



VIDEOTRON

EMG2926-Q10A

Dual-Band Wireless AC/N Gigabit Ethernet Gateway

Version 1.00
Edition 2, 08/2015

User's Guide

Default Login Details

LAN IP Address	http://192.168.0.1 (Router Mode)
User Name	admin
Password	(blank)

IMPORTANT!

READ CAREFULLY BEFORE USE.

KEEP THIS GUIDE FOR FUTURE REFERENCE.

Screenshots and graphics in this book may differ slightly from your product due to differences in your product firmware or your computer operating system. Every effort has been made to ensure that the information in this manual is accurate.

Related Documentation

- Quick Start Guide

The Quick Start Guide shows how to connect the EMG2926-Q10A. It contains information on setting up your network and configuring for Internet access.

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PART I

User's Guide

Introduction

1.1 Overview

This chapter introduces the main features and applications of the EMG2926-Q10A.

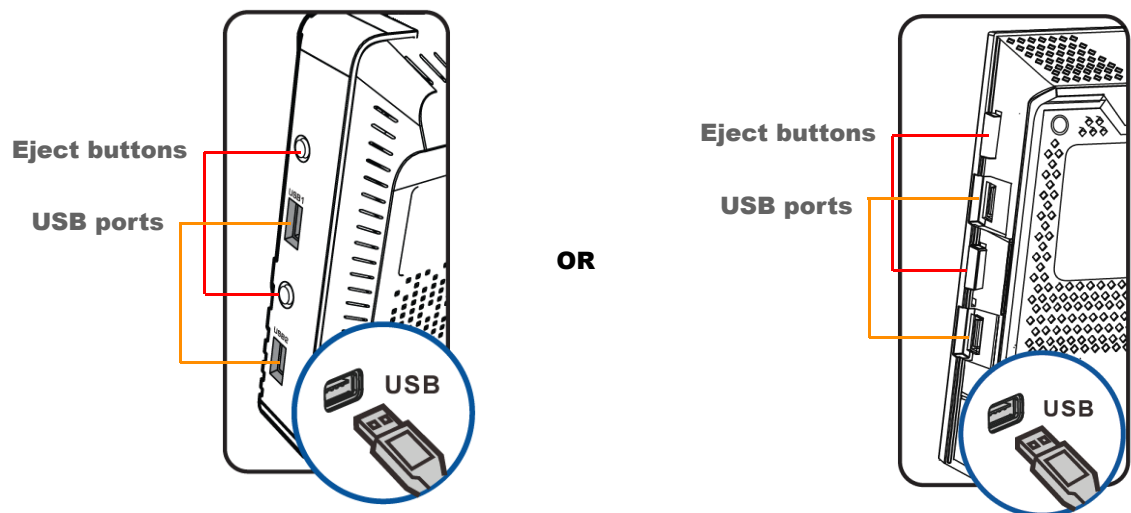
The EMG2926-Q10A extends the range of your existing wired network without additional wiring, providing easy network access to mobile users. You can set up a wireless network with other IEEE 802.11a/ac/b/g/n compatible devices.

A range of services such as a firewall and content filtering are also available for secure Internet computing. The EMG2926-Q10A also supports the new StreamBoost Smart Quality of Service (QoS) technology, which redistributes traffic over the EMG2926-Q10A for the best possible performance in a home network.

There are two USB 2.0 ports on the side panel of your EMG2926-Q10A. You can connect USB memory sticks (version 2.0 or lower), USB hard drives, or USB devices for file sharing. The EMG2926-Q10A automatically detects USB devices.

Two USB eject buttons are located above the USB ports. Hold down the eject button for the corresponding USB port for 2 seconds. Make sure the USB LED is off before removing your USB device. This will remove your USB device safely, preventing the loss of files or data being transmitted through the USB device.

Figure 1 USB Ports and Eject Buttons

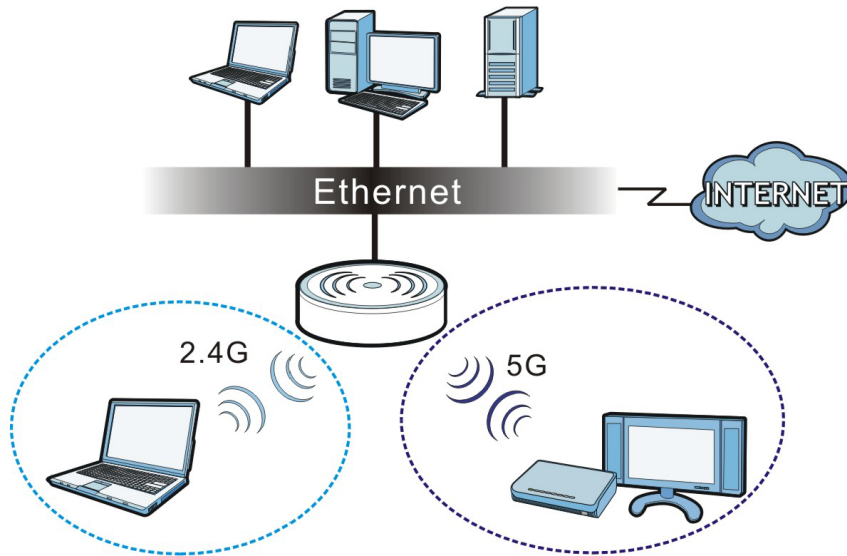


Note: For the USB function, it is strongly recommended to use version 2.0 or lower USB storage devices (memory sticks, USB hard drives, etc.) and/or USB devices. Other USB products are not guaranteed to function properly with the EMG2926-Q10A.

1.1.1 Dual-Band

The EMG2926-Q10A is a dual-band AP and is able to operate both 2.4G and 5G networks at the same time. You could use the 2.4 GHz band for regular Internet surfing and downloading while using the 5 GHz band for time-sensitive traffic like high-definition video, music, and gaming.

Figure 2 Dual-Band Application



1.2 Applications

You can have the following networks with the EMG2926-Q10A:

- **Wired.** You can connect network devices via the Ethernet ports of the EMG2926-Q10A so that they can communicate with each other and access the Internet.
- **Wireless.** Wireless clients can connect to the EMG2926-Q10A to access network resources. You can use WPS (Wi-Fi Protected Setup) to create an instant network connection with another WPS-compatible device.
- **WAN.** Connect to a broadband modem/router for Internet access.

1.3 Ways to Manage the EMG2926-Q10A

Use any of the following methods to manage the EMG2926-Q10A.

- **WPS (Wi-Fi Protected Setup).** You can use the WPS button or the WPS section of the Web Configurator to set up a wireless network with your EMG2926-Q10A.
- **Web Configurator.** This is recommended for everyday management of the EMG2926-Q10A using a (supported) web browser.

1.4 Good Habits for Managing the EMG2926-Q10A

Do the following things regularly to make the EMG2926-Q10A more secure and to manage the EMG2926-Q10A more effectively.

- Change the password. Use a password that's not easy to guess and that consists of different types of characters, such as numbers and letters.
- Write down the password and put it in a safe place.
- Back up the configuration (and make sure you know how to restore it). Restoring an earlier working configuration may be useful if the device becomes unstable or even crashes. If you forget your password, you will have to reset the EMG2926-Q10A to its factory default settings. If you backed up an earlier configuration file, you would not have to totally re-configure the EMG2926-Q10A. You could simply restore your last configuration.

1.5 Resetting the EMG2926-Q10A

If you forget your password or IP address, or if you cannot access the Web Configurator, you will need to use the **RESET** button at the back of the EMG2926-Q10A to reload the factory-default configuration file. This means that you will lose all configurations that you had previously saved. The user name will be reset to "admin" and the IP address will be reset to "192.168.0.1". The default password is an empty string.

1.5.1 How to Use the RESET Button



- 1 Make sure the power LED is on.
- 2 Press the **RESET** button for one to four seconds to restart/reboot the EMG2926-Q10A.
- 3 Hold down the **RESET** button for longer than five seconds to reset the EMG2926-Q10A to its factory-default configuration.

1.6 The WPS Button

Your EMG2926-Q10A supports Wi-Fi Protected Setup (WPS), which is an easy way to set up a secure wireless network. WPS is an industry-standard specification, defined by the Wi-Fi Alliance.

WPS allows you to quickly set up a wireless network with strong security, without having to configure security settings manually. Each WPS connection works between two devices. Both devices must support WPS (check each device's documentation to make sure).

Depending on the devices you have, you can either press a button (on the device itself, or in its configuration utility) or enter a PIN (a unique Personal Identification Number that allows one device to authenticate the other) on each of the two devices. When WPS is activated on a device, it has two minutes to find another device that also has WPS activated. Then, the two devices connect and set up a secure network by themselves.

You can use the WPS button ( or ) on the front panel of the EMG2926-Q10A to activate WPS in order to quickly set up a wireless network with strong security.

- 1 Make sure the power LED is on (not blinking).
- 2 Press the WPS button for more than three seconds and release it. Press the WPS button on another WPS-enabled device within range of the EMG2926-Q10A.

Note: You must activate WPS on the EMG2926-Q10A and on another wireless device within two minutes of each other.

For more information on using WPS, see [Section 6.2 on page 50](#).

1.7 LEDs

Look at the LED lights on the front panel to determine the status of the EMG2926-Q10A. Use the **LED** button at the side panel of the device to turn the LED lights on or off. If the **LED** button is already in the **ON** position but none of the LEDs are on, make sure the EMG2926-Q10A is receiving power and the power is turned on.

Note: The **Power** LED will be on even if you push the **LED** button to the **OFF** position. This is for you to determine whether the EMG2926-Q10A is powered on.

Figure 3 LED Button

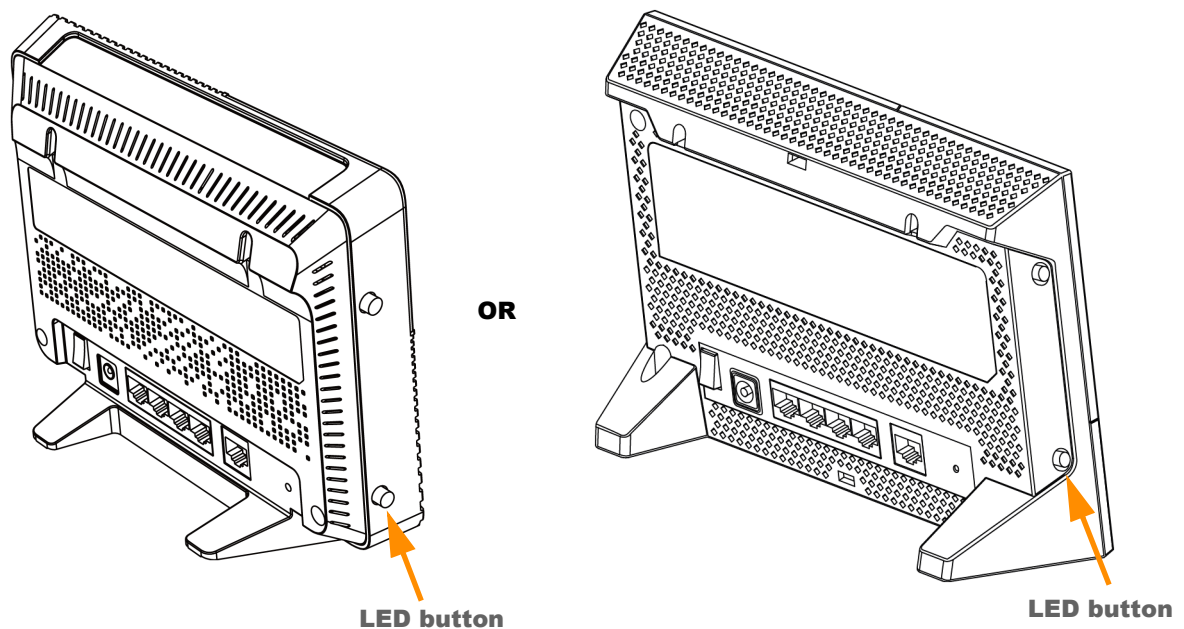
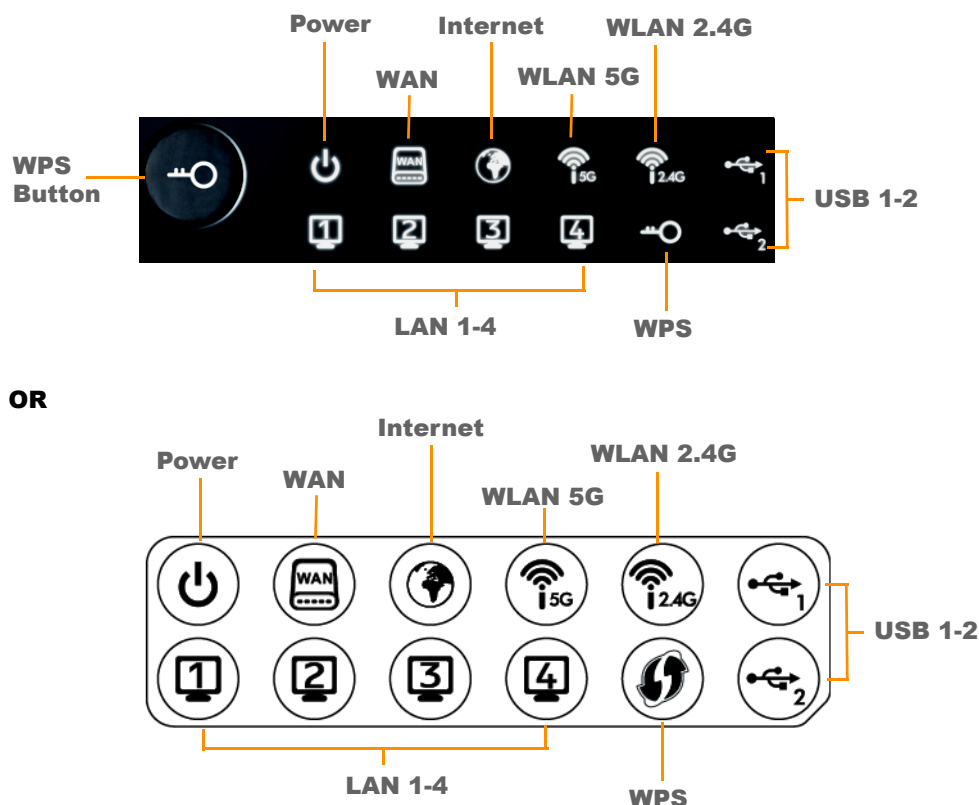


Figure 4 Front Panel

The following table describes the LEDs and the WPS button.

Table 1 Front Panel LEDs and WPS Button

LED	STATUS	DESCRIPTION
WPS Button		Press this button for 1 second to set up a wireless connection via WiFi Protected Setup with another WPS-enabled client. You must press the WPS button on the client side within 120 seconds for a successful connection. See Section 1.6 on page 13 and Section 6.2 on page 50 for more information on WPS.
Power	On	The EMG2926-Q10A is receiving power and functioning properly.
	Off	The EMG2926-Q10A is not receiving power.
WAN	On	The EMG2926-Q10A's WAN connection is ready.
	Blinking	The EMG2926-Q10A is sending/receiving data through the WAN at a 1000Mbps transmission rate.
	Off	The WAN connection is not ready, or has failed.
Internet	On	The EMG2926-Q10A has an IP connection but no traffic. Your device has a WAN IP address (either static or assigned by a DHCP server), PPP negotiation was successfully completed (if used) and the connection is up.
	Blinking	The EMG2926-Q10A is sending or receiving IP traffic.
	Off	The EMG2926-Q10A does not have an IP connection.

Table 1 Front Panel LEDs and WPS Button (continued)

LED	STATUS	DESCRIPTION
WLAN 2.4/5G	On	The EMG2926-Q10A is ready, but is not sending/receiving data through the 5G wireless LAN.
	Blinking	The EMG2926-Q10A is sending/receiving data through the 5G wireless LAN. The EMG2926-Q10A is negotiating a WPS connection with a wireless client.
	Off	The wireless LAN is not ready or has failed.
LAN 1-4	On	The EMG2926-Q10A's LAN connection is ready.
	Blinking	The EMG2926-Q10A is sending/receiving data through the LAN at a 1000Mbps transmission rate.
	Off	The LAN connection is not ready, or has failed.
USB 1-2	On	The EMG2926-Q10A has a USB device installed.
	Blinking	The EMG2926-Q10A is transmitting and/or receiving data from routers through an installed USB device.
	Off	There is no USB device connected to the EMG2926-Q10A.

1.8 Wall Mounting

You may need screw anchors if mounting on a concrete or brick wall.

Table 2 Wall Mounting Information

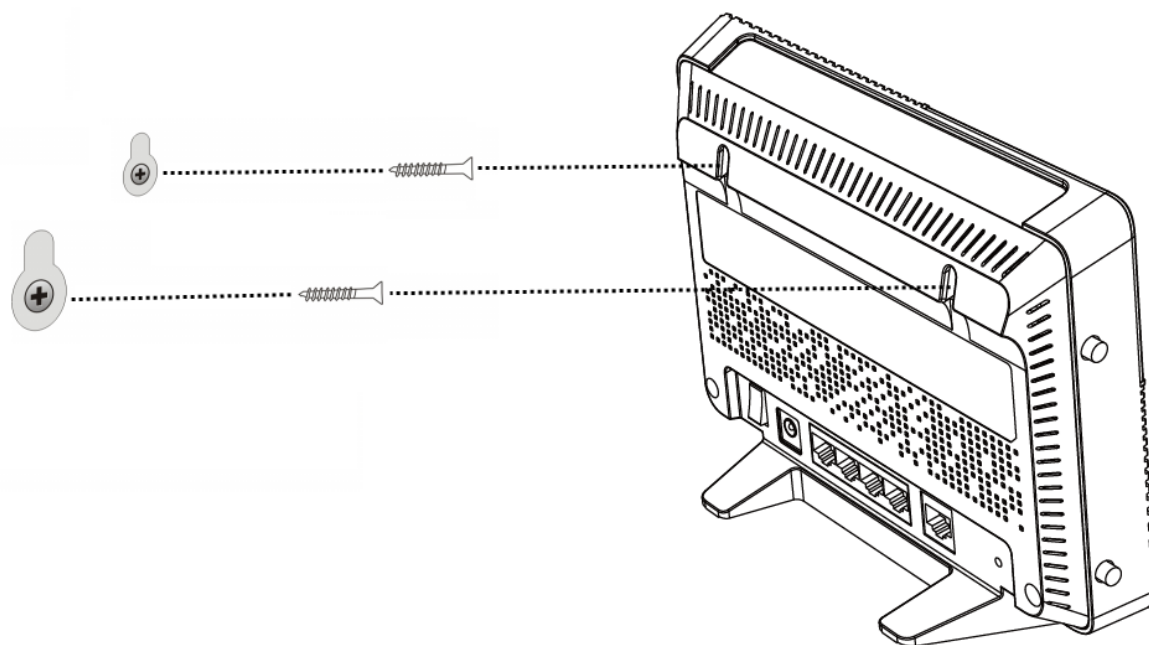
Distance between holes	12.7 cm
M4 screws	Two
Screw anchors (optional)	Two

- 1 Select a position free of obstructions on a wall strong enough to hold the weight of the device.
- 2 Mark two holes on the wall at the appropriate distance apart for the screws.

Be careful to avoid damaging pipes or cables located inside the wall when drilling holes for the screws.

- 3 If using screw anchors, drill two holes for the screw anchors into the wall. Push the anchors into the full depth of the holes, then insert the screws into the anchors. Do not insert the screws all the way in - leave a gap of about 0.5 cm.
If not using screw anchors, use a screwdriver to insert the screws into the wall. Do not insert the screws all the way in - leave a gap of about 0.5 cm.
- 4 Make sure the screws are fastened well enough to hold the weight of the EMG2926-Q10A with the connection cables.
- 5 Align the holes on the back of the EMG2926-Q10A with the screws on the wall. Hang the EMG2926-Q10A on the screws.

Figure 5 Wall Mounting Example



Introducing the Web Configurator

2.1 Overview

This chapter describes how to access the EMG2926-Q10A Web Configurator and provides an overview of its screens.

The Web Configurator is an HTML-based management interface that allows for easy setup and management of the EMG2926-Q10A via an Internet browser. Use Internet Explorer 9.0 and later versions, Mozilla Firefox 21 and later versions, Safari 6.0 and later versions or Google Chrome 26.0 and later versions. The recommended screen resolution is 1024 by 768 pixels.

In order to use the Web Configurator you need to allow:

- web browser pop-up windows on your device. Web pop-up blocking is enabled by default in Windows XP SP (Service Pack) 2;
- JavaScript (enabled by default);
- Java permissions (enabled by default).

2.2 Accessing the Web Configurator

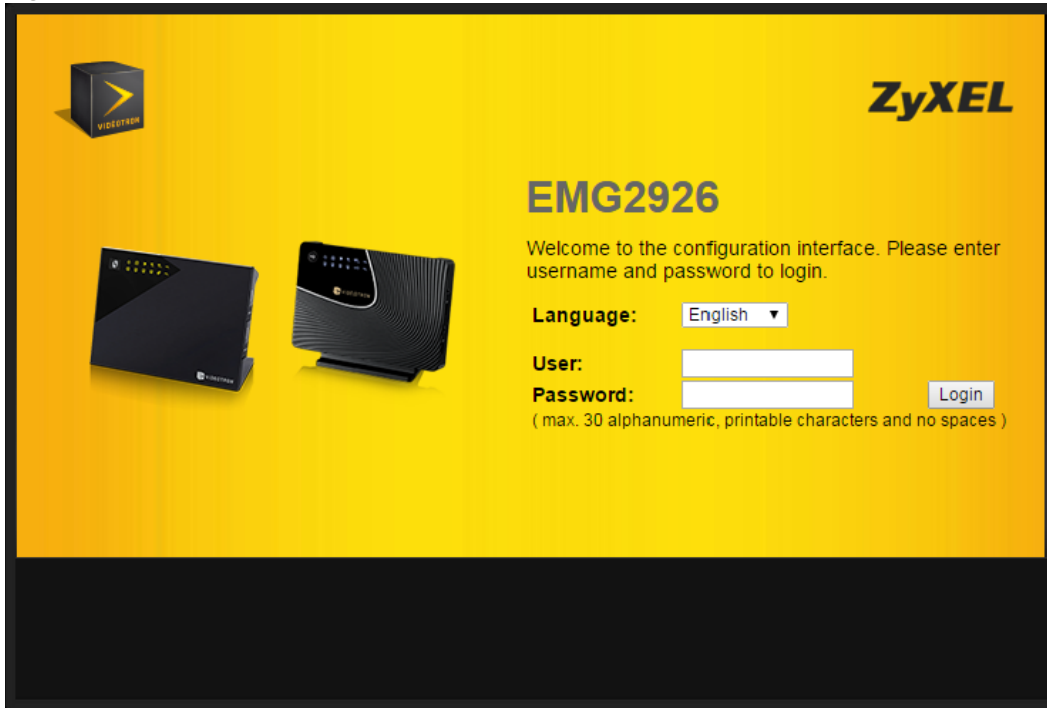
- 1 Make sure your EMG2926-Q10A hardware is properly connected and prepare your computer or computer network to connect to the EMG2926-Q10A (refer to the Quick Start Guide).
- 2 Launch your web browser.
- 3 The EMG2926-Q10A is in router mode by default. Type "http://192.168.0.1" as the website address.

If the EMG2926-Q10A is in access point mode, the IP address is 192.168.0.2.

Your computer must be in the same subnet in order to access this website address.

2.2.1 Login Screen

The Web Configurator initially displays the login screen below.

Figure 6 Login Screen

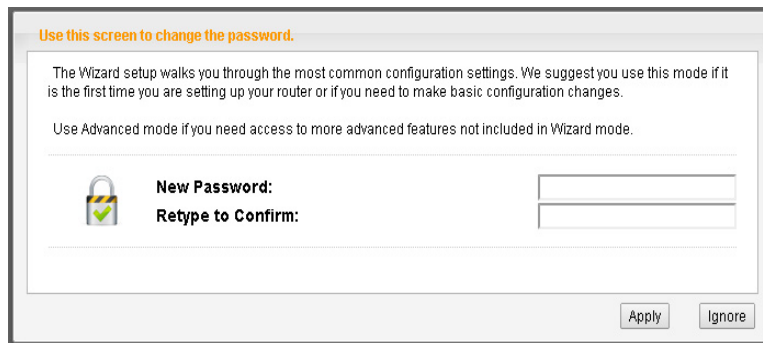
The following table describes the labels on this screen.

Table 3 Login Screen

LABEL	DESCRIPTION
Language	Select the language you want to use to configure the Web Configurator.
User	Type "admin" (default) as the user name. Click Login .
Password	Leave this field blank.

2.2.2 Password Screen

You should see a screen asking you to change your password (highly recommended), as shown below.

Figure 7 Change Password Screen

The following table describes the labels on this screen.

Table 4 Change Password Screen

LABEL	DESCRIPTION
New Password	Type a new password.
Retype to Confirm	Retype the password for confirmation.
Apply	Click Apply to save your changes with the EMG2926-Q10A.
Ignore	Click Ignore if you do not want to change the password this time.

Note: The management session automatically times out when the time period set in the **Administrator Inactivity Timer** field expires (default five minutes; go to [Chapter 26 on page 162](#) to change). If this happens, simply log back in to the EMG2926-Q10A.

Connection Wizard

3.1 Overview

This chapter provides information on the wizard setup screens in the Web Configurator.

The Web Configurator's setup wizard helps you configure your device to access the Internet. Refer to your ISP for your Internet account information. Leave a field blank if you don't have that information.

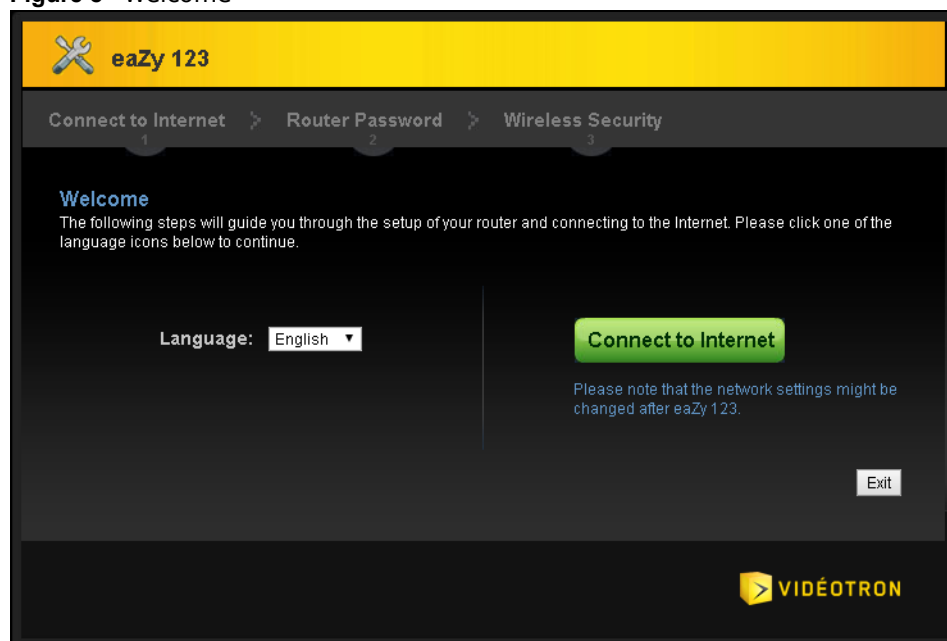
3.2 Accessing the Wizard

Launch your web browser and type "http://192.168.0.1" as the website address. Type "admin" (default) as the user name and leave the password field blank. Click **Login**.

Note: The Web Configurator is set to **Easy Mode** by default after login. If you are in **Expert Mode**, you can click the **Easy Mode** icon on the upper right corner of any Web Configurator screen to go to **Easy Mode**.

Click the **eaZy123** icon on the network map screen in **Easy Mode**. The Wizard screen will open. Choose your **Language** and click **Connect to Internet**.

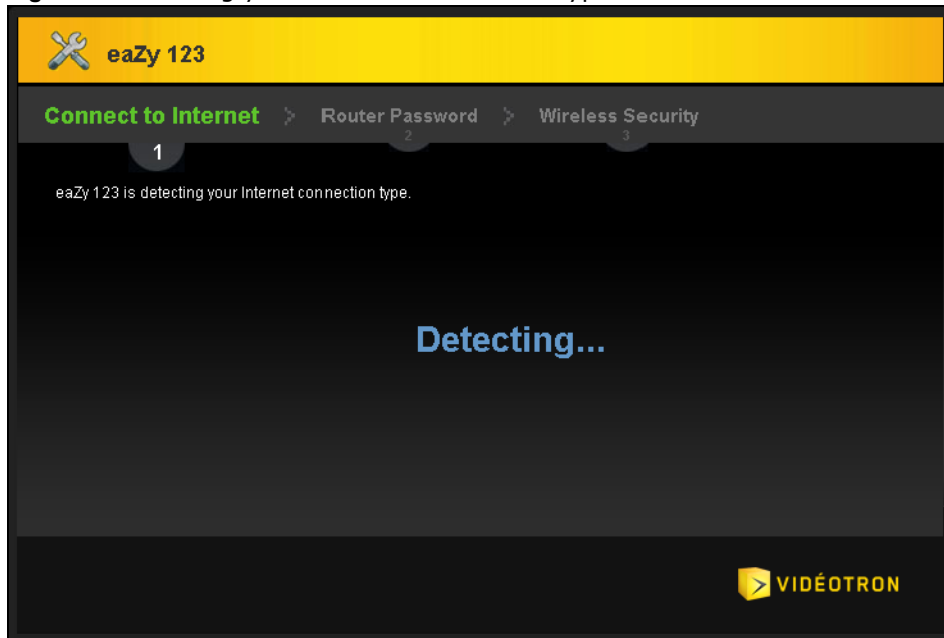
Figure 8 Welcome



3.3 Connect to Internet

The EMG2926-Q10A allows you to choose between two Internet connection types: **IPoE** or **PPPoE**. The wizard attempts to detect which WAN connection type you are using.

Figure 9 Detecting your Internet Connection Type



If the wizard does not detect a connection type, you must select one from the drop-down list box. Check with your ISP to make sure you use the correct type.

Note: If you get an error message, check your hardware connections. Make sure your Internet connection is up and running.

The following screen depends on your Internet connection type. Enter the details provided by your Internet Service Provider (ISP) in the fields (if any).

Figure 10 Internet Connection Type

eaZy 123

Connect to Internet > Router Password > Wireless Security

1

Internet Connection Type : IPoE ▼

Please refer to the information provided by your Internet Service Provider (ISP) and fill in the following blanks.

☒ Obtain an IP Address Automatically

☐ Static IP Address

IP Address :

Subnet Mask :

Gateway IP address :

First DNS Server : Obtained From ISP ▼ 172.13.7.2

Second DNS Server : Obtained From ISP ▼ 172.13.7.1

Exit Back Next

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Your EMG2926-Q10A detects the following Internet Connection types.

Table 5 Internet Connection Types

CONNECTION TYPE	DESCRIPTION
IPoE	Select the IPoE (IP over Ethernet) option when the WAN port is used as a regular Ethernet.
PPPoE	Select the PPPoE (Point-to-Point Protocol over Ethernet) option for a dial-up connection.

3.3.1 Connection Type: IPoE

Choose **IPoE** as the **Internet Connection Type** when the WAN port is used as a regular Ethernet. Click **Next**.

Figure 11 Internet Connection Type: IPoE

eaZy 123

Connect to Internet > Router Password > Wireless Security

1

Internet Connection Type : IPoE

Please refer to the information provided by your Internet Service Provider (ISP) and fill in the following blanks.

☒ Obtain an IP Address Automatically

☐ Static IP Address

IP Address :

Subnet Mask :

Gateway IP address :

First DNS Server : 172.13.7.2

Second DNS Server : 172.13.7.1

Exit Back Next

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The following table describes the labels on this screen.

Table 6 Internet Connection Type: IPoE

LABEL	DESCRIPTION
Internet Connection Type	Select the IPoE option.
Obtain an IP Address Automatically	Select this radio button if your Internet Service Provider (ISP) did not assign you a fixed IP address.
Static IP Address	Select this radio button if your ISP assigned an IP address for your Internet connection.
IP Address	Enter the IP address provided by your ISP.
Subnet Mask	Enter the IP subnet mask in this field.
Gateway IP Address	Enter the gateway IP address in this field.
First DNS Server Second DNS Server	<p>Select Obtained From ISP if your ISP dynamically assigns DNS server information (and the EMG2926-Q10A's WAN IP address). The field to the right displays the (read-only) DNS server IP address that the ISP has assigned.</p> <p>Select User-Defined if you have the IP address of a DNS server. Enter the DNS server's IP address in the field to the right.</p> <p>Select None if you do not want to configure DNS servers. If you do not configure a DNS server, you must know the IP address of a computer in order to access it.</p>
Exit	Click this button to close the wizard screen without saving.
Back	Click this button to return to the previous screen.
Next	Click this button to continue.

Note: If you get an error screen after clicking **Next**, you might have selected the wrong Internet Connection type. Click **Back**, make sure your Internet connection is working and select the right Connection Type. Contact your ISP if you are not sure of your Internet Connection Type.

3.3.2 Connection Type: PPPoE

Point-to-Point Protocol over Ethernet (PPPoE) functions as a dial-up connection. PPPoE is an IETF (Internet Engineering Task Force) standard specifying how a host personal computer interacts with a broadband modem (DSL, cable, wireless, etc.) to achieve access to high-speed data networks.

For the service provider, PPPoE offers an access and authentication method that works with existing access control systems (RADIUS, etc.).

One of the benefits of PPPoE is the ability to let end users access one of multiple network services, a function known as dynamic service selection. This enables the service provider to easily create and offer new IP services for specific users.

Operationally, PPPoE saves significant effort for both the subscriber and the ISP/carrier, as it requires no specific configuration of the broadband modem at the subscriber's site.

By implementing PPPoE directly on the EMG2926-Q10A (rather than individual computers), the computers on the LAN do not need PPPoE software installed, as the EMG2926-Q10A does that part of the task. Furthermore, with NAT, all of the LAN's computers will have Internet access.

Figure 12 Internet Connection Type: PPPoE

The following table describes the labels on this screen.

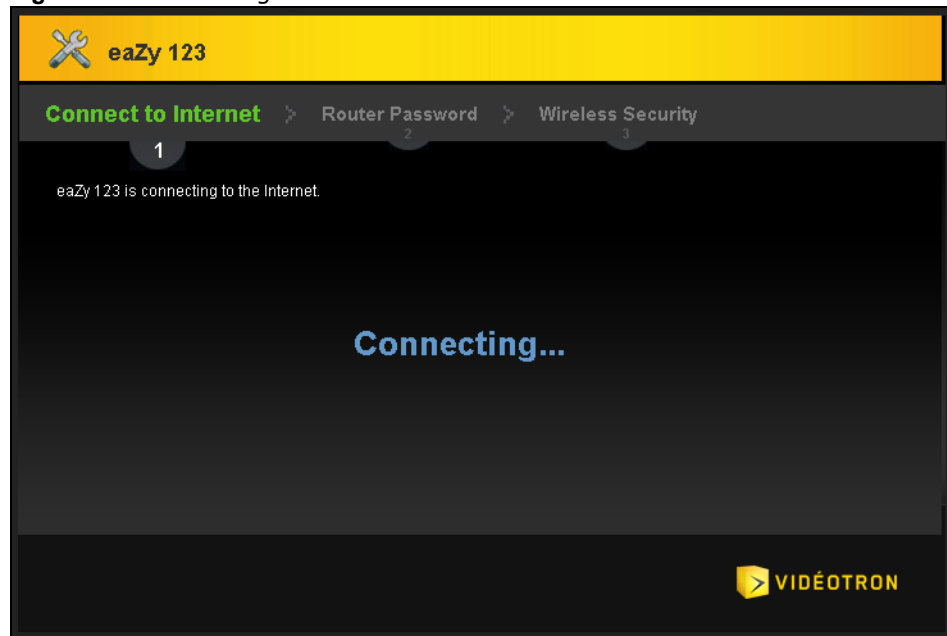
Table 7 Internet Connection Type: PPPoE

LABEL	DESCRIPTION
Internet Connection Type	Select the PPPoE option for a dial-up connection.
Get automatically from ISP	Select this radio button if your ISP did not assign you a fixed IP address.
Use Fixed IP Address	Select this radio button to give the EMG2926-Q10A a fixed, unique IP address.
PPP Username	Type the user name given to you by your ISP.

Table 7 Internet Connection Type: PPPoE (continued)

LABEL	DESCRIPTION
PPP Password	Type the password associated with the user name above.
My WAN IP Address	Type the name of your service provider.
Exit	Click this to close the wizard screen without saving.
Back	Click this to return to the previous screen.
Next	Click this to continue.

The EMG2926-Q10A connects to the Internet.

Figure 13 Connecting to the Internet

Note: If the Wizard successfully connects to the Internet, it proceeds to the next step. If you get an error message, go back to the previous screen and make sure you have entered the correct information provided by your ISP.

3.4 Router Password

Change the login password in the following screen. Enter the new password and retype it to confirm. Click **Next** to proceed with the **Wireless Security** screen.

Figure 14 Router Password

The screenshot shows the 'eaZy 123' configuration interface. At the top, a yellow header bar contains a wrench icon and the text 'eaZy 123'. Below this is a dark grey navigation bar with three steps: 'Connect to Internet' (marked with a green check and '1'), 'Router Password' (highlighted in green and marked with '2'), and 'Wireless Security' (marked with '3'). The main content area has a dark background. It features the title 'Change router password' in blue, followed by a note: 'It is highly recommended to have a new administrator password instead of the factory default one (blank)'. Below this are two white input fields labeled 'New Password :' and 'Retype to Confirm :'. At the bottom right of the main area are three buttons: 'Exit', 'Back', and 'Next'. A yellow 'VIDÉOTRON' logo is in the bottom right corner of the interface.

3.5 Wireless Security

Configure Wireless Settings. Configure the wireless network settings on your EMG2926-Q10A on the following screen. The fields that show up depend on the kind of security you select.

3.5.1 Wireless Security: No Security

Choose **No Security** on the **Wireless Security** screen to let wireless devices within range access your wireless network.

Figure 15 Wireless Security: No Security

eaZy 123

Connect to Internet > Router Password > **Wireless Security**

1 2 3

Wireless Security

A protected wireless network secures the data transfer when you are wirelessly connected to the network. Protect it with one of the following security modes and a password.
It is strongly recommended to set WPA or WPA2 encryption for better wireless security.

Wireless Network Name (SSID) :

Security Mode :

Exit Back Next

VIDÉOTRON

The following table describes the labels on this screen.

Table 8 Wireless Security: No Security

LABEL	DESCRIPTION
Wireless Network Name (SSID)	Enter a descriptive name (up to 32 printable 7-bit ASCII characters) for the wireless LAN. If you change this field on the EMG2926-Q10A, make sure all wireless stations use the same SSID in order to access the network.
Security Mode	Select a security level from the drop-down list box. Choose No Security to have no wireless LAN security configured. If you do not enable any wireless security on your EMG2926-Q10A, your network is accessible to any wireless networking device that is within range.
Exit	Click this to close the wizard screen without saving.
Back	Click this to return to the previous screen.
Next	Click this to continue.

3.5.2 Wireless Security: WPA2-PSK

Choose **WPA2-PSK** security in the Wireless Security screen to set up a password for your wireless network.

Figure 16 Wireless Security: WPA2-PSK

eaZy 123

Connect to Internet > Router Password > **Wireless Security**

Wireless Security

A protected wireless network secures the data transfer when you are wirelessly connected to the network. Protect it with one of the following security modes and a password.
It is strongly recommended to set WPA or WPA2 encryption for better wireless security.

Wireless Network Name (SSID) :

Security Mode :

Wireless Password :

Verify Password :

Exit Back Next

VIDÉOTRON

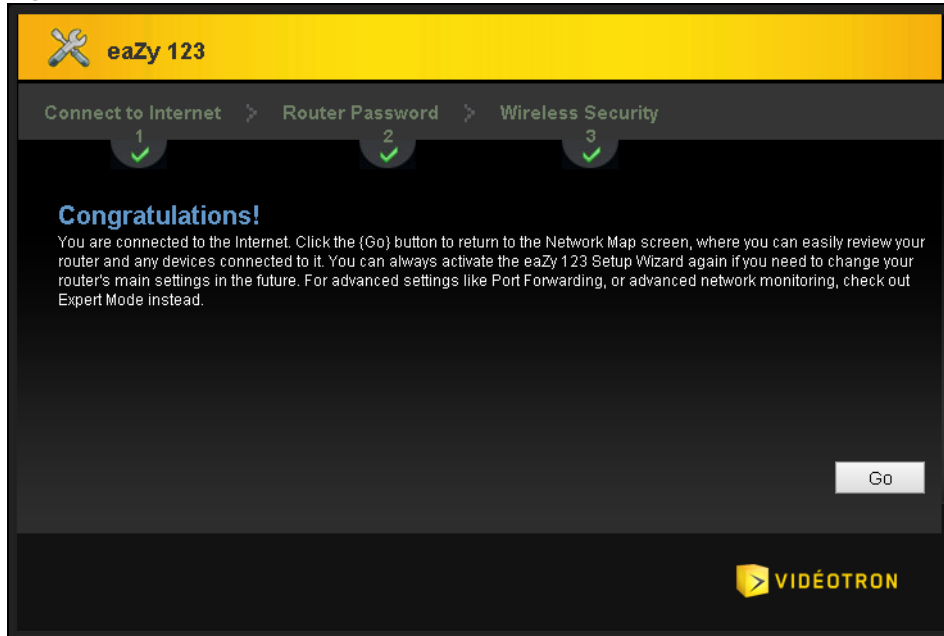
The following table describes the labels on this screen.

Table 9 Wireless Security: WPA2-PSK

LABEL	DESCRIPTION
Wireless Network Name (SSID)	Enter a descriptive name (up to 32 printable 7-bit ASCII characters) for the wireless LAN. If you change this field on the EMG2926-Q10A, make sure all wireless stations use the same SSID in order to access the network.
Security Mode	Select a security level from the drop-down list box. Choose WPA2-PSK security to configure a Pre-Shared Key. Choose this option only if your wireless clients support WPA2-PSK.
Wireless password	Type between 8 to 63 case-sensitive ASCII characters. Set up the most secure wireless connection possible by configuring WPA in the wireless LAN screens.
Verify Password	Retype the password to confirm.
Exit	Click this to close the wizard screen without saving.
Back	Click this to return to the previous screen.
Next	Click this to continue.

Congratulations! Open a web browser, such as Internet Explorer, to visit your favourite website.

Note: If you cannot access the Internet when your computer is connected to one of the EMG2926-Q10A's LAN ports, check your connections. Then, turn the EMG2926-Q10A off, wait for a few seconds, and turn it back on. If that does not work, log in to the web configurator again and check if you have typed all information correctly. See the User's Guide for more suggestions.

Figure 17 Congratulations

You can also click **GO** to open the **Easy Mode** Web Configurator of your EMG2926-Q10A.

You have successfully set up your EMG2926-Q10A to operate on your network and access the Internet. You are now ready to connect wirelessly to your EMG2926-Q10A and access the Internet.

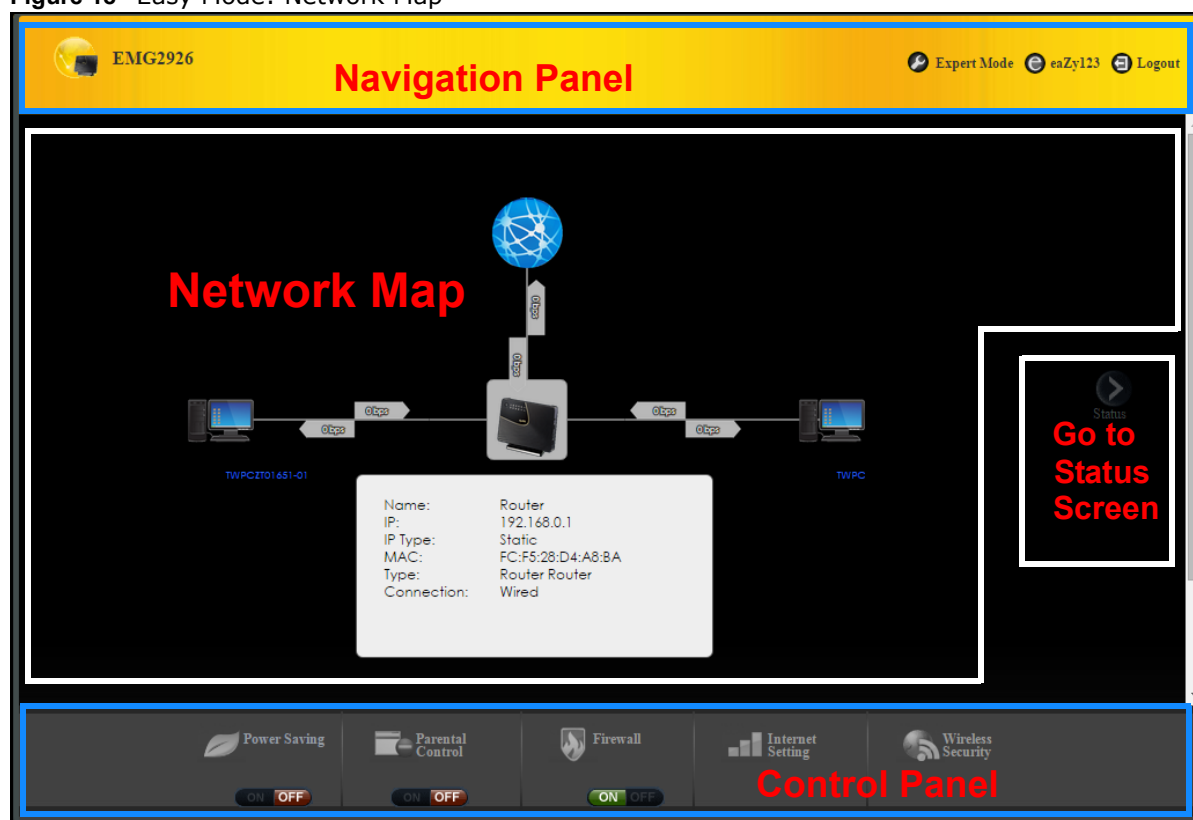
Easy Mode

4.1 Overview

The Web Configurator is set to **Easy Mode** by default. You can configure several key features of the EMG2926-Q10A in this mode. This mode is useful for users who are not fully familiar with some features that are usually intended for network administrators.

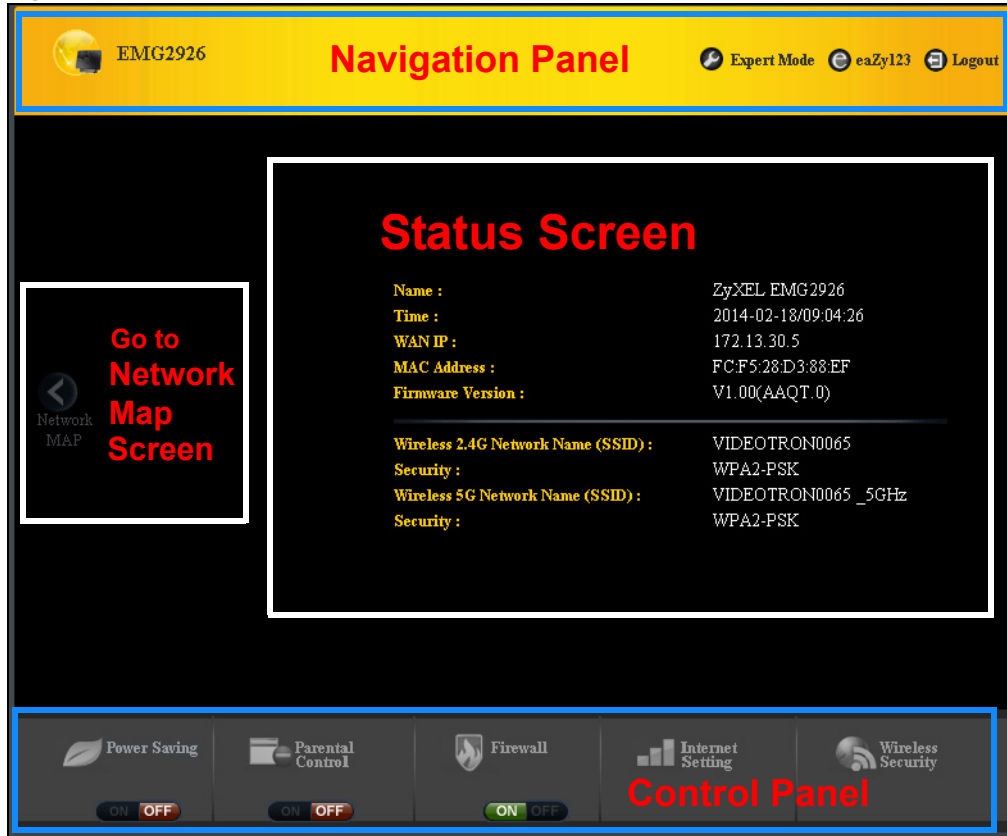
The following screen will appear when you log in to the Web Configurator.

Figure 18 Easy Mode: Network Map



Click **Status** to open the following screen.

Figure 19 Easy Mode: Status Screen



4.2 Navigation Panel

Use this navigation panel to opt out of the **Easy Mode**.

Figure 20 Control Panel



The following table describes the labels on this screen.

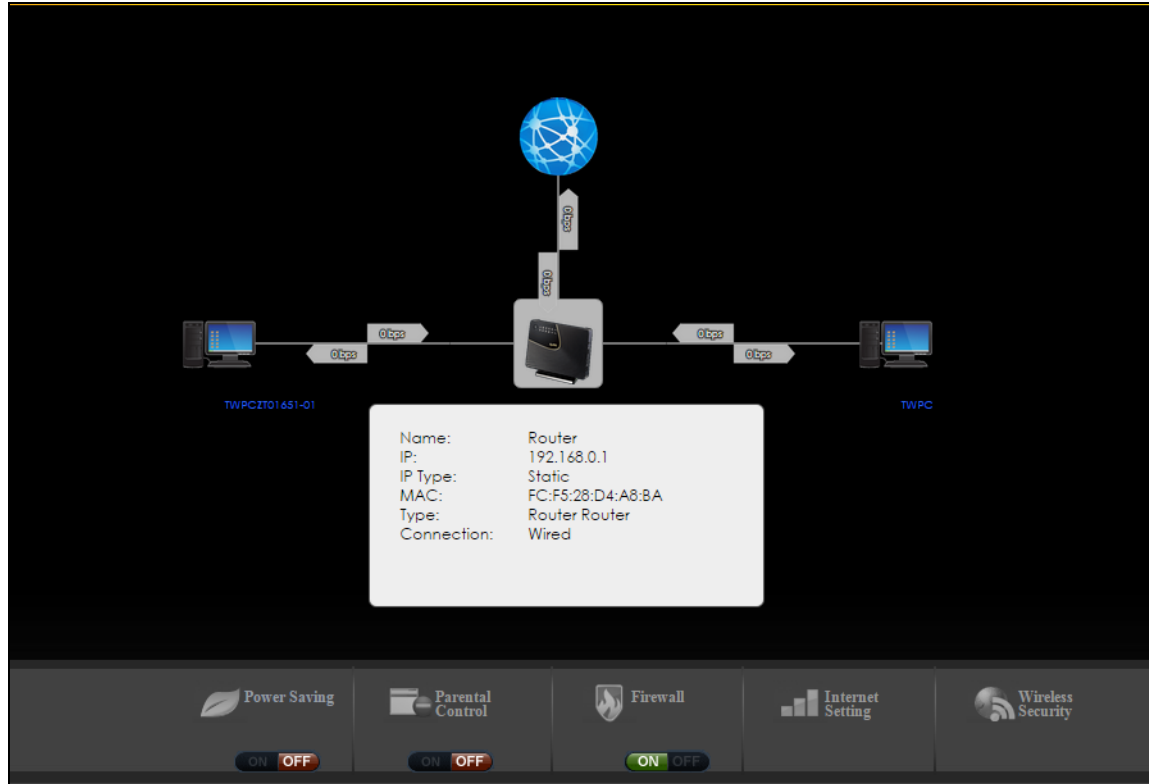
Table 10 Control Panel

ITEM	DESCRIPTION
Expert Mode	Click this to change to Expert Mode and customize features of the EMG2926-Q10A.
eaZy123	Click this icon to open the setup wizard.
Logout	Click this to end the Web Configurator session and go to the Login page.

4.3 Network Map

When you log into the Web Configurator, the Network Map is shown as follows.

Figure 21 Network Map

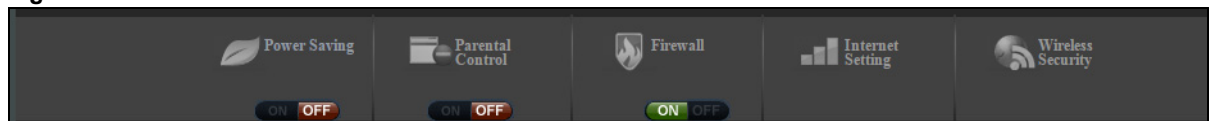


You can view the upstream and downstream transmission speeds between the EMG2926-Q10A and the Internet and/or between the EMG2926-Q10A and the connected device(s) (represented by icons indicating the kind of network device), including those which connect wirelessly. Hover your cursor over a device icon to view details about the device, such as the name, IP address, MAC address, device type and connection type.

4.4 Control Panel

The features that are configurable in **Easy Mode** are shown in the **Control Panel**.

Figure 22 Control Panel



Switch **ON** to enable the feature. Otherwise, switch **OFF**. If the feature is turned on, the green light will flash. If it is turned off, the red light will flash.

You can also click on the feature to open a screen where you can edit its settings.

The following table describes the labels on this screen.

Table 11 Control Panel

ITEM	DESCRIPTION
Power Saving	<p>Click to set a schedule for the wireless feature of the EMG2926-Q10A to turn on and off.</p> <p>Disabling the wireless function helps lower the EMG2926-Q10A's energy consumption.</p> <p>Switch ON to apply wireless scheduling. Otherwise, switch OFF.</p> <p>Refer to Section 4.4.1 on page 34 to see this screen.</p>
Parental Control	<p>Click to restrict access to certain websites, based on keywords contained in URLs, that you do not want users in your network to open.</p> <p>Switch ON to apply website filtering. Otherwise, switch OFF.</p> <p>Refer to Section 4.4.2 on page 35 to see this screen.</p>
Firewall	<p>Switch ON to ensure that your network is protected from Denial of Service (DoS) attacks. Otherwise, switch OFF.</p> <p>Refer to Section 4.4.3 on page 36 to see this screen.</p>
Internet Setting	<p>Click to configure the Internet connection settings.</p> <p>Refer to Section 4.4.4 on page 37 to see this screen.</p>
Wireless Security	<p>Click to configure the EMG2926-Q10A's wireless security features, such as the SSID, the WPS key and security mode .</p> <p>Refer to Section 4.4.5 on page 39 to see this screen.</p>

4.4.1 Power Saving

Use this screen to set the days of the week and times when you want your wireless LAN to turn on and off. Wireless LAN scheduling is disabled by default. Click the **Power Saving** icon on the Control Panel in **Easy Mode** to open the screen shown below.

Disabling wireless capability lowers the energy consumption of the EMG2926-Q10A.

Figure 23 Power Saving

Power Saving

Please schedule the wireless service with the table below.

Wireless Radio : 2.4G Hz ▼

WLAN status	Day	For the following times (24-Hour Format)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Everyday	00 ▼ (hour) 00 ▼ (min) ~ 00 ▼ (hour) 00 ▼ (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Mon	00 ▼ (hour) 00 ▼ (min) ~ 00 ▼ (hour) 00 ▼ (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Tue	00 ▼ (hour) 00 ▼ (min) ~ 00 ▼ (hour) 00 ▼ (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Wed	00 ▼ (hour) 00 ▼ (min) ~ 00 ▼ (hour) 00 ▼ (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Thu	00 ▼ (hour) 00 ▼ (min) ~ 00 ▼ (hour) 00 ▼ (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Fri	00 ▼ (hour) 00 ▼ (min) ~ 00 ▼ (hour) 00 ▼ (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Sat	00 ▼ (hour) 00 ▼ (min) ~ 00 ▼ (hour) 00 ▼ (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Sun	00 ▼ (hour) 00 ▼ (min) ~ 00 ▼ (hour) 00 ▼ (min)

Apply Cancel

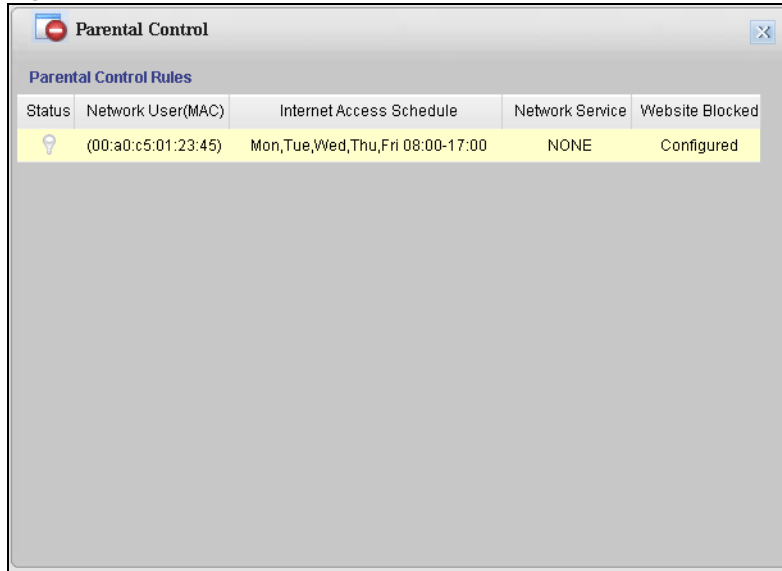
The following table describes the labels on this screen.

Table 12 Power Saving

LABEL	DESCRIPTION
Wireless Radio	Choose whether you want to apply the power saving schedule to 2.4G Hz or 5G Hz wireless radio.
WLAN Status	Select On or Off in the WLAN Status field to specify whether the Wireless LAN should turn on or off. This field works in conjunction with the Day and For the following times fields.
Day	Select Everyday , or choose the specific days on which you want the Wireless LAN to turn on or off. If you select Everyday , you can not select any specific days. This field works in conjunction with the For the following times field.
For the following times (24-Hour Format)	Select a start time using the first set of hour and minute (min) drop-down boxes and select an end time using the second set of hour and minute (min) drop-down boxes. If you chose On for the WLAN Status, the Wireless LAN will turn on between the two times you entered in the fields. If you chose Off for the WLAN Status, the Wireless LAN will turn off between the two times you entered in the fields. In this time format, midnight is 00:00, and the day ends at 24:00. For example, 6:00 PM is 18:00.
Apply	Click Apply to save your changes back to the EMG2926-Q10A.
Cancel	Click Cancel to close this screen without saving any changes.

4.4.2 Parental Controls

Use this screen to view the parental control rules configured on the EMG2926-Q10A. Click the **Parental Control** icon in the Control Panel in **Easy Mode** to open the screen shown next. See [Chapter 17 on page 123](#) for how to enable and configure parental control rules.

Figure 24 Parental Control

The following table describes the labels on this screen.

Table 13 Parental Controls

LABEL	DESCRIPTION
Status	This label indicates whether the rule is active or not. A yellow lightbulb signifies that this rule is active. A grey lightbulb signifies that this rule is not active.
Network User (MAC)	This label shows the MAC address of the LAN user's computer to which this rule applies.
Internet Access Schedule	This label shows the day(s) and time when parental controls are enabled.
Network Service	This label shows whether the network service is configured. If not, NONE will be shown.
Website Blocked	This label shows whether the website block is configured. If not, NONE will be shown.

4.4.3 Firewall

Enable this feature to protect the network from Denial of Service (DoS) attacks. The EMG2926-Q10A blocks repetitive pings from the WAN that can otherwise cause systems to slow down or hang. Click the **Firewall** icon on the Control Panel in **Easy Mode** to open the screen shown below. See [Chapter 15 on page 117](#) for how to enable and configure firewall rules.

Figure 25 Firewall

Click **OK** to close this screen.

4.4.4 Internet Settings

Use this screen to configure your EMG2926-Q10A for Internet access. You should already have Internet account information from your ISP. The screen varies depending on the Internet connection type you selected. Click the **Internet Setting** icon on the Control Panel in **Easy Mode** to open the screen shown next.

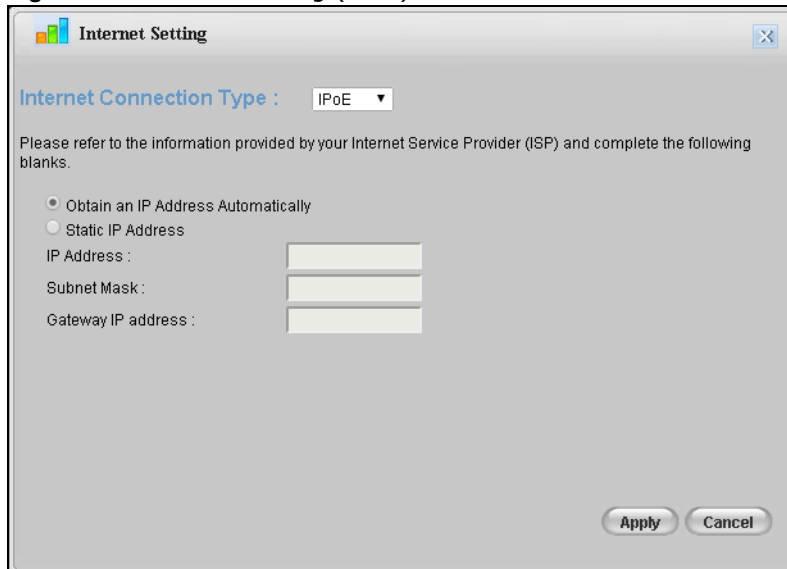
Figure 26 Internet Setting (IPoE)

Figure 27 Internet Setting (PPPoE)

Internet Setting

Internet Connection Type : PPPoE ▼

Please refer to the information provided by your Internet Service Provider (ISP) and complete the following blanks.

☒ Get automatically from ISP
☐ Use Fixed IP Address

PPP Username :
 PPP Password :
 My WAN IP Address :

Apply Cancel

The following table describes the labels on this screen.

Table 14 Internet Settings

LABEL	DESCRIPTION
Internet Connection Type	Select the IPoE (IP over Ethernet) option when the WAN port is used as a regular Ethernet. Select the PPPoE (Point-to-Point Protocol over Ethernet) option for a dial-up connection.
The following fields are available if you select IPoE .	
Obtain an IP Address Automatically	Select this radio button if your ISP did not assign you a fixed IP address.
Static IP Address	Select this radio button if your ISP assigned an IP address for your Internet connection.
IP Address	Enter the IP address provided by your ISP.
Subnet Mask	Enter the IP subnet mask in this field.
Gateway IP Address	Enter the gateway IP address in this field.
The following fields are available if you select PPPoE .	
Get automatically from ISP	Select this radio button if your ISP did not assign you a fixed IP address.
Use Fixed IP Address	Select this radio button to give the EMG2926-Q10A a fixed, unique IP address.
PPP Username	Type the user name given to you by your ISP.
PPP Password	Type the password associated with the user name above.
My WAN IP Address	Type the name of your service provider.
Cancel	Click Cancel to close this screen.
Apply	Click Apply to save your changes back to the EMG2926-Q10A.

4.4.5 Wireless Security

Use this screen to configure security for your wireless LAN. You can enter the SSID and select the wireless security mode in the following screen. Click the **Wireless Security** icon in the control panel of the **Easy Mode** to open the screen shown below.

Note: You can enable the wireless function of your EMG2926-Q10A by first turning on the switch on the side panel.

Figure 28 Wireless Security

The following table describes the labels on this screen.

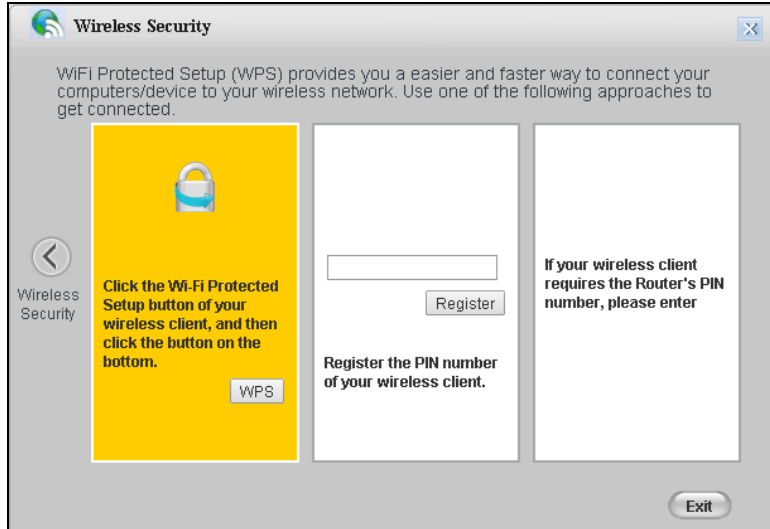
Table 15 Wireless Security

LABEL	DESCRIPTION
Wireless Radio	Choose whether you want to apply the wireless security to 2.4G Hz or 5G Hz wireless radio.
Wireless Network Name (SSID)	(Service Set Identifier) The SSID identifies the Service Set with which a wireless station is associated. Wireless stations associating to the access point (AP) must have the same SSID. Enter a descriptive name (up to 32 keyboard characters) for the wireless LAN.
Security Mode	Select WPA2-PSK to add security on this wireless network. The wireless clients which want to associate to this network must have same wireless security settings as this device. After you select to use a security, additional options appear on this screen. Select No Security to allow any client to connect to this network without authentication.
Wireless Password	This field appears when you choose WPA2-PSK as the security mode. Type a pre-shared key from 8 to 63 case-sensitive keyboard characters.
Verify Password	Type the password again to confirm.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to close this screen.
WPS	Click to configure the WPS screen. You can transfer the wireless settings configured here (Wireless Security screen) to another wireless device that supports WPS.

4.4.6 WPS

Use this screen to add a wireless station to the network using WPS. Click **WPS** in the **Wireless Security** screen to open the screen shown below.

Figure 29 Wireless Security: WPS



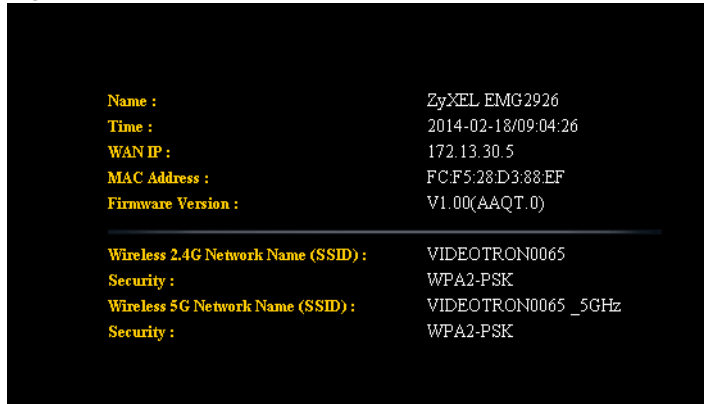
The following table describes the labels on this screen.

Table 16 Wireless Security: WPS

LABEL	DESCRIPTION
Wireless Security	Click this to go back to the Wireless Security screen.
WPS	<p>Create a secure wireless network simply by pressing a button.</p> <p>The EMG2926-Q10A scans for a WPS-enabled device within the range and performs wireless security information synchronization.</p> <p>Note: After you click the WPS button on this screen, you have to click on a similar button in the wireless station utility within 2 minutes. To add the second wireless station, you have to press these buttons on both the EMG2926-Q10A and the wireless station again after the first 2 minutes.</p>
Register	<p>Create a secure wireless network simply by entering a wireless client's PIN (Personal Identification Number) in the EMG2926-Q10A's interface and clicking on this button.</p> <p>Type the same PIN number generated in the wireless station's utility. Then click Register to associate the two and perform the wireless security information synchronization.</p>
Exit	Click Exit to close this screen.

4.5 Status Screen in Easy Mode

In the Network Map screen, click **Status** to view read-only information about the EMG2926-Q10A.

Figure 30 Status Screen in Easy Mode

The following table describes the labels on this screen.

Table 17 Status Screen in Easy Mode

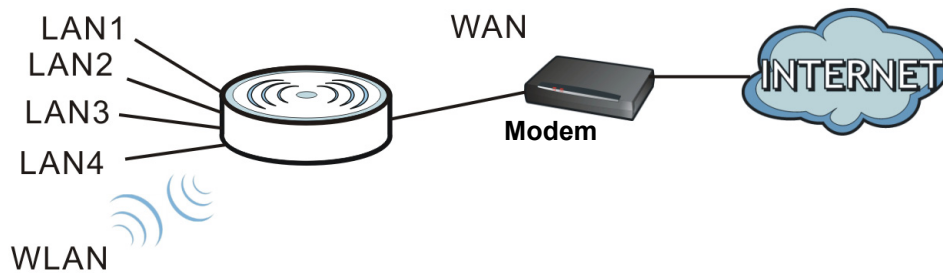
ITEM	DESCRIPTION
Name	This is the name of the EMG2926-Q10A on the network.
Time	This is the current system date and time. The date is in YYYY:MM:DD (Year-Month-Day) format. The time is in HH:MM:SS (Hour:Minutes:Seconds) format.
WAN IP	This is the IP address of the WAN port.
MAC Address	This is the MAC address of the EMG2926-Q10A.
Firmware Version	This is the firmware version of the EMG2926-Q10A. The firmware version format shows the trunk version, model code and release number.
Wireless 2.4G Network Name (SSID) Wireless 5G Network Name (SSID)	This shows the wireless network's SSID. You can configure it in the Wireless Security screen (Section 4.4.5 on page 39 ; Section 9.2 on page 78).
Security	This shows the wireless security method used by the EMG2926-Q10A.

Router Mode

5.1 Overview

The EMG2926-Q10A is set to router mode by default. Routers are used to connect the local network to another network (e.g. the Internet). In the figure below, the EMG2926-Q10A connects the local network (**LAN1 ~ LAN4**) to the Internet.

Figure 31 EMG2926-Q10A Network



Note: The **Status** screen appears after you select **Expert Mode** for the Web Configurator. It varies depending on your EMG2926-Q10A's device mode.

5.2 Router Mode Status Screen

When you are in **Easy Mode**, click the **Expert Mode** icon () in the upper right corner of the screen to enter **Expert Mode**. Click  in **Expert Mode** to open the status screen.

Figure 32 Status Screen: Router Mode

The screenshot displays the ZyXEL EMG2926 Status Screen. The top header shows 'VIDEOTRON EMG2926' and 'Welcome: Admin' with links for Logout, About, and Easy Mode. The left sidebar contains icons for Status, Device Information, System Status, and Interface Status. The main content area is divided into three sections: Device Information, System Status, and Interface Status. The Device Information section lists various system parameters such as Host Name, Model Number, Firmware Version, and network settings for WAN, LAN, and WLAN. The System Status section shows system up time, current date/time, and resource usage (CPU and Memory). The Interface Status section provides a table of interface statuses and rates.

Item	Data
Host Name:	EMG2926
Model Number:	EMG2926
Firmware Version:	V1.00(AAQT.3)b1_0306
Sys OP Mode:	ROUTER Mode
WAN Information	
- MAC Address:	FC:F5:28:D4:A8:BB
- IP Address:	172.16.5.14
- IP Subnet Mask:	255.255.255.0
- Default Gateway:	172.16.5.254
- IPv6 Address:	
LAN Information:	
- MAC Address:	FC:F5:28:D4:A8:BA
- IP Address:	192.168.0.1
- IP Subnet Mask:	255.255.255.0
- DHCP:	Server
- IPv6 Address:	
6rd Information:	
- IPv6 Address:	
- IP Border Router:	
WLAN 2.4G Information:	
- WLAN OP Mode:	Access Point Mode
- MAC Address:	FC:F5:28:D4:A8:BB
- SSID:	VIDEOTRON2162
- Channel:	5
- Security:	WPA-PSK / WPA2-PSK
WLAN 5G Information:	
- MAC Address:	FC:F5:28:D4:A8:B9
- SSID:	VIDEOTRON2162_5GHz
- Channel:	40
- Security:	WPA2-PSK
Firewall:	Enable

Item	Data
System Up Time:	0day 1hr4min 19sec
Current Date/Time:	2015-03-16/06:32:56
System Resource:	
- CPU Usage:	27%
- Memory Usage:	36%





Interface	Status	Rate
WAN	UP	100M
LAN1	Down	
LAN2	Down	
LAN3	UP	1000M
LAN4	Down	
WLAN 2.4G	UP	450M
WLAN 5G	UP	650M

The following table describes the icons shown on the **Status** screen.

Table 18 Status Screen Icons

ICON	DESCRIPTION
Logout	Click on this icon at any time to exit the Web Configurator.
About	Click on this icon to view copyright information and access a link to related product information.
Easy Mode	Click on this icon to enter Easy Mode. See Chapter 4 on page 31 .
Refresh Interval: None	Select a number of seconds or None from the drop-down list box to have all screen statistics refresh automatically at the end of each interval or not to have them refresh.
Refresh Now	Click this button to refresh the status screen statistics.

Table 18 Status Screen Icons (continued)

ICON	DESCRIPTION
	Click this icon to see the Status page. The information on this screen depends on the device mode you select.
	Click this icon to see the Monitor navigation menu.
	Click this icon to see the Configuration navigation menu.
	Click this icon to see the Maintenance navigation menu.

The following table describes the labels shown on the **Status** screen.

Table 19 Status Screen: Router Mode

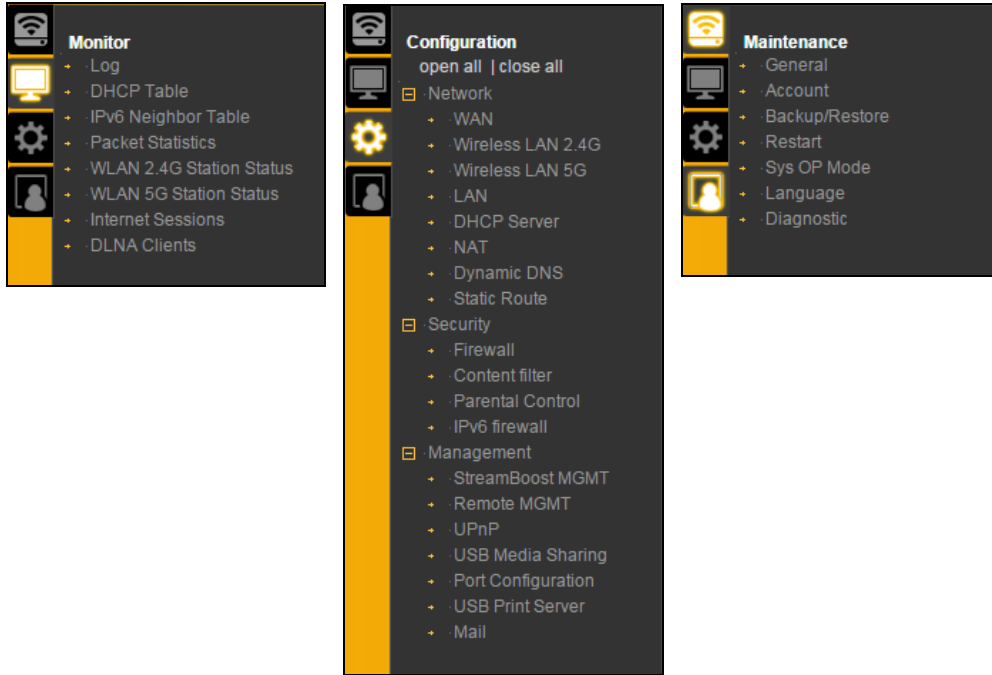
LABEL	DESCRIPTION
Device Information	
Host Name	This is the System Name to enter in the Maintenance > General screen for identification purposes.
Model Number	This is your device's model number.
Firmware Version	This is the firmware version and the date it was created.
Sys OP Mode	This is the device mode to which the EMG2926-Q10A is set - Router Mode .
WAN Information	
MAC Address	This is your device's WAN Ethernet adapter MAC Address.
IP Address	This is the WAN port's IP address.
IP Subnet Mask	This is the WAN port's subnet mask.
Default Gateway	This is the WAN port's gateway IP address.
IPv6 Address	This is the IPv6 address of the EMG2926-Q10A on the WAN.
LAN Information	
MAC Address	This is the LAN Ethernet adapter MAC Address of your device.
IP Address	This is the LAN port's IP address.
IP Subnet Mask	This is the LAN port's subnet mask.
DHCP	This is the LAN port's DHCP role - Server or Disable .
IPv6 Address	This is the IPv6 address of the EMG2926-Q10A on the LAN.
6rd Information	
This section is available only when you set IPv6 Tunneling to 6RD in the Network > WAN screen.	
IPv6 Address	This is the relay server's IPv6 address.
IP Border Router	This is the IPv4 address of the ISP's border relay server, which helps forward IPv6 packets from the local network to IPv6 networks.
WLAN 2.4G Information	
WLAN OP Mode	This is the device mode to which the EMG2926-Q10A's wireless LAN is set - Access Point Mode .
MAC Address	This is your device's 2.4GHz wireless adapter MAC Address.
SSID	This is a descriptive name used to identify the EMG2926-Q10A in the 2.4GHz wireless LAN.
Channel	This is the channel number selected manually.
Security	This is the wireless security level the EMG2926-Q10A is using.
WLAN 5G Information	

Table 19 Status Screen: Router Mode (continued)

LABEL	DESCRIPTION
MAC Address	This is your device's 5GHz wireless adapter MAC Address.
SSID	This is a descriptive name used to identify the EMG2926-Q10A in the 5GHz wireless LAN.
Channel	This is the channel number selected manually.
Security	This is the wireless security level the EMG2926-Q10A is using.
Firewall	This field indicates whether or not the firewall is enabled.
Summary	
Packet Statistics	Click on Details... to go to the Monitor > Packet Statistics screen (Section 7.5 on page 66). Use this screen to view the port status and packet-specific statistics.
WLAN 2.4G Station Status	Click on Details... to go to the Monitor > WLAN 2.4G Station Status screen (Section 7.6 on page 67). Use this screen to view the wireless stations that are currently linked to the EMG2926-Q10A's 2.4GHz wireless LAN.
WLAN 5G Station Status	Click on Details... to go to the Monitor > WLAN 5G Station Status screen (Section 7.6 on page 67). Use this screen to view the wireless stations that are currently linked to the EMG2926-Q10A's 5GHz wireless LAN.
System Status	
Item	This column displays the type of data the EMG2926-Q10A is recording.
Data	This column displays the data currently recorded by the EMG2926-Q10A.
System Up Time	This is the total time the EMG2926-Q10A has been on.
Current Date/Time	This field displays your EMG2926-Q10A's current date and time.
System Resource	
- CPU Usage	This displays what percentage of the EMG2926-Q10A's processing ability is currently being used. When this percentage is close to 100%, the EMG2926-Q10A is running at full capacity, and the throughput will not improve any further. If you want some applications to have more throughput, you should turn other applications off (by using bandwidth management, for example).
- Memory Usage	This field shows the percentage of heap memory the EMG2926-Q10A is using.
Interface Status	
Interface	This column displays the EMG2926-Q10A port types: WAN , LAN and WLAN .
Status	For the LAN and WAN ports, this column indicates whether the line is Down or Up (connected). For the 2.4GHz/5GHz WLAN, Up is displayed when the 2.4GHz/5GHz WLAN is enabled, while Down is displayed when the 2.4G/5G WLAN is disabled.
Rate	For the LAN ports, this column displays the port speed and duplex setting or is left blank when the line is disconnected. For the WAN port, it displays the port speed and duplex setting if Ethernet encapsulation is used. N/A is displayed when the line is disconnected. For the 2.4GHz/5GHz WLAN, it displays the maximum transmission rate when the 2.4GHz/5GHz WLAN is enabled. N/A is displayed when the WLAN is disabled.

5.2.1 Navigation Panel

Use the sub-menus on the navigation panel to configure the EMG2926-Q10A's features.

Figure 33 Navigation Panel: Router Mode

The following table describes the sub-menus.

Table 20 Navigation Panel: Router Mode

LINK	TAB	FUNCTION
Status		This screen displays the EMG2926-Q10A's general device, system and interface status information. Use this screen to access summary statistics tables.
MONITOR		
Log	View Log	Use this screen to view a list of activities recorded by your EMG2926-Q10A.
	Log Setting	Use this screen to select the logs you wish to display.
DHCP Table	DHCP Table	Use this screen to view current DHCP client information.
IPv6 Neighbor Table	IPv6 Neighbor Table	Use this screen to view IPv6 neighbour information for the EMG2926-Q10A.
Packet Statistics	Packet Statistics	Use this screen to view the port status and packet-specific statistics.
WLAN 2.4G Station Status	Association List	Use this screen to view the wireless stations that are currently associated to the EMG2926-Q10A's 2.4GHz wireless LAN.
WLAN 5G Station Status	Association List	Use this screen to view the wireless stations that are currently associated to the EMG2926-Q10A's 5GHz wireless LAN.
Internet Sessions	Internet Sessions	Use this screen to view detailed information about active sessions.
DLNA Clients	DLNA Clients	Use this screen to view information about DLNA-compliant clients on the EMG2926-Q10A's network.
CONFIGURATION		
Network		

Table 20 Navigation Panel: Router Mode (continued)

LINK	TAB	FUNCTION
WAN	Internet Connection	This screen allows you to configure ISP parameters, WAN IP address assignment, and DNS servers.
	Advanced	Use this screen to configure other advanced properties.
Wireless LAN 2.4G/5G	General	Use this screen to enable the wireless LAN and configure the wireless LAN and wireless security settings.
	More AP	Use this screen to configure multiple BSSs on the EMG2926-Q10A.
	MAC Filter	Use the MAC filter screen to configure the EMG2926-Q10A to block access to devices or block devices from accessing the EMG2926-Q10A.
	Advanced	This screen allows you to configure advanced wireless settings.
	QoS	Use this screen to configure Wi-Fi Multimedia Quality of Service (WMM QoS). WMM QoS allows you to prioritize wireless traffic according to the delivery requirements of individual services.
	WPS	Use this screen to configure WPS.
	WPS Station	Use this screen to add a wireless station using WPS.
	Scheduling	Use this screen to schedule the times the Wireless LAN will be enabled.
	WDS	Use this screen to configure the EMG2926-Q10A's WDS settings.
	Channel Status	Use this screen to view the status of all available channels and related information.
LAN	IP	Use this screen to configure LAN IP address and subnet mask.
	IP Alias	Use this screen to have the EMG2926-Q10A apply IP alias to create LAN subnets.
	IPv6 LAN	Use this screen to configure the IPv6 address for the EMG2926-Q10A on the LAN.
	Advanced	Use this screen to enable the guest LAN and turn on bandwidth management for the guest networks.
DHCP Server	General	Use this screen to enable the EMG2926-Q10A's DHCP server.
	Advanced	Use this screen to assign IP addresses to specific individual computers based on their MAC addresses and to have DNS servers assigned by the DHCP server.
	Client List	Use this screen to view information related to your DHCP status.
NAT	General	Use this screen to enable NAT.
	Port Forwarding	Use this screen to configure servers behind the EMG2926-Q10A and forward incoming service requests to the server(s) on your local network.
	Port Trigger	Use this screen to change your EMG2926-Q10A's port triggering settings.
Dynamic DNS	Dynamic DNS	Use this screen to set up dynamic DNS.
Static Route	Static Route	Use this screen to configure IP static routes.
Security		
Firewall	General	Use this screen to activate/deactivate the firewall.
	Services	This screen displays a summary of the IPv4 firewall rules, and allows you to edit/add an IPv4 firewall rule.
Content Filter	Content Filter	Use this screen to restrict web features and designate a trusted computer.

Table 20 Navigation Panel: Router Mode (continued)

LINK	TAB	FUNCTION
Parental Control	Parental Control	Use this screen to configure a restricted access schedule and/or URL filtering settings to block the users on your network from accessing certain websites.
	Parental Monitor	Use this screen to set a schedule and have the EMG2926-Q10A send a notification when the specified user connects to the EMG2926-Q10A at the scheduled time.
IPv6 firewall	Services	Use this screen to configure IPv6 firewall rules.
Management		
StreamBoost MGMT	Network	Use this screen to view rates of data transmission between the EMG2926-Q10A and the Internet or connected devices.
	Bandwidth	Use this screen to configure the maximum allowable bandwidth and enable automatic updates.
	Priorities	Use this screen to change the priority of the connected devices.
	Up Time	Use this screen to view the top five traffic flows transmitting to/from the selected LAN device(s).
	Downloads	Use this screen to view the type and percentage of most download traffic.
	PerDevice	Use this screen to view the percentage of bandwidth used by the connected LAN/WLAN devices.
	PerFlow	Use this screen to view the percentage of bandwidth used by a traffic flow.
Remote MGMT	WWW	Use this screen to configure through which interface(s) and from which IP address(es) users can use HTTP to manage the EMG2926-Q10A.
	SNMP	Use this screen to change your EMG2926-Q10A's SNMP settings.
	Wake On LAN	Use this screen to enable Wake on LAN to remotely turn on a device on the local network.
UPnP	General	Use this screen to enable UPnP on the EMG2926-Q10A.
USB Media Sharing	DLNA	Use this screen to have the EMG2926-Q10A function as a DLNA-compliant media server, that lets DLNA-compliant media clients play video, audio, and photo content files stored on the connected USB storage device.
	SAMBA	Use this screen to enable file sharing through the EMG2926-Q10A.
	FTP	Use this screen to have the EMG2926-Q10A act as a FTP server.
Port Configuration	Port Configuration	Use this screen to change the Ethernet port speed and duplex settings.
USB Print Server	Print Server	Use this screen to enable the print server function on the EMG2926-Q10A.
Mail	My Mail	Use this screen to configure the mail server information.
MAINTENANCE		
General	General	Use this screen to view and change administrative settings such as system and domain names.
Account	User Account	Use this screen to change the password of your EMG2926-Q10A.
Backup/Restore	Backup/Restore	Use this screen to backup and restore the configuration or reset your EMG2926-Q10A to its factory defaults.
Restart	System Restart	This screen allows you to reboot the EMG2926-Q10A without turning the power off.
Sys OP Mode	Sys OP Mode	This screen allows you to select whether your device acts as a router, or an access point.

Table 20 Navigation Panel: Router Mode (continued)

LINK	TAB	FUNCTION
Language	Language	This screen allows you to select the language you prefer.
Diagnostic	Ping	Use this screen to ping an IP address.
	TraceRoute	Use this screen to trace the route packets take to a host.
	Nslookup	Use this screen to perform an Nslookup (name server lookup) to resolve an IP address to a host name and vice versa.
	SpeedTest	Use this screen to test your Internet connection.

Tutorials

6.1 Overview

This chapter contains tutorials for setting up your EMG2926-Q10A.

- [Set Up a Wireless Network with WPS](#)
- [Configure Wireless Security without WPS](#)
- [Using Multiple SSIDs on the EMG2926-Q10A](#)

6.2 Set Up a Wireless Network with WPS

This section contains an example of how to set up a wireless network using WPS. This example uses the EMG2926-Q10A as the AP and NWD210N as the wireless client that connects to a notebook.

Note: The wireless client must be a WPS-aware device (for example, a WPS USB adapter or PCI card).

There are two WPS methods for creating a secure connection. This tutorial shows you both.

- **Push Button Configuration (PBC)** - create a secure wireless network simply by pressing a button. See [Section 6.2.1 on page 50](#). This method is easiest.
- **PIN Configuration** - create a secure wireless network simply by entering a wireless client's PIN (Personal Identification Number) in the EMG2926-Q10A interface. See [Section 6.2.2 on page 51](#). This is a more secure method, as one device can authenticate the other.

6.2.1 Push Button Configuration (PBC)

- 1 Make sure that your EMG2926-Q10A is turned on, that the **WIFI** button (on the side panel of the EMG2926-Q10A) is pushed in, and that the device is placed within range of your notebook.
- 2 Make sure that you have installed the wireless client (this example uses the NWD210N) driver and utility on your notebook.
- 3 Find the WPS settings in the wireless client utility. Enable WPS and press the WPS button (**Start** or **WPS** button)
- 4 Log into EMG2926-Q10A's Web Configurator and press the **Push Button** in the **Configuration > Network > Wireless LAN 2.4G > WPS Station** screen.

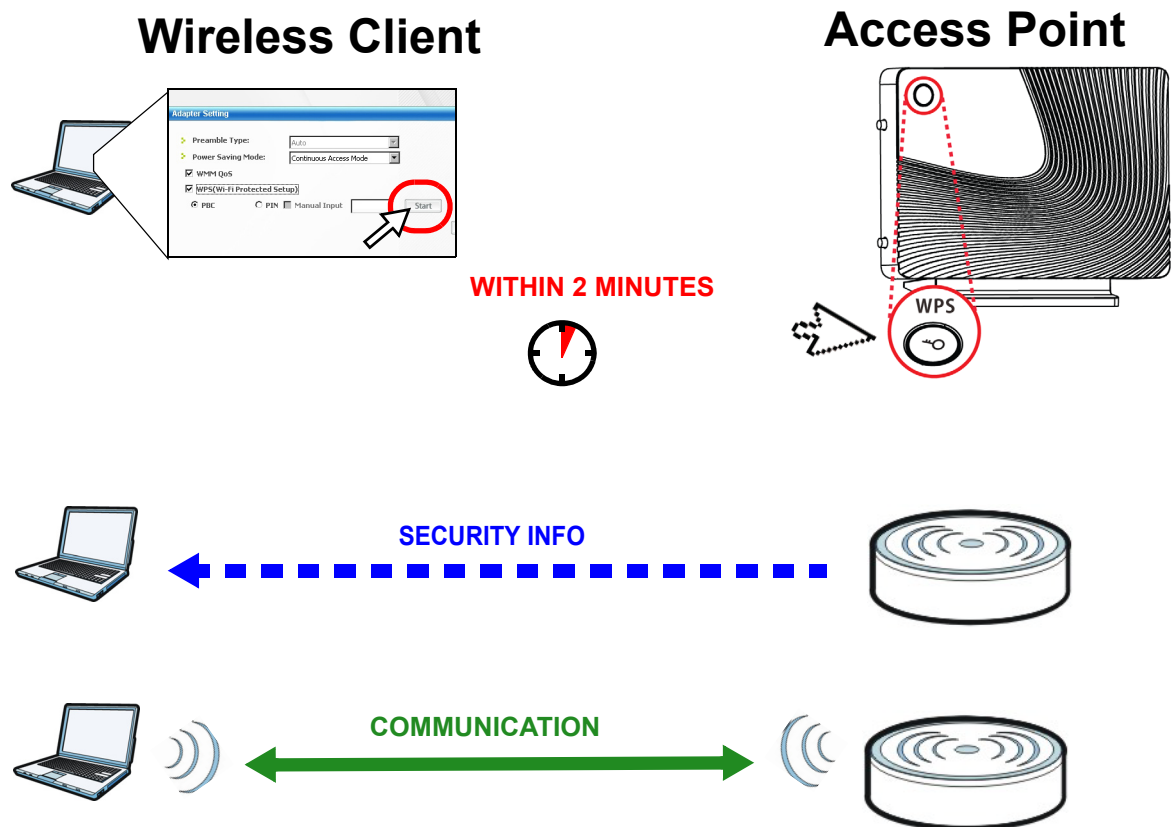
Note: Your EMG2926-Q10A has a WPS button located on its panel, as well as a WPS button in its configuration utility. Both buttons have exactly the same function; you can use one or the other.

Note: It doesn't matter which button is pressed first. You must press the second button within two minutes of the first one.

The EMG2926-Q10A sends the proper configuration settings to the wireless client. This may take up to two minutes. The wireless client is then able to communicate with the EMG2926-Q10A securely.

The figure below shows you an example of how to set up a wireless network and wireless security by pressing a button both on EMG2926-Q10A and in the wireless client (the NWD210N in this example).

Figure 34 Example of WPS Process: PBC Method



6.2.2 PIN Configuration

When you use the PIN configuration method, you need to use both EMG2926-Q10A's configuration interface and the client's utilities.

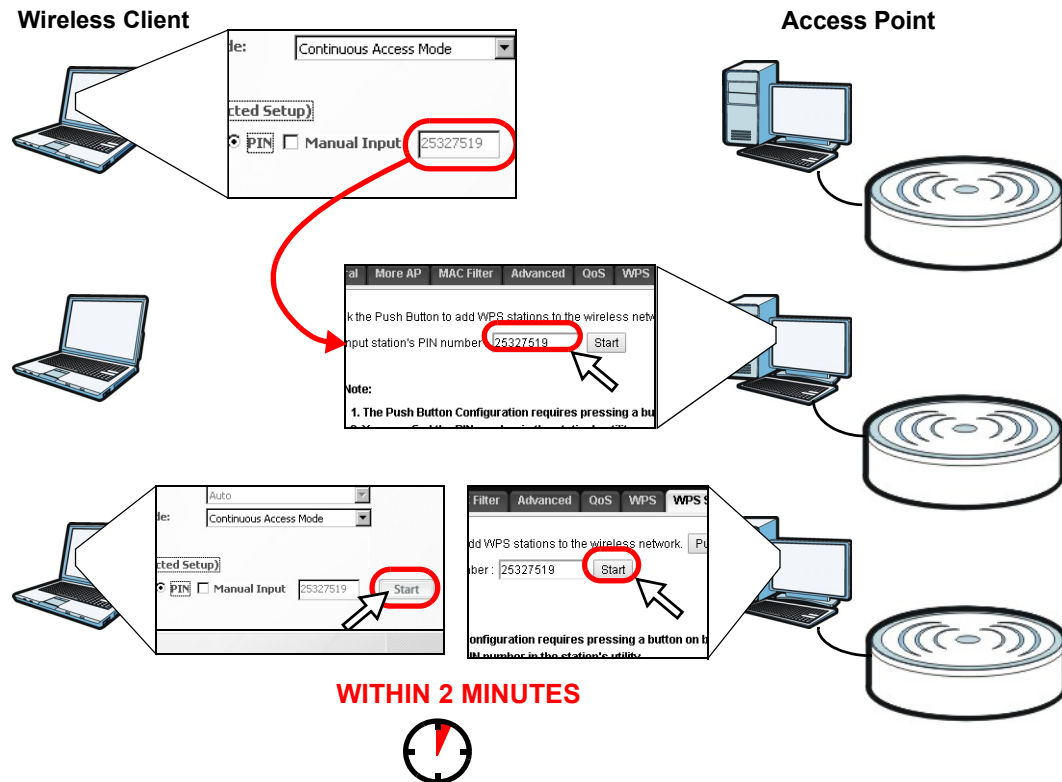
- 1 Launch your wireless client's configuration utility. Go to the WPS settings and select the PIN method to get a PIN number.
- 2 Enter the PIN number in the **PIN** field in the EMG2926-Q10A's **Configuration > Network > Wireless LAN 2.4G > WPS Station** screen.

- Click on the **Start** buttons (or button next to the PIN field) in both the wireless client utility screen and the EMG2926-Q10A's **WPS Station** screen within two minutes.

The EMG2926-Q10A will authenticate the wireless client and send it the proper configuration settings. This may take up to two minutes. The wireless client will then be able to communicate with the EMG2926-Q10A securely.

The figure below is an example of how to set up a wireless network and wireless security on the EMG2926-Q10A and the wireless client (NWD210N in this example) by using the PIN method.

Figure 35 Example of WPS Process: PIN Method



6.3 Configure Wireless Security without WPS

This is an example of how to configure wireless security settings with the following parameters on your EMG2926-Q10A.

SSID	SSID_Example3
Channel	6
Security	WPA2-PSK (Pre-Shared Key: ThisismyWPA-PSKpre-sharedkey)

Follow the steps below to configure the wireless settings on your EMG2926-Q10A.

The instructions require that your hardware be connected (see the Quick Start Guide) and that you be logged into the Web Configurator through your LAN connection (see [Section 2.2 on page 18](#)).

- 1 Make sure the **WIFI** switch (on the EMG2926-Q10A's side panel) is set to **ON**.
- 2 Open the **Configuration > Network > Wireless LAN 2.4G > General** screen in the AP's Web Configurator.
- 3 Confirm that the wireless LAN is enabled on the EMG2926-Q10A.
- 4 Enter **SSID_Example3** as the SSID and select **Channel-06** as the channel. Set security mode to **WPA2-PSK** and enter **ThisismyWPA-PSKpre-sharedkey** in the **Pre-Shared Key** field. Click **Apply**.

The screenshot shows the 'General' tab of the 'Wireless LAN 2.4G' configuration page. The 'Wireless Setup' section includes: 'Wireless LAN' set to 'Enable', 'Name (SSID)' set to 'SSID_Example3', 'Hide SSID' unchecked, 'Channel Selection' set to 'Channel-6 2437MHz', 'Auto Channel Selection' unchecked, 'Operating Channel' set to 'Channel-6', 'Channel Width' set to 'Auto 20/40 MHz', and '802.11 Mode' set to '802.11bgn'. The 'Security' section includes: 'Security Mode' set to 'WPA2-PSK', 'WPA-PSK Compatible' unchecked, 'Pre-Shared Key' set to 'ThisismyWPA-PSKpre-sharedkey', and 'Group Key Update Timer' set to '3600 seconds'. A note at the bottom states: 'Note: No Security and WPA2-PSK can be configured when WPS enabled.' The 'Apply' and 'Cancel' buttons are at the bottom right.

- 5 Open the **Status** screen. Verify your wireless and wireless security settings under **Device Information** and check whether the WLAN connection is **UP** under **Interface Status**.

Device Information

WAN Information

- MAC Address: FC:F5:28:D3:88:EF
- IP Address:
- IP Subnet Mask:
- Default Gateway:
- IPv6 Address:

LAN Information:

- MAC Address: FC:F5:28:D3:88:EE
- IP Address: 192.168.0.1
- IP Subnet Mask: 255.255.255.0
- DHCP: [Server](#)
- IPv6 Address:

WLAN 2.4G Information:

- WLAN OP Mode: Access Point Mode
- MAC Address: FC:F5:28:D3:88:EC
- SSID: SSID_Example3
- Channel: 6
- Security: [WPA2-PSK](#)

WLAN 5G Information:

- MAC Address: FC:F5:28:D3:88:ED
- SSID: VIDEOTRON0065
- Channel: 161
- Security: WPA2-PSK

Firewall: Enable

Summary

- Packet Statistics(Details...)
- WLAN 2.4G Station Status(Details...)
- WLAN 5G Station Status(Details...)

Interface Status

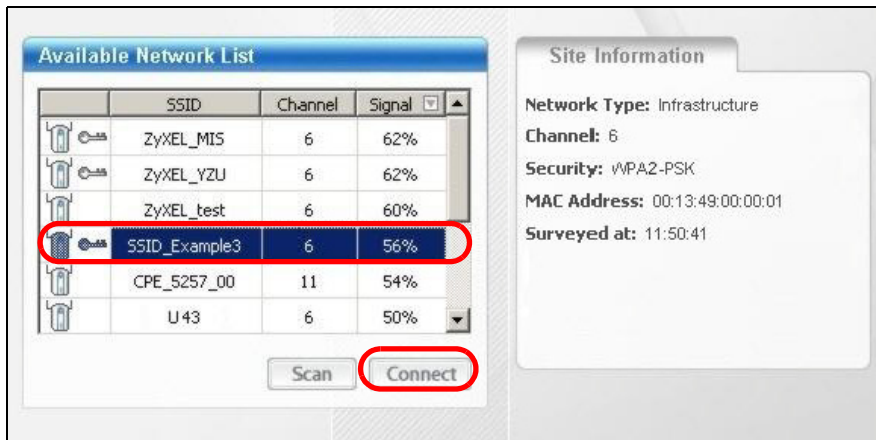
Interface	Status	Rate
WAN	Down	
LAN1	Down	
LAN2	Down	
LAN3	Down	
LAN4	Down	
WLAN 2.4G	UP	450M
WLAN 5G	UP	1.3G

6.3.1 Configure Your Notebook

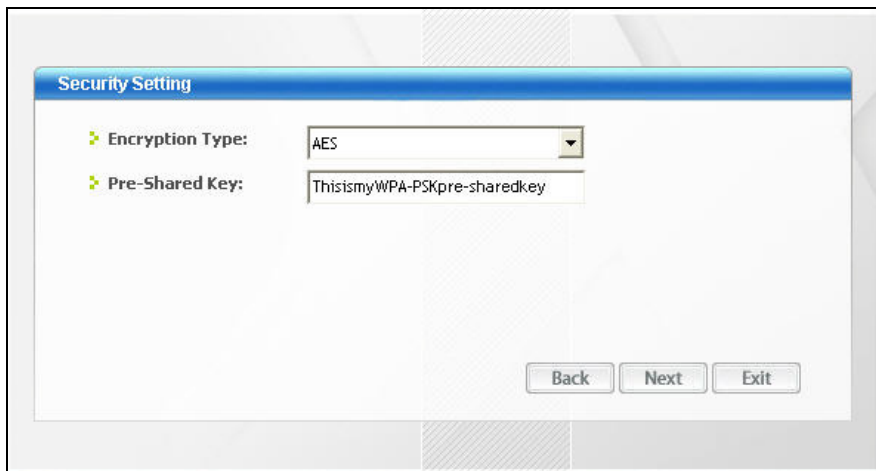
Note: We use the ZyXEL NWD2205 wireless adapter utility screens as an example for the wireless client. The screens may vary for different models.

- 1 The EMG2926-Q10A supports IEEE 802.11a, IEEE 802.11b, IEEE 802.11g and IEEE 802.11n wireless clients. Make sure that your notebook or desktop computer's wireless adapter supports one of these standards.
- 2 Wireless adapters come with software, sometimes called a "utility", to install on your computer. See your wireless adapter's User's Guide for installation information.
- 3 After you've installed the utility, open it. If you cannot see the utility icon on your screen, go to **Start > Programs** and click on your utility in the list of programs that appears. The utility displays a list of APs within range, as shown in the example screen below.

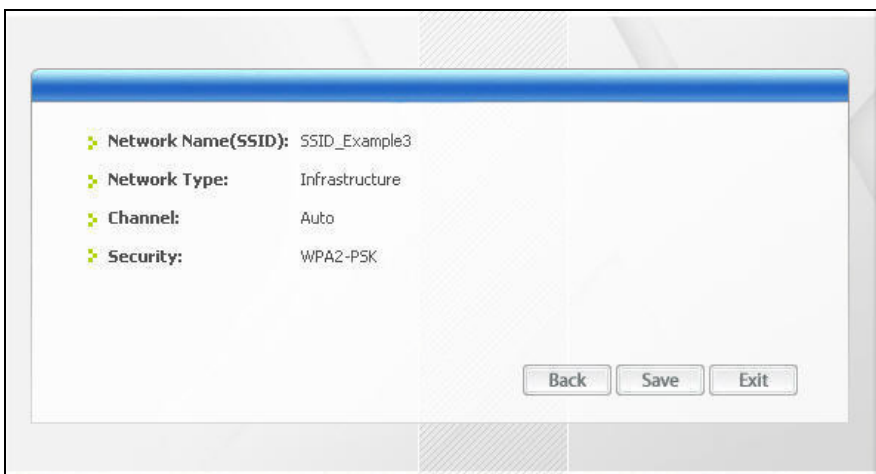
- 4 Select SSID_Example3 and click **Connect**.



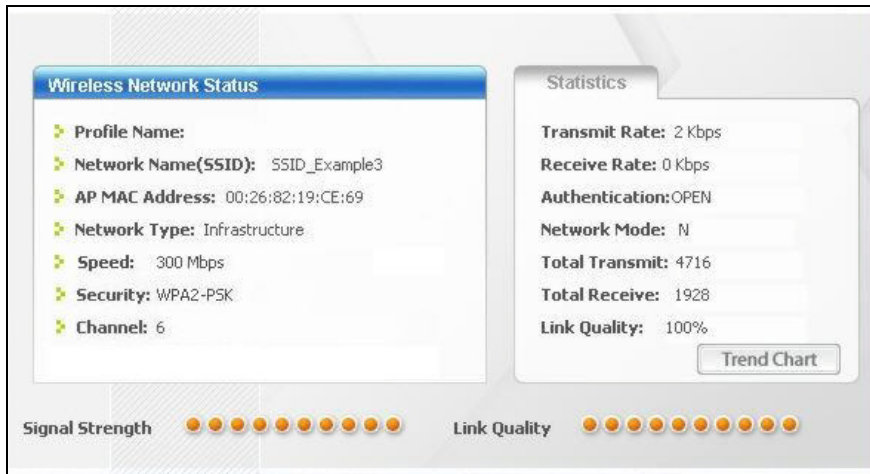
- 5 Select **AES** and type the security key in the following screen. Click **Next**.



- 6 The **Confirm Save** window will appear. Check your settings and click **Save** to continue.



- 7 Check the status of your wireless connection in the screen below. If your wireless connection is weak, or if you have no connection, see the Troubleshooting section of this guide.



If your connection is successful, open your web browser and enter <http://www.zyxel.com> or the URL of any other website in the address bar. If you are able to access the website, your wireless connection has been successfully configured.

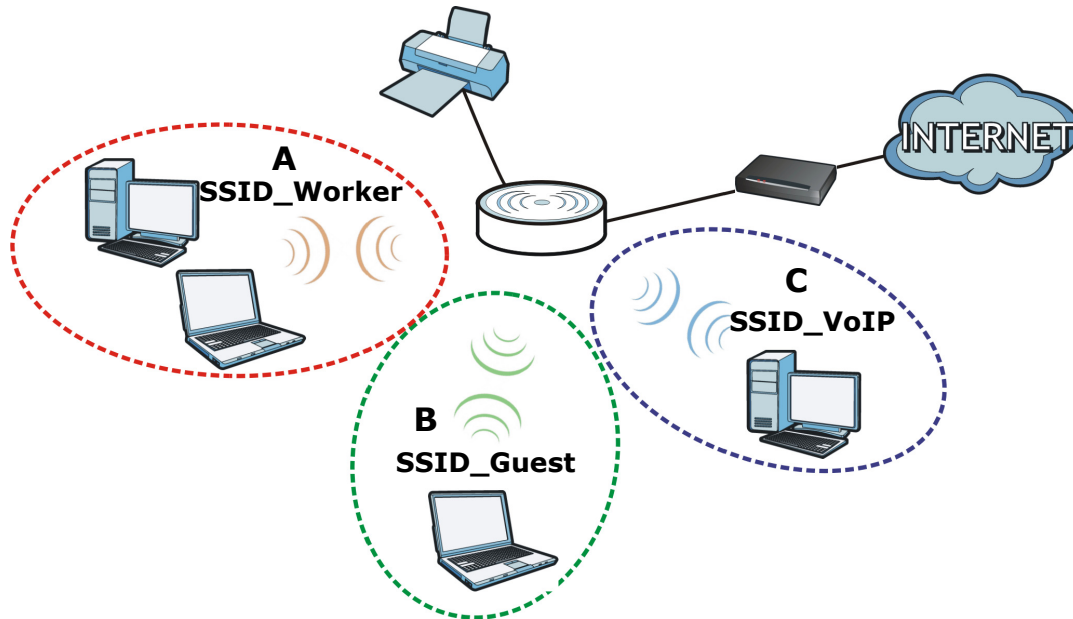
6.4 Using Multiple SSIDs on the EMG2926-Q10A

You can configure more than one SSID on an EMG2926-Q10A. See [Section 9.4 on page 85](#).

This allows you to configure multiple independent wireless networks on the EMG2926-Q10A as if there were multiple APs (virtual APs). Each virtual AP has its own SSID, wireless security type and MAC filtering settings. That is, each SSID on the EMG2926-Q10A represents a different access point/wireless network for wireless clients in the network.

Clients can only associate with the SSIDs for which they have the correct security settings. Clients using different SSIDs can access the Internet and the wired network behind the EMG2926-Q10A (such as a printer).

For example, you may set up three wireless networks (**A**, **B** and **C**) in your office. **A** is for workers, **B** is for guests and **C** is specific to a VoIP device in the meeting room.



6.4.1 Configuring Security Settings for Multiple SSIDs

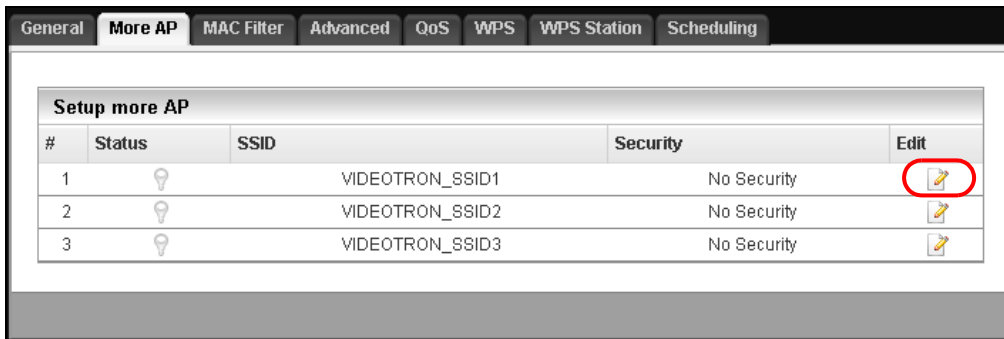
The EMG2926-Q10A is in router mode by default.

This example shows you how to configure SSIDs with the following parameters on your EMG2926-Q10A (in router mode).

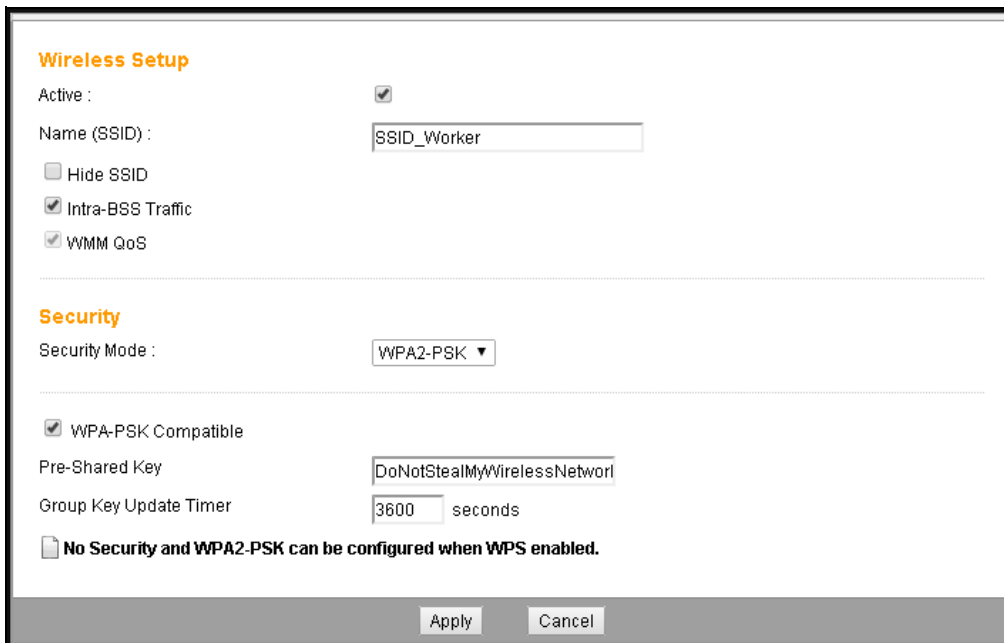
SSID	SECURITY TYPE	KEY	MAC FILTERING
SSID_Worker	WPA2-PSK WPA Compatible	DoNotStealMyWirelessNetwork	Disable
SSID_VoIP	WPA-PSK	VoIPOnly12345678	Allow 00:A0:C5:01:23:45
SSID_Guest	WPA-PSK	keyexample123	Disable

- 1 Connect your computer to the LAN port of the EMG2926-Q10A using an Ethernet cable.
- 2 The default IP address of the EMG2926-Q10A in router mode is "192.168.0.1". In this case, your computer must have an IP address in the range between "192.168.0.2" and "192.168.0.254".
- 3 Click **Start > Run** on your computer (in Windows). Type "cmd" in the dialog box. Enter "ipconfig" to view your computer's IP address.
- 4 After you've set up your computer's IP address, open a web browser such as Internet Explorer and type "http://192.168.0.1" as the web address in your web browser.
- 5 Enter "admin" (default) as the user name and click **Login**.
- 6 Type a new password and retype it to confirm, then click **Apply**. Otherwise, click **Ignore**.

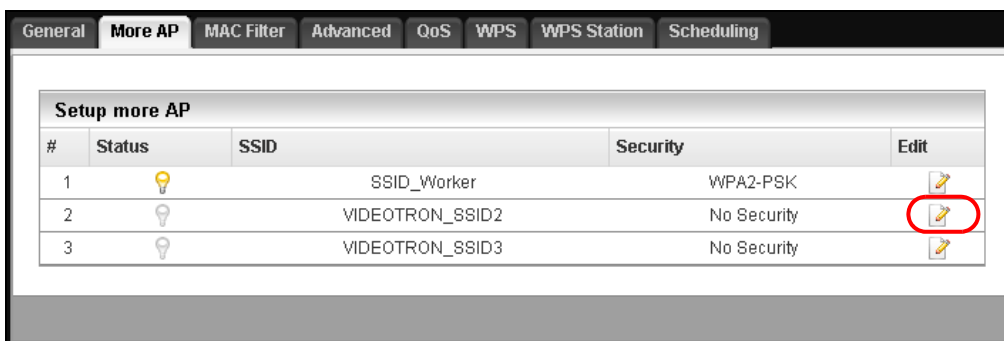
- 7 **Easy Mode** will appear. Click **Expert Mode** in the navigation panel.
- 8 Go to **Configuration > Network > Wireless LAN 2.4G > More AP**. Click the first entry's **Edit** icon to configure wireless and security settings for **SSID_Worker**.



- 9 Configure the screen as follows. In this example, **Intra-BSS Traffic** is enabled for **SSID_Worker** to allow wireless clients on the same wireless network to communicate with each other. Click **Apply**.



- 10 Click the second entry's **Edit** icon to configure wireless and security settings for **SSID_VoIP**.



- 11 Configure the screen as follows. Do not enable **Intra-BSS Traffic** for **SSID_VoIP**. Click **Apply**.

Wireless Setup

Active : ☒

Name (SSID) :

☐ Hide SSID

☒ Intra-BSS Traffic

☒ WMM QoS

Security

Security Mode :

Pre-Shared Key :

Group Key Update Timer : seconds

☐ No Security and WPA2-PSK can be configured when WPS enabled.

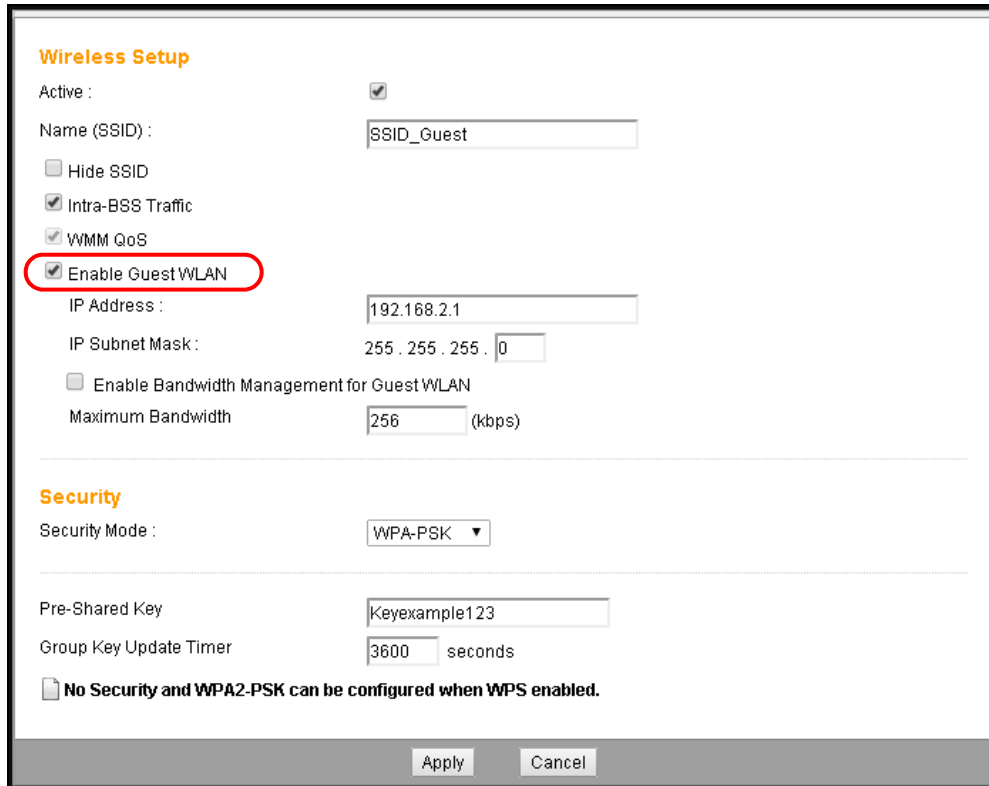
- 12 Click the third entry's **Edit** icon to configure wireless and security settings for **SSID_Guest**.

General **More AP** MAC Filter Advanced QoS WPS WPS Station Scheduling

Setup more AP

#	Status	SSID	Security	Edit
1		SSID_Worker	WPA2-PSK	
2		SSID_VoIP	WPA-PSK	
3		VIDEOTRON_SSID3	No Security	

- 13 Configure the screen as follows. In this example, **Intra-BSS Traffic** is enabled for **SSID_Guest** to allow wireless clients on the same wireless network to communicate with each other. Select **Enable Guest WLAN** to allow clients to access the Internet only. Click **Apply**.



The image shows a configuration window with two main sections: "Wireless Setup" and "Security".

Wireless Setup

- Active: ☒
- Name (SSID):
- Hide SSID: ☐
- Intra-BSS Traffic: ☒
- WMM QoS: ☒
- Enable Guest WLAN: ☒** (This option is circled in red in the original image)
- IP Address:
- IP Subnet Mask:
- Enable Bandwidth Management for Guest WLAN: ☐
- Maximum Bandwidth: (kbps)

Security

- Security Mode:
- Pre-Shared Key:
- Group Key Update Timer: seconds
- ☐ No Security and WPA2-PSK can be configured when WPS enabled.

At the bottom, there are "Apply" and "Cancel" buttons.

- 14 Click the **MAC Filter** tab to configure MAC filtering for the **SSID_VoIP** wireless network. Select **SSID_VoIP** from the **SSID Select** drop-down list, enable MAC address filtering and set **Filter Action** to **Allow**. Enter the VoIP device's MAC address in the **Mac Address** field and click **Apply** to allow only the VoIP device to associate with the EMG2926-Q10A using this SSID.

General More AP **MAC Filter** Advanced QoS WPS WPS Station Scheduling

SSID Select:

MAC Address Filter: ☒ Enable ☐ Disable

Filter Action: ☒ Allow ☐ Deny

MAC Filter Summary			
Set	MAC Address	Set	MAC Address
1	00:A0:C5:01:23:45	17	00:00:00:00:00:00
2	00:00:00:00:00:00	18	00:00:00:00:00:00
3	00:00:00:00:00:00	19	00:00:00:00:00:00
4	00:00:00:00:00:00	20	00:00:00:00:00:00
5	00:00:00:00:00:00	21	00:00:00:00:00:00
6	00:00:00:00:00:00	22	00:00:00:00:00:00
7	00:00:00:00:00:00	23	00:00:00:00:00:00
8	00:00:00:00:00:00	24	00:00:00:00:00:00
9	00:00:00:00:00:00	25	00:00:00:00:00:00
10	00:00:00:00:00:00	26	00:00:00:00:00:00
11	00:00:00:00:00:00	27	00:00:00:00:00:00
12	00:00:00:00:00:00	28	00:00:00:00:00:00
13	00:00:00:00:00:00	29	00:00:00:00:00:00
14	00:00:00:00:00:00	30	00:00:00:00:00:00
15	00:00:00:00:00:00	31	00:00:00:00:00:00
16	00:00:00:00:00:00	32	00:00:00:00:00:00

PART II

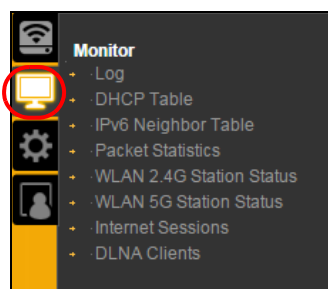
Technical Reference

Monitor

7.1 Overview

This chapter discusses read-only information related to the EMG2926-Q10A's device state.

To access the **Monitor** screens, go to **Expert Mode** after login, then click .



You can also click the links in the **Summary** table on the **Status** screen to view sent/received packets as well as the status of clients connected to the EMG2926-Q10A.

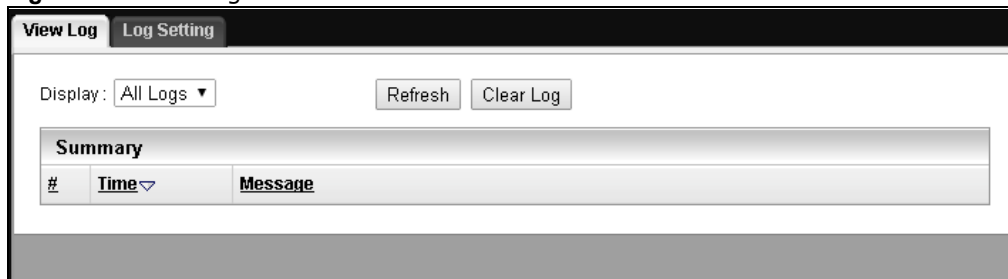
7.2 The Log Screen

The Web Configurator allows you to view all of the EMG2926-Q10A's logs in one location and select the logs you wish to display.

7.2.1 View Log

Use the **View Log** screen to see the EMG2926-Q10A's logged messages. When the log is full, it deletes older entries one by one to make room for new ones. Select which logs you want to view using the **Display** drop-down list. Your options will depend upon your settings (**Log Setting** screen). Click **Refresh** to refresh the log screen. Click **Clear Log** to delete all logs.

Figure 36 View Log



7.2.2 Log Setting

You can configure which logs you want to display on the **View Log** screen. Go to the **Log Setting** screen and select the logs you wish to display. Click **Apply** to save your settings. Click **Cancel** to start afresh.

Figure 37 Log Setting

View Log **Log Setting**

Active Log and Alert

Log

- ☐ System Errors
- ☐ Firmware upgrade
- ☐ Access Control
- ☒ IGMP
- ☐ TearDrop
- ☐ UPnP
- ☐ NTP
- ☐ DNS

Apply **Cancel**

7.3 DHCP Table

DHCP (Dynamic Host Configuration Protocol, RFC 2131 and RFC 2132) allows individual clients to obtain TCP/IP configuration at start-up from a server. You can configure the EMG2926-Q10A's LAN as a DHCP server or disable it. When configured as a server, the EMG2926-Q10A provides TCP/IP configuration for clients. If DHCP service is disabled, you must have another DHCP server on that network, or else the computer must be manually configured.

Go to **Monitor > DHCP Table** or **Configuration > Network > DHCP Server > Client List**. This read-only information relates to your DHCP status. The DHCP table shows current DHCP client information (including **MAC Address** and **IP Address**) for all network clients that are using the EMG2926-Q10A's DHCP server.

Figure 38 Monitor > DHCP Table

DHCP Table

#	Status	Host Name	IP Address	MAC Address	Interface	Reserve
1		*	192.168.0.44	00:21:85:0c:44:4b	Port2	<input type="checkbox"/>
2		twpcMT	192.168.0.45	00:19:cb:32:be:ac	Wi-Fi	<input type="checkbox"/>

Apply **Cancel**

The following table describes the labels on this screen.

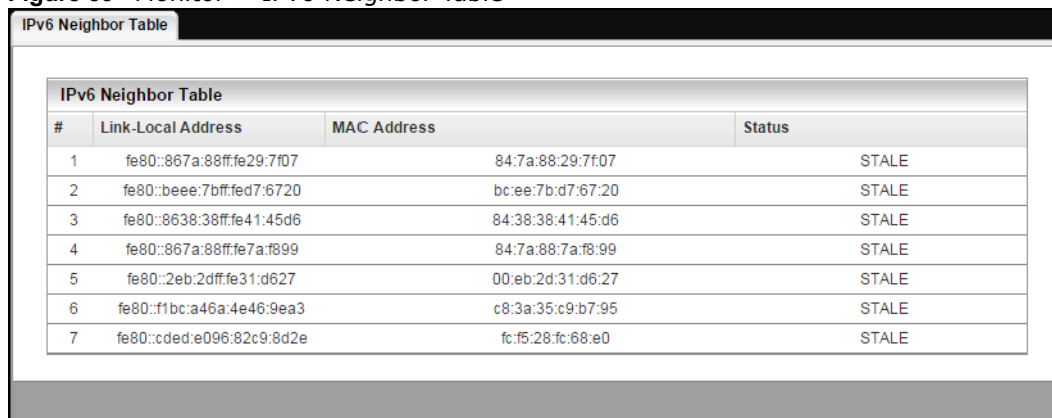
Table 21 Monitor > DHCP Table

LABEL	DESCRIPTION
#	This is the host computer's index number.
Status	This field displays whether the connection to the host computer is up (yellow lightbulb) or down (grey lightbulb).
Host Name	This field displays the computer's host name.
IP Address	This field displays the IP address corresponding to the # field.
MAC Address	This field shows the MAC address of the computer designated in the Host Name field. Every Ethernet device is identified by a unique MAC (Media Access Control) address. The MAC address is assigned at the factory and consists of six pairs of hexadecimal characters, for example, 00:A0:C5:00:00:02.
Interface	This field shows the interface the host computer is connected to.
Reserve	Check if you want to reserve the IP address for this specific MAC address.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

7.4 IPv6 Neighbor Table

Click **Monitor > IPv6 Neighbor Table**. Use this screen to view IPv6 neighbor information for the EMG2926-Q10A.

Figure 39 Monitor > IPv6 Neighbor Table



IPv6 Neighbor Table			
#	Link-Local Address	MAC Address	Status
1	fe80::867a:88ff:fe29:7f07	84:7a:88:29:7f07	STALE
2	fe80::beee:7bff:fed7:6720	bc:ee:7b:d7:67:20	STALE
3	fe80::8638:38ff:fe41:45d6	84:38:38:41:45:d6	STALE
4	fe80::867a:88ff:fe7a:f899	84:7a:88:7a:f8:99	STALE
5	fe80::2eb:2dff:fe31:d627	00:eb:2d:31:d6:27	STALE
6	fe80::f1bc:a46a:4e46:9ea3	c8:3a:35:c9:b7:95	STALE
7	fe80::cded:e096:82c9:8d2e	fc:f5:28:fc:68:e0	STALE

The following table describes the labels on this screen.

Table 22 Monitor > IPv6 Neighbor Table

LABEL	DESCRIPTION
#	This is the neighboring device's index number.
Link Local Address	This field displays the neighboring device's link-local IPv6 address.

Table 22 Monitor > IPv6 Neighbor Table (continued)

LABEL	DESCRIPTION
MAC Address	This field displays the MAC address of the neighboring device.
Status	<p>This field displays whether the neighbor IPv6 interface is reachable. In IPv6, "reachable" means that an IPv6 packet can be correctly forwarded to a neighbor node (host or router) and that the neighbor can successfully receive and handle the packet. The available options for this field are:</p> <p>Reachable: The neighboring device is reachable. (The EMG2926-Q10A has received a response to the initial request.)</p> <p>Stale: The last reachable time has expired and the EMG2926-Q10A is waiting for a response to another initial request. The field also displays "Stale" when the EMG2926-Q10A receives an unrequested response from the neighboring device.</p> <p>Delay: The neighboring device is no longer known to be reachable, and traffic has been sent to the neighbor recently. The EMG2926-Q10A delays sending request packets for a short time to give upper-layer protocols a chance to determine reachability.</p> <p>Probe: The EMG2926-Q10A is sending request packets and waiting for the neighbor's response.</p> <p>Incomplete: Address resolution is in progress and the neighbor's link-layer address has not yet been determined. The neighboring device did not give a complete response.</p>

7.5 Packet Statistics

Click **Monitor > Packet Statistics** or **Packet Statistics (Details...)** in the **Status** screen. Read-only information here includes port status, packet specific-statistics and "system up time". The **Poll Interval(s)** field is configurable and is used to refresh the screen.

Figure 40 Monitor > Packet Statistics

Packet Statistics								
Port	Status	TxPkts	RxPkts	Collisions	Errors	Tx B/s	Rx B/s	Up Time
WAN	Down	3159	0	0	0	140	0	2: 24: 53
LAN	Down	4924	0	0	0	35	0	2: 24: 53
WLAN 2.4G	450M	194116	2133618	0	0	0	0	2: 24: 53
WLAN 5G	1.3G	10390	0	0	0	2	0	2: 24: 53

System Up Time : 2: 24: 53

Poll Interval(s) :

The following table describes the labels on this screen.

Table 23 Monitor > Packet Statistics

LABEL	DESCRIPTION
Port	This is the EMG2926-Q10A's interface type.
Status	For the LAN ports, this displays the port speed and duplex setting or Down when the line is disconnected. For the WAN port, it displays the port speed and duplex setting if Ethernet encapsulation is used and Idle (line (ppp) idle), Dial (starting to trigger a call) and Drop (dropping a call) if PPPoE encapsulation is used. This field displays Down when the line is disconnected. For the 2.4GHz or 5GHz WLAN, it displays the maximum transmission rate when the WLAN is enabled and Down when the WLAN is disabled.
TxPkts	This is the number of transmitted packets on this port.
RxPkts	This is the number of received packets on this port.
Collisions	This is the number of collisions on this port.
Errors	This is the number of received errors on this port.
Tx B/s	This displays the transmission speed in bytes per second for this port.
Rx B/s	This displays the reception speed in bytes per second for this port.
Up Time	This is the total time the EMG2926-Q10A has been on for each session.
System Up Time	This is the total time the EMG2926-Q10A has been on.
Poll Interval(s)	Enter the time interval in seconds for refreshing statistics in this field.
Set Interval	Click this button to apply the new poll interval you entered in the Poll Interval(s) field.
Stop	Click Stop to stop refreshing statistics.

7.6 WLAN Station Status

Click **Monitor > WLAN 2.4G/5G Station Status** or the **WLAN 2.4G/5G Station Status (Details...)** hyperlink in the **Status** screen to view the **Association List**, which displays the wireless stations that are currently associated to the EMG2926-Q10A's 2.4GHz or 5GHz wireless network. Association means that a wireless client (for example, your network or a computer with a wireless network card) has connected successfully to the AP (or wireless router) using the same SSID, channel and security settings.

Figure 41 Monitor > WLAN Station Status

Association List											
#	Strength	MAC Address	IP Address	Device Name	SSID	TxPkts	RxPkts	Security	Rate	Mode	Association Time
1		00:19:cb:32:be:ac	192.168.0.160	TWPC	VIDEOTRON2162	3611	3517	WPA2PSK	53M	802.11g	09:04:10 2015/03/06

Poll Interval(s):

The following table describes the labels on this screen.

Table 24 Monitor > WLAN Station Status

LABEL	DESCRIPTION
#	This is the index number of an associated wireless station.
Strength	This field displays the station's wireless connection signal strength.
MAC Address	This field displays the MAC address of an associated wireless station.
IP Address	This field displays the IP address of an associated wireless station.
Device Name	This field displays the name of an associated wireless station.
SSID	This field displays the name of the EMG2926-Q10A's wireless network to which the station is connected.
TxPkts	This field displays the number of packets transmitted by the station through the wireless connection.
RxPkts	This field displays the number of packets received by the station through the wireless connection.
Security	This field displays which secure encryption method is being used by the station to connect to the network.
Rate	This field displays the wireless station's transmission rate.
Mode	This field displays the wireless standard supported by the wireless station.
Association Time	This field displays the time at which a wireless station first associated with the EMG2926-Q10A's WLAN.

7.7 Internet Sessions

Click **Monitor > Internet Sessions**. Use this screen to view detailed information about active sessions.

Figure 42 Monitor > Internet Sessions

Internet Sessions Summary						
Protocol	In	Out				
TCP	0	15				
UDP	0	0				

Internet Sessions						
Local	NAT	Internet	Protocol	State	Dir	Time Out
192.168.0.37:55605	55605	173.194.72.154:443	TCP	ESTABLISHED	OUT	7396
192.168.0.37:55098	55098	172.16.5.19:445	TCP	ESTABLISHED	OUT	7330
192.168.0.37:55604	55604	210.242.127.114:443	TCP	ESTABLISHED	OUT	7396
192.168.0.37:55607	55607	172.16.6.115:5088	TCP	TIME_WAIT	OUT	47
192.168.0.37:52777	52777	31.13.70.1:443	TCP	ESTABLISHED	OUT	274
192.168.0.37:62654	62654	172.16.5.25:445	TCP	ESTABLISHED	OUT	192
192.168.0.37:55096	55096	172.16.5.208:8082	TCP	ESTABLISHED	OUT	6964
192.168.0.37:55610	55610	172.16.6.115:5088	TCP	TIME_WAIT	OUT	107
192.168.0.37:50021	50021	172.16.5.161:35125	TCP	ESTABLISHED	OUT	7420
192.168.0.37:50019	50019	172.16.5.161:35125	TCP	ESTABLISHED	OUT	280
192.168.0.37:55602	55602	210.242.127.103:443	TCP	ESTABLISHED	OUT	7439
192.168.0.37:62650	62650	172.16.5.24:445	TCP	ESTABLISHED	OUT	194
192.168.0.37:52664	52664	172.16.5.161:35080	TCP	ESTABLISHED	OUT	6057
192.168.0.37:52239	52239	172.16.56.213:445	TCP	ESTABLISHED	OUT	3972
192.168.0.37:55603	55603	203.69.81.73:443	TCP	TIME_WAIT	OUT	33

The following table describes the labels on this screen.

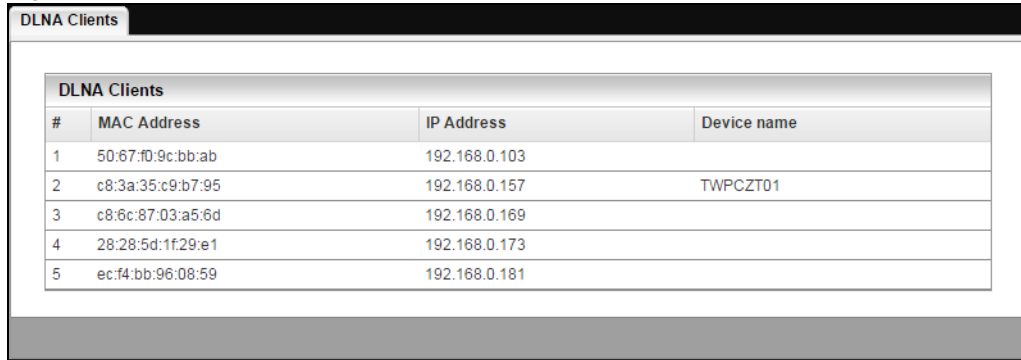
Table 25 Monitor > Internet Sessions

LABEL	DESCRIPTION
Internet Sessions Summary	
Protocol	This field displays the transport layer protocol used in a session.
In	This field displays the number of incoming sessions in which TCP or UDP is used.
Out	This field displays the number of outgoing sessions in which TCP or UDP is used.
Internet Sessions	
Local	This field displays the source IP address for each active session.
NAT	This field displays the source port for each active session.
Internet	This field displays the destination IP address and port for each active session.
Protocol	This field displays the protocol used in each active session.
State	This field displays the TCP connection state. It displays - for a UDP session.
Dir	This field displays the traffic direction for each active session.
Time Out	This field displays the number of seconds remaining before a session expires.

7.8 DLNA Clients

Click **Monitor > DLNA Clients**. Use this screen to view information about DLNA-compliant clients on the EMG2926-Q10A's network. See [Section 22.2 on page 148](#) for how to have the EMG2926-Q10A act as a DLNA-compliant media server.

Figure 43 Monitor > DLNA Clients



DLNA Clients			
#	MAC Address	IP Address	Device name
1	50:67:f0:9c:bb:ab	192.168.0.103	
2	c8:3a:35:c9:b7:95	192.168.0.157	TWPCZT01
3	c8:6c:87:03:a5:6d	192.168.0.169	
4	28:28:5d:1f:29:e1	192.168.0.173	
5	ec:f4:bb:96:08:59	192.168.0.181	

The following table describes the labels on this screen.

Table 26 Monitor > DLNA Clients

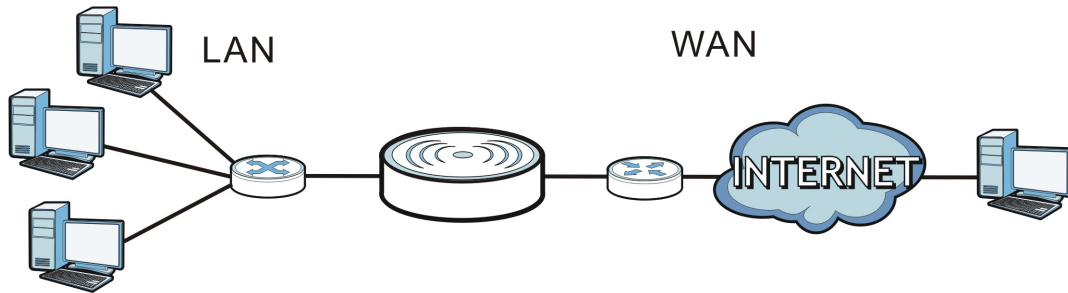
LABEL	DESCRIPTION
#	This field displays the DLNA-compliant client's index number.
MAC Address	This field displays the DLNA-compliant client's MAC address.
IP Address	This field displays the DLNA-compliant client's IP address.
Device Name	This field displays the DLNA-compliant client's name.

8.1 Overview

This chapter discusses the EMG2926-Q10A's **WAN** screens. Use these screens to configure your EMG2926-Q10A for Internet access.

A WAN (Wide Area Network) connection is an outside connection to another network or the Internet. It connects private networks such as a LAN (Local Area Network) to other networks, so that a computer in one location can communicate with computers in other locations.

Figure 44 LAN and WAN



8.2 Internet Connection

Use this screen to change your EMG2926-Q10A's Internet access settings. Click **Network** > **WAN** from the **Configuration** menu.

Figure 45 Network > WAN > Internet Connection

Internet Connection **Advanced**

ISP Parameters for Internet Access

Encapsulation : IPoE ▼

IPv4 / IPv6 : IPv4 Only ▼

IP Address

☒ Obtain an IP Address Automatically

☐ Static IP Address

IP Address :

Subnet Mask :

Gateway IP address :

MTU Size :

DHCP Option :

☐ Enable DHCP Option 121

☐ Enable DHCP Option 125

☐ Enable DHCP Option 60

Vendor ID :

DNS Server

First DNS Server : Obtained From ISP ▼

Second DNS Server : Obtained From ISP ▼

Third DNS Server : Obtained From ISP ▼

IPv6 Tunneling

IPv6 Tunneling : 6RD ▼

☐ Automatically configured by DHCP

☒ Manually Configured

Border Relay IPv4 Address:

Service Provider IPv6 Prefix:

Service Provider IPv6 Prefix length: 32~64

IPv4 mask length: 0~32

IPv6 DNS Server

First DNS Server :

Second DNS Server :

Third DNS Server :

Apply Cancel

The following table describes the labels on this screen.

Table 27 Network > WAN > Internet Connection

LABEL	DESCRIPTION
ISP Parameters for Internet Access	
Encapsulation	You must choose the IPoE option when the WAN port is used as a regular Ethernet.
IPv4 / IPv6	Select IPv4 Only if you want the EMG2926-Q10A to run IPv4 only. Select Dual Stack to allow the EMG2926-Q10A to run IPv4 and IPv6 at the same time. Select IPv6 Only if you want the EMG2926-Q10A to run IPv6 only.
IP Address	
Obtain an IP Address Automatically	Select this option if your ISP did not assign a fixed IP address. This is the default selection.
Static IP Address	Select this option if the ISP assigned a fixed IP address.
IP Address	Enter your WAN IP address in this field if you selected Static IP Address .
Subnet Mask	Enter the Subnet Mask in this field.
Gateway IP Address	Enter a Gateway IP Address (if your ISP gave you one) in this field.
MTU Size	Enter the MTU (Maximum Transmission Unit) size for each packet. If a packet arrives that is larger than the maximum, the EMG2926-Q10A will divide it into smaller fragments.
DHCP Option	
Enable DHCP Option 121	Select this to enable the classless route option 121.
Enable DHCP Option 125	Select this to add vendor specific information to the DHCP requests that the EMG2926-Q10A sends to a DHCP server when getting a WAN IP address.
Enable DHCP Option 60	Select this to identify the vendor and functionality of the EMG2926-Q10A in the DHCP requests that the EMG2926-Q10A sends to a DHCP server when getting a WAN IP address.
Vendor ID	Enter the Vendor Class Identifier (Option 60), i.e. the type of hardware or firmware.
DNS Server	
First DNS Server Second DNS Server Third DNS Server	Select Obtained From ISP if your ISP dynamically assigns DNS server information (as well as the EMG2926-Q10A's WAN IP address). The field to the right displays the (read-only) DNS server IP address that the ISP assigns. Select User-Defined if you have the IP address of a DNS server. Enter the DNS server's IP address in the field to the right. Select None if you do not want to configure DNS servers. If you do not configure a DNS server, you must know a computer's IP address in order to access it.
IPv6 Tunneling	
Use IPv6 tunneling when the local network uses IPv6 and the ISP has an IPv4 network. When the EMG2926-Q10A has an IPv4 WAN address and you set IPv4/IPv6 mode to IPv4 Only , you can enable IPv6 tunneling to encapsulate IPv6 packets in IPv4 packets to cross the ISP's IPv4 network.	

Table 27 Network > WAN > Internet Connection (continued)

LABEL	DESCRIPTION
IPv6 Tunneling	<p>Select None to not allow IPv6 packets to cross IPv4 networks.</p> <p>Select 6RD to enable 6RD. IPv6 Rapid Deployment (6RD) is an IPv6 transitioning process for the stateless tunneling of IPv6 over IPv4. Enable 6RD to tunnel IPv6 traffic from the local network through the ISP's IPv4 network.</p> <p>Select 6to4 to transmit IPv6 packets over an IPv4 network. A 6to4 relay router is required to route 6to4 packets to a native IPv6 network.</p> <p>Select 6in4 if the EMG2926-Q10A has a public IPv4 address and you want to transmit your IPv6 packets to one remote site only whose LAN network is also an IPv6 network. You must know the WAN IP address of the remote gateway.</p>
6RD The EMG2926-Q10A generates a global IPv6 prefix from its IPv4 WAN address and tunnels IPv6 traffic to the ISP's Border Relay router to connect to the native IPv6 Internet. The local network can also use IPv4 services. The EMG2926-Q10A uses its configured IPv4 WAN IP to route IPv4 traffic to the IPv4 Internet. This is only available when IPv4 Only is selected in the IPv6/IPv4 field.	
Automatically configured by DHCP	Select this to have the EMG2926-Q10A detect the relay server's IP address automatically through DHCP.
Manually Configured	Select this if you have the relay server's IPv4 address.
Border Relay IPv4 Address	Enter the relay server's IPv4 address.
Service Provider IPv6 Prefix	Enter an IPv6 prefix for tunneling IPv6 traffic to the ISP's Border Relay router and connecting to the native IPv6 Internet.
Service Provider IPv6 Prefix length	Enter the IPv6 prefix length. An IPv6 prefix length specifies the number of most significant bits (starting from the left) in the address that compose the network address.
IPv4 mask length	Enter the IPv4 network's subnet mask number (1~32).
6to4 The EMG2926-Q10A should get a public IPv4 address for the WAN. The EMG2926-Q10A adds an IPv4 IP header to an IPv6 packet when transmitting the packet to the Internet. In reverse, the EMG2926-Q10A removes the IPv4 header from an IPv6 packet when receiving it from the Internet. This is available only when IPv4 Only is selected in the IPv4/IPv6 field.	
Relay Server IPv4 Address	Enter the IPv4 address of a 6to4 relay server, which helps forward packets between 6to4 networks and native IPv6 networks.
6in4 The EMG2926-Q10A encapsulates IPv6 packets within IPv4 packets as they travel through the Internet. You must know the remote gateway device's WAN IP address. This mode is normally used for a site-to-site applications, such as connecting two branch offices. This is available only when IPv4 Only is selected in the IPv4/IPv6 field.	
Remote IPv4 Address	Enter the IPv4 address of the remote gateway to which this interface tunnels traffic.
Remote IPv6 Address	Enter the IPv6 address of the remote gateway to which this interface tunnels traffic.
Local IPv6 Address	Enter the IPv6 address assigned by your ISP.
IPv6 Prefix	Enter the IPv6 prefix for this interface if you want to use a static IP address.

Table 27 Network > WAN > Internet Connection (continued)

LABEL	DESCRIPTION
IPv6 DNS server This is available only when you select IPv4 Only in the IPv4/IPv6 field and set IPv6 Tunneling to 6RD , 6in4 or 6to4 .	
First DNS Server Second DNS Server Third DNS Server	Specify the DNS server IPv6 address assigned by the ISP.
IPv6 Address This section is not available when you select IPv4 Only in the IPv6/IPv4 field.	
Obtain an IP Address Automatically	<p>Select this option if you want to obtain an IPv6 address from a DHCPv6 server.</p> <ul style="list-style-type: none"> Select DUID-LL (Default) to have the EMG2926-Q10A use DUID-LL (DUID Based on Link-layer Address) for identification when exchanging DHCPv6 messages. Select DUID-LLT to have the EMG2926-Q10A use DUID-LLT (DUID Based on Link-layer Address Plus Time) for identification when exchanging DHCPv6 messages.
Static IP Address	Select this if you have a fixed IPv6 address assigned by your ISP.
IPv6 Address	Enter the IPv6 address assigned by your ISP.
Prefix length	Enter the address prefix length to specify how many most significant bits in an IPv6 address compose the network address.
IPv6 Default Gateway	Enter the IP address of the next-hop gateway. The gateway is a router or switch on the same segment as your EMG2926-Q10A's interface(s). The gateway helps forward packets to their destinations.
Link Local Only	Select this option to use the link-local address, which identifies a device only on the local network (the LAN).
IPv6 DNS server This is available only when Dual Stack or IPv6 Only is selected in the IPv4/IPv6 field.	
First DNS Server Second DNS Server Third DNS Server	<p>Select Obtained From ISP to have the EMG2926-Q10A get the IPv6 DNS server addresses from the ISP automatically.</p> <p>Select User-Defined and enter the IPv6 DNS server address assigned by the ISP to have the EMG2926-Q10A use the IPv6 DNS server addresses you configured manually.</p> <p>Select None if you do not want to configure DNS servers. If you do not configure a DNS server, you must know the IPv6 address of a computer in order to access it.</p>
Apply	Click Apply to save your changes back to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

8.3 Advanced WAN Screen

To change your EMG2926-Q10A's advanced WAN settings, click **Network > WAN > Advanced**. The screen will appear as shown.

Figure 46 Network > WAN > Advanced

The table below describes the labels on this screen.

Table 28 Network > WAN > Advanced

LABEL	DESCRIPTION
Multicast Setup	
Multicast	<p>Select IGMPv1/v2 to enable multicasting. This applies to traffic routed from the WAN to the LAN.</p> <p>Select None to disable this feature. This may cause incoming traffic to be dropped or sent to all connected network devices.</p>
Auto-Subnet Configuration	
Enable Auto-IP-Change Mode	<p>Select this option to have the EMG2926-Q10A change its LAN IP address to either 10.0.0.1 or 192.168.0.1 as needed when the EMG2926-Q10A gets a dynamic WAN IP address in the same subnet as the LAN IP address 192.168.0.1 or 10.0.0.1.</p> <p>The NAT, DHCP server and firewall functions on the EMG2926-Q10A are still available in this mode.</p>
Apply	Click Apply to save your changes back to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

Wireless LAN

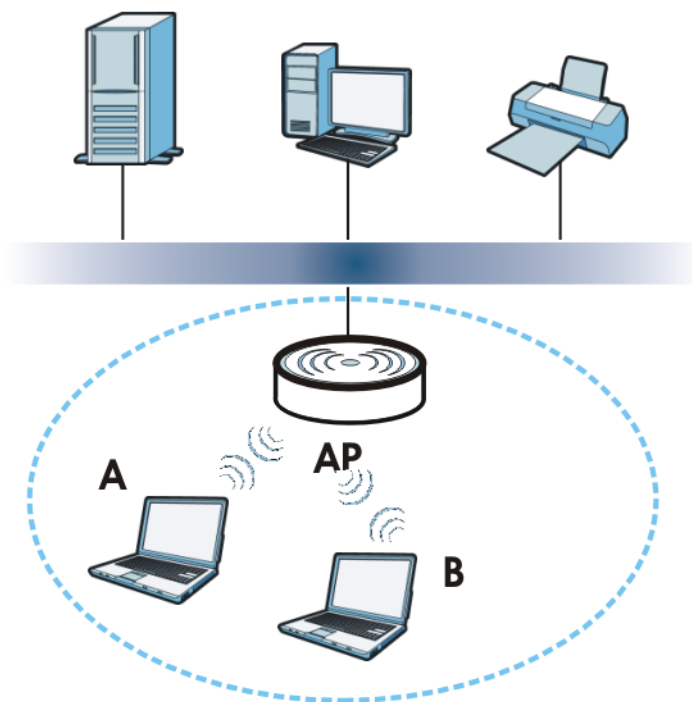
9.1 Overview

This chapter discusses how to configure your EMG2926-Q10A's wireless network settings. The EMG2926-Q10A is able to function on both 2.4GHz and 5GHz networks at the same time. You can also have different wireless and wireless security settings for 2.4GHz and 5GHz wireless LANs. Click **Configuration > Network > Wireless LAN 2.4G** or **Wireless LAN 5G** to configure your settings.

See the appendices for more detailed information about wireless networks.

The following figure provides an example of a wireless network.

Figure 47 Example of a Wireless Network



The wireless network is the part in the blue circle. In this wireless network, devices **A** and **B** are called wireless clients. The wireless clients use the access point (AP) to interact with other devices (such as the printer) or with the Internet. Your EMG2926-Q10A is the AP.

9.2 General Wireless LAN Screen

Use this screen to configure the wireless LAN's SSID and wireless security.

Note: If you are configuring the EMG2926-Q10A from a computer connected to the wireless LAN and you change the EMG2926-Q10A's SSID, channel or security settings, you will lose your wireless connection when you press **Apply** to confirm. You must then change the wireless settings of your computer to match the EMG2926-Q10A's new settings.

Click **Network > Wireless LAN 2.4G/5G** to open the **General** screen.

Figure 48 Network > Wireless LAN 2.4G/5G > General

The following table describes the general wireless LAN labels on this screen.

Table 29 Network > Wireless LAN 2.4G/5G > General

LABEL	DESCRIPTION
Wireless LAN	Select Enable to activate the 2.4GHz and/or 5GHz wireless LAN. Select Disable to turn it off. You can enable or disable both 2.4GHz and 5GHz wireless LANs by using the WIFI button located on the EMG2926-Q10A's side panel.
Name (SSID)	The SSID (Service Set Identifier) identifies the Service Set with which a wireless client is associated. Enter a descriptive name (up to 32 printable characters found on a typical English language keyboard) for the wireless LAN.
Hide SSID	Select this check box to hide the SSID in the outgoing beacon frame so a station cannot obtain the SSID by scanning with a site survey tool.
Channel Selection	Set the operating frequency/channel according to your particular region. Select a channel from the drop-down list box. The options vary depending on the frequency band and the country you are in. Refer to the Connection Wizard chapter for more information on channels. This option is only available if Auto Channel Selection is disabled.

Table 29 Network > Wireless LAN 2.4G/5G > General (continued)

LABEL	DESCRIPTION
Auto Channel Selection	<p>Select this check box for the EMG2926-Q10A to automatically choose the channel with the least interference. Deselect this check box if you wish to manually select the channel using the Channel Selection field.</p> <p>If you select the check box, you can click the Scan Channel button to scan for and choose an available channel immediately.</p>
Operating Channel	This displays the channel the EMG2926-Q10A is currently using.
Channel Width	<p>Select the wireless channel width used by the EMG2926-Q10A.</p> <p>A standard 20 MHz channel provides transfer speeds of up to 144Mbps (2.4GHz) or 217Mbps (5GHZ) whereas a 40MHz channel uses two standard channels and provides speeds of up to 300Mbps (2.4GHz) or 450Mbps (5GHZ). An IEEE 802.11ac-specific 80MHz channel provides speeds of up to 1.3Gbps.</p> <p>Because not all devices support 40 MHz and/or 80 MHz channels, select Auto 20/40 MHz or Auto 20/40/80 MHz to allow the EMG2926-Q10A to adjust the channel bandwidth automatically.</p> <p>40 MHz (channel bonding or dual channel) bonds two adjacent radio channels to increase throughput. A 80 MHz channel consists of two adjacent 40 MHz channels. The wireless clients must also support 40 MHz or 80 MHz. In a location where the environment hinders the wireless signal, it is often better to use the 20 MHz setting .</p> <p>Select 20 MHz if you want to lessen radio interference with other wireless devices in your neighborhood or the wireless clients do not support channel bonding.</p>
802.11 Mode	<p>If you are in the Wireless LAN 2.4G > General screen, you can select from the following:</p> <ul style="list-style-type: none"> • 802.11b: Allows either IEEE 802.11b- or IEEE 802.11g-compliant WLAN devices to associate with the EMG2926-Q10A. In this mode, all wireless devices can only transmit at the data rates supported by IEEE 802.11b. • 802.11g: Allows IEEE 802.11g-compliant WLAN devices to associate with the Device. IEEE 802.11b-compliant WLAN devices can associate with the EMG2926-Q10A only when they use the short preamble type. • 802.11bg: Allows either IEEE 802.11b- or IEEE 802.11g-compliant WLAN devices to associate with the EMG2926-Q10A. The EMG2926-Q10A adjusts the transmission rate automatically according to the wireless standard supported by the wireless devices. • 802.11n: Allows IEEE 802.11n-compliant WLAN devices to associate with the EMG2926-Q10A. This can increase transmission rates, although IEEE 802.11b or IEEE 802.11g clients will not be able to connect to the EMG2926-Q10A. • 802.11gn: allows either IEEE 802.11g- or IEEE 802.11n-compliant WLAN devices to associate with the EMG2926-Q10A. The transmission rate of your EMG2926-Q10A might be reduced. • 802.11 bgn: Allows IEEE802.11b-, IEEE802.11g- and IEEE802.11n-compliant WLAN devices to associate with the EMG2926-Q10A. The transmission rate of your EMG2926-Q10A might be reduced. <p>If you are in the Wireless LAN 5G > General screen, you can select from the following:</p> <ul style="list-style-type: none"> • 802.11a: Allows only IEEE 802.11a-compliant WLAN devices to associate with the EMG2926-Q10A. • 802.11an: Allows both IEEE802.11n- and IEEE802.11a-compliant WLAN devices to associate with the EMG2926-Q10A. The transmission rate of your EMG2926-Q10A might be reduced. • 802.11ac: Allows only IEEE 802.11ac-compliant WLAN devices to associate with the EMG2926-Q10A.

Table 29 Network > Wireless LAN 2.4G/5G > General (continued)

LABEL	DESCRIPTION
Security Mode	<p>Note: If the WPS function is enabled (default), only No Security and WPA2-PSK are available in this field.</p> <p>Select Static WEP, WPA-PSK, WPA, WPA2-PSK or WPA2 to add security on this wireless network. Wireless clients that want to associate to this network must have same wireless security settings as this device. After you select a security mode, additional options will appear on this screen. See Section 9.3 on page 80 for detailed information on different security modes. Alternatively, you can select No Security to allow any client to associate this network without authentication.</p>
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

See the rest of this chapter for information on the other labels on this screen.

9.3 Wireless Security

The screen varies depending on what you select in the **Security Mode** field.

9.3.1 No Security

Select **No Security** to allow wireless clients to communicate with the access points without any data encryption.

Note: If you do not enable any wireless security on your EMG2926-Q10A, your network is accessible to any wireless networking device that is within range.

Figure 49 Network > Wireless LAN 2.4G/5G > General: No Security

The screenshot shows the 'General' tab of the 'Wireless LAN 2.4G/5G' configuration page. The 'Wireless Setup' section includes:

- Wireless LAN:** Radio buttons for 'Enable' (selected) and 'Disable'.
- Name (SSID):** Text field containing 'VIDEOTRON2162'.
- Hide SSID:** Unchecked checkbox.
- Channel Selection:** Dropdown menu set to 'Channel-5 2432MHz' with a checked 'Auto Channel Selection' box and a 'Scan channel' button.
- Operating Channel:** Text field showing 'Channel-5'.
- Channel Width:** Dropdown menu set to 'Auto 20/40 MHz'.
- 802.11 Mode:** Dropdown menu set to '802.11bgn'.

 The 'Security' section shows:

- Security Mode:** A dropdown menu currently set to 'No Security'.

 At the bottom, there is a note: 'Note: No Security and WPA2-PSK can be configured when WPS enabled.' and two buttons: 'Apply' and 'Cancel'.

The following table describes the labels on this screen.

Table 30 Network > Wireless LAN 2.4G/5G > General: No Security

LABEL	DESCRIPTION
Security Mode	Choose No Security from the drop-down list box.
Apply	Click Apply to save your changes with the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.3.2 WEP Encryption

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

Your EMG2926-Q10A allows you to configure up to four 64-bit or 128-bit WEP keys but only one key can be enabled at any one time.

Select **Static WEP** from the **Security Mode** list.

Note: **Static WEP** is not available if you enable WPS before you configure WEP in the **Network> Wireless LAN2.4G/5G > General** screen.

Figure 50 Network > Wireless LAN 2.4G/5G > General: Static WEP

General More AP MAC Filter Advanced QoS WPS WPS Station Scheduling WDS Channel Status

Wireless Setup

Wireless LAN : ☒ Enable ☐ Disable

Name (SSID) :

☐ Hide SSID

Channel Selection : ☒ Auto Channel Selection

Operating Channel :

Channel Width :

802.11 Mode :

Security

Security Mode :

PassPhrase :

WEP Encryption :

Authentication Method :

Note:

64-bit WEP: Enter 5 ASCII characters or 10 hexadecimal characters ("0-9", "A-F") for each Key (1-4).
 128-bit WEP: Enter 13 ASCII characters or 26 hexadecimal characters ("0-9", "A-F") for each Key (1-4).
 (Select one WEP key as an active key to encrypt wireless data transmission.)

☒ ASCII ☐ Hex

☒ Key 1

☐ Key 2

☐ Key 3

☐ Key 4

Note: No Security and WPA2-PSK can be configured when WPS enabled.

The following table describes the wireless LAN security labels on this screen.

Table 31 Network > Wireless LAN 2.4G/5G > General: Static WEP

LABEL	DESCRIPTION
Security Mode	Select Static WEP to enable data encryption.
PassPhrase	Enter a passphrase (up to 26 printable characters) and click Generate . A passphrase functions like a password. In WEP security mode, it is further converted by the EMG2926-Q10A into a complicated string that is referred to as the "key". This key is requested from all devices wishing to connect to a wireless network.
WEP Encryption	Select 64-bits or 128-bits . This dictates the length of the security key that the network will use.
Authentication Method	Select Auto or Shared Key from the drop-down list box. This field specifies whether the wireless clients have to provide the WEP key to log in to the wireless client. Keep this setting at Auto unless you want to force a key verification before communication between the wireless client and the EMG2926-Q10A occurs. Select Shared Key to force the clients to provide the WEP key prior to communication.
ASCII	Select this option in order to enter ASCII characters as a WEP key.
Hex	Select this option in order to enter hexadecimal characters as a WEP key. The prefix "0x", which identifies a hexadecimal key, is entered automatically.
Key 1 to Key 4	The WEP keys are used to encrypt data. Both the EMG2926-Q10A and the wireless stations must use the same WEP key for data transmission. If you chose 64-bits , enter any 5 ASCII characters or 10 hexadecimal characters ("0-9"; "A-F"). If you chose 128-bits , enter 13 ASCII characters or 26 hexadecimal characters ("0-9"; "A-F"). You must configure at least one key, and only one key can be activated at any one time. The default key is Key 1.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.3.3 WPA-PSK/WPA2-PSK

Select **WPA-PSK** or **WPA2-PSK** from the **Security Mode** list.

Figure 51 Network > Wireless LAN 2.4G/5G > General: WPA-PSK/WPA2-PSK

The screenshot shows the 'General' tab of the 'Wireless LAN 2.4G/5G' configuration page. The 'Wireless Setup' section includes options to enable or disable the wireless LAN, set the SSID to 'VIDEOTRON2162', and checkboxes for 'Hide SSID' and 'Auto Channel Selection'. Channel settings are set to 'Channel-5 2432MHz', 'Channel-5', 'Auto 20/40 MHz', and '802.11bgn'. The 'Security' section shows 'WPA2-PSK' as the security mode, with a pre-shared key 'J797JWXMKF4J4' and a group key update timer of 3600 seconds. A note states: 'Note: No Security and WPA2-PSK can be configured when WPS enabled.' Buttons for 'Apply' and 'Cancel' are at the bottom.

The following table describes the labels on this screen.

Table 32 Network > Wireless LAN 2.4G/5G > General: WPA-PSK/WPA2-PSK

LABEL	DESCRIPTION
Security Mode	Select WPA-PSK or WPA2-PSK to enable data encryption.
WPA-PSK Compatible	This field appears when WPA2-PSK is selected as the Security Mode . Check this field to allow wireless devices using WPA-PSK security mode to connect to your EMG2926-Q10A.
Pre-Shared Key	WPA-PSK/WPA2-PSK uses a simple common password for authentication. Type a pre-shared key made up of 8 to 63 case-sensitive keyboard characters.
Group Key Update Timer	The Group Key Update Timer is the rate at which the AP sends a new group key out to all clients. The default rate is 3,600 seconds (60 minutes).
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.3.4 WPA/WPA2

Select **WPA** or **WPA2** from the **Security Mode** list.

Note: WPA or WPA2 is not available if you enable WPS before you configure WPA or WPA2 in the **Wireless LAN 2.4G/5G > General** screen.

Figure 52 Network > Wireless LAN 2.4G/5G > General: WPA/WPA2

Wireless Setup

Wireless LAN : ☒ Enable ☐ Disable

Name (SSID) :

☐ Hide SSID

Channel Selection : ☒ Auto Channel Selection

Operating Channel :

Channel Width :

802.11 Mode :

Security

Security Mode :

☐ WPA Compatible

Group Key Update Timer : seconds

PMK Cache Period : minutes

Pre-Authentication : ☐ Enable ☒ Disable

Authentication Server

IP Address :

Port Number :

Shared Secret :

Session Timeout(0 or 60~) : seconds

☐ Note: No Security and WPA2-PSK can be configured when WPS enabled.

The following table describes the labels on this screen.

Table 33 Network > Wireless LAN 2.4G/5G > General: WPA/WPA2

LABEL	DESCRIPTION
Security Mode	Select WPA or WPA2 to enable data encryption.
WPA Compatible	<p>This check box is available only when you select WPA2-PSK or WPA2 in the Security Mode field.</p> <p>Select the check box to enable both WPA2 and WPA wireless clients to communicate with the EMG2926-Q10A even when the EMG2926-Q10A is using WPA2-PSK or WPA2.</p>
Group Key Update Timer	<p>The Group Key Update Timer is the rate at which the AP (if using WPA-PSK/ WPA2-PSK key management) or RADIUS server (if using WPA/WPA2 key management) sends a new group key out to all clients. The re-keying process is the WPA/WPA2 equivalent of automatically changing the WEP key for an AP and all stations in a WLAN on a periodic basis. You can set the Group Key Update Timer in WPA-PSK/WPA2-PSK mode.</p>
PMK Cache Period	<p>This field is only available if you select WPA2.</p> <p>Specify how often wireless clients have to resend usernames and passwords in order to stay connected. Enter a time interval between 10 and 999,999 minutes.</p> <p>Note: If wireless client authentication is done using a RADIUS server, the reauthentication timer on the RADIUS server has priority.</p>

Table 33 Network > Wireless LAN 2.4G/5G > General: WPA/WPA2 (continued)

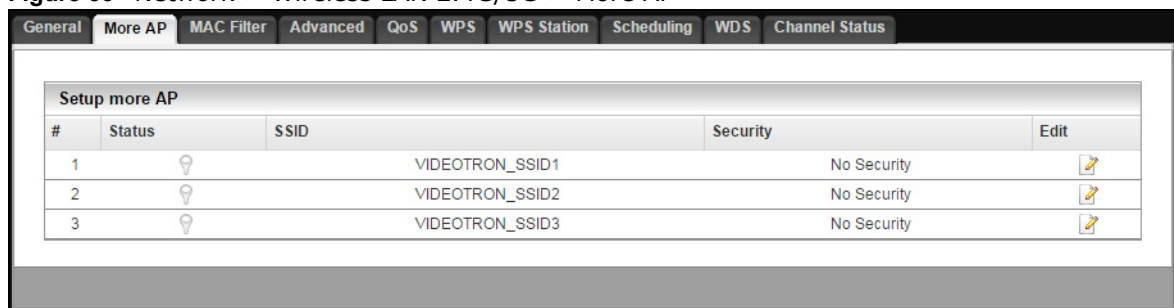
LABEL	DESCRIPTION
Pre-Authentication	This field is available only when you select WPA2 . Pre-authentication enables fast roaming by allowing a wireless client that is already connecting to an AP to perform IEEE 802.1x authentication with another AP before connecting to it. Select Enable to turn on preauthentication in WAP2. Otherwise, select Disable .
Authentication Server	
IP Address	Enter the IP address of the external authentication server in dotted decimal notation.
Port Number	Enter the port number of the external authentication server. You need not change this value unless your network administrator instructs you to do so with additional information.
Shared Secret	Enter a password (up to 127 alphanumeric characters) as the key to be shared between the external authentication server and the EMG2926-Q10A. The key must be the same on the external authentication server and your EMG2926-Q10A. The key is not sent over the network.
Session Timeout	The EMG2926-Q10A automatically disconnects a wireless client from the wireless and wired networks after a period of inactivity. The wireless client then needs to re-send the username and password before it can use the wireless and wired networks again. Some wireless clients may prompt users for a username and password; other clients may use saved login credentials. In either case, there is usually a short delay while the wireless client logs in to the wireless network again. Enter the time in seconds from 0 to 999,999.
Apply	Click Apply to save your changes with the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.4 More AP Screen

This screen allows you to enable and configure multiple wireless networks and guest wireless network settings on the EMG2926-Q10A.

You can configure up to four SSIDs to enable multiple BSSs (Basic Service Sets) on the EMG2926-Q10A. This allows you to use one access point to provide several BSSs simultaneously. You can then assign varying security types to different SSIDs. Wireless clients can use different SSIDs to associate with the same access point.

Click **Network > Wireless LAN 2.4G/5G > More AP**. The following screen displays:

Figure 53 Network > Wireless LAN 2.4G/5G > More AP

The following table describes the labels on this screen.

Table 34 Network > Wireless LAN 2.4G/5G > More AP

LABEL	DESCRIPTION
#	This is the index number of each SSID profile.
Status	This shows whether the SSID profile is active (a yellow lightbulb) or not (a grey lightbulb).
SSID	An SSID profile is the set of parameters relating to one of the EMG2926-Q10A's BSSs. The SSID (Service Set Identifier) identifies the Service Set with which a wireless device is associated. This field displays the name of the wireless profile on the network. When a wireless client scans for an AP to associate with, this is the name that is broadcast and displayed in the wireless client utility.
Security	This field indicates the SSID profile's security mode.
Edit	Click the Edit icon to configure the SSID profile.

9.4.1 More AP Edit

Use this screen to edit an SSID profile. Click the **Edit** icon next to an SSID in the **More AP** screen. The following screen will appear.

Figure 54 Network > Wireless LAN 2.4G/5G > More AP: Edit

The screenshot shows the 'More AP: Edit' configuration screen. It is divided into two main sections: 'Wireless Setup' and 'Security'.

Wireless Setup

- Active :** A checkbox that is currently unchecked.
- Name (SSID) :** A text input field containing the value 'MIDEOTRON_SSID1'.
- Hide SSID :** An unchecked checkbox.
- Intra-BSS Traffic :** A checked checkbox.
- WMM QoS :** A checked checkbox.

Security

- Security Mode :** A dropdown menu currently set to 'No Security'.

At the bottom of the screen, there is a message: **No Security and WPA2-PSK can be configured when WPS enabled.** Below this message are two buttons: 'Apply' and 'Cancel'.

Figure 55 Network > Wireless LAN 2.4G/5G > More AP: Edit (the last SSID)

Wireless Setup

Active : ☒

Name (SSID) :

☐ Hide SSID

☒ Intra-BSS Traffic

☒ WMM QoS

☒ Enable Guest WLAN

[Guest Network Bandwidth Management](#)

Security

Security Mode :

☐ No Security and WPA2-PSK can be configured when WPS enabled.

The following table describes the labels on this screen.

Table 35 Network > Wireless LAN 2.4G/5G > More AP: Edit

LABEL	DESCRIPTION
Active	Select this to activate the SSID profile.
Name (SSID)	The SSID (Service Set Identifier) identifies the Service Set with which a wireless client is associated. Enter a descriptive name (up to 32 printable characters found on a typical English language keyboard) for the wireless LAN.
Hide SSID	Select this check box to hide the SSID in the outgoing beacon frame so a station cannot obtain the SSID by scanning with a site survey tool.
Intra-BSS Traffic	<p>A Basic Service Set (BSS) exists when all communications between wireless clients or between a wireless client and a wired network client go through one access point (AP).</p> <p>Intra-BSS traffic is traffic between wireless clients in the BSS. When Intra-BSS is enabled, wireless clients can access the wired network and communicate with each other. When Intra-BSS is disabled, wireless clients can still access the wired network but cannot communicate with each other.</p>
WMM QoS	<p>Check this to have the EMG2926-Q10A automatically assign a priority level to a service according to the ToS value in the IP header of packets it sends.</p> <p>WMM QoS (Wifi MultiMedia Quality of Service) gives high priority to voice and video, which makes them run more smoothly.</p>
Enable Guest WLAN	<p>Select the check box to activate guest wireless LAN. This is available only for the last SSID on the EMG2926-Q10A.</p> <p>Click the Guest Network Bandwidth Management link to go to the LAN > Advanced screen, where you can specify the maximum bandwidth for the guest networks.</p> <p>The guest LAN and guest WLAN on the EMG2926-Q10A share the same routing domain (192.168.200.0/24) and bandwidth.</p>

Table 35 Network > Wireless LAN 2.4G/5G > More AP: Edit (continued)

LABEL	DESCRIPTION
Security Mode	<p>Note: If the WPS function is enabled (default), only No Security and WPA2-PSK are available in this field.</p> <p>Select Static WEP, WPA-PSK, WPA, WPA2-PSK or WPA2 to add security on this wireless network. Wireless clients that want to connect to this network must have the same wireless security settings as this device. After you select a security mode, additional options will appear in this screen. See Section 9.3 on page 80 for detailed information on different security modes. Alternatively, select No Security to allow any client to associate with this network without authentication.</p>
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.5 MAC Filter Screen

The MAC filter screen allows you to configure the EMG2926-Q10A to give exclusive access to devices (**Allow**) or exclude devices from accessing the EMG2926-Q10A (**Deny**). Every Ethernet device has a unique MAC (Media Access Control) address. The MAC address is assigned at the factory and consists of six pairs of hexadecimal characters, for example, 00:A0:C5:00:00:02. You need to know the device's MAC address to configure this screen.

To change your EMG2926-Q10A's MAC filter settings, click **Network > Wireless LAN 2.4G/5G > MAC Filter**. The following screen will appear.

Figure 56 Network > Wireless LAN 2.4G/5G > MAC Filter

General More AP **MAC Filter** Advanced QoS WPS WPS Station Scheduling WDS Channel Status

SSID Select: VIDEOTRON2162

MAC Address Filter: ☐ Enable ☒ Disable

Filter Action: ☒ Allow ☐ Deny

MAC Filter Summary	
Set	MAC Address
1	00:00:00:00:00:00
2	00:00:00:00:00:00
3	00:00:00:00:00:00
4	00:00:00:00:00:00
5	00:00:00:00:00:00
6	00:00:00:00:00:00
7	00:00:00:00:00:00
8	00:00:00:00:00:00
9	00:00:00:00:00:00
10	00:00:00:00:00:00
11	00:00:00:00:00:00
12	00:00:00:00:00:00
13	00:00:00:00:00:00
14	00:00:00:00:00:00
15	00:00:00:00:00:00
16	00:00:00:00:00:00
17	00:00:00:00:00:00
18	00:00:00:00:00:00
19	00:00:00:00:00:00
20	00:00:00:00:00:00
21	00:00:00:00:00:00
22	00:00:00:00:00:00
23	00:00:00:00:00:00
24	00:00:00:00:00:00
25	00:00:00:00:00:00
26	00:00:00:00:00:00
27	00:00:00:00:00:00
28	00:00:00:00:00:00
29	00:00:00:00:00:00
30	00:00:00:00:00:00
31	00:00:00:00:00:00
32	00:00:00:00:00:00

Apply Cancel

The following table describes the labels on this screen.

Table 36 Network > Wireless LAN 2.4G/5G > MAC Filter

LABEL	DESCRIPTION
SSID Select	Select the SSID for which you want to configure MAC filtering.
MAC Address Filter	Select to turn on (Enable) or off (Disable) MAC address filtering.
Filter Action	Define the filter action for the list of MAC addresses in the MAC Filter Summary table. Select Allow to permit access to the EMG2926-Q10A. MAC addresses not listed will be denied access to the EMG2926-Q10A. Select Deny to block access to the EMG2926-Q10A. MAC addresses not listed will be allowed to access the EMG2926-Q10A.
MAC Filter Summary	
Set	This is the index number of the MAC address.
MAC Address	Enter the MAC address of the wireless station that is allowed or denied access to the EMG2926-Q10A.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.6 Wireless LAN Advanced Screen

Use this screen to enable advanced wireless features, such as output power, and RTS/CTS Threshold settings.

Click **Network > Wireless LAN 2.4G/5G > Advanced**. The following screen will appear.

Figure 57 Network > Wireless LAN 2.4G/5G > Advanced

The table below describes the labels on this screen.

Table 37 Network > Wireless LAN 2.4G/5G > Advanced

LABEL	DESCRIPTION
RTS/CTS Threshold	Data with a frame size larger than this value will perform the RTS (Request To Send)/CTS (Clear To Send) handshake. This field is not configurable and the EMG2926-Q10A will use the maximum value automatically if you select 802.11n , 802.11an , 802.11gn , 802.11bgn or 802.11ac on the Wireless LAN 2.4G/5G > General screen.

Table 37 Network > Wireless LAN 2.4G/5G > Advanced (continued)

LABEL	DESCRIPTION
Fragmentation Threshold	<p>The fragmentation boundary's threshold (number of bytes) for directed messages. It is the maximum data fragment size that can be sent.</p> <p>This field is not configurable and the EMG2926-Q10A will use the maximum value automatically if you select 802.11n, 802.11an, 802.11gn, 802.11bgn or 802.11ac on the Wireless LAN 2.4G/5G > General screen.</p>
Intra-BSS Traffic	<p>A Basic Service Set (BSS) exists when all communications between wireless clients or between a wireless client and a wired network client go through one access point (AP).</p> <p>Intra-BSS traffic is traffic between wireless clients in the BSS. When Intra-BSS is enabled, wireless clients can access the wired network and communicate with each other. When Intra-BSS is disabled, wireless clients can still access the wired network but cannot communicate with each other.</p>
Short Guard Interval	<p>The guard interval is a gap introduced between users' data transmission in order to reduce interference. Reducing the interval increases data transfer rates but also increases interference. Increasing the interval reduces data transfer rates but also reduces interference.</p> <p>Select Enable to use the short guard interval. Otherwise, select Disable to use the long guard interval.</p>
Tx Power	<p>Set the output power of the EMG2926-Q10A in this field. If there is a high density of APs in an area, decrease the output power of the EMG2926-Q10A to reduce interference with other APs. Select either 100%, 90%, 75%, 50%, 25% or 10%.</p>
Apply	Click Apply to save your changes with the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.7 Quality of Service (QoS) Screen

The QoS screen allows you to automatically give a service (such as VoIP and video) a priority level.

Click **Network > Wireless LAN 2.4G/5G > QoS**. The following screen appears:

Figure 58 Network > Wireless LAN 2.4G/5G > QoS

General More AP MAC Filter Advanced **QoS** WPS WPS Station Scheduling WDS Channel Status

WMM QoS : ☒ Enable ☐ Disable

Note:
When the wireless mode contains N mode, wmm support will be enabled automatically.

Apply Cancel

The following table describes the labels on this screen.

Table 38 Network > Wireless LAN 2.4G/5G > QoS

LABEL	DESCRIPTION
WMM QoS	Select Enable to have the EMG2926-Q10A automatically give a service a priority level according to the ToS value in the IP header of packets it sends. WMM QoS (Wifi Multimedia Quality of Service) gives high priority to voice and video, making them run more smoothly. This field is not configurable and the EMG2926-Q10A automatically enables WMM QoS if you select 802.11n , 802.11an , 802.11gn , 802.11bgn or 802.11ac in the Wireless LAN 24G/5G > General screen.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.8 WPS Screen

Use this screen to enable/disable WPS, view or generate a new PIN number and check current WPS status. To open this screen, click **Network > Wireless LAN 2.4G/5G > WPS**.

Note: With WPS, wireless clients can only connect to the wireless network using the first SSID on the EMG2926-Q10A.

Figure 59 Network > Wireless LAN 2.4G/5G > WPS

The screenshot shows the WPS configuration screen with the following sections:

- WPS Setup:**
 - WPS: ☒ Enable ☐ Disable
 - PIN Code: ☐ Enable ☒ Disable
 - PIN Number:
- WPS Status:**
 - Status: Configured
 - 802.11 Mode: 802.11bgn
 - SSID: VIDEOTRON2162
 - Security: WPA-PSK / WPA2-PSK
- Note:** If you enable WPS, the UPnP service will be turned on automatically.

At the bottom, there are and buttons.

The following table describes the labels on this screen.

Table 39 Network > Wireless LAN 2.4G/5G > WPS

LABEL	DESCRIPTION
WPS Setup	
WPS	Select Enable to turn on the WPS feature. Otherwise, select Disable .
PIN Code	Select Enable and click Apply to enable the PIN Configuration method. If you select Disable , you cannot create a new PIN number.

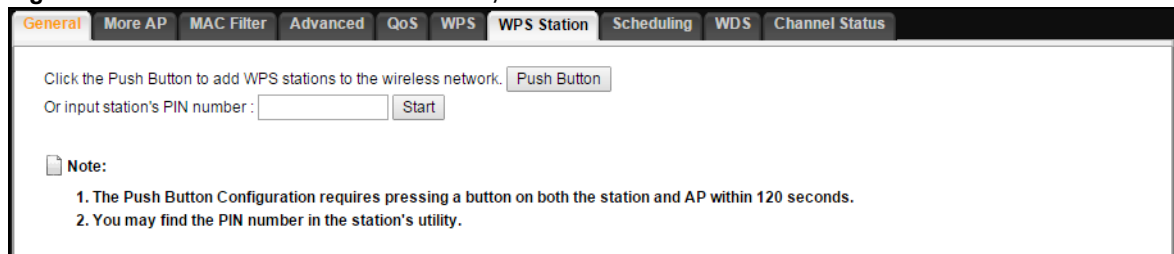
Table 39 Network > Wireless LAN 2.4G/5G > WPS (continued)

LABEL	DESCRIPTION
PIN Number	<p>This is the WPS PIN (Personal Identification Number) of the EMG2926-Q10A. Enter this PIN in the configuration utility of the device you want to connect to the EMG2926-Q10A using WPS.</p> <p>The PIN is not necessary when you use WPS push-button method.</p> <p>Click Generate to generate a new PIN number.</p>
WPS Status	
Status	<p>This field displays Configured when the EMG2926-Q10A has connected to a wireless network using WPS or when WPS Enable is selected and wireless or wireless security settings have been changed. The current wireless and wireless security settings also appear on the screen.</p> <p>This field displays Unconfigured if WPS is disabled and there are no wireless or wireless security changes on the EMG2926-Q10A or you click Release Configuration to remove the configured wireless and wireless security settings.</p>
Release Configuration	<p>This button is only available when the WPS status displays Configured.</p> <p>Click this button to remove all configured wireless and wireless security settings for WPS connections on the EMG2926-Q10A.</p>
802.11 Mode	This is the 802.11 mode that is being used. Only compliant WLAN devices can associate with the EMG2926-Q10A.
SSID	This is the name of the wireless network (the EMG2926-Q10A's first SSID).
Security	This is the type of wireless security employed by the network.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.9 WPS Station Screen

Use this screen when you want to add a wireless station using WPS. To open this screen, click **Network > Wireless LAN 2.4G/5G > WPS Station** tab.

Note: After you click **Push Button** on this screen, you have to press a similar button in the wireless station utility within 2 minutes. To add the second wireless station, you have to press these buttons on both the EMG2926-Q10A and the wireless station again after the first 2 minutes.

Figure 60 Network > Wireless LAN 2.4G/5G > WPS Station


Click the Push Button to add WPS stations to the wireless network.

Or input station's PIN number :

Note:

1. The Push Button Configuration requires pressing a button on both the station and AP within 120 seconds.
2. You may find the PIN number in the station's utility.

The following table describes the labels on this screen.

Table 40 Network > Wireless LAN 2.4G/5G > WPS Station

LABEL	DESCRIPTION
Push Button	Use this button when you use the PBC (Push Button Configuration) method to configure the wireless stations' wireless settings. Click this to start WPS-aware wireless station scanning and wireless security information synchronization.
Or input station's PIN number	Use this button when you use the PIN Configuration method to configure the wireless station's wireless settings. Type the same PIN number as was generated in the wireless station's utility. Then click Start to connect and to perform the wireless security information synchronization.

9.10 Scheduling Screen

Use this screen to set the times your wireless LAN is turned on and off. Wireless LAN scheduling is disabled by default. The wireless LAN can be scheduled to turn on or off on certain days and at certain times. To open this screen, click **Network > Wireless LAN 2.4G/5G > Scheduling** tab.

Figure 61 Network > Wireless LAN 2.4G/5G > Scheduling

Wireless LAN Scheduling : ☐ Enable ☒ Disable

Scheduling		
WLAN status	Day	For the following times (24-Hour Format)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Everyday	00 (hour) 00 (min) ~ 00 (hour) 00 (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Mon	00 (hour) 00 (min) ~ 00 (hour) 00 (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Tue	00 (hour) 00 (min) ~ 00 (hour) 00 (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Wed	00 (hour) 00 (min) ~ 00 (hour) 00 (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Thu	00 (hour) 00 (min) ~ 00 (hour) 00 (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Fri	00 (hour) 00 (min) ~ 00 (hour) 00 (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Sat	00 (hour) 00 (min) ~ 00 (hour) 00 (min)
<input type="radio"/> On <input checked="" type="radio"/> Off	<input type="checkbox"/> Sun	00 (hour) 00 (min) ~ 00 (hour) 00 (min)

Note:
Specifying the same start time and end time means the whole day's schedule.

Apply Cancel

The following table describes the labels on this screen.

Table 41 Network > Wireless LAN 2.4G/5G > Scheduling

LABEL	DESCRIPTION
Wireless LAN Scheduling	
Wireless LAN Scheduling	Select Enable to activate the wireless LAN scheduling feature. Select Disable to turn it off.
Scheduling	
WLAN Status	Select On or Off to specify whether you want the wireless LAN to be turned on or off. This field works in conjunction with the Day and For the following times fields.

Table 41 Network > Wireless LAN 2.4G/5G > Scheduling (continued)

LABEL	DESCRIPTION
Day	Select Everyday or the specific days you want the wireless LAN to be turned on or off. If you select Everyday you cannot select any specific days. This field works in conjunction with the For the following times field.
For the following times (24-Hour Format)	Select a start time using the first set of hour and minute (min) drop-down boxes and select an end time using the second set of hour and minute (min) drop-down boxes. If you chose On for the WLAN Status , the wireless LAN will turn on between the two times you enter in these fields. If you chose Off for the WLAN Status , the wireless LAN will turn off between the two times you enter in these fields.
Apply	Click Apply to save your changes with the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

9.11 WDS Screen

A Wireless Distribution System (WDS) is a wireless connection between two or more APs. Use this screen to configure the EMG2926-Q10A's WDS settings. To open this screen, click the **Network > Wireless LAN 2.4G/5G > WDS** tab. The screen varies depending on the EMG2926-Q10A's **Sys OP Mode**.

Note: WDS security is independent of the security settings between the EMG2926-Q10A and any wireless clients.

If you do not enable WDS security, traffic between APs is not encrypted. When WDS security is enabled, both APs must use the same encryption method and pre-shared key.

Figure 62 Network > Wireless LAN 2.4G/5G > WDS (Router Mode)

The screenshot shows the 'WDS Setup' screen in Router Mode. At the top, there is a navigation bar with tabs: General, More AP, MAC Filter, Advanced, QoS, WPS, WPS Station, Scheduling, WDS (selected), and Channel Status. Below the navigation bar, the 'WDS Setup' section is displayed. Under 'Basic Setting', there is a dropdown menu currently set to 'Root AP'. At the bottom of the screen, there are 'Apply' and 'Reset' buttons.

Figure 63 Network > Wireless LAN 2.4G/5G > WDS (AP Mode)

The screenshot shows the 'WDS Setup' screen in AP Mode. At the top, there is a navigation bar with tabs: General, More AP, MAC Filter, Advanced, QoS, WPS, WPS Station, Scheduling, WDS (selected), and Channel Status. Below the navigation bar, the 'WDS Setup' section is displayed. Under 'Basic Setting', there is a dropdown menu currently set to 'Repeater'. Below the dropdown is a text input field for 'Remote SSID'. Below this is a 'Security' section. Under 'Security Mode', there is a dropdown menu currently set to 'WPA2-PSK'. Below the dropdown is a text input field for 'Pre-Shared Key'. At the bottom of the screen, there are 'Apply' and 'Reset' buttons.

The following table describes the labels on this screen.

Table 42 Network > Wireless LAN 2.4G/5G > WDS

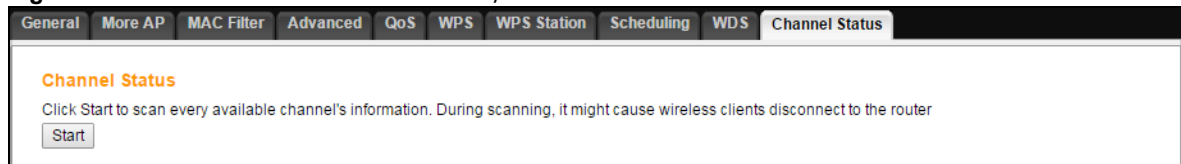
LABEL	DESCRIPTION
WDS Setup	
Basic Setting	<p>When the EMG2926-Q10A is in router mode:</p> <ul style="list-style-type: none"> Select Disable to turn off the WDS function on the EMG2926-Q10A. Select Root AP to allow the EMG2926-Q10A to establish wireless links with other APs. <p>When the EMG2926-Q10A is in AP mode:</p> <ul style="list-style-type: none"> Select Disable to turn off the WDS function on the EMG2926-Q10A. Select Repeater to allow the EMG2926-Q10A to connect to another EMG2926-Q10A wirelessly in Root AP mode.
Remote SSID	<p>This field is available only when you set the EMG2926-Q10A to function as an AP in the Maintenance > Sys OP Mode screen.</p> <p>Enter the main SSID of an EMG2926-Q10A in Router Mode and Root AP mode, to which you want the EMG2926-Q10A in Repeater mode to connect.</p>
Security	
This section is available only when you set the EMG2926-Q10A to work in AP mode in the Maintenance > Sys OP Mode screen.	
Security Mode	<p>Select Static WEP, WPA-PSK, or WPA2-PSK to use security for your WDS connection. Otherwise, select No Security to disable WDS security.</p> <p>Note: The security mode and encryption key must be the same as those used for the main SSID on the root AP.</p>
Pre-Shared Key	Enter the key used to encrypt data. Peers must use the same key for data transmission.
Authentication Method	Keep this setting at Auto or select Shared Key to provide the WEP key prior to communication.
Key 1 ~ Key 4	Enter the same WEP key for data transmission.
Apply	Click Apply to save your changes with the EMG2926-Q10A.
Reset	Click Reset to reload the previous configuration for this screen.

9.12 Channel Status Screen

Use this screen to display the status of all available channels as well as related information. To open this screen, click the **Network > Wireless LAN 2.4G/5G > Channel Status** tab.

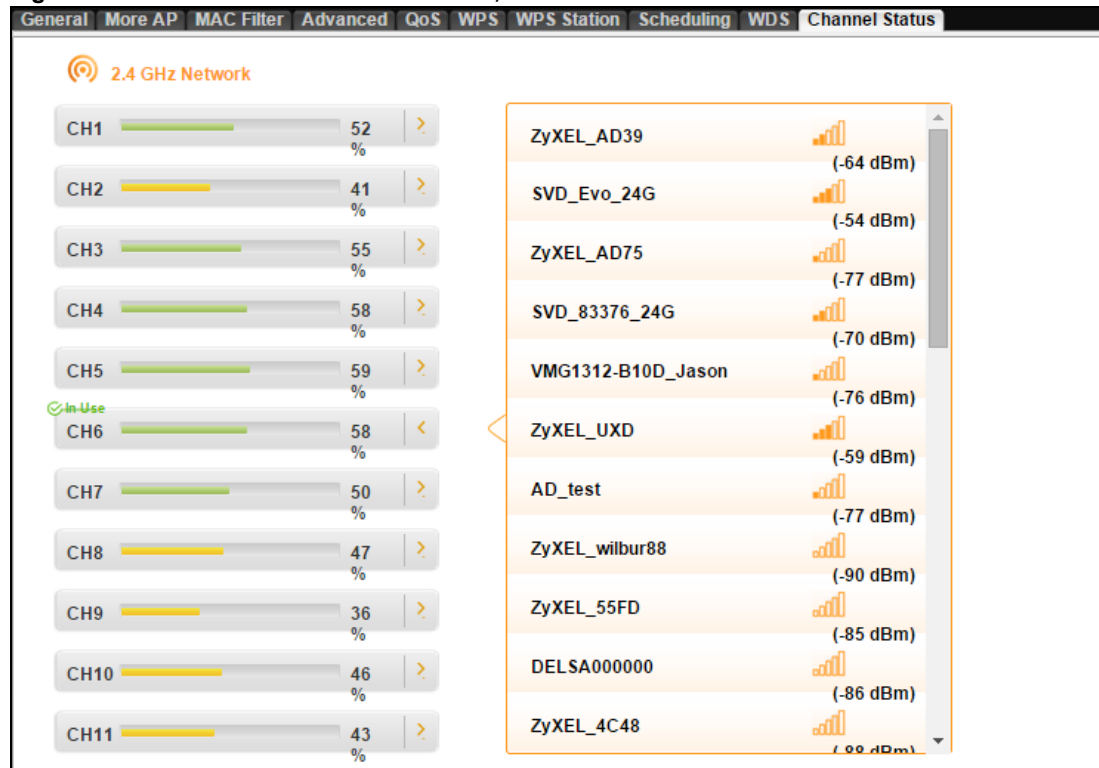
Click **Start** to scan for available channels and display the signal strength of each channel. The channel numbers vary depending on the frequency band and the country in which you are using the EMG2926-Q10A.

Figure 64 Network > Wireless LAN 2.4G/5G > Channel Status



You can click the > or < icon to show or hide the list of wireless networks that are using the channel.

Figure 65 Network > Wireless LAN 2.4G/5G > Channel Status: Scan Result

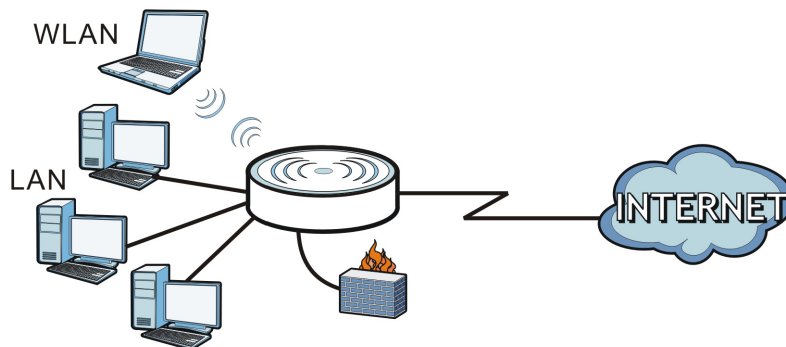


10.1 Overview

This chapter describes how to configure LAN settings.

A Local Area Network (LAN) is a shared communication system to which many computers are attached. A LAN is a computer network limited to the immediate area, usually the same building or floor of a building.

Figure 66 LAN Example



The LAN screens can help you configure a management IP address, and partition your physical network into logical networks.

10.2 LAN IP Screen

Use this screen to change the IPv4 address for your EMG2926-Q10A. Click **Network > LAN > IP**.

Figure 67 Network > LAN > IP

The screenshot shows a web-based configuration interface for the EMG2926-Q10A. At the top, there are four tabs: 'IP', 'IP Alias', 'IPv6 LAN', and 'Advanced'. The 'IP' tab is selected. Below the tabs, the 'IP Address' section contains three input fields: 'IP Address' (192.168.0.1), 'IP Subnet Mask' (255.255.255.0), and 'MTU Size' (1500). Below this is the 'DHCP Option' section, which includes a checkbox for 'Enable DHCP Option 67' (which is unchecked) and a text field for 'Boot File Name'. At the bottom of the screen, there are 'Apply' and 'Cancel' buttons.

The following table describes the labels on this screen.

Table 43 Network > LAN > IP

LABEL	DESCRIPTION
IP Address	Type your EMG2926-Q10A's IP address in dotted decimal notation.
IP Subnet Mask	The subnet mask specifies the network number portion of an IP address. Your EMG2926-Q10A will automatically calculate the subnet mask based on the IP address you have entered. Unless you are implementing subnetting, use the subnet mask computed by the EMG2926-Q10A.
MTU Size	Enter the maximum size in bytes of each data packet that can move through the interface. If a larger packet arrives, the EMG2926-Q10A will divide it into smaller fragments.
Enable DHCP Option 67	Select this option to have the EMG2926-Q10A (acting as the DHCP server) provide DHCP clients with the boot file path.
Boot File Name	Specify the name of the boot file you want the DHCP clients to use.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

10.3 IP Alias Screen

Use this screen to have the EMG2926-Q10A use IP aliasing to create LAN subnets. Click **LAN > IP Alias**.

Figure 68 Network > LAN > IP Alias

The screenshot shows the 'IP Alias' configuration screen. It features four tabs at the top: 'IP', 'IP Alias' (which is selected), 'IPv6 LAN', and 'Advanced'. Below the tabs, there are two sections for configuring IP aliases. The first section, 'IP Alias 1', includes a checkbox labeled 'IP Alias 1' and two input fields: 'IP Address :' and 'IP Subnet Mask :', both containing the value '0.0.0.0'. The second section, 'IP Alias 2', similarly includes a checkbox labeled 'IP Alias 2' and two input fields for 'IP Address :' and 'IP Subnet Mask :', also containing '0.0.0.0'. At the bottom of the screen, there are two buttons: 'Apply' and 'Cancel'.

The following table describes the labels on this screen.

Table 44 Network > LAN > IP Alias

LABEL	DESCRIPTION
IP Alias 1, 2	Check this to enable IP aliasing to configure another LAN network for the EMG2926-Q10A.
IP Address	Type the IP alias address of your EMG2926-Q10A in dotted decimal notation.
IP Subnet Mask	The subnet mask specifies the network number portion of an IP address. Your EMG2926-Q10A will automatically calculate the subnet mask based on the IP address you have entered. Unless you are implementing subnetting, use the subnet mask computed by the EMG2926-Q10A.

Table 44 Network > LAN > IP Alias (continued)

LABEL	DESCRIPTION
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

10.4 IPv6 LAN Screen

Use this screen to configure the IPv6 address for your EMG2926-Q10A on the LAN. Click **Network > LAN > IPv6 LAN**.

Figure 69 Network > LAN > IPv6 LAN

The following table describes the labels on this screen.

Table 45 Network > LAN > IPv6 LAN

LABEL	DESCRIPTION
Minimum RA period	Enter the minimum time in seconds between router advertisement messages. Router advertisement (RA) is a response to a router solicitation or to a periodical multicast advertisement from a router to advertise its presence and other parameters. The router in router advertisements can be used as a default router.
Enable DHCPv6-PD	Select this option to use DHCPv6 prefix delegation. The EMG2926-Q10A will obtain an IPv6 prefix from the ISP or a connected uplink router for the LAN.
Autoconfiguration Type	Select SLAAC (Stateless Address Autoconfiguration) + RDNSS (Recursive DNS Server) to enable IPv6 stateless autoconfiguration on this interface. The interface will generate an IPv6 address from a prefix obtained from an IPv6 router in the network. Select SLAAC + Stateless DHCPv6 to enable IPv6 stateless auto-configuration on this interface. The interface will get an IPv6 address from an IPv6 router. Hosts use DHCPv6 to obtain additional configuration settings, such as DNS information. Select Stateful DHCPv6 to allow a DHCPv6 server to assign and transfer IPv6 network addresses, prefixes and other configuration information to DHCPv6 clients.
IPv6 Address range(Start)	If you select Stateful DHCPv6 , specify the range of IPv6 addresses from which the DHCPv6 server assigns to the clients. Enter the smallest value of the last block of IPv6 addresses to be allocated.

Table 45 Network > LAN > IPv6 LAN (continued)

LABEL	DESCRIPTION
IPv6 Address range(End)	If you select Stateful DHCPv6 , specify the range of IPv6 addresses from which the DHCPv6 server assigns to the clients. Enter the largest value of the last block of IPv6 addresses to be allocated.
IPv6 Lifetime	If you select Stateful DHCPv6 , specify how long (in seconds) you wish the IPv6 addresses to remain valid.
Static IP Address	Select this option to manually enter an IPv6 address if you want to use a static IPv6 address.
LAN IPv6 Address	Enter the static IPv6 address for the EMG2926-Q10A on the LAN.
LAN IPv6 Prefix Length	Enter an IPv6 prefix length that specifies how many most significant bits (start from the left) in the address compose the network address.
Prefix Preferred Lifetime	Enter how long (in seconds) you wish addresses generated from the prefix via stateless address autoconfiguration to remain preferred.
Prefix Valid Lifetime	Enter how long (in seconds) you wish prefix to be valid for on-link determination.
Link Local Only	Select this option to use the EMG2926-Q10A's IPv6 link-local address on the LAN.
ULA	Select this option to use the EMG2926-Q10A's IPv6 Unique Local Address (ULA). An IPv6 unique local address has a prefix of FC00::/7 and is similar to the blocks of IPv4 addresses for private networks, such as 10.0.0.0/8, 172.16.0.0/12 or 192.168.0.0/16.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

10.5 LAN Advanced Screen

Use this screen to enable the guest LAN and turn on bandwidth management for guest networks. Click **LAN > Advanced**.

Figure 70 Network > LAN > Advanced

The screenshot shows the 'Advanced' configuration screen for the LAN. It includes the following elements:

- Tabs:** IP, IP Alias, IPv6 LAN, and **Advanced** (active).
- Guest LAN Section:**
 - ☒ Enable Guest LAN
 - Note: LAN4 port will be the guest LAN.
- Guest LAN/WLAN Bandwidth Management Section:**
 - ☒ Enable Guest WLAN/LAN Bandwidth Management
 - Maximum Bandwidth: (kbps)
- Buttons:** Apply, Cancel

The following table describes the labels on this screen.

Table 46 Network > LAN > Advanced

LABEL	DESCRIPTION
Enable Guest LAN	Select this option to use the 4th LAN port as the guest LAN. Devices connected to the guest LAN (port 4) will still be able to communicate with devices connected to other interfaces on the EMG2926-Q10A. The guest LAN and guest WLAN on the EMG2926-Q10A share the same routing domain (192.168.200.0/24) and bandwidth.
Enable Guest WLAN/LAN Bandwidth Management	Select this option to turn on bandwidth management for the guest networks.
Maximum Bandwidth	Enter a number to specify maximum bandwidth the guest networks can use.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

DHCP Server

11.1 Overview

DHCP (Dynamic Host Configuration Protocol, RFC 2131 and RFC 2132) allows individual clients to obtain TCP/IP configuration at start-up from a server. You can configure the EMG2926-Q10A's LAN as a DHCP server, or disable it. When configured as a server, the EMG2926-Q10A provides TCP/IP configuration for the clients. If DHCP service is disabled, you must have another DHCP server on your LAN, or the computer will have to be configured manually.

11.2 DHCP Server General Screen

Use this screen to enable the DHCP server. Click **Network > DHCP Server**. The following screen will appear:

Figure 71 Network > DHCP Server > General

The following table describes the labels on this screen.

Table 47 Network > DHCP Server > General

LABEL	DESCRIPTION
DHCP Server	Select Enable to activate DHCP for LAN. DHCP (Dynamic Host Configuration Protocol, RFC 2131 and RFC 2132) allows individual clients (computers) to obtain TCP/IP configuration at startup from a server. Enable the DHCP server unless your ISP instructs you to do otherwise. Select Disable to stop the EMG2926-Q10A from acting as a DHCP server. When configured as a server, the EMG2926-Q10A provides TCP/IP configuration for the clients. If not, DHCP service is disabled and you must have another DHCP server on your LAN, or the computers will have to be configured manually. When set as a server, fill in the next four fields.
IP Pool Starting Address	This field specifies the first of the contiguous addresses in the IP address pool for the LAN.
Pool Size	This field specifies the size, or count of the IP address pool for the LAN.

Table 47 Network > DHCP Server > General (continued)

LABEL	DESCRIPTION
Lease Time	Specify how long each computer can use the IP address before it has to request the information again.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

11.3 DHCP Server Advanced Screen

This screen allows you to assign IP addresses on the LAN to specific individual computers based on their MAC addresses. You can also use this screen to configure the DNS server information that the EMG2926-Q10A sends to DHCP clients.

To change your EMG2926-Q10A's static DHCP settings, click **Network > DHCP Server > Advanced**. The following screen will appear:

Figure 72 Network > DHCP Server > Advanced

Static DHCP Table

#	MAC Address	IP Address
1	00:00:00:00:00:00	0.0.0.0
2	00:00:00:00:00:00	0.0.0.0
3	00:00:00:00:00:00	0.0.0.0
4	00:00:00:00:00:00	0.0.0.0
5	00:00:00:00:00:00	0.0.0.0
6	00:00:00:00:00:00	0.0.0.0
7	00:00:00:00:00:00	0.0.0.0
8	00:00:00:00:00:00	0.0.0.0

DNS Server

DNS Servers Assigned by DHCP Server

First DNS Server : DNS Relay ▼

Second DNS Server : Obtained From ISP ▼

Third DNS Server : Obtained From ISP ▼

Apply Cancel

The following table describes the labels on this screen.

Table 48 Network > DHCP Server > Advanced

LABEL	DESCRIPTION
Static DHCP Table	
#	This is the static IP table entry (row)'s index number.

Table 48 Network > DHCP Server > Advanced (continued)

LABEL	DESCRIPTION
MAC Address	Type the MAC address (with colons) of a computer on your LAN.
IP Address	Type the LAN IP address of a computer on your LAN.
DNS Server	
DNS Servers Assigned by DHCP Server	The EMG2926-Q10A sends a DNS (Domain Name System) server IP address (in the order you specify here) to the DHCP clients. The EMG2926-Q10A only sends this information to the LAN DHCP clients when you enable DHCP Server . When you disable DHCP Server , DHCP service is disabled and you must have another DHCP server on your LAN, or else the computers must have their DNS server addresses manually configured.
First DNS Server Second DNS Server Third DNS Server	<p>Select Obtained From ISP if your ISP assigns DNS server information (and the EMG2926-Q10A's WAN IP address) dynamically. The field to the right displays the (read-only) DNS server IP address assigned by the ISP.</p> <p>Select User-Defined if you have the IP address of a DNS server. Enter the DNS server's IP address in the field to the right. If you chose User-Defined, but leave the IP address set to 0.0.0.0, User-Defined will change to None after you click Apply. If you set a second choice to User-Defined, and enter the same IP address, the second User-Defined changes to None after you click Apply.</p> <p>Select DNS Relay to have the EMG2926-Q10A act as a DNS proxy. The EMG2926-Q10A's LAN IP address displays in the field to the right (read-only). The EMG2926-Q10A tells the DHCP clients on the LAN that the EMG2926-Q10A itself is the DNS server. When a computer on the LAN sends a DNS query to the EMG2926-Q10A, the EMG2926-Q10A forwards the query to the EMG2926-Q10A's system DNS server (configured in the WAN > Internet Connection screen) and relays the response back to the computer. You can only select DNS Relay for one of the three servers; if you select DNS Relay for a second or third DNS server, your selection will change to None after you click Apply.</p> <p>Select None if you do not want to configure DNS servers. If you do not configure a DNS server, you must know the IP address of a computer in order to access it.</p>
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

11.4 DHCP Client List Screen

The DHCP table shows current DHCP client information (including IP Address, Host Name and MAC Address) of network clients using the EMG2926-Q10A's DHCP servers.

Configure this screen to always assign an IP address to a MAC address (and host name). Click **Network > DHCP Server > Client List**.

Note: You can also view a read-only client list by clicking **Monitor > DHCP Server**.

Figure 73 Network > DHCP Server > Client List

#	Status	Host Name	IP Address	MAC Address	Reserve
1		twpcMT	192.168.0.45	00:19:cb:32:be:ac	<input type="checkbox"/>

The following table describes the labels on this screen.

Table 49 Network > DHCP Server > Client List

LABEL	DESCRIPTION
#	This is the host computer's index number.
Status	This field displays whether the connection to the host computer is up (yellow lightbulb) or down (grey lightbulb).
Host Name	This field displays the computer host name.
IP Address	This field displays the IP address relative to the # field listed above.
MAC Address	This field shows the MAC address of the computer with the name in the Host Name field. Every Ethernet device has a unique MAC (Media Access Control) address which uniquely identifies a device. The MAC address is assigned at the factory and consists of six pairs of hexadecimal characters, for example, 00:A0:C5:00:00:02.
Reserve	Select this if you want to reserve the IP address for this specific MAC address.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reload the previous configuration for this screen.

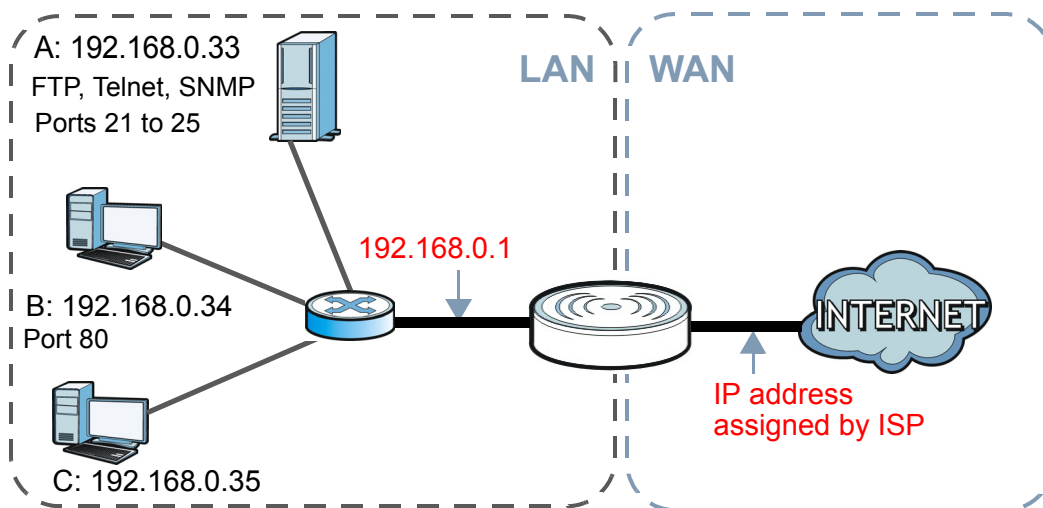
12.1 Overview

NAT (Network Address Translation - NAT, RFC 1631) is the translation of the IP address of a host in a packet. For example, the source address of an outgoing packet used within one network is changed to a different IP address known within another network.

The figure below is a simple illustration of a NAT network. You want to assign ports 21-25 to one FTP, Telnet and SMTP server (**A** in the example), port 80 to another (**B** in the example) and assign a default server IP address of 192.168.0.35 to a third (**C** in the example).

You assign the LAN IP addresses to the devices (**A** to **D**) connected to your EMG2926-Q10A. The ISP assigns the WAN IP address. The NAT network appears as a single host on the Internet. All traffic that comes from **A** to **D** and goes out to the Internet uses the EMG2926-Q10A's IP address, which is 192.168.0.1.

Figure 74 NAT Example



This chapter discusses how to configure NAT on the EMG2926-Q10A.

Note: You must create a firewall rule in addition to setting up NAT in order to allow traffic from the WAN to be forwarded through the EMG2926-Q10A.

12.2 NAT General Screen

Use this screen to enable NAT and set a default server. Click **Network > NAT** to open the **General** screen.

Figure 75 Network > NAT > General

The following table describes the labels on this screen.

Table 50 Network > NAT > General

LABEL	DESCRIPTION
Network Address Translation (NAT)	Network Address Translation (NAT) allows the translation of an Internet protocol address used within one network (such as a private IP address used in a local network) to a different IP address known within another network (such as a public IP address used on the Internet). Select Enable to activate NAT. Select Disable to turn it off.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

12.3 Port Forwarding Screen

Use this screen to forward incoming service requests to the server(s) on your local network and set a default server. You can enter a single port number (or a range of port numbers) to be forwarded as well as the local IP address of the desired server. The port number identifies a service; for example, web service is on port 80, and FTP is on port 21. In some cases, such as for unknown services or instances where one server can support more than one service (such as both FTP and web service), it might be better to specify a range of port numbers.

In addition to the servers used for specified services, NAT supports a default server. A service request that does not have a server explicitly designated to it is forwarded to the default server. If a default has not been designated, the service request is simply discarded.

Note: Many residential broadband ISP accounts do not allow you to run any server processes (such as a Web or FTP server) from your location. Your ISP may periodically check for servers and may suspend your account if it discovers any active services at your location. If you are unsure, consult your ISP.

Port forwarding allows you to define the local servers to which incoming services will be forwarded. To change your EMG2926-Q10A's port forwarding settings, click **Network > NAT > Port Forwarding**. The screen will appear as shown below.

Note: If you do not assign a **Default Server**, the EMG2926-Q10A will discard all packets received for ports that are not specified in this screen or in remote management.

Figure 76 Network > NAT > Port Forwarding

Default Server Setup

☒ Default Server : 192.168.0.1
☐ Change To Server :

Note:
DMZ always uses default WAN.

Service Name : User define User define ▼
 Service Protocol : TCP_UDP ▼
 Port Range : -
 Translation Port Range : -
 Server IP Address : Custom ▼

Add

#	Status	Name	Protocol	WAN Interface	Port	Translation Port	Server IP Address	Modify
1	💡	SIP	TCP_UDP	WAN	5060	5060	192.168.0.55	✎🗑

Apply Cancel

The following table describes the labels on this screen.

Table 51 Network > NAT > Port Forwarding

LABEL	DESCRIPTION
Default Server Setup	
Default Server	<p>In addition to the servers for specified services, NAT supports a default server. A default server receives packets from ports that are not specified on the Port Forwarding screen. You can decide whether you want to use the default server or specify a server manually.</p> <p>Select this to use the default server.</p>
Change to Server	Select this and enter the server's IP address manually.
Service Name	<p>Select a pre-defined service in the second field beside Service Name. The pre-defined service port number(s) and protocol will appear in the port forwarding summary table.</p> <p>Otherwise, select User define and type a name (made up of up to 31 printable characters) in the first field beside Service Name to specify this rule. You will need to enter the port number(s) manually and select the IP protocol.</p>
Service Protocol	<p>Select the transport layer protocol supported by this virtual server. Choose between TCP, UDP, or TCP_UDP.</p> <p>If you have chosen a pre-defined service in the Service Name field, this field will not be available.</p>
Port Range	Type the first and last internal port number that identifies a service.
Translation Port Range	Type the first and last external port number that identifies a service.

Table 51 Network > NAT > Port Forwarding (continued)

LABEL	DESCRIPTION
Server IP Address	Select a DHCP client as the virtual server and click Add to add it in the port forwarding summary table. Otherwise, select Custom and manually enter the inside IP address of the virtual server here.
#	This is the index number of an individual port forwarding server entry.
Status	This icon is turned on when the rule is enabled.
Name	This field displays a name identifying the rule.
Protocol	This is the transport layer protocol used for the service.
WAN Interface	This is the rule's WAN interface.
Port	This is the internal port number(s) that identifies the service.
Translation Port Range	This is the external port number(s) that identifies the service.
Server IP Address	This field displays the server's inside IP address.
Modify	Click the Edit icon to open the edit screen where you can modify an existing rule. Click the Delete icon to remove a rule.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

12.3.1 Port Forwarding Edit Screen

This screen lets you edit a port forwarding rule. Click a rule's **Edit** icon on the **Port Forwarding** screen to open the following screen:

Figure 77 Network > NAT > Port Forwarding Edit

Port Forwarding : ☒ Enable ☐ Disable

Service Name :

Protocol :

Port Range : -

Translation Port Range : -

Server IP Address :

The following table describes the labels on this screen.

Table 52 Network > NAT > Port Forwarding Edit

LABEL	DESCRIPTION
Port Forwarding	<p>Select Enable to turn on this rule and the requested service can be forwarded to the host with a specified internal IP address.</p> <p>Select Disable to disallow forwarding of these ports to an inside server without having to delete the entry.</p>
Service Name	Type a name (of up to 31 printable characters) to identify this rule in the first field beside Service Name . Otherwise, select a predefined service in the second field beside Service Name .
Protocol	<p>Select the transport layer protocol supported by this virtual server. Choices are TCP, UDP, or TCP_UDP.</p> <p>If you have chosen a pre-defined service in the Service Name field, the protocol will be configured automatically.</p>
Port Range	<p>Type an internal port number(s) to define the service to be forwarded to the specified server.</p> <p>To specify a range of ports, enter the first and last port.</p>
Translation Port Range	Type the first and last external port number that identifies a service.
Server IP Address	Type the IP address of the server on your LAN that receives packets from the port(s) specified in the Port field.
Back	Click Back to return to the previous screen.
Apply	Click Apply to save your changes with the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

12.4 Port Trigger Screen

To change your EMG2926-Q10A's port trigger settings, click **Network > NAT > Port Trigger**. The screen will appear as shown below.

Note: Only one LAN computer can use a trigger port (range) at a time.

Figure 78 Network > NAT > Port Trigger

Application Rules Summary

Port Trigger Rules					
#	Name	incoming		trigger	
		Port	End Port	Port	End Port
1		0	0	0	0
2		0	0	0	0
3		0	0	0	0
4		0	0	0	0
5		0	0	0	0
6		0	0	0	0
7		0	0	0	0
8		0	0	0	0
9		0	0	0	0
10		0	0	0	0
11		0	0	0	0
12		0	0	0	0

Apply Cancel

The following table describes the labels on this screen.

Table 53 Network > NAT > Port Trigger

LABEL	DESCRIPTION
#	This is the rule's index number (read-only).
Name	Enter a unique name (up to 15 characters) for identification purposes. All characters are permitted (including spaces).
Incoming	Incoming is a port (or a range of ports) that a server on the WAN uses when it sends out a particular service. With this port (or range of ports), the EMG2926-Q10A forwards the traffic to the client computer on the LAN that requested the service.
Port	Enter a port number, or the starting port number in a range of port numbers.
End Port	Enter a port number, or the last port number in a range of port numbers.
Trigger	The trigger port is a port (or a range of ports) that causes (or triggers) the EMG2926-Q10A to record the IP address of the LAN computer that sent the traffic to a server on the WAN.
Port	Enter a port number, or the starting port number in a range of port numbers.
End Port	Enter a port number, or the last port number in a range of port numbers.

Table 53 Network > NAT > Port Trigger (continued)

LABEL	DESCRIPTION
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

13.1 Overview

DDNS services let you use a domain name with a dynamic IP address.

13.2 General

To change your EMG2926-Q10A's DDNS, click **Network > DDNS**. The screen will appear as shown.

Figure 79 Dynamic DNS

The following table describes the labels on this screen.

Table 54 Dynamic DNS

LABEL	DESCRIPTION
Dynamic DNS	Select Enable to use dynamic DNS. Select Disable to turn this feature off.
Service Provider	Select the name of your Dynamic DNS service provider.
Host Name	Enter a host name in the field provided. You can specify up to two host names in the field if you separated them with a comma (",").
Username	Enter your user name.
Password	Enter the password assigned to you.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

Static Route

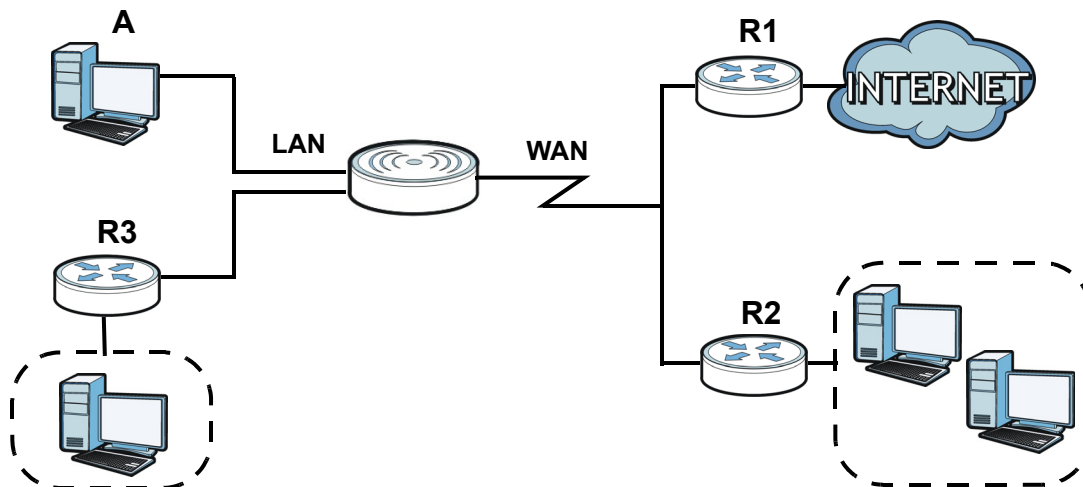
14.1 Overview

This chapter shows you how to configure static routes for your EMG2926-Q10A.

The EMG2926-Q10A usually uses the default gateway to route outbound traffic from computers on the LAN to the Internet. To have the EMG2926-Q10A send data to devices not reachable through the default gateway, use static routes.

For example, the following figure shows a computer (**A**) connected to the EMG2926-Q10A's LAN interface. The EMG2926-Q10A routes most traffic from **A** to the Internet through the EMG2926-Q10A's default gateway (**R1**). You have created one static route to connect to services offered by your ISP behind router **R2**. You have created another static route to communicate with a separate network behind router **R3** connected to the LAN.

Figure 80 Example of Static Routing Topology



14.2 IP Static Route Screen

Click **Network > Static Route** to open the **Static Route** screen.

Figure 81 Network > Static Route

#	Status	Name	Destination	Gateway	Subnet Mask	Modify
---	--------	------	-------------	---------	-------------	--------

The following table describes the labels on this screen.

Table 55 Network > Static Route

LABEL	DESCRIPTION
Add Static Route	Click this to create a new rule.
#	This is the number of an individual static route.
Status	This field indicates whether the rule is active (yellow lightbulb) or not (grey lightbulb).
Name	This field displays a name to identify this rule.
Destination	This parameter specifies the IP network address of the final destination. Routing is always based on network number.
Gateway	This is the IP address of the gateway. The gateway is a router or switch on the same network segment as the device's LAN or WAN port. The gateway helps forward packets to their destinations.
Subnet Mask	This parameter specifies the IP network subnet mask of the final destination.
Modify	Click the Edit icon to open a screen where you can modify an existing rule. Click the Delete icon to remove a rule from the EMG2926-Q10A.

14.2.1 Add/Edit Static Route

Click the **Add Static Route** button or a rule's **Edit** icon in the **Static Route** screen. Use this screen to configure the information required for a static route.

Figure 82 Network > Static Route: Add/Edit

The following table describes the labels on this screen.

Table 56 Network > Static Route: Add/Edit

LABEL	DESCRIPTION
Static Route	Select to enable or disable this rule.
Route Name	Enter a name to identify this rule. You can use up to 31 printable English keyboard characters, including spaces.

Table 56 Network > Static Route: Add/Edit

LABEL	DESCRIPTION
Destination IP Address	This parameter specifies the IP network address of the final destination. Routing is always based on network number. If you need to specify a route to a single host, use a subnet mask of 255.255.255.255 in the subnet mask field to force the network number to be identical to the host ID.
IP Subnet Mask	Enter the IP subnet mask here.
Gateway IP Address	Enter the IP address of the next-hop gateway. The gateway is a router or switch on the same segment as your EMG2926-Q10A's interface(s). The gateway helps forward packets to their destinations.
Back	Click Back to return to the previous screen without saving.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to reset every field in this screen to the last saved value.

Firewall

15.1 Overview

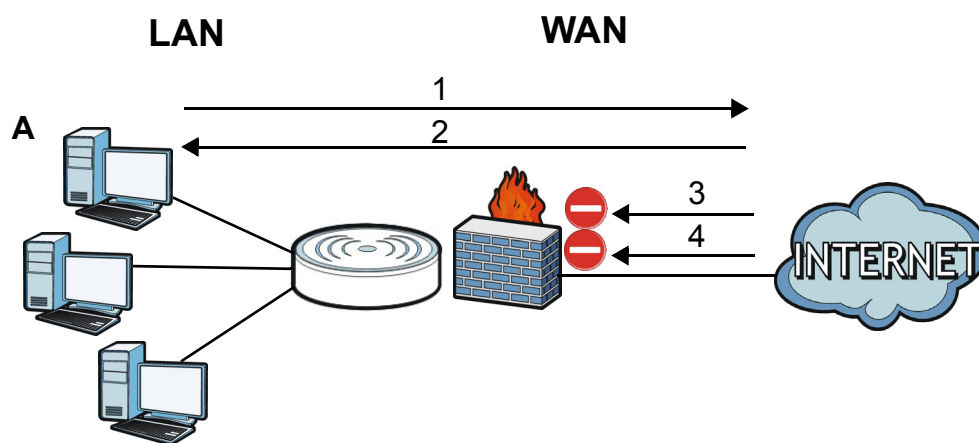
Use these screens to enable and configure the firewall that protects your EMG2926-Q10A and your LAN from unwanted or malicious traffic.

Enable the firewall to protect your LAN computers from attacks by hackers on the Internet and control access between the LAN and WAN. By default the firewall:

- allows traffic that originates from your LAN computers to go to all the networks.
- blocks traffic that originates on the other networks from going to the LAN.

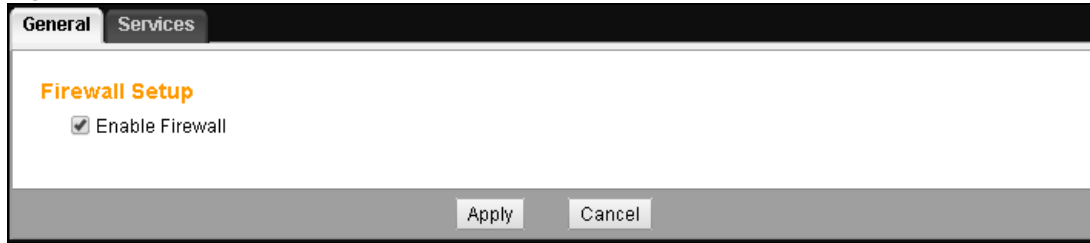
The following figure illustrates the default firewall action. User **A** can initiate an IM (Instant Messaging) session from the LAN to the WAN (1). Return traffic for this session is also allowed (2). However, other traffic initiated from the WAN is blocked (3 and 4).

Figure 83 Default Firewall Action



15.2 General Screen

Use this screen to enable or disable the EMG2926-Q10A's firewall and set up firewall logs. Click **Security** > **Firewall** to open the **General** screen.

Figure 84 Security > Firewall > General I

The following table describes the labels on this screen.

Table 57 Security > Firewall > General

LABEL	DESCRIPTION
Enable Firewall	Select this check box to activate the firewall. The EMG2926-Q10A performs access control and protects against Denial of Service (DoS) attacks when the firewall is activated.
Apply	Click Apply to save the settings.
Cancel	Click Cancel to start configuring this screen again.

15.3 Services Screen

If an outside user attempts to probe an unsupported port on your EMG2926-Q10A, an ICMP response packet is automatically returned. This allows the outside user to know the EMG2926-Q10A exists. Use this screen to prevent the ICMP response packet from being sent. This keeps outsiders from discovering your EMG2926-Q10A when unsupported ports are probed.

You can also use this screen to enable/add/delete/modify an IPv4 firewall rule.

Click **Security > Firewall > Services**. The screen will appear as shown on the next page.

Figure 85 Security > Firewall > Services

General **Services**

ICMP

Respond to Ping on: LAN ▼

Enable TearDrop Rule

☒ Enable TearDrop Rule

Enable Firewall Rule

☒ Enable Firewall Rule

Add Firewall Rule

Service Name :

Protocol : TCP ▼

MAC Address :

Dest_IP_Address :

Source_IP_Address :

DestPortRange : -

SourcePortRange : -

Firewall Rule

#	ServiceName	MACaddress	DestIP	SourceIP	Protocol	DestPortRange	SourcePortRange	Action	Modify
<input type="button" value="Cancel"/>									

The following table describes the labels on this screen.

Table 58 Security > Firewall > Services

LABEL	DESCRIPTION
ICMP	Internet Control Message Protocol is a message control and error-reporting protocol between a host server and a gateway to the Internet. ICMP uses Internet Protocol (IP) datagrams, but the messages are processed by the TCP/IP software and are directly apparent to the application user.
Respond to Ping on	The EMG2926-Q10A will not respond to any incoming Ping requests when Disable is selected. Select LAN to reply to incoming LAN Ping requests. Select WAN to reply to incoming WAN Ping requests. Select LAN&WAN to reply to all incoming LAN and WAN Ping requests.
Apply	Click Apply to save the settings.
Enable TearDrop Rule	Teardrop is a type of DoS (Denial of Service) attack. Teardrop sends IP fragments with oversized payloads to a machine. This causes fragmented packets to overlap. When these fragments are reassembled at the destination, the machine can crash, hang, or reboot due to a bug in the TCP/IP fragmentation reassembly code. Select this option to have the EMG2926-Q10A automatically detect and thwart Teardrop attacks.
Apply	Click Apply to save the settings.
Enable Firewall Rule	
Enable Firewall Rule	Select this check box to activate the firewall rules that you have defined (see Add Firewall Rule below).
Apply	Click Apply to save the settings.

Table 58 Security > Firewall > Services (continued)

LABEL	DESCRIPTION
Add Firewall Rule	
Service Name	Enter a name that identifies or describes the firewall rule.
Protocol	Select the protocol (TCP , UDP or ICMP) used to transport the packets to which you want the firewall rule to apply.
MAC Address	Enter the MAC address of the computer to which the firewall rule applies.
Dest IP Address	Enter the IP address of the computer to which traffic for the application or service enters. The EMG2926-Q10A applies the firewall rule to traffic initiating from this computer.
Source IP Address	Enter the IP address of the computer that initializes traffic for the application or service. The EMG2926-Q10A applies the firewall rule to traffic initiating from this computer.
Dest Port Range	Enter the port number/range of the destination that defines the traffic type. For example, TCP port 80 defines web traffic.
Source Port Range	Enter the port number/range of the source that defines the traffic type. For example, TCP port 80 defines web traffic.
Add Rule	Click Add to save the firewall rule.
Firewall Rule	
#	This is your firewall rule number. The order of your rules is important, as rules are applied in order.
Service Name	This is a name that identifies or describes the firewall rule.
MAC address	This is the MAC address of the computer for which the firewall rule applies.
Dest IP	This is the IP address of the computer to which traffic enters for the application or service.
Source IP	This is the IP address of the computer that initializes traffic for the application or service.
Protocol	This is the protocol (TCP , UDP or ICMP) used to transport the packets for which you want the firewall rule to apply.
Dest Port Range	This is the port number/range of the destination that defines the traffic type. For example, TCP port 80 defines web traffic.
Source Port Range	This is the port number/range of the source that defines the traffic type. For example, TCP port 80 defines web traffic.
Action	DROP - Traffic matching the conditions of the firewall rule will be stopped.
Modify	Click Delete to remove the firewall rule. Click Edit to change the rule settings.
Cancel	Click Cancel to start configuring this screen again.

Content Filtering

16.1 Overview

This chapter shows you how to configure content filtering.

16.2 Content Filter Screen

Use this screen to restrict web features and designate a trusted computer. Click **Security > Content Filter** to open the **Content Filter** screen.

Figure 86 Security > Content Filter

Content filter

Trusted IP Setup
A trusted computer has full access to all blocked resources. 0.0.0.0 means there is no trusted computer.
Trusted Computer IP Address:

Restrict Web Features

☐ ActiveX ☐ Java ☐ Cookies ☐ Web Proxy

The following table describes the labels on this screen.

Table 59 Security > Content Filter

LABEL	DESCRIPTION
Trusted IP Setup	To enable this feature, type the IP address of any one of the computers in your network that you want to designate as a trusted computer. This gives the trusted computer full access to all features that are configured to be blocked by content filtering. Leave this field blank to have no trusted computers.
Restrict Web Features	Select the box(es) to restrict a feature. When you download a page containing a restricted feature, that part of the page will appear blank or greyed out.
ActiveX	ActiveX is a tool for building dynamic and active Web pages and distributed object applications. When you visit an ActiveX Website, ActiveX controls are downloaded to your browser, where they will remain in case you visit the site again.
Java	Java is a programming language and development environment for building downloadable Web components or Internet and intranet business applications of all kinds.
Cookies	Used by web servers to track usage and provide service based on ID.

Table 59 Security > Content Filter (continued)

LABEL	DESCRIPTION
Web Proxy	A web proxy is a server that acts as an intermediary between a user and the Internet to provide security, administrative control, and caching. When a proxy server is located on the WAN, it is possible for LAN users to circumvent content filtering by pointing to this proxy server.
Apply	Click Apply to save your changes.
Cancel	Click Cancel to begin configuring this screen afresh.

Parental Controls

17.1 Overview

Parental controls allow you to block specific URLs. You can also define time periods and days during which the EMG2926-Q10A performs a parental control for a specific user.

17.2 Parental Control Screen

Use this screen to enable parental controls and view parental control rules and schedules.

Click **Configuration > Security > Parental Control** to open the following screen.

Figure 87 Security > Parental Control

The following table describes the fields on this screen.

Table 60 Security > Parental Control

LABEL	DESCRIPTION
Parental Control	Select Enable to activate parental control.
Add new rules	Click this if you want to configure a new parental control rule.
#	This is the rule's index number.
Status	This indicates whether the rule is active or not. A yellow lightbulb indicates that this rule is active. A grey lightbulb indicates that this rule is not active.
Rule Name	This field shows the name of the rule.
Home Network User (MAC)	This field shows the MAC address of the LAN user's computer to which the rule applies.
Internet Access Schedule	This field shows the day(s) and time on which parental control is enabled.

Table 60 Security > Parental Control (continued)

LABEL	DESCRIPTION
Network Service	This shows whether the network service is configured. If not, None will be shown.
Website Blocked	This shows whether the website block is configured. If not, None will be shown.
Modify	Click the Edit icon to go to the screen where you can edit the rule. Click the Delete icon to delete an existing rule.
Apply	Click Apply to save your changes.
Cancel	Click Cancel to restore your previously saved settings.

17.2.1 Add/Edit a Parental Control Rule

Click **Add new rules** in the **Parental Control** screen to add a new rule or click the **Edit** icon next to an existing rule to edit it. Use this screen to configure a restricted access schedule and/or URL filtering settings to block the users on your network from accessing certain websites.

Figure 88 Security > Parental Control: Add/Edit

Parental Control

General

☐ Active
 Parental Control Profile Name :
Home Network User :

Internet Access Schedule

Day :

☒ Monday
☒ Tuesday
☒ Wednesday
☒ Thursday
☒ Friday
☒ Saturday
☒ Sunday

Time (begin ~ end) :

00

 (hour)

00

 (min)
~

24

 (hour)

00

 (min)

Network Service

Network Service Setting : selected service

Add new service

Network Service Rules

#	Service Name	Protocol:Port	Modify

Block Site/URL Keyword

Keyword

Add

Keyword List

Delete

Clear All

Apply

Back

The following table describes the fields on this screen.

Table 61 Security > Parental Control: Add/Edit

LABEL	DESCRIPTION
General	
Active	Select the checkbox to activate this parental control rule.
Parental Control Profile Name	Enter a descriptive name for the rule.

Table 61 Security > Parental Control: Add/Edit (continued)

LABEL	DESCRIPTION
Home Network User	Select the LAN user that you want to apply this rule to from the drop-down list box. If you select Custom , enter the LAN user's MAC address. If you select All , the rule applies to all LAN users.
Internet Access Schedule	
Day	Select check boxes for the days you want the EMG2926-Q10A to perform the parental control rule.
Time	Select begin and end times to define when the LAN user is allowed access.
Network Service	
Network Service Setting	If you select Block , the EMG2926-Q10A will prohibit the users from using the services listed below. If you select Allow , the EMG2926-Q10A will block all services except those listed below this field.
Add new service	Click this to show a screen in which you can add a new service rule. You can configure the Service Name , Protocol , and Port of the new rule.
#	This shows the index number of the rule. Select the checkbox next to the rule to activate it.
Service Name	This shows the name of the service.
Protocol:Port	This shows the protocol and the port of the service.
Modify	Click the Edit icon to go to the screen where you can edit the rule. Click the Delete icon to delete an existing rule.
Block Site/URL Keyword	Click Add to show a screen to enter the website URL or URL keyword to which the EMG2926-Q10A blocks access. Click Delete to remove it.
Apply	Click Apply to save your settings back to the EMG2926-Q10A.
Back	Click Back to return to the previous screen.

17.2.2 Add/Edit a Service

Click **Add new service** in the **Parental Control > Add new rules/Edit** screen to add a new entry or click the **Edit** icon next to an existing entry to edit it. Use this screen to configure a service rule.

Figure 89 Security > Parental Control > Add new rules/Edit > Add new service/Edit

Service Name : UserDefined ▼

Protocol : TCP ▼

Port :

(Example:4091,5091-6892)

Apply Back

The following table describes the fields on this screen.

Table 62 Security > Parental Control > Add new rules/Edit > Add new service/Edit

LABEL	DESCRIPTION
Service Name	Select the name of the service. Otherwise, select UserDefined and manually specify the service name, the protocol and the port of the service.
Protocol	Select the transport layer protocol used for the service. Choices are TCP , UDP , or TCP/UDP . If you have chosen a pre-defined service in the Service Name field, this field will not be configurable.
Port	Enter the port of the service. If you have chosen a pre-defined service in the Service Name field, this field will not be configurable.
Apply	Click Apply to save your settings with the EMG2926-Q10A.
Back	Click Back to return to the previous screen.

17.3 Parental Monitor Screen

Use this screen to enable the parental monitor and view parental monitor rules and schedules.

Click **Configuration > Security > Parental Monitor** to open the following screen.

Figure 90 Security > Parental Monitor

The following table describes the fields on this screen.

Table 63 Security > Parental Monitor

LABEL	DESCRIPTION
Parental Monitor	Select Enable to activate parental monitor.
Add new rules	Click this if you want to configure a new parental monitor rule.
#	This shows the index number of the rule.
Status	This indicates whether the rule is active or not. A yellow lightbulb indicates that the rule is active. A grey lightbulb indicates that the rule is not active.
Children Name	This shows the name of the user to which the rule applies.
Device List	This shows the name of the LAN user's computer to which this rule applies.

Table 63 Security > Parental Monitor (continued)

LABEL	DESCRIPTION
Monitor Schedule	This shows the day(s) and time periods when the parental monitor is enabled.
Notification	This indicates whether the EMG2926-Q10A is programmed to send e-mail notifications when the user(s) is connected to the EMG2926-Q10A for Internet access during the time periods specified (Configured). If not, None will be shown.
Modify	Click the Edit icon to go to the screen where you can edit the rule. Click the Delete icon to delete an existing rule.
Apply	Click Apply to save your changes.
Cancel	Click Cancel to restore your previously saved settings.

17.3.1 Add/Edit a Parental Monitor Rule

Click **Add new rules** in the **Parental Monitor** screen to add a new rule or click the **Edit** icon next to an existing rule to edit it. Use this screen to set a schedule and have the EMG2926-Q10A send a notification when the specified user connects to the EMG2926-Q10A at the scheduled time.

Figure 91 Security > Parental Monitor: Add/Edit

Parental Control **Parental Monitor**

Monitored Devices

☐ Active

Children Name :

Device List :

android-99e08458c329a0fc TWPCZT01651-01

Monitor Schedule

Day : ☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday ☒ Friday ☐ Saturday ☐ Sunday

Time (begin ~ end) : (hour) (min) ~ (hour) (min)

Notification :

user@example.com.tw test@zyxel.com akao@zyxel.com.tw

Note:
Please set up an email account in the Mail screen.

The following table describes the fields on this screen.

Table 64 Security > Parental Monitor: Add/Edit

LABEL	DESCRIPTION
Monitored Devices	
Active	Select the checkbox to activate this parental monitor rule.
Children Name	Enter a descriptive name for the user.
Device List	<p>The left text box lists the system name of the LAN/WLAN user device that is connected to the EMG2926-Q10A and has been assigned an IP address.</p> <p>From the left text box, select the LAN/WLAN user device to which you want to apply this rule and click Add to move it to the right text box.</p> <p>To remove a user device, select it from the right text box and click Delete.</p>
Monitor Schedule	
Day	Select check boxes for the days on which you want the EMG2926-Q10A to send e-mail notifications if the user connects to the EMG2926-Q10A for Internet access.
Time	Define the time period during which you want the EMG2926-Q10A to send e-mail notifications if the user connects to the EMG2926-Q10A for Internet access.
Notification	<p>The left text box lists the e-mail addresses you configured in the Management > Mail screen.</p> <p>From the left text box, select the e-mail address to which you want to send e-mail notifications and click Add to move it to the right text box.</p> <p>To remove an e-mail address, select it from the right text box and click Delete.</p>
Apply	Click Apply to save your settings back to the EMG2926-Q10A.
Back	Click Back to return to the previous screen.

IPv6 Firewall

18.1 Overview

This chapter shows you how to enable and create IPv6 firewall rules to block unwanted IPv6 traffic.

18.2 IPv6 Firewall Screen

Click **Configuration > Security > IPv6 Firewall**. The **Service** screen appears as shown.

Figure 92 Configuration > Security > IPv6 Firewall

Services

Enable IPv6 Simple Security

☒ Enable IPv6 Simple Security

Apply

ICMPv6

Respond to Ping on: LAN

Apply

Enable Firewall Rule

☒ Enable Firewall Rule

Apply

Add Firewall Rule

Service Name :

MAC Address :

Dest_IP_Address :

Source_IP_Address :

Protocol : TCP

DestPortRange : -

SourcePortRange : -

Add Rule

Firewall Rule

#	ServiceName	MACaddress	DestIP	SourceIP	Protocol	DestPortRange	SourcePortRange	Action	Delete

Cancel

The following table describes the labels on this screen.

Table 65 Configuration > Security > IPv6 Firewall

LABEL	DESCRIPTION
Enable IPv6 Simple Security	
Enable IPv6 Simple Security	Select this option to activate IPv6 simple security functions on the EMG2926-Q10A. IPv6 simple security is a packet inspection mechanism. It checks the source IP address, destination IP address, IP protocol type, and connection state of network traffic and maintains a connection tracking table. IPv6 simple security allows any outgoing packets, and blocks all incoming packets except reply packets.
Apply	Click Apply to save your settings.
ICMPv6	Internet Control Message Protocol for IPv6 (ICMPv6 or ICMP for IPv6) is defined in RFC 4443. ICMPv6 has a preceding Next Header value of 58, which is different from the value used to identify ICMP for IPv4. ICMPv6 is an integral part of IPv6. IPv6 nodes use ICMPv6 to report errors encountered in packet processing and to perform other diagnostic functions such as ping.
Respond to Ping on	The EMG2926-Q10A will not respond to any incoming Ping requests when Disable is selected. Select LAN to reply to incoming LAN Ping requests. Select WAN to reply to incoming WAN Ping requests. Otherwise select LAN&WAN to reply to all incoming LAN and WAN Ping requests.
Apply	Click Apply to save your settings.
Enable Firewall Rule	
Enable Firewall Rule	Select this check box to activate the firewall rules that you have defined (see Add Firewall Rule below).
Apply	Click Apply to save your settings.
Add Firewall Rule	
Service Name	Enter a name that identifies or describes the firewall rule.
MAC Address	Enter the MAC address of the computer to which the firewall rule applies.
Dest_IP_Address	Enter the IPv6 address of the computer to which traffic for the application or service enters. The EMG2926-Q10A applies the firewall rule to traffic destined for this computer.
Source_IP_Address	Enter the IPv6 address of the computer that initializes traffic for the application or service. The EMG2926-Q10A will apply the firewall rule to traffic initiating from this computer.
Protocol	Select the protocol (TCP , UDP or ICMP) used to transport the packets for which you want the firewall rule to apply.
Dest Port Range	Enter the port number/range of the destination that defines the traffic type. For example, TCP port 80 defines web traffic.
Source Port Range	Enter the port number/range of the source that defines the traffic type. For example, TCP port 80 defines web traffic.
Add Rule	Click Add Rule to save the firewall rule.
Firewall Rule	
#	This is your firewall rule number. The order of your rules is important, as rules are applied in order.
ServiceName	This is a name that identifies or describes the firewall rule.
MACaddress	This is the MAC address of the computer to which the firewall rule applies.
DestIP	This is the IP address of the computer to which traffic for the application or service enters.
SourceIP	This is the IP address of the computer where traffic for the application or service is initialized.

Table 65 Configuration > Security > IPv6 Firewall (continued)

LABEL	DESCRIPTION
Protocol	This is the protocol (TCP , UDP or ICMP) used to transport the packets for which you want to apply the firewall rule.
DestPortRange	This is the port number/range of the destination that defines the traffic type. For example, TCP port 80 defines web traffic.
SourcePortRange	This is the port number/range of the source that defines the traffic type. For example, TCP port 80 defines web traffic.
Action	DROP - Traffic matching the conditions of the firewall rule is stopped.
Delete	Click Delete to remove the firewall rule.
Cancel	Click Cancel to restore your previously saved settings.

StreamBoost Management

19.1 Overview

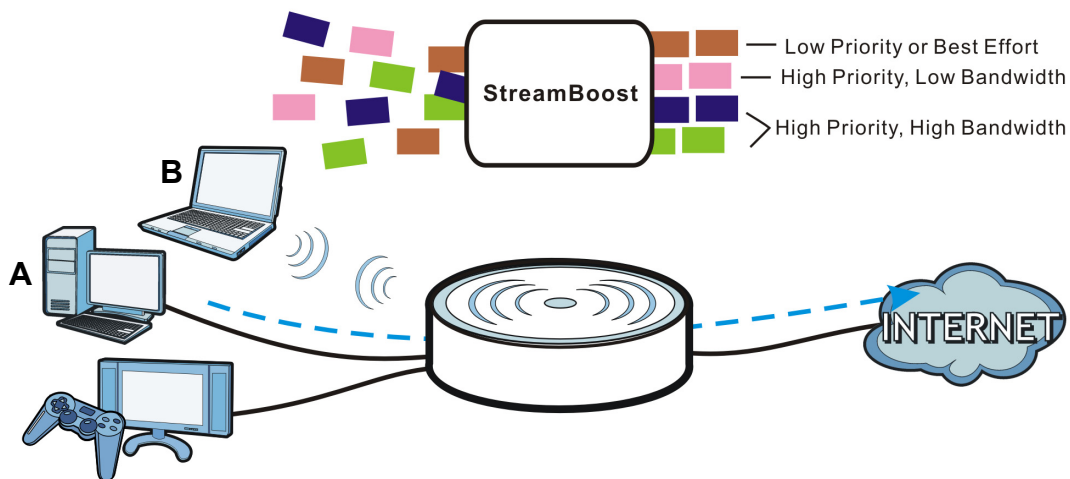
The EMG2926-Q10A supports StreamBoost, a new technology introduced by Qualcomm, to redistribute the EMG2926-Q10A traffic for the best possible performance in a home network.

Streamboost smart Quality of Service (QoS) technology detects traffic flow and applies traffic shaping policies automatically. It gives each device and application priority and provides the exact amount of bandwidth they need at any given time. This helps free up bandwidth for other applications or connected devices. If there is not enough bandwidth for optimal performance, Streamboost makes sure the application or device has the minimum acceptable bandwidth which is determined using StreamBoost's cloud-based database.

Real-time application traffic (such as on-line games or communications) and video/audio streaming are given the highest priority. Downloads or torrent files are classified as best effort and placed lower than general network traffic (general browsing).

In the figure below, the StreamBoost-enabled EMG2926-Q10A differentiates incoming traffic flow going from the LAN device (**A**) or wireless device (**B**) to the Internet. It shapes traffic and gives priority and allocates bandwidth according to traffic types.

Figure 93 Example of StreamBoost Management



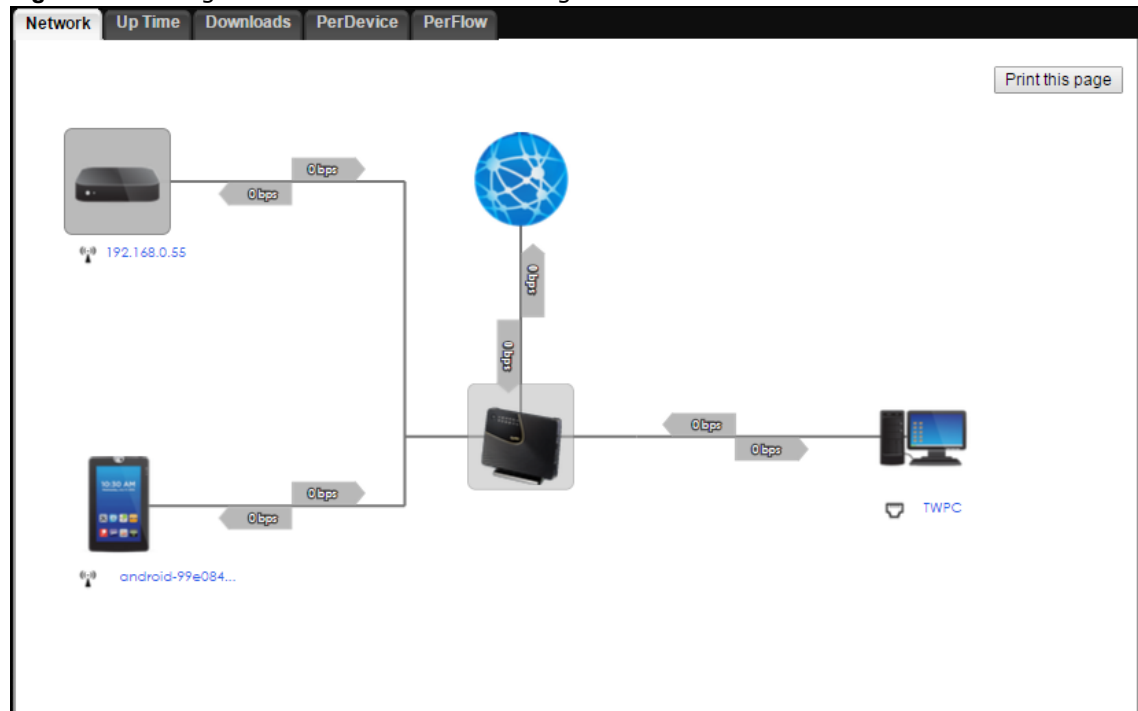
19.2 Network Screen

Use this screen to view the current upstream and downstream transmission speeds between the EMG2926-Q10A and the Internet and/or between the EMG2926-Q10A and connected device(s) (represented by icons indicating the kind of network device), including those connecting wirelessly.

You can hover your cursor over a device icon to view details about the device, such as its name, IP address, MAC address, device type, and connection type.

Click **Management > StreamBoost MGMT > Network** to open the **Network** screen.

Figure 94 Management > StreamBoost Management > Network

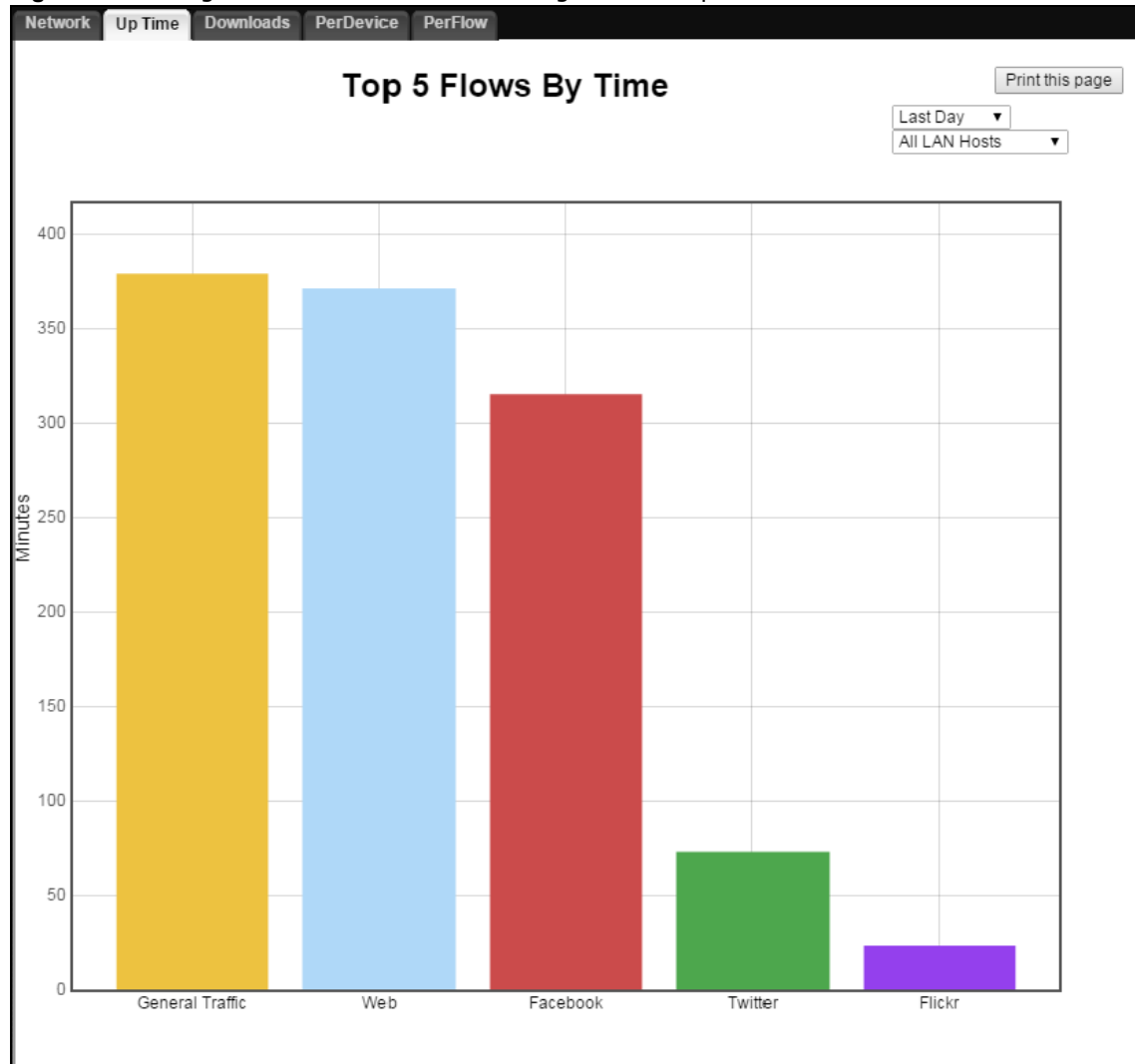


19.3 Up Time Screen

Use this screen to view the top five traffic flows transmitting from/to the selected LAN device(s) in the past day, week or month.

Click **Management > StreamBoost MGMT > Up Time** to open the **Up Time** screen.

The y-axis shows the time period over which the traffic flow occurred. The x-axis shows the type of traffic flow.

Figure 95 Management > StreamBoost Management > Up Time

19.4 Downloads Screen

Use this screen to view the type and percentage of most-downloaded traffic on the EMG2926-Q10A.

Click **Management > StreamBoost MGMT > Downloads** to open the **Downloads** screen.

Figure 96 Management > StreamBoost Management > Downloads

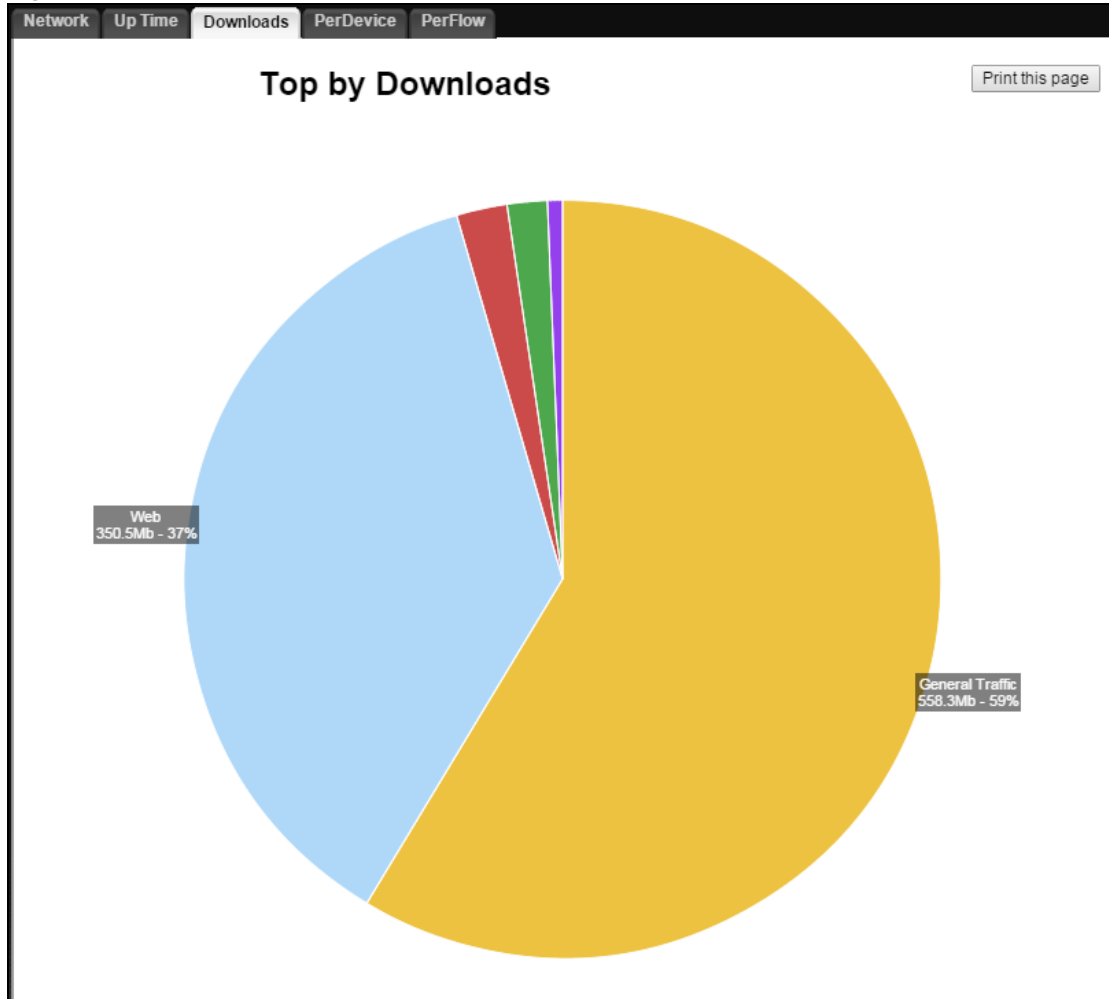
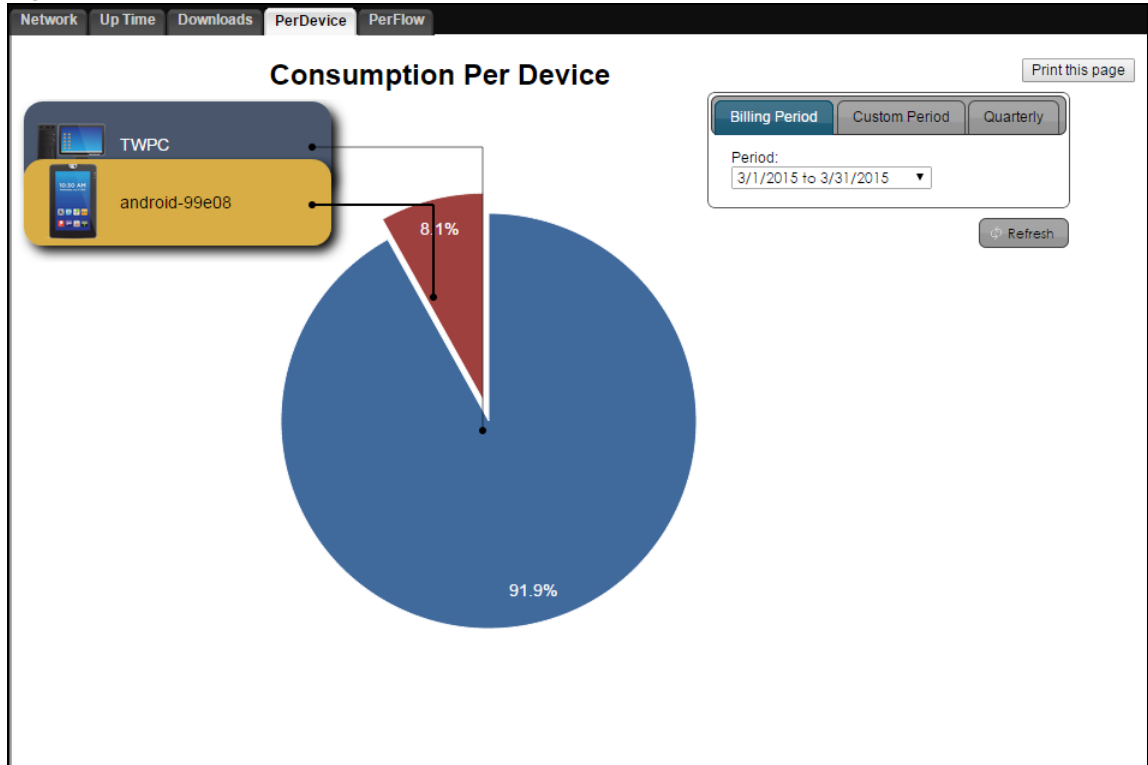


Figure 97

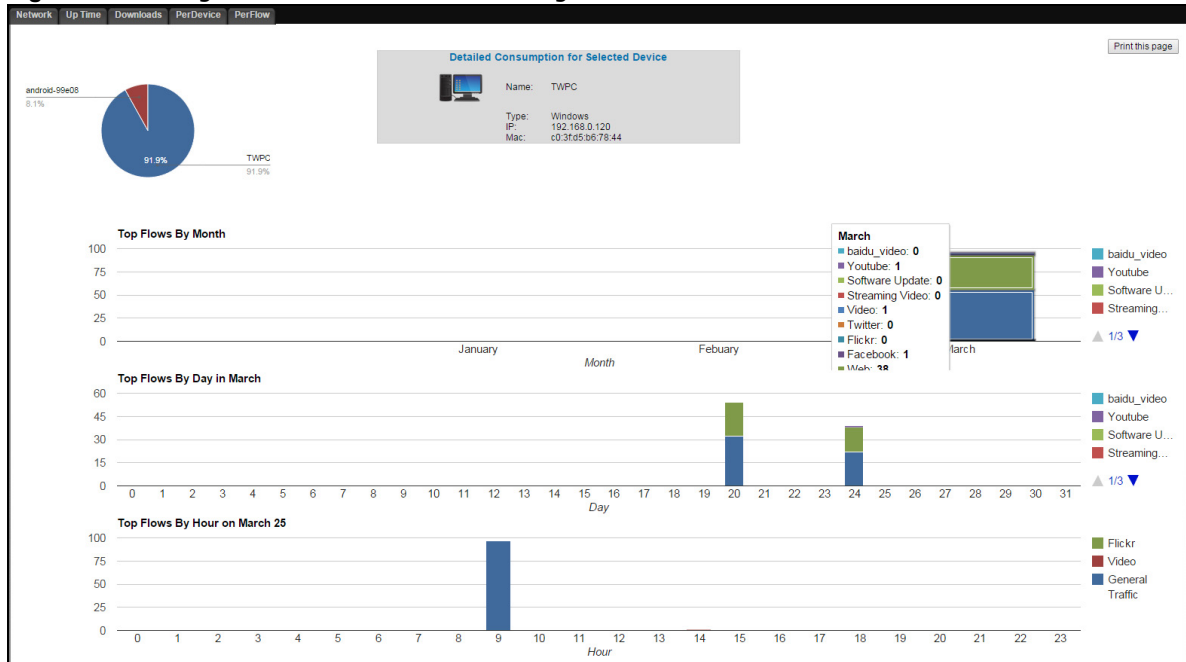
19.5 PerDevice Screen

Use this screen to view the percentage of bandwidth used by the connected LAN/WLAN devices in the past month (**Billing Period**), within a specified period of time (**Custom Period**) or in the past three months (**Quarterly**). Click the **Refresh** button to update the information on this screen.

Click **Management > StreamBoost MGMT > PerDevice** to open the **PerDevice** screen.

Figure 98 Management > StreamBoost Management > PerDevice

Click a device tab to open a screen displaying the selected device's information and usage details. You can view the top flows on a monthly, daily, or hourly basis.

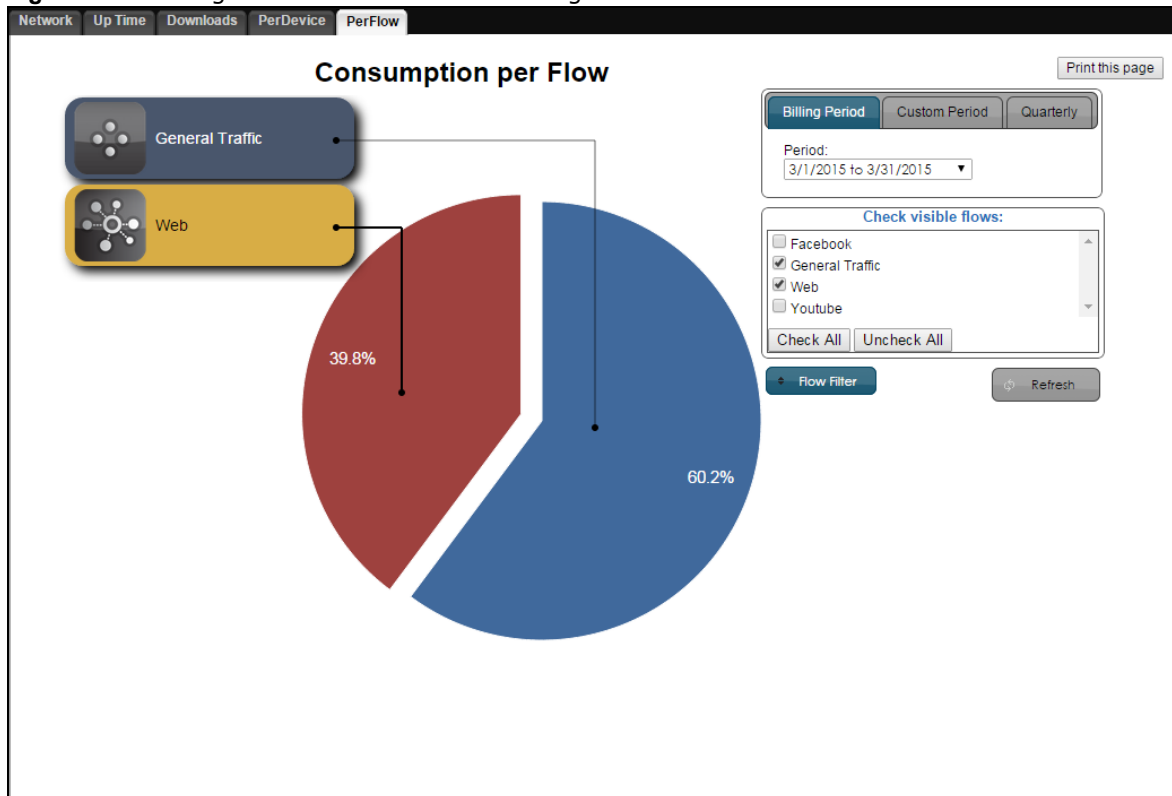
Figure 99 Management > StreamBoost Management > PerDevice

19.6 PerFlow Screen

Use this screen to view the percentage of bandwidth used by a traffic flow in the past month (**Billing Period**), within a specified period of time (**Custom Period**) or in the past three months (**Quarterly**). Click the **Flow Filter** button to open a list where you can select the traffic flows you want to display. Click the **Refresh** button to update the information on this screen.

Click **Management > StreamBoost MGMT > PerFlow** to open the **PerFlow** screen.

Figure 100 Management > StreamBoost Management > PerFlow



Remote Management

20.1 Overview

This chapter provides information on the Remote Management screens.

Remote Management allows you to manage your EMG2926-Q10A from a remote location through the following interfaces:

- LAN and WAN
- LAN only
- WAN only

System Timeout

There is a default system management idle timeout of five minutes (three hundred seconds). The EMG2926-Q10A automatically logs you out if the management session remains idle for longer than this timeout period. The management session does not time out when a statistics screen is polling. You can change the timeout period in the **Maintenance > General** screen

20.2 WWW Screen

To change your EMG2926-Q10A's remote management settings, click **Management > Remote MGMT > WWW**.

Figure 101 Management > Remote Management > WWW

WWW SNMP Wake On LAN

HTTPS

Port : 443

Access Status : LAN

Secured Client IP Address : ☒ All ☐ Selected

HTTP

Port : 80

Access Status : LAN

Secured Client IP Address : ☒ All ☐ Selected

Note:

1. For UPnP to function normally, the HTTP service must be available for LAN computers using UPnP.
2. You may also need to create a Firewall rule.

Apply Cancel

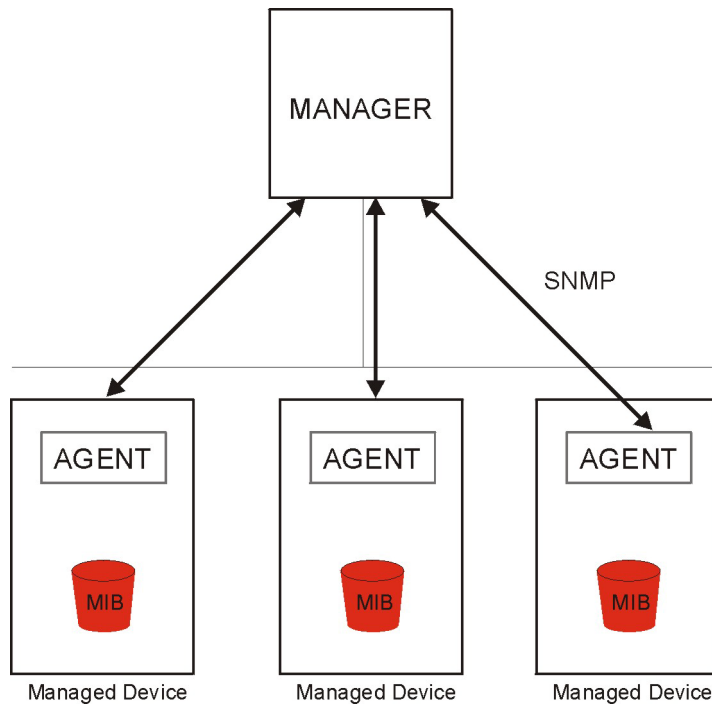
The following table describes the labels on this screen.

Table 66 Management > Remote Management > WWW

LABEL	DESCRIPTION
Port	You may change the server port number for a service if needed. However, you must use the same port number in order to use that service for remote management.
Access Status	Select the interface(s) through which a computer may access the EMG2926-Q10A using this service.
Secured Client IP Address	Select All to allow all computers to access the EMG2926-Q10A. Otherwise, check Selected and specify the IP address of the computer that can access the EMG2926-Q10A.
Apply	Click Apply to save your customized settings.
Cancel	Click Cancel to begin configuring this screen afresh.

20.3 SNMP

Simple Network Management Protocol is a protocol used for exchanging management information between network devices. Your EMG2926-Q10A supports SNMP agent functionality, which allows a manager station to manage and monitor the EMG2926-Q10A through the network. The EMG2926-Q10A supports SNMP version one (SNMPv1) and version two (SNMPv2c). The next figure illustrates an SNMP management operation:

Figure 102 SNMP Management Model

An SNMP managed network consists of two main types of component: agents and a manager.

An agent is a management software module that resides in a managed device (the EMG2926-Q10A). An agent translates the local management information from the managed device into a form compatible with SNMP. The manager is the console through which network administrators perform network management functions. It executes applications that control and monitor managed devices.

The managed devices contain object variables/managed objects that define each piece of information to be collected about a device. Examples of variables include number of packets received, node port status etc. A Management Information Base (MIB) is a collection of managed objects. SNMP allows a manager and agents to communicate for the purpose of accessing these objects.

SNMP itself is a simple request/response protocol based on the manager/agent model. The manager issues a request and the agent returns responses using the following protocol operations:

- Get - Allows the manager to retrieve an object variable from the agent.
- GetNext - Allows the manager to retrieve the next object variable from a table or list within an agent. In SNMPv1, when a manager wants to retrieve all elements of a table from an agent, it initiates a Get operation, followed by a series of GetNext operations.
- Set - Allows the manager to set values for object variables within an agent.
- Trap - Used by the agent to inform the manager of some events.

To change your EMG2926-Q10A's SNMP settings, click **Management > Remote MGMT > SNMP**.

Figure 103 Management > Remote Management > SNMP

SNMP Settings

Server Port: 161

Server Access: LAN

Secured IP: ☒ All ☐ Selected 0.0.0.0

☒ SNMP Enable

Get Community: public

Set Community: private

System Location: ZyXEL Communications Corp.

System Contact: ZyXEL Communications Corp.

Trap Settings

☐ Trap Enable

Trap Manager IP: 192.168.1.100

Trap Community: public

You may also need to create a [Firewall](#) rule.

Apply Reset

The following table describes the labels on this screen.

Table 67 Management > Remote Management > SNMP

LABEL	DESCRIPTION
SNMP Settings	
Server Port	You may change the server port number for a service if needed. However, you must use the same port number in order to use the service for remote management.
Server Access	Select the interface(s) through which a computer may access the EMG2926-Q10A using the service.
Secured IP	Select All to allow all computers to access the EMG2926-Q10A. Otherwise, check Selected and specify the IP address of the computer that can access the EMG2926-Q10A.
SNMP Enable	Select this to allow a manager station to manage and monitor the EMG2926-Q10A through the network via SNMP.
Get Community	Enter the password for the incoming Get and GetNext requests from the management station. The default is public and allows all requests.
Set Community	Enter the password for incoming Set requests from the management station. The default is public and allows all requests.
System Location	Specify the geographic location of the EMG2926-Q10A.
System Contact	Enter the name of the person in charge of the EMG2926-Q10A.
Trap Settings	
Trap Enable	Select this to have the EMG2926-Q10A send an SNMP trap to the specified IP address when it receives the event. Deselect to disable this feature.
Trap Manager IP	Type the IP address of the SNMP manager to which your SNMP traps are sent.

Table 67 Management > Remote Management > SNMP (continued)

LABEL	DESCRIPTION
Trap Community	Type the password sent with each trap to the SNMP manager. The default is public and allows all requests.
Apply	Click Apply to save your customized settings.
Cancel	Click Cancel to begin configuring this screen afresh.

20.4 Wake On LAN Screen

Wake On LAN (WoL) allows you to remotely turn on a device on the network, such as a computer, storage device or media server. To use this feature the remote hardware (for example the network adapter on a computer) must support Wake On LAN using the "Magic Packet" method.

You need to know the MAC address of the remote device. It may be on a label on the device.

Use this screen to remotely turn on a device on the network. Click **Management > Remote MGMT > Wake On LAN** to open the following screen.

Figure 104 Management > Remote Management > Wake On LAN

The following table describes the labels on this screen.

Table 68 Management > Remote Management > Wake On LAN

LABEL	DESCRIPTION
Wake On LAN over WAN Settings	
Enable WOL over WAN	Select this option to have the EMG2926-Q10A forward a WoL "Magic Packet" to all devices on the LAN if the packet comes from the WAN or remote network and uses the port number specified in the Port field. A LAN device whose hardware supports Wake on LAN will then be turned on if it was turned off previously.
Port	Type a port number from which a WoL packet will be forwarded to the LAN.
Wake On LAN	

Table 68 Management > Remote Management > Wake On LAN (continued)

LABEL	DESCRIPTION
Wake MAC Address	Enter the MAC Address of the device on the network that will be turned on. A MAC address consists of six hexadecimal character pairs.
Start	Click this to have the EMG2926-Q10A generate a WoL packet and forward it to turn the specified device on. A MAC address error screen will pop up if you input the MAC address incorrectly.
Apply	Click Apply to save the setting to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

Universal Plug-and-Play (UPnP)

21.1 Overview

This chapter introduces the UPnP feature in the web configurator.

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

UPnP hardware is identified as an icon in the Network Connections folder (Windows XP). Each UPnP-compatible device installed on your network will appear as a separate icon. Selecting a UPnP device icon will allow you to access the information and properties of that device.

UPnP Warnings

The automated nature of NAT traversal applications in establishing their own services and opening firewall ports may present network security issues. Network information and configuration may also be obtained and modified by users in some network environments.

When a UPnP device joins a network, it announces its presence with a multicast message. For security reasons, the EMG2926-Q10A allows multicast messages on the LAN only.

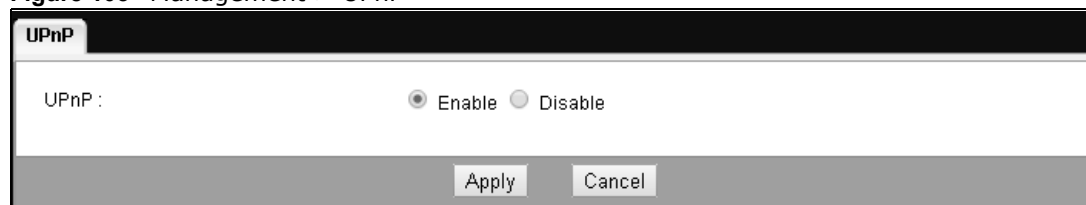
All UPnP-enabled devices can communicate freely with each other without additional configuration. Disable UPnP if this is not your intention.

21.2 UPnP Screen

Use this screen to enable UPnP on your EMG2926-Q10A.

Click **Management > UPnP** to display the following screen:

Figure 105 Management > UPnP



The following table describes the fields on this screen.

Table 69 Management > UPnP

LABEL	DESCRIPTION
UPnP	Select Enable to activate UPnP. Be aware that anyone could use a UPnP application to open the web configurator's login screen without entering the EMG2926-Q10A's IP address (although the password will still be needed to access the web configurator).
Apply	Click Apply to save the setting to the EMG2926-Q10A.
Cancel	Click Cancel to return to the previously saved settings.

USB Media Sharing

22.1 Overview

This chapter describes how to configure media sharing settings on the EMG2926-Q10A.

Note: Reading and writing performance may be affected by amount of file-sharing traffic on your network, the type of connected USB device and the USB version (1.1 or 2.0).

Media Server

You can set up your EMG2926-Q10A to act as a media server to provide media (like video) to DLNA-compliant players, such as Windows Media Player, ZyXEL DMAs (Digital Media Adapters), Xboxes or PS3s. The IP addresses of the media server and clients must be in the same subnet.

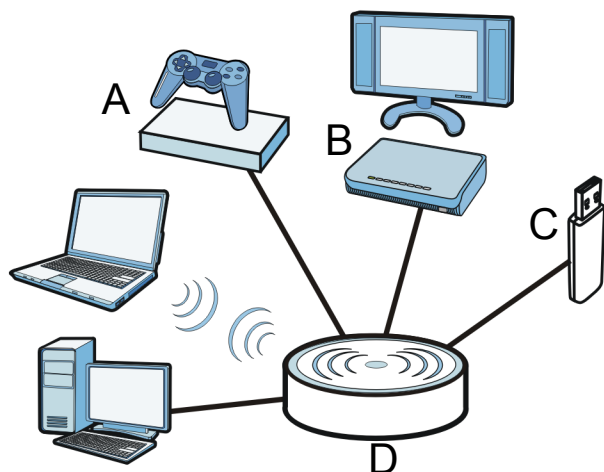
The EMG2926-Q10A media server allows you to:

- Publish all folders for everyone to play media files in the USB storage device connected to the EMG2926-Q10A.
- Use hardware-based media clients like the DMA-2500 to play the files.

Note: Anyone on your network can play the media files in the published folders. No user names, passwords, or other forms of security are required.

The following figure is an overview of the EMG2926-Q10A's media server feature. DLNA devices **A** and **B** can access and play files on a USB device (**C**) connected to the EMG2926-Q10A (**D**).

Figure 106 Media Server Overview

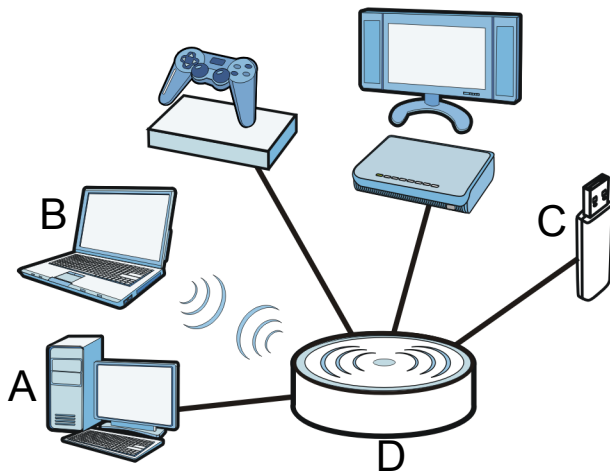


File-Sharing Server

You can also share files on a USB memory stick or hard drive connected to your EMG2926-Q10A with users on your network.

The following figure is an overview of the EMG2926-Q10A's file-sharing server feature. Computers **A** and **B** can access files on a USB device (**C**) connected to the EMG2926-Q10A (**D**).

Figure 107 File Sharing Overview



22.2 DLNA Screen

Use this screen to have the EMG2926-Q10A act as a DLNA-compliant media server that lets DLNA-compliant media clients on your network access video, music, and photos from the EMG2926-Q10A (without having to copy them to another computer). Click **Management > USB Media Sharing > DLNA**.

Figure 108 Management > USB Media Sharing > DLNA

DLNA Setup

☐ Enable DLNA

Enable Shared Media Types

USB1 : ☒ Photo ☒ Music ☒ Video

USB2 : ☒ Photo ☒ Music ☒ Video

Rescan Media Contents

Note:
Maximum of 60,000 media files can be loaded.

The following table describes the labels on this screen.

Table 70 Management > USB Media Sharing > DLNA

LABEL	DESCRIPTION
Enable DLNA	Select this to have the EMG2926-Q10A function as a DLNA-compliant media server.
USB1/2	Select the media type that you want to share on the USB device connected to the EMG2926-Q10A's USB port.
Rescan	Click this button to have the EMG2926-Q10A scan the media files on the connected USB device and index the file list again so that DLNA clients can find any new files.
Apply	Click Apply to save your changes with the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

22.3 SAMBA Screen

Use this screen to set up file-sharing via the EMG2926-Q10A using Windows Explorer or the workgroup name. You can also configure the workgroup name and create file-sharing user accounts. Click **Management > USB Media Sharing > SAMBA**.

Figure 109 Management > USB Media Sharing > SAMBA

SAMBA Setup

☐ Enable SAMBA

Name: EMG2926

Work Group: WORKGROUP

Description: Samba on EMG2926

USB Access

USB1: Read

USB2: Read

User Accounts					
#	Enable	User Name	Password	USB1	USB2
1	<input checked="" type="checkbox"/>	guest	****	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>

Apply Cancel

The following table describes the labels on this screen.

Table 71 Management > USB Media Sharing > SAMBA

LABEL	DESCRIPTION
Enable SAMBA	Select this to enable file sharing through the EMG2926-Q10A using Windows Explorer or by accessing your work group.
Name	Specify the name to identify the EMG2926-Q10A in a work group.
Work Group	<p>You can add the EMG2926-Q10A to an existing or a new work group on your network. Enter the name of the work group which your EMG2926-Q10A automatically joins. You can set the EMG2926-Q10A's work group name to be exactly the same as the name of the work group to which your computer belongs.</p> <p>Note: The EMG2926-Q10A will not be able to join the work group if your local area network settings restrict it from doing so. In this case, contact your network administrator.</p>
Description	Enter a description for the EMG2926-Q10A on the work group.
USB1/2	<p>Specify the user's access rights for the USB storage device connected to the EMG2926-Q10A's USB port.</p> <p>Read & Write - The user has read and write rights, meaning that the user can create and edit files on the connected USB device.</p> <p>Read - The user has read rights only and can not create or edit files on the connected USB device.</p>
User Accounts	Before you can share files, you need a user account. Configure the following fields to set up a file-sharing account.
#	This is the index number of the user account.

Table 71 Management > USB Media Sharing > SAMBA (continued)

LABEL	DESCRIPTION
Enable	This field displays whether a user account is activated or not. Select the check box to enable the account. Deselect the check box to disable the account.
User Name	Enter the user name of a user that will be allowed to access the shared files. You can enter up to 20 characters (letters and numbers only).
Password	Enter a password that the user can use to access the shared files. You can enter up to 20 characters (letters and numbers only). The password is case sensitive.
USB1/2	Select the USB port(s) on the EMG2926-Q10A. The configured user will only be able to access files on the USB device(s) connected to the selected USB port(s).
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

22.4 FTP Screen

Use this screen to set up file sharing via the EMG2926-Q10A using FTP and create user accounts. Click **Management > USB Media Sharing > FTP**.

Figure 110 Management > USB Media Sharing > FTP

FTP Setup

☐ Enable FTP

Port

User Accounts							
#	Enable	User Name	Password	USB1	USB2	Upstream Bandwidth	Downstream Bandwidth
1	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	None ▼	None ▼	<input type="text"/> KBytes	<input type="text"/> KBytes
2	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	None ▼	None ▼	<input type="text"/> KBytes	<input type="text"/> KBytes
3	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	None ▼	None ▼	<input type="text"/> KBytes	<input type="text"/> KBytes
4	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	None ▼	None ▼	<input type="text"/> KBytes	<input type="text"/> KBytes
5	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	None ▼	None ▼	<input type="text"/> KBytes	<input type="text"/> KBytes

Apply Cancel

The following table describes the labels on this screen.

Table 72 Management > USB Media Sharing > FTP

LABEL	DESCRIPTION
Enable FTP	Select this to enable the FTP server on the EMG2926-Q10A for file sharing using FTP.
Port	You may change the server port number for FTP if needed. However, you must use the same port number in order to use that service for file sharing.
User Accounts	Before you can share files, you need a user account. Configure the following fields to set up a file-sharing account.
#	This is the index number of the user account.

Table 72 Management > USB Media Sharing > FTP (continued)

LABEL	DESCRIPTION
Enable	This field displays whether a user account is activated or not. Select the check box to enable the account. Deselect the check box to disable the account.
User Name	Enter the user name of a user that will be allowed to access the shared files. You can enter up to 20 characters (letters and numbers only).
Password	Enter a password that the user can use to access the shared files. You can enter up to 20 characters (letters and numbers only). The password is case sensitive.
USB1/2	Specify the user's access rights to the USB storage device connected to the EMG2926-Q10A's USB port. Read & Write - The user has read and write rights, meaning that the user can create and edit files on the connected USB device. Read - The user has read rights only and can not create or edit files on the connected USB device. None - The user cannot access files on the USB device(s) connected to the USB port.
Upstream Bandwidth	Enter the maximum bandwidth (in Kbps) allowed for incoming FTP traffic.
Downstream Bandwidth	Enter the maximum bandwidth (in Kbps) allowed for outgoing FTP traffic.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

22.5 How to Access Your Shared Files From a Computer

You can use Windows Explorer or FTP to access the USB storage devices connected to the EMG2926-Q10A.

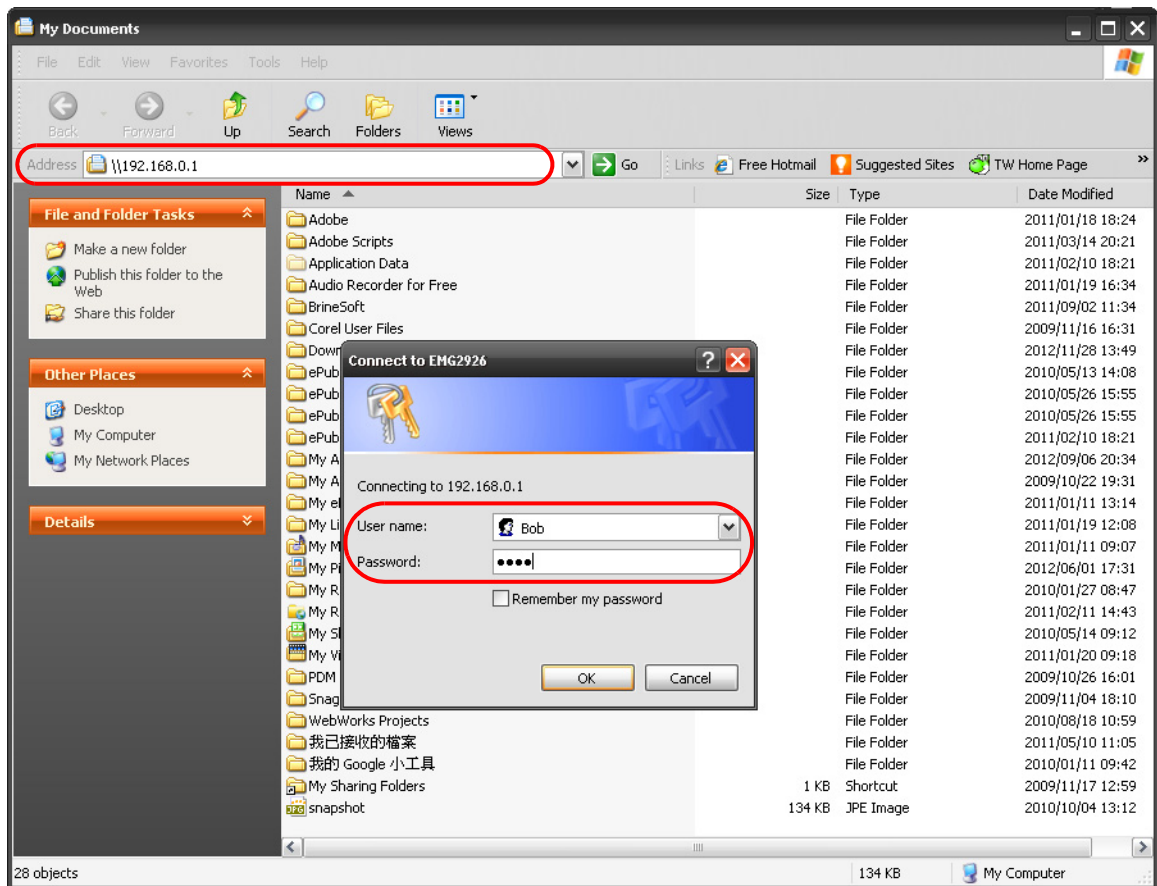
This example shows you how to use Microsoft Windows XP to browse your shared files. Refer to your operating system's documentation for how to browse your file structure.

22.5.1 Use Windows Explorer to Share Files

You should have enabled file sharing and created a user account (e.g. Bob/1234) with read and write access to USB 1 in the **USB Media Sharing > SAMBA** screen.

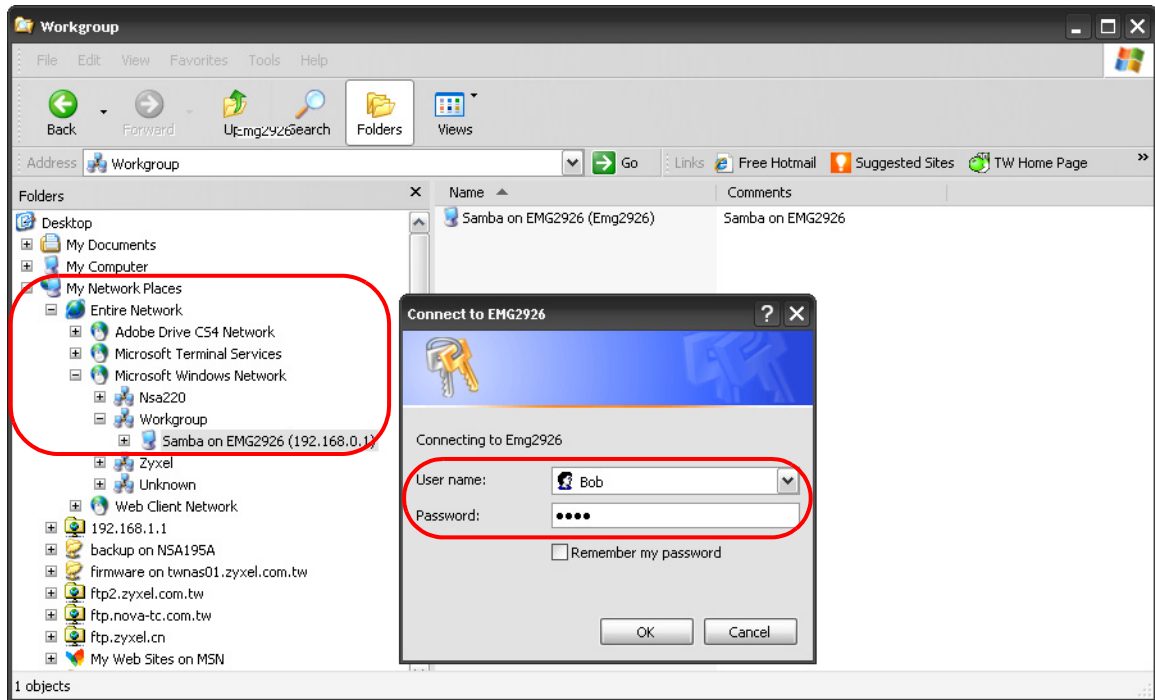
Open Windows Explorer to access the connected USB device either by using Windows Explorer or by browsing to your work group.

- 1 In the Windows Explorer Address bar, type a double backslash “\\” followed by the EMG2926-Q10A’s IP address (the default IP address of the EMG2926-Q10A in router mode is 192.168.0.1) and press [ENTER]. A password authentication screen will appear. Enter the user name and password (Bob and 1234 in this example) and click **OK**.



Note: Once you log into the shared folder via your EMG2926-Q10A, you will not have to log in again unless you restart your computer.

- 2 You can also use the work group name to access files by browsing the work group folder using the folder tree on the left side of the screen. It is located under **My Network Places**. In this example, the work group name is the default "Workgroup".



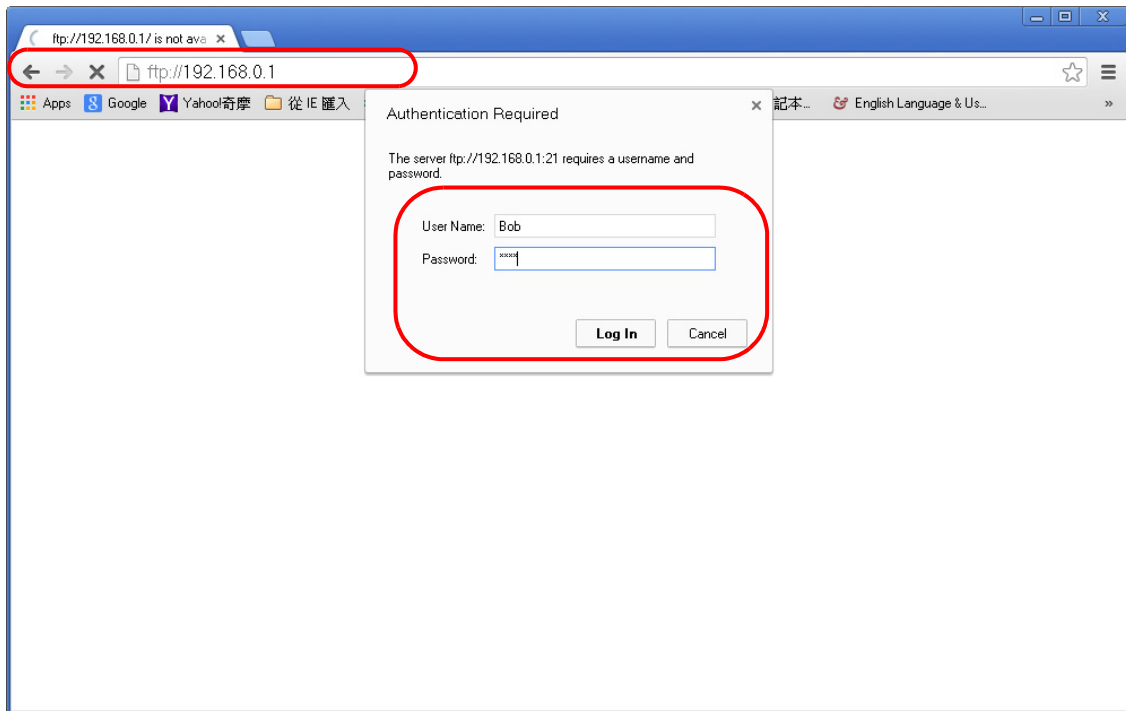
22.5.2 Use FTP to Share Files

You can use FTP to access the USB storage devices connected to the EMG2926-Q10A. In this example, we use the web browser to share files via FTP from the LAN. The way you log in to the FTP server (on the EMG2926-Q10A) and the screen that appears will vary depending on your FTP client. See your FTP client documentation for more information.

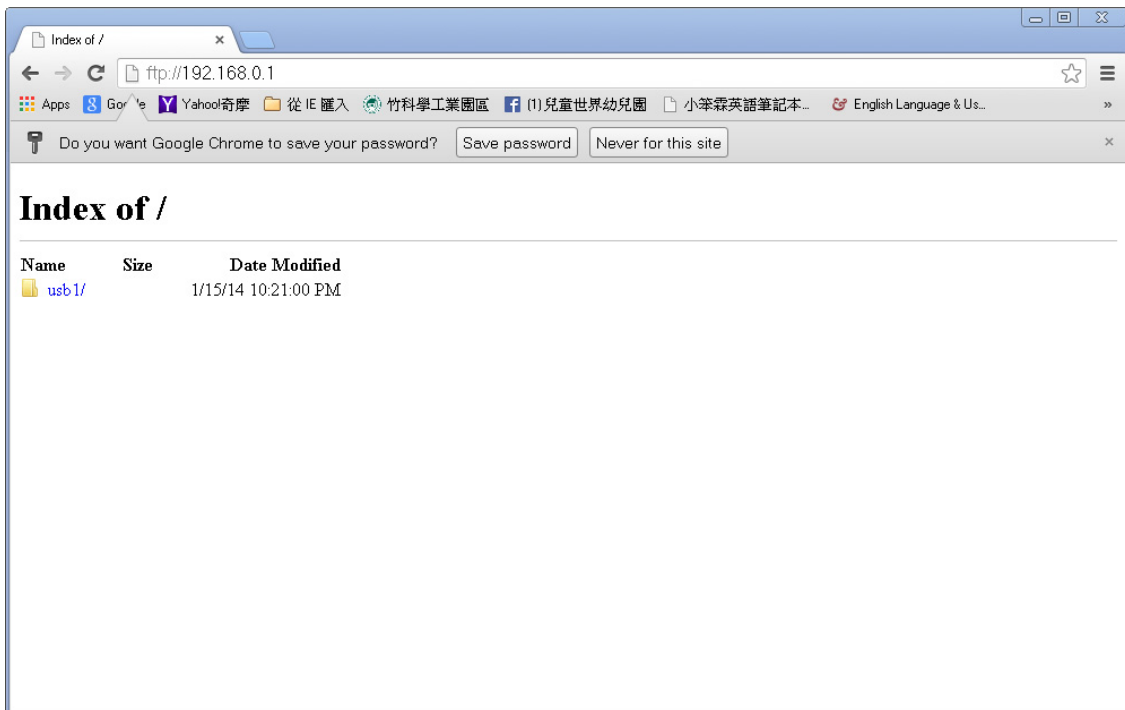
You should have enabled file sharing and created a user account (Bob/1234 for example) with read and write access to USB 1 in the **USB Media Sharing > FTP** screen.

- 1 In your web browser's address or URL bar type "ftp://" followed by the IP address of the EMG2926-Q10A (the default LAN IP address of the EMG2926-Q10A in router mode is 192.168.0.1) and click **Go** or press [ENTER].

- 2 A password authentication screen will appear. Enter the user name and password you configured on the **USB Media Sharing > FTP** screen and click **Log In**.



- 3 The screen will change and display the folder for the USB storage device connected to your EMG2926-Q10A. Double-click the folder to display its contents.



Port Configuration

23.1 Overview

The EMG2926-Q10A has 1000Base-T auto-negotiating Ethernet ports. In 10/100/1000 Mbps Gigabit Ethernet, the speed can be 10 Mbps, 100 Mbps or 1000 Mbps. The duplex mode can be both half or full duplex. An auto-negotiating port can detect and adjust to the optimum Ethernet speed (10/100/1000 Mbps) and duplex mode (full duplex or half duplex) for the connected device.

23.2 Port Configuration Screen

Use this screen to configure the EMG2926-Q10A port speed and duplex settings. Click **Configuration > Management > Port Configuration**.

Figure 111 Management > Port Configuration

Port Configuration		
WAN :	Speed: Auto ▼	Duplex: Auto ▼
LAN1 :	Speed: Auto ▼	Duplex: Auto ▼
LAN2 :	Speed: Auto ▼	Duplex: Auto ▼
LAN3 :	Speed: Auto ▼	Duplex: Auto ▼
LAN4 :	Speed: Auto ▼	Duplex: Auto ▼
<div> Apply Cancel </div>		

The following table describes the labels on this screen.

Table 73 Management > Port Configuration

LABEL	DESCRIPTION
WAN/LAN1~4	This field displays the EMG2926-Q10A's Ethernet port.
Speed	<p>Select the speed of the Ethernet connection on this port. The choices are Auto, 1000, 100 and 10.</p> <p>Selecting Auto (auto-negotiation) allows one port to negotiate with a peer port automatically to obtain the connection speed that both ends support. If the peer port does not support auto-negotiation, or if it turns off this feature, the EMG2926-Q10A determines the connection speed by detecting the signal on the cable and using half duplex mode.</p>

Table 73 Management > Port Configuration (continued)

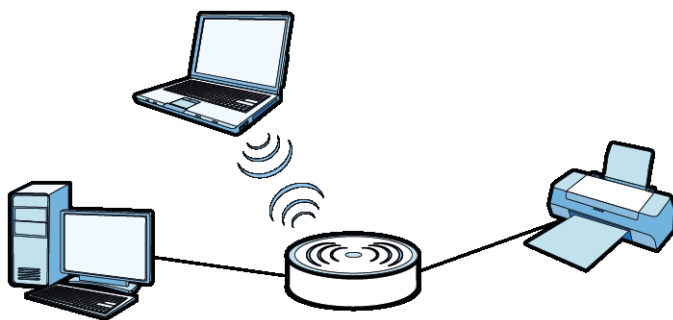
LABEL	DESCRIPTION
Duplex	<p>Select the duplex mode of the Ethernet connection on this port. The choices are Auto, Full and Half.</p> <p>Selecting Auto (auto-negotiation) allows one port to negotiate with a peer port automatically to obtain the duplex mode that both ends support. If the peer port does not support auto-negotiation or turns off this feature, the EMG2926-Q10A will determine the connection speed by detecting the signal on the cable and using half duplex mode.</p>
Apply	Click Apply to save your changes with the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

USB Print Server

24.1 Overview

The EMG2926-Q10A allows you to share a USB printer on your LAN. You can do this by connecting a USB printer to one of the USB ports on the EMG2926-Q10A and then allowing the computers connected to your network to communicate with the print server (EMG2926-Q10A) using the Internet Printing Protocol.

Figure 112 Sharing a USB Printer



To configure the print server:

- Your EMG2926-Q10A must be connected to your computer and to any other devices on your network. The USB printer must be connected to your EMG2926-Q10A.
- The computers on your network must have the printer software already installed before they can use the printer. Follow your printer manufacturers instructions on how to install the printer software on your computer.

Note: Your printer's installation instructions may ask that you connect the printer to your computer. Connect your printer to the EMG2926-Q10A instead.

24.2 Print Server Screen

Use this screen to enable the print server function on the EMG2926-Q10A and to confirm that the EMG2926-Q10A and the USB printer are able to communicate successfully. Click **Management > USB Print Server**.

Figure 113 Management > USB Print Server

Print Server

Print Server : ☒ Enable ☐ Disable

Printer Name : None

Note:
This router can act as a print server when a supported printer is connected via USB port. This feature allows any computers on the LAN or WLAN to share the connected printer.

Apply Cancel

The following table describes the labels on this screen.

Table 74 Management > USB Print Server

LABEL	DESCRIPTION
Print Server	Select Enable to have the EMG2926-Q10A act as a print server. Otherwise, select Disable .
Printer Name	This displays the descriptive name of the associated printer for its recognition on the print server network. This name is displayed on a computer on the print server network when a print job is executed.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

25.1 Overview

A mail server is an application or a computer that runs an application to receive, forward and deliver email messages.

To have the EMG2926-Q10A send reports, logs or notifications via email, you must specify an email server and the email addresses of the sender and receiver.

25.2 My Mail Screen

Use this screen to configure the mail server information on the EMG2926-Q10A. Click **Management > Mail**.

Figure 114 Management > Mail

My Mail

Email Notification Configuration

Mail Server :

Mail Server Address : SMTP or IP address

Mail Server Port :

Authentication Username :

Authentication Password :

Account Email Address :

Send To

Email :

#	Email	Modify
1	user@example.com.tw	

Note:
An email address must contain the '@' character.

The following table describes the labels on this screen.

Table 75 Management > Mail

LABEL	DESCRIPTION
Mail Server	Select Default to use the pre-defined mail server to send or receive mail messages. Select Custom to specify a different mail server.
Mail Server Address	If you select Default in the Mail Server field, this will show the pre-defined mail server address and will not be configurable. If you select Custom in the Mail Server field, enter the server name or the IP address of the mail server for the e-mail address specified in the Account Email Address field
Mail Server Port	Specify a mail server port. Enter port 25 if you are using a mail server from your ISP. Enter port 587 if you are using your own mail server that is not on your ISP's network.
Authentication Username	Enter the user name (up to 32 characters). This is usually the user name of the mail account you specified in the Account Email Address field.
Authentication Password	Enter the password associated with the user name above.
Account Email Address	Enter the email address that you want to be in the from/sender line of the email notification that the EMG2926-Q10A sends.
Email	Enter the email address to which outgoing email is delivered and click Add to add it to the Send To list.
#	This is the index number of an email address in the list.
Email	This is the email address to which outgoing email is delivered.
Modify	Click the Edit icon to open a screen where you can change the email address. Click the Delete icon to remove an existing entry.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

Maintenance

26.1 Overview

This chapter provides information on the **Maintenance** screens.

26.2 General Screen

Use this screen to set the management session timeout period. Click **Maintenance > General**. The following screen will appear.

Figure 115 Maintenance > General

The screenshot shows a web interface for the 'General' maintenance screen. It contains three text input fields: 'System Name' (containing 'EMG2926'), 'Domain Name' (containing 'zyxel.com'), and 'Administrator Inactivity Timer' (containing '5' with a note '(minutes, 0 means no timeout)'). At the bottom right, there are two buttons: 'Apply' and 'Cancel'.

The following table describes the labels on this screen.

Table 76 Maintenance > General

LABEL	DESCRIPTION
System Name	System Name is a unique name to identify the EMG2926-Q10A in an Ethernet network.
Domain Name	Enter the domain name you wish to give to the EMG2926-Q10A.
Administrator Inactivity Timer	Type how many minutes a management session can be left idle before the session times out. The default is 5 minutes. After the session times out you will have to log in with your password again. Very long idle timeouts may have security risks. A value of "0" means a management session never times out, no matter how long it has been left idle (not recommended).
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

26.3 Account Screen

It is strongly recommended that you change the password of the user account.

If you forget your login account password (or IP address), you will need to reset the device. See [Section 26.5 on page 165](#) for details.

Click **Maintenance > Account**. The screen will appear as shown.

Figure 116 Maintenance > Account

The screenshot shows a web interface titled 'User Account'. Below the title is a table with the heading 'User Account Entries'. The table has four columns: '#', 'User Name', 'Group', and 'Modify'. There is one row of data with the following values: '# 1', 'User Name admin', 'Group User', and 'Modify' (with an edit icon). The 'Modify' column contains a small icon of a pencil inside a square.

#	User Name	Group	Modify
1	admin	User	

The following table describes the labels on this screen.

Table 77 Maintenance > Account

LABEL	DESCRIPTION
#	This the index number of the entry.
User Name	This field displays the user name.
Group	This field displays the user's login account type. Different login account types have different privilege levels. The web configurator screens and privileges will vary depending on which account type you use to log in.
Modify	Click the Edit icon to go to the screen where you can edit the account.

26.3.1 Edit a User's Account

Use this screen to edit a user's account. Click the **Edit** icon next to the user account you want to edit. The **Account Setup** screen displays as shown.

Figure 117 Maintenance > Account > Edit

The screenshot shows a web interface titled 'Account Setup'. It contains several input fields for editing a user account. The fields are labeled 'Username:', 'Old Password:', 'New Password:', 'Retype to Confirm:', and 'Group:'. The 'Username' field contains the text 'admin'. The 'Group' field contains the text 'User'. At the bottom of the form are two buttons: 'Apply' and 'Cancel'.

Username :	<input type="text" value="admin"/>
Old Password :	<input type="password"/>
New Password :	<input type="password"/>
Retype to Confirm :	<input type="password"/>
Group :	User

The following table describes the labels on this screen.

Table 78 Maintenance > Account > Edit

LABEL	DESCRIPTION
Username	Enter a descriptive name for the user account. The user name can be made up of up to 15 alphanumeric characters (0-9, A-Z, a-z, -, _) with no spaces. If advanced account security is enabled, the user names must have a minimum of six characters and include both letters and numbers.
Old Password	Type the default password or the existing password you use to access the system in this field.
New Password	Type your new system password (up to 30 characters). Note that as you type a password, the screen displays an asterisk (*) for each character you type.
Retype to Confirm	Retype the new password in this field.
Group	This is the user's account type. The web configurator screens and privileges vary depending on which account type you use to log in. Administrator accounts can configure the EMG2926-Q10A and upgrade firmware while User accounts cannot do firmware upgrading.
Apply	Click Apply to save your changes to the EMG2926-Q10A.
Cancel	Click Cancel to begin configuring this screen afresh.

26.4 Configuration Backup/Restore Screen

Backup configuration allows you to back up (save) the EMG2926-Q10A's current configuration to a file on your computer. Once your EMG2926-Q10A is configured and functioning properly, it is highly recommended that you back up your configuration file before making configuration changes. The backup configuration file will be useful in case you need to return to your previous settings.

Restoring configuration allows you to upload a new or previously saved configuration file from your computer to your EMG2926-Q10A.

Click **Maintenance > Backup/Restore**. Information related to factory defaults, backup configuration, and restoring configuration will appear as shown below.

Figure 118 Maintenance > Backup/Restore

Backup/Restore

Backup Configuration
Click Backup to save the current configuration of your system to your computer.

Restore Configuration
To restore a previously saved configuration file to your system, browse to the location of the configuration file and click Upload.
File Path : No file chosen

Back to Factory Defaults
Click Reset to clear all user-entered configuration information and return to factory defaults. After resetting, the
 - Password will be (blank)
 - LAN IP address will be 192.168.0.1
 - DHCP will be reset to server

The following table describes the labels on this screen.

Table 79 Maintenance > Backup/Restore

LABEL	DESCRIPTION
Backup	Click Backup to save the EMG2926-Q10A's current configuration to your computer.
File Path	Type in the location of the file you want to upload in this field or click Browse... to find it.
Choose File	Click Choose File to find the file you want to upload. Remember that you must decompress compressed (.ZIP) files before you can upload them.
Upload	Click Upload to begin the upload process. Note: Do not turn off the EMG2926-Q10A while configuration file upload is in progress. After you see a "configuration upload successful" screen, you must then wait one minute before logging in to the EMG2926-Q10A again. The EMG2926-Q10A will automatically restart at this time, causing a temporary network disconnect. If you see an error screen, click Back to return to the Backup/Restore screen.
Reset	Pressing the Reset button in this section clears all user-entered configuration information and returns the EMG2926-Q10A to its factory defaults. You can also press the RESET button on the rear panel to reset the factory defaults of your EMG2926-Q10A. Refer to the chapter about introducing the Web Configurator for more information on the RESET button.

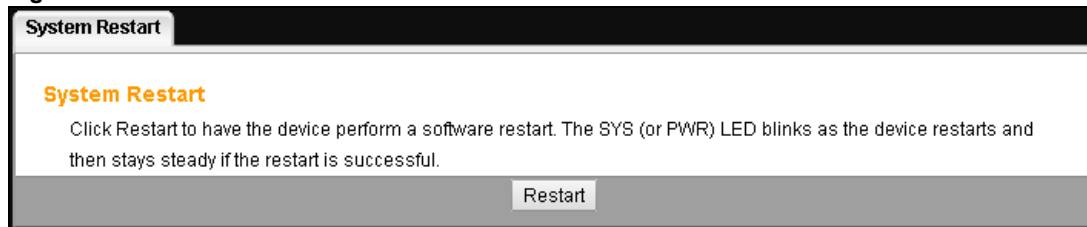
Note: If you uploaded the default configuration file, you may need to change the IP address of your computer to be in the same subnet as that of the default EMG2926-Q10A IP address (192.168.0.1).

26.5 Restart Screen

System restart allows you to reboot the EMG2926-Q10A without turning the power off.

Click **Maintenance > Restart** to open the following screen.

Figure 119 Maintenance > Restart



Click **Restart** to have the EMG2926-Q10A reboot. This does not affect the EMG2926-Q10A's configuration.

26.6 System Operating Mode Overview

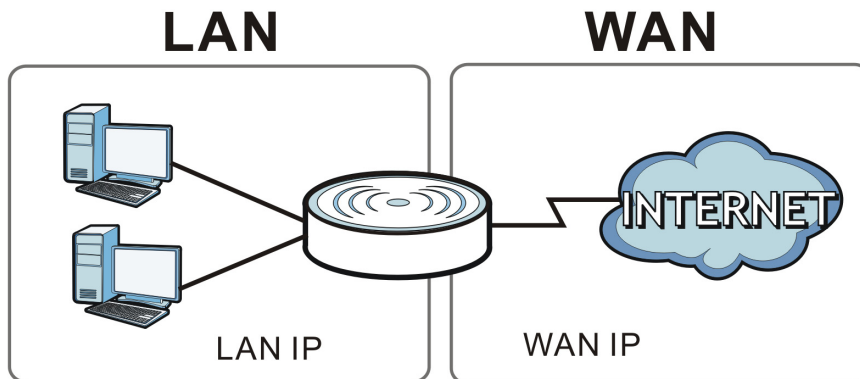
The **Sys OP Mode** (System Operating Mode) function lets you configure your EMG2926-Q10A as a router or access point. You can choose between **Router Mode**, and **Access Point Mode** depending on your network topology and the features you require from your device.

The following describes the device modes available on your EMG2926-Q10A.

Router

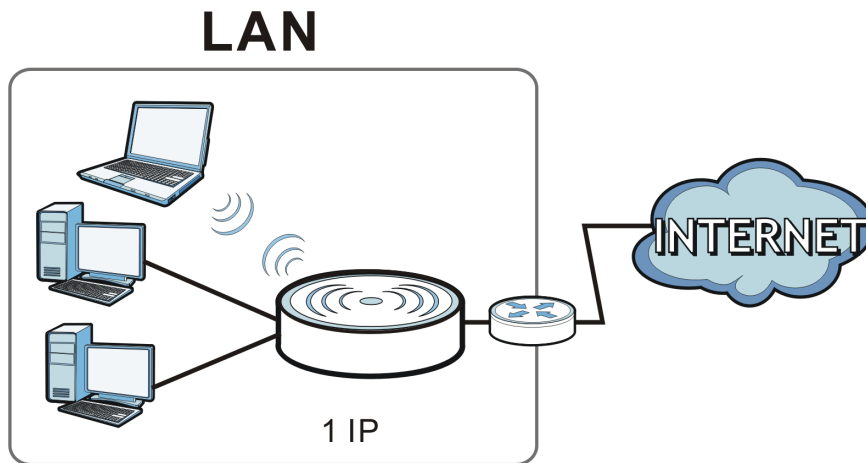
A router connects your local network with another network, such as the Internet. The router has two IP addresses: the LAN IP address and the WAN IP address.

Figure 120 LAN and WAN IP Addresses in Router Mode



Access Point

An access point enables all Ethernet ports to be bridged together and to be in the same subnet. To connect to the Internet, another device (such as a router) is required.

Figure 121 Access Point Mode

26.7 Sys OP Mode Screen

Use this screen to select how you want to use your EMG2926-Q10A.

Figure 122 Maintenance > Sys OP Mode

Sys OP Mode

Configuration Mode

☒ Router Mode
☐ Access Point Mode

Note:
Router: In this mode, the device is supported to connect to the internet via an ADSL/Cable Modem. PCs in LAN ports share the same IP to ISP through the WAN Port.
Access Point: In this mode, all Ethernet ports are bridged together. The device allows the wireless-equipped computer communicate with a wired network.

Apply Cancel

The following table describes the labels on the **General** screen.

Table 80 Maintenance > Sys OP Mode

LABEL	DESCRIPTION
Configuration Mode	
Router Mode	<p>Select Router Mode if your device routes traffic between a local network and another network such as the Internet. This mode offers services such as a firewall or bandwidth management.</p> <p>You can configure the IP address settings on your WAN port. Contact your ISP or system administrator for more information on appropriate settings.</p>

Table 80 Maintenance > Sys OP Mode (continued)

LABEL	DESCRIPTION
Access Point Mode	<p>Select Access Point Mode if your device bridges traffic between clients on the same network.</p> <ul style="list-style-type: none"> • In Access Point Mode, all Ethernet ports have the same IP address. • All ports on the rear panel of the device are LAN ports, including the port labeled WAN. There is no WAN port. • The DHCP server on your device is disabled. • Router functions (such as NAT, bandwidth management, remote management, firewall, etc.) are not available when the EMG2926-Q10A is in Access Point Mode. • The IP address of the device on the local network is set to 192.168.0.2.
Apply	Click Apply to save your settings.
Cancel	Click Cancel to return your settings to the default (Router).

Note: If you select the incorrect system operation Mode you may not be able to connect to the Internet.

26.8 Language Screen

Use this screen to change the language for the Web Configurator.

Select the language you prefer and click **Apply**. The Web Configurator language changes after a while without restarting the EMG2926-Q10A. At the time of writing, you can only select **English** or **Francais**.

Figure 123 Maintenance > Language

26.9 Diagnostic Screen

The **Diagnostic** screens display information to help you identify problems with the EMG2926-Q10A.

26.9.1 Ping Screen

Use this screen to ping an IP address. Click **Maintenance > Diagnostic > Ping** to open the following screen.

Figure 124 Maintenance > Diagnostic > Ping

The following table describes the fields on this screen.

Table 81 Maintenance > Diagnostic > Ping

LABEL	DESCRIPTION
	Type the URL or IP address of a computer to which you want to perform Ping in order to test a connection.
IPv4_Ping	Click the button to ping the IP address that you entered.
IPv6_Ping	

26.9.2 TraceRoute Screen

Use this screen to trace the route packets take to a host. Click **Maintenance > Diagnostic > TraceRoute** to open the following screen.

Figure 125 Maintenance > Diagnostic > TraceRoute

The following table describes the fields on this screen.

Table 82 Maintenance > Diagnostic > TraceRoute

LABEL	DESCRIPTION
	Type the URL or IP address of a computer for which you want to perform traceroute in order to test a connection.
IPv4_TraceRoute	Click this button to perform the traceroute function. This determines the path a packet takes to the specified computer.
IPv6_TraceRoute	

26.9.3 Nslookup Screen

Use this screen to perform an nslookup (name server lookup). Nslookup queries the DNS to resolve an IP address into a host name and vice-versa. Click **Maintenance > Diagnostic > Nslookup** to open the following screen.

Figure 126 Maintenance > Diagnostic > Nslookup

The screenshot shows the Nslookup screen with tabs for Ping, TraceRoute, Nslookup, and SpeedTest. The Nslookup tab is active. The text reads: "Nslookup is a network administration tool for querying the Domain Name System (DNS) to obtain domain name or IP address mapping or any other specific DNS record. Enter either an IP address or a host name and click the button to start a nslookup test. The test result will be shown in the area below."

```

Server:      127.0.0.1
Address 1: 127.0.0.1 localhost

Name:       www.zyxel.com
Address 1: 54.192.214.254 server-54-192-214-254.tpe50.r.cloudfront.net
Address 2: 54.230.213.123 server-54-230-213-123.tpe50.r.cloudfront.net
Address 3: 54.230.215.101 server-54-230-215-101.tpe50.r.cloudfront.net
Address 4: 54.230.214.121 server-54-230-214-121.tpe50.r.cloudfront.net
Address 5: 54.239.176.132 server-54-239-176-132.tpe50.r.cloudfront.net
Address 6: 54.230.215.147 server-54-230-215-147.tpe50.r.cloudfront.net
Address 7: 54.230.215.71 server-54-230-215-71.tpe50.r.cloudfront.net
Address 8: 54.230.212.160 server-54-230-212-160.tpe50.r.cloudfront.net
  
```

At the bottom, there are input fields for "FQDN_IP" and "ServerIP(option)", and an "Nslookup" button.

The following table describes the fields on this screen.

Table 83 Maintenance > Diagnostic > Nslookup

LABEL	DESCRIPTION
FQDN_IP	Type a domain name or IP address in this field for the name server lookup.
ServerIP	Enter the IP address of the server the EMG2926-Q10A uses to translate the specified domain name or IP address.
Nslookup	Click this button to perform a DNS lookup on the IP address or domain name you entered.

26.9.4 SpeedTest Screen

Use this screen to test your Internet connection. Click **Maintenance > Diagnostic > SpeedTest** to open the following screen.

Figure 127 Maintenance > Diagnostic > SpeedTest

The screenshot shows a web interface for speed testing. At the top, there are four tabs: Ping, TraceRoute, Nslookup, and SpeedTest. The SpeedTest tab is active. Below the tabs is a section titled 'Speed Test Diagnostic'. Inside this section is a table with two columns: 'Item' and 'Rate'. The table contains three rows of data. Below the table is a 'Begin Test' button.

Item	Rate
Latency :	233.100 ms
Download Speed :	10.089 Mbps
Upload Speed :	24.651 Mbps

The following table describes the fields on this screen.

Table 84 Maintenance > Diagnostic > SpeedTest

LABEL	DESCRIPTION
Latency	This field displays the period of delay (in milliseconds) on the connection.
Download Speed	This field displays the current downstream transmission rate.
Upload Speed	This field displays the current upstream transmission rate.
Begin Test	Click this button to perform a speed-test immediately.

Troubleshooting

27.1 Overview

This chapter offers some suggestions for solving problems you might encounter. The potential problems are divided into the following categories.

- [Power, Hardware Connections, and LEDs](#)
- [EMG2926-Q10A Access and Login](#)
- [Internet Access](#)
- [Resetting the EMG2926-Q10A to Its Factory Defaults](#)
- [Wireless Connections](#)
- [USB Device Problems](#)

27.2 Power, Hardware Connections, and LEDs

[The EMG2926-Q10A does not turn on. None of the LEDs turn on.](#)

- 1 Make sure you are using the power adaptor or cord included with the EMG2926-Q10A.
- 2 Make sure the power adaptor or cord is connected to the EMG2926-Q10A and plugged in to an appropriate power source. Make sure the power source is turned on.
- 3 Disconnect and re-connect the power adaptor or cord to the EMG2926-Q10A.
- 4 If the problem continues, contact the vendor.

[One of the LEDs does not behave as expected.](#)

- 1 Make sure you understand the normal behavior of the LED. See [Section 1.7 on page 14](#).
- 2 Check the hardware connections. See the Quick Start Guide.
- 3 Inspect your cables for damage. Contact the vendor to replace any damaged cables.
- 4 Disconnect and re-connect the power adaptor to the EMG2926-Q10A.

- 5 If the problem continues, contact the vendor.

27.3 EMG2926-Q10A Access and Login

I don't know the IP address of my EMG2926-Q10A.

- 1 The default IP address of the EMG2926-Q10A in **Router Mode** is **192.168.0.1**. The default IP address of the EMG2926-Q10A in **Access Point Mode** is **192.168.0.2**.
- 2 If you changed the IP address and have forgotten it, you may be able to get the IP address of the EMG2926-Q10A in **Router Mode** by looking up the IP address of the default gateway for your computer. To do this in most Windows computers, click **Start > Run**, enter **cmd**, and then enter **ipconfig**. The IP address of the **Default Gateway** might be the IP address of the EMG2926-Q10A (depending on the network), so enter this IP address in your Internet browser.
- 3 If your EMG2926-Q10A in **Access Point Mode** is a DHCP client, you can obtain your IP address from the DHCP server. This information is only available from the DHCP server that allocates IP addresses on your network. Find this information directly on the DHCP server, or contact your system administrator for more information.
- 4 Reset your EMG2926-Q10A to change all settings back to their defaults. This means your current settings will be lost. See [Section 27.5 on page 176](#) in **Troubleshooting** for information on resetting your EMG2926-Q10A.

I forgot the password.

- 1 The default password is an empty string.
- 2 If this does not work, you will have to reset the device to its factory defaults. See [Section 27.5 on page 176](#).

I cannot see or access the **Login** screen in the Web Configurator.

- 1 Make sure you are using the correct IP address.
 - The default IP address of the EMG2926-Q10A in **Router Mode** is **192.168.0.1**. The default IP address of the EMG2926-Q10A in **Access Point Mode** is **192.168.0.2**.
 - If you changed the IP address ([Section 10.2 on page 97](#)), use the new IP address.
 - If you changed the IP address and have forgotten it, see the troubleshooting suggestions for [I don't know the IP address of my EMG2926-Q10A](#).

- 2 Check the hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide.
- 3 Make sure your Internet browser does not block pop-up windows and has JavaScript and Java enabled.
- 4 Make sure your computer is in the same subnet as the EMG2926-Q10A. Skip this step if you know that there are routers between your computer and the EMG2926-Q10A.
 - If there is a DHCP server on your network, make sure your computer is using a dynamic IP address. See [Section 10.2 on page 97](#).
 - If there is no DHCP server on your network, make sure your computer's IP address is in the same subnet as the EMG2926-Q10A. See [Section 10.2 on page 97](#).
- 5 Reset the device to its factory defaults, and try to access the EMG2926-Q10A with the default IP address. See [Section 1.5 on page 13](#).
- 6 If the problem continues, contact the network administrator or vendor, or try one of the advanced suggestions below.

Advanced Suggestions

- Try to access the EMG2926-Q10A using another service, such as Telnet. If you can access the EMG2926-Q10A, check the remote management settings and firewall rules to find out why the EMG2926-Q10A does not respond to HTTP.
- If your computer is connected to the **WAN** port or is connected wirelessly, use a computer that is connected to a **LAN/ETHERNET** port.

I can see the **Login** screen, but I cannot log in to the EMG2926-Q10A.

- 1 Make sure you have left the password field blank. The default password is an empty string.
- 2 This can happen when you fail to log out properly from your last session. Try logging in again after 5 minutes.
- 3 Disconnect and re-connect the power adaptor or cord to the EMG2926-Q10A.
- 4 If this does not work, you have to reset the device to its factory defaults. See [Section 27.5 on page 176](#).

27.4 Internet Access

I cannot access the Internet.

- 1 Check the hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide.

- 2 Go to **Maintenance > Sys OP Mode**. Check your System Operation Mode setting.
 - If the EMG2926-Q10A is in **Router Mode**, make sure that the WAN port is connected to a broadband modem or router with Internet access. Your computer and the EMG2926-Q10A should be in the same subnet.
 - If the EMG2926-Q10A is in **Access Point Mode**, make sure that the WAN port is connected to a broadband modem or router with Internet access and that your computer is set to obtain a dynamic IP address.
- 3 If the EMG2926-Q10A is in **Router Mode**, make sure you entered your ISP account information correctly in the wizard or the WAN screen. These fields are case-sensitive, so make sure [Caps Lock] is not on.
- 4 If you are trying to access the Internet wirelessly, make sure the wireless settings in the wireless client are the same as the settings in the AP.
- 5 Disconnect all the cables from your device, and follow the directions in the Quick Start Guide again.
- 6 If the problem continues, contact your ISP.

I cannot access the Internet anymore. I had access to the Internet (with the EMG2926-Q10A), but my Internet connection is not available anymore.

- 1 Check the hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide and [Section 1.7 on page 14](#).
- 2 Reboot the EMG2926-Q10A.
- 3 If the problem continues, contact your ISP.

The Internet connection is slow or intermittent.

- 1 There might be a lot of traffic on the network. Look at the LEDs, and check [Section 1.7 on page 14](#). If the EMG2926-Q10A is sending or receiving a lot of information, try closing some programs that use the Internet, especially peer-to-peer applications.
- 2 Check the signal strength. If the signal strength is low, try moving the EMG2926-Q10A closer to the AP if possible, and look around to see if there are any devices that might be interfering with the wireless network (for example, microwaves, other wireless networks, and so on).
- 3 Reboot the EMG2926-Q10A.
- 4 If the problem continues, contact the network administrator or vendor, or try the advanced suggestion below.

Advanced Suggestion

- Check the settings for QoS. If it is disabled, you might consider activating it.

27.5 Resetting the EMG2926-Q10A to Its Factory Defaults

If you reset the EMG2926-Q10A, you will lose all of the changes you have made. The EMG2926-Q10A will reload its default settings and use a blank password. You will have to make all of your changes again.

You will lose all of your changes when you push the **RESET** button.

To reset the EMG2926-Q10A:

- 1 Make sure the power LED is on.
- 2 Press the **RESET** button for one to four seconds to restart/reboot the EMG2926-Q10A.
- 3 Press the **RESET** button for longer than five seconds to set the EMG2926-Q10A back to its factory-default configurations.

If the EMG2926-Q10A restarts automatically, wait for the EMG2926-Q10A to finish restarting, then log in to the Web Configurator. The default password is an empty string.

If the EMG2926-Q10A does not restart automatically, disconnect and reconnect the EMG2926-Q10A's power. Then, follow the directions above again.

27.6 Wireless Connections

I cannot access the EMG2926-Q10A or ping any computer from the WLAN.

- 1 Make sure the wireless LAN is enabled on the EMG2926-Q10A.
- 2 Make sure the wireless adapter on your computer is working properly.
- 3 Make sure the wireless adapter installed on your computer is IEEE 802.11 compatible and supports the same wireless standard as the EMG2926-Q10A.
- 4 Make sure your computer (with a wireless adapter installed) is within the transmission range of the EMG2926-Q10A.
- 5 Check that both the EMG2926-Q10A and the wireless adapter on your computer are using the same wireless and wireless security settings.
- 6 Make sure traffic between the WLAN and the LAN is not blocked by the firewall on the EMG2926-Q10A.
- 7 Make sure you allow remote access to the EMG2926-Q10A through the WLAN interface. Check your remote management settings.

- See the chapter on [Wireless LAN](#) in the User's Guide for more information.

I set up URL keyword blocking, but I can still access a website that should be blocked.

Make sure that you enable parental control in the **Parental Control** screen, set up rules and turn them on. Additionally, make sure that the keywords that you type are listed in the rule's **Keyword List**.

I switched to AP mode and cannot access the Web Configurator.

When you change from router mode to AP mode, your computer must have an IP address in the range between "192.168.0.3" and "192.168.0.254".

What factors may cause an intermittent or unstable wireless connection? How can I solve this problem?

The following factors may cause interference:

- Obstacles: Walls, ceilings, furniture, and so on.
- Building Materials: Metal doors, aluminum studs.
- Electrical devices: Microwaves, monitors, electric motors, cordless phones, and other wireless devices.

To optimize the speed and quality of your wireless connection, you can:

- Move your wireless device closer to the AP if the signal strength is low.
- Reduce wireless interference that may be caused by other wireless networks or surrounding wireless electronics such as cordless phones.
- Place the AP in a location with a minimum of obstacles (such as walls and ceilings) between it and the wireless client.
- Reduce the number of wireless clients connecting to the same AP simultaneously, or add additional APs if necessary.
- Try closing some programs that use the Internet, especially peer-to-peer applications. If the wireless client is sending or receiving a lot of information, it may have too many programs open that use the Internet.
- Position the antennas for best reception. If the AP is placed on a table or floor, point the antennas upwards. If the AP is placed at a high position, point the antennas downwards. Try pointing the antennas in different directions and check which provides the strongest signal to the wireless clients.

27.7 USB Device Problems

I cannot access or see a USB device that is connected to the EMG2926-Q10A.

- 1 Disconnect the problematic USB device, then reconnect it to the EMG2926-Q10A.
- 2 Ensure that the USB device has power.
- 3 Check your cable connections.
- 4 Restart the EMG2926-Q10A by disconnecting the power and then reconnecting it.
- 5 If the USB device requires a special driver, install the driver from the installation disc that came with the device. After driver installation, reconnect the USB device to the EMG2926-Q10A and try to connect to it again with your computer.
- 6 If the problem persists, contact your vendor.

What kind of USB devices does the EMG2926-Q10A support?

- 1 It is strongly recommended to use version 2.0 or lower USB storage devices (such as memory sticks and USB hard drives) and/or other USB devices. Other USB products are not guaranteed to function properly with the EMG2926-Q10A.