IP network is made easier by using the ping utility in your PC or workstation.

Test the LAN Path to Your Gateway

You can use ping to verify that the LAN path to your gateway is set up correctly.

To ping the gateway from a PC running Windows 95 or later:

1. From the Windows toolbar, click on the Start button and select Run.
2. In the field provided, type Ping followed by the IP address of the gateway, as in this example:

   ping 192.168.1.1

3. Click OK.

   You should see a message like this one:

   Pinging <IP address> with 32 bytes of data

   If the path is working, you see this message:

   Reply from < IP address >: bytes=32 time=NN ms TTL=xxx

   If the path is not working, you see this message:

   Request timed out

   If the path is not working correctly, you could have one of the following problems:

   - Wrong physical connections.
     - Make sure the LAN port LED is on. If the LED is off, see *Using LEDs to Troubleshoot* on page 44.
     - Check that the corresponding Link LEDs are on for your network interface card and for the hub ports (if any) that are connected to your workstation and gateway.

- Wrong network configuration.
  - Verify that the Ethernet card driver software and TCP/IP software are both installed and configured on your PC or workstation.
  - Verify that the IP address for your gateway and your workstation are correct and that the addresses are on the same subnet.

Test the Path from Your PC to a Remote Device

After verifying that the LAN path works correctly, test the path from your PC to a remote device. From the Windows run menu, type:

PING -n 10 `<IP address>`

where <*IP address*> is the IP address of a remote device such as your ISP’s DNS server.

If the path is functioning correctly, replies as in the previous section are displayed. If you do not receive replies:

- Check that your PC has the IP address of your gateway listed as the default gateway. If the IP configuration of your PC is assigned by DHCP, this information will not be visible in your PC’s Network Control Panel. Verify that the IP address of the gateway is listed as the default gateway.
- Check to see that the network address of your PC (the portion of the IP address specified by the netmask) is different from the network address of the remote device.
- Check that your Cable Link LED is on.
- If your ISP assigned a host name to your PC, enter that host name as the Account Name in the Basic Settings screen.

Wireless Performance and Gateway Location

The range of your wireless connection can vary significantly based on the physical placement of the gateway. The latency, data throughput performance, and notebook power consumption of wireless adapters also vary depending on your configuration choices.

For best results, place your gateway according to the following guidelines:

- Near the center of the area in which your computers will operate.
- In an elevated location such as a high shelf where the wirelessly connected PCs have line-of-sight access (even if through walls).
- Away from sources of interference, such as PCs, microwave ovens, and 2.4 GHz cordless phones.
- Away from large metal surfaces.
- Put the antenna in a vertical position to provide the best side-to-side coverage. Put the antenna in a horizontal position to provide the best up-and-down coverage.

- To reduce interference when using more than one access point, NETGEAR recommends using 5 channel spacing between adjacent access points (for example, use Channels 1 and 6, or 6 and 11).

The time it takes to establish a wireless connection can vary depending on both your security settings and the gateway location. WEP connections can take slightly longer to establish. Also, WEP encryption can consume more battery power on a notebook computer.

A. Technical Specifications

A

This chapter includes:

- *Factory Default Settings*
- *Technical Specifications*

Factory Default Settings

You can return the gateway to its factory settings. On the bottom of the gateway, press and hold the Restore Factory Settings button ○ for over 7 seconds. The gateway resets, and returns to its factory settings. Your device will return to the factory configuration settings shown in the following table.

Factory Default Settings		
Gateway Login	User login URL	http://192.168.1.1
	User name and password (case sensitive)	admin/password
Local Network (LAN)	LAN IP	192.168.1.1
	Subnet mask	255.255.255.0
	DHCP server	Enabled
	DHCP starting IP address	192.168.1.2
	DHCP Ending IP address	192.168.1.254
Firewall	Inbound communication from the Internet	Disabled (except traffic on port 80, the http port)
	Outbound communication to the Internet	Enabled (all)
	Source MAC filtering	Disabled
Internet connection	WAN MAC address	Use default hardware address
	WAN MTU size	1500

Factory Default Settings (Continued)		
Wireless	Wireless communication	Enabled
	SSID name	As shown on the product label.
	Security	WPA/WPA2
	Broadcast SSID	Enabled
	Transmission speed	Auto[1]
	Country/region	Depends on the country where the product is sold.
	RF channel	Auto
	Operating mode	n, g, and b
	Data rate	Best
	Output power	Full
	Access point	Enabled
	Authentication type	Open System
	Wireless card access list	All wireless stations allowed

1. Maximum Wireless signal rate derived from IEEE Standard 802.11 specifications. Actual throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, may lower actual data throughput rate.

Technical Specifications

The following table describes the technical specifications for the gateway.

Technical Specifications	
Network protocol and standards compatibility	Data and Routing Protocols: TCP/IP, DHCP server and client, DNS relay, NAT (many-to-one), TFTP client, VPN pass through (IPSec, PPTP)
Power adapter	• North America (input): 120V, 60 Hz, input • All regions (output): 12 V DC @ 2.5A output 30W maximum
Physical specifications	• Dimensions: 8.5 by 5.75 by 1.3 in (216 by 146 by 33 mm) • Weight: 0.95 lb (0.42 kg)
Environmental	• Operating temperature: 32° to 140° F (0° to 40° C) • Operating humidity: 90% maximum relative humidity, noncondensing • Electromagnetic emissions: Meets requirements of: FCC Part 15 Class B.

Technical Specifications (Continued)	
Interface	Local: 10BASE-T, 100/1000BASE-Tx, RJ-45 USB 2.0/1.1 function 802.11n/g/b
	Internet: DOCSIS 3.0. Downward compatible with DOCSIS 2.0, 1.1 and 1.0

B. Notification of Compliance

B

Europe – EU Declaration of Conformity

Marking with the above symbol indicates compliance with the Essential Requirements of the R&TTE Directive of the European Union (1999/5/EC).

This equipment meets the following conformance standards:

- EN300 328 (2.4Ghz), EN301 489-17, EN301 893 (5Ghz), EN60950-1
- This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.
- In Italy, the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.
- This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.
- For complete DoC, visit the NETGEAR EU Declarations of Conformity website at: *http://kb.netgear.com/app/answers/detail/a_id/11621/*

Table 2.

Cesky [Czech]	*NETGEAR* Inc. tímto prohlašuje, že tento Radiolan je ve shode se základními požadavky a dalšími príslušnými ustanoveními smernice 1999/5/ES.
Dansk [Danish]	Undertegnede *NETGEAR Inc.* erklærer herved, at følgende udstyr Radiolan overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Deutsch [German]	Hiermit erklärt *NETGEAR Inc.*, dass sich das Gerät Radiolan in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
Eesti [Estonian]	Käesolevaga kinnitab *NETGEAR Inc.* seadme Radiolan vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, *NETGEAR Inc.*, declares that this Radiolan is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente *NETGEAR Inc.* declara que el Radiolan cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

Table 2.

Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ *NETGEAR Inc.* ΔΗΛΩΝΕΙ ΟΤΙ Radiolan ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
Français [French]	Par la présente *NETGEAR Inc.* déclare que l'appareil Radiolan est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]	Con la presente *NETGEAR Inc.* dichiara che questo Radiolan è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo *NETGEAR Inc.* deklarē, ka Radiolan atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo *NETGEAR Inc.* deklaruoja, kad šis Radiolan atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart *NETGEAR Inc.* dat het toestel Radiolan in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, *NETGEAR Inc.*, jiddikjara li dan Radiolan jikkonforma mal-htigijiet essenzjali u ma provvedimenti ohrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, *NETGEAR Inc.* nyilatkozom, hogy a Radiolan megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
Polski [Polish]	Niniejszym NETGEAR Inc. oświadcza, że Radiolan jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	*NETGEAR Inc.* declara que este Radiolan está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]	NETGEAR Inc. izjavlja, da je ta Radiolan v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	*NETGEAR Inc.* týmto vyhlasuje, že Radiolan spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	*NETGEAR Inc.* vakuuttaa täten että Radiolan tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar *NETGEAR Inc.* att denna Radiolan står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Íslenska [Icelandic]	Hér með lýsir *NETGEAR Inc.* yfir því að Radiolan er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.
Norsk [Norwegian]	*NETGEAR Inc.* erklærer herved at utstyret *Radiolan* er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

Index