

NBG334W

802.11g Wireless Firewall Router

User's Guide

Version 3.60

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Edition 1

DEFAULT LOGIN

IP Address <http://192.168.1.1>

User Name admin

Password 1234

ZyXEL
www.zyxel.com

About This User's Guide

Intended Audience

This manual is intended for people who want to configure the NBG334W using the web configurator. You should have at least a basic knowledge of TCP/IP networking concepts and topology.

Related Documentation

- Quick Start Guide
The Quick Start Guide is designed to help you get up and running right away. It contains information on setting up your network and configuring for Internet access.
- Web Configurator Online Help
Embedded web help for descriptions of individual screens and supplementary information.



It is recommended you use the web configurator to configure the NBG334W.

- Supporting Disk
Refer to the included CD for support documents.
- ZyXEL Web Site
Please refer to www.zyxel.com for additional support documentation and product certifications.

User Guide Feedback

Help us help you. Send all User Guide-related comments, questions or suggestions for improvement to the following address, or use e-mail instead. Thank you!

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Document Conventions

Warnings and Notes

These are how warnings and notes are shown in this User's Guide.



Warnings tell you about things that could harm you or your device.












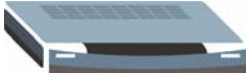
Notes tell you other important information (for example, other things you may need to configure or helpful tips) or recommendations.

Syntax Conventions

- The NBG334W may be referred to as the “NBG334W”, the “device”, the “product” or the “system” in this User's Guide.
- Product labels, screen names, field labels and field choices are all in **bold** font.
- A key stroke is denoted by square brackets and uppercase text, for example, [ENTER] means the “enter” or “return” key on your keyboard.
- “Enter” means for you to type one or more characters and then press the [ENTER] key. “Select” or “choose” means for you to use one of the predefined choices.
- A right angle bracket (>) within a screen name denotes a mouse click. For example, **Maintenance > Log > Log Setting** means you first click **Maintenance** in the navigation panel, then the **Log** sub menu and finally the **Log Setting** tab to get to that screen.
- Units of measurement may denote the “metric” value or the “scientific” value. For example, “k” for kilo may denote “1000” or “1024”, “M” for mega may denote “1000000” or “1048576” and so on.
- “e.g.,” is a shorthand for “for instance”, and “i.e.,” means “that is” or “in other words”.

Icons Used in Figures

Figures in this User's Guide may use the following generic icons. The NBG334W icon is not an exact representation of your device.

NBG334W 	Computer 	Notebook computer 
Server 	DSLAM 	Firewall 
Telephone 	Switch 	Router 
Modem 		

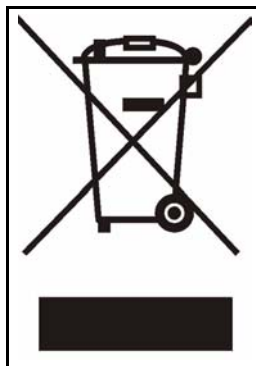
Safety Warnings



For your safety, be sure to read and follow all warning notices and instructions.

- Do NOT use this product near water, for example, in a wet basement or near a swimming pool.
- Do NOT expose your device to dampness, dust or corrosive liquids.
- Do NOT store things on the device.
- Do NOT install, use, or service this device during a thunderstorm. There is a remote risk of electric shock from lightning.
- Connect ONLY suitable accessories to the device.
- Do NOT open the device or unit. Opening or removing covers can expose you to dangerous high voltage points or other risks. ONLY qualified service personnel should service or disassemble this device. Please contact your vendor for further information.
- Make sure to connect the cables to the correct ports.
- Place connecting cables carefully so that no one will step on them or stumble over them.
- Always disconnect all cables from this device before servicing or disassembling.
- Use ONLY an appropriate power adaptor or cord for your device.
- Connect the power adaptor or cord to the right supply voltage (for example, 110V AC in North America or 230V AC in Europe).
- Do NOT allow anything to rest on the power adaptor or cord and do NOT place the product where anyone can walk on the power adaptor or cord.
- Do NOT use the device if the power adaptor or cord is damaged as it might cause electrocution.
- If the power adaptor or cord is damaged, remove it from the power outlet.
- Do NOT attempt to repair the power adaptor or cord. Contact your local vendor to order a new one.
- Do not use the device outside, and make sure all the connections are indoors. There is a remote risk of electric shock from lightning.
- Do NOT obstruct the device ventilation slots, as insufficient airflow may harm your device.
- Antenna Warning! This device meets ETSI and FCC certification requirements when using the included antenna(s). Only use the included antenna(s).
- If you wall mount your device, make sure that no electrical lines, gas or water pipes will be damaged.

This product is recyclable. Dispose of it properly.



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PART I

Introduction

Getting to Know Your NBG334W (29)

Introducing the Web Configurator (33)

Connection Wizard (45)

AP Mode (61)

Getting to Know Your NBG334W

This chapter introduces the main features and applications of the NBG334W.

1.1 Overview

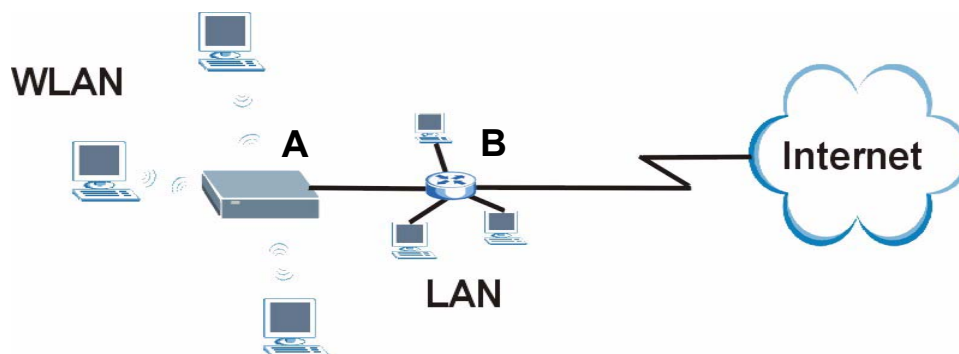
The NBG334W acts as either an access point (AP) or a secure broadband router for all data passing between the Internet and your local network. In both **AP** and **Router Mode** you can set up a wireless network with other IEEE 802.11b/g compatible devices. In **Router Mode** a number of services such as a firewall and content filtering are also available. You can use media bandwidth management to efficiently manage traffic on your network. Bandwidth management features allow you to prioritize time-sensitive or highly important applications such as Voice over the Internet (VoIP).

1.2 AP Mode

Select **AP Mode** if you already have a router or gateway on your network which provides network services such as a firewall or bandwidth management.

The following figure shows computers in a WLAN connecting to the NBG334W, which acts as an access point (A). The NBG334W allows the wireless computers to share the same Internet access as the other computers connected to the router (B) on the same network.

Figure 1 Wireless Internet Access in AP Mode

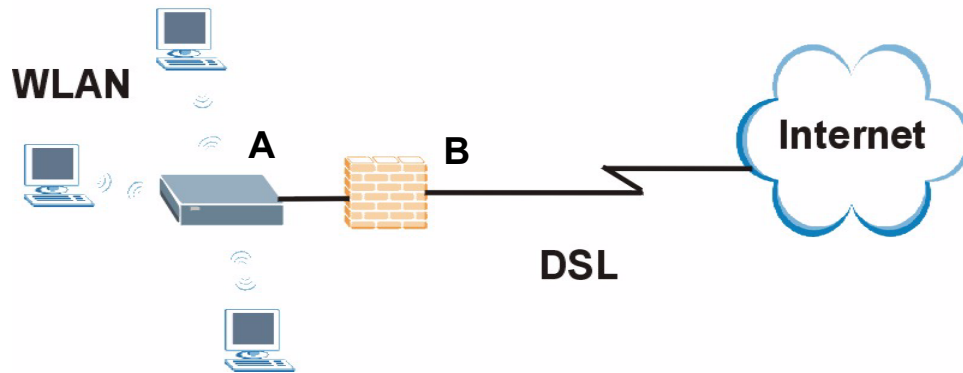


1.3 Router Mode

Select **Router Mode** if you need to route traffic between your network and another network such as the Internet, and require important network services such as a firewall or bandwidth management.

The following figure shows computers in a WLAN connecting to the NBG334W (A), which has a DSL connection to the Internet. The NBG334W is set to **Router Mode** and has router features such as a built-in firewall (B).

Figure 2 Secure Wireless Internet Access in Router Mode



1.4 Router Features vs. AP Features

The following table shows which features are available in **Router** or **AP Mode**.

Table 1 Features Available in Router Mode vs. AP Mode

FEATURE	ROUTER MODE	AP MODE
DHCP This allows individual clients to obtain IP addresses at start-up from a DHCP server.	YES	NO
Firewall This establishes a network security barrier, protecting your network from attacks and controlling access between your network and the Internet.	YES	NO
Bandwidth Management This allows you to allocate network bandwidth to specific applications and or subnets.	YES	NO
Any IP This allows a computer to access the NBG334W when the IP addresses of the computer and the NBG334W are not in the same subnet.)	YES	NO
Wireless This allows two or more devices to communicate without wires, based on IEEE 802.11 wireless standards.	YES	YES

1.5 Ways to Manage the NBG334W

Use any of the following methods to manage the NBG334W.

- Web Configurator. This is recommended for everyday management of the NBG334W using a (supported) web browser.
- Command Line Interface. Line commands are mostly used for troubleshooting by service engineers.
- FTP. Use File Transfer Protocol for firmware upgrades and configuration backup/restore.

1.6 Good Habits for Managing the NBG334W

Do the following things regularly to make the NBG334W more secure and to manage the NBG334W 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 NBG334W to its factory default settings. If you backed up an earlier configuration file, you would not have to totally re-configure the NBG334W. You could simply restore your last configuration.

1.7 LEDs

Figure 3 Front Panel



The following table describes the LEDs.

Table 2 Front Panel LEDs






LED	COLOR	STATUS	DESCRIPTION
	Green	On	The NBG334W is receiving power and functioning properly.
		Off	The NBG334W is not receiving power.

Table 2 Front Panel LEDs (continued)

LED	COLOR	STATUS	DESCRIPTION
LAN 1-4 	Green	On	The NBG334W has a successful 10MB Ethernet connection.
		Blinking	The NBG334W is sending/receiving data.
	Amber	On	The NBG334W has a successful 100MB Ethernet connection.
		Blinking	The NBG334W is sending/receiving data.
		Off	The LAN is not connected.
WAN 	Green	On	The NBG334W has a successful 10MB WAN connection.
		Blinking	The NBG334W is sending/receiving data.
	Amber	On	The NBG334W has a successful 100MB Ethernet connection.
		Blinking	The NBG334W is sending/receiving data.
		Off	The WAN connection is not ready, or has failed.
WLAN 	Green	On	The NBG334W is ready, but is not sending/receiving data through the wireless LAN.
		Blinking	The NBG334W is sending/receiving data through the wireless LAN.
		Off	The wireless LAN is not ready or has failed.
WPS 	WPS (WiFi Protected Setup) automatically sets up security on your wireless network. This function is currently unavailable.		

Introducing the Web Configurator

This chapter describes how to access the NBG334W web configurator and provides an overview of its screens.

2.1 Web Configurator Overview

The web configurator is an HTML-based management interface that allows easy setup and management of the NBG334W via Internet browser. Use Internet Explorer 6.0 and later or Netscape Navigator 7.0 and later versions or Safari 2.0 or 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 from your device. Web pop-up blocking is enabled by default in Windows XP SP (Service Pack) 2.
- JavaScripts (enabled by default).
- Java permissions (enabled by default).

Refer to the Troubleshooting chapter to see how to make sure these functions are allowed in Internet Explorer.

2.2 Accessing the Web Configurator

- 1 Make sure your NBG334W hardware is properly connected and prepare your computer or computer network to connect to the NBG334W (refer to the Quick Start Guide).
- 2 Launch your web browser.
- 3 Type "http://192.168.1.1" as the website address.

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

- In **Router Mode** enable the DHCP Server. The NBG334W assigns your computer an IP address on the same subnet.
- In **AP Mode** the NBG334W does not assign an IP address to your computer, so you should check it's in the same subnet. See [Section 4.5 on page 66](#) for more information.

- 4 Type "1234" (default) as the password and click **Login**. In some versions, the default password appears automatically - if this is the case, click **Login**.
- 5 You should see a screen asking you to change your password (highly recommended) as shown next. Type a new password (and retype it to confirm) and click **Apply** or click **Ignore**.

Figure 4 Change Password Screen



ZyXEL

Please enter a new password

Your router is currently using the default password. To protect your network from unauthorized users we suggest you change your password at this time. Please select a new password that will be easy to remember yet difficult for others to guess. We suggest you combine text with numbers to make it more difficult for an intruder to guess.

The administrator password should must be between 1 - 30 characters.

New Password:

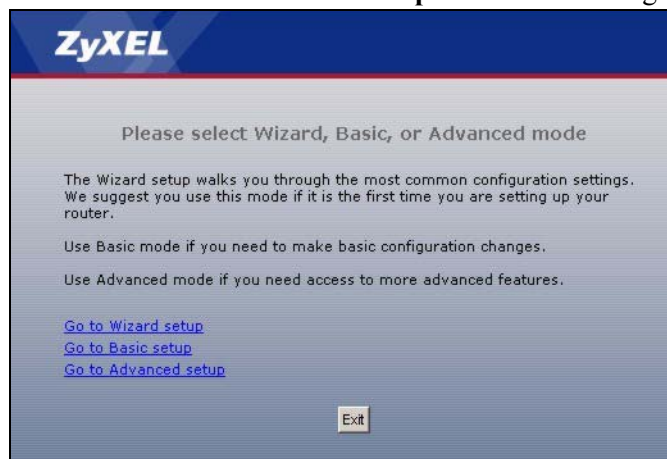
Retype to Confirm:

Apply Ignore



The management session automatically times out when the time period set in the **Administrator Inactivity Timer** field expires (default five minutes). Simply log back into the NBG334W if this happens.

- 6 Select the setup mode you want to use.
 - Click **Go to Wizard Setup** to use the Configuration Wizard for basic Internet and Wireless setup.
 - Click **Go to Basic Setup** if you want to view and configure basic settings that are not part of the wizard setup. Not all Web Configurator screens are available in this mode. See [Chapter 21 on page 197](#) for more information.
- 7 Click **Go to Advanced Setup** to view and configure all the NBG334W's settings.



ZyXEL

Please select Wizard, Basic, or Advanced mode

The Wizard setup walks you through the most common configuration settings. We suggest you use this mode if it is the first time you are setting up your router.

Use Basic mode if you need to make basic configuration changes.

Use Advanced mode if you need access to more advanced features.

[Go to Wizard setup](#)

[Go to Basic setup](#)

[Go to Advanced setup](#)

Exit

2.3 Resetting the NBG334W

If you forget your password or IP address, or you cannot access the web configurator, you will need to use the **RESET** button at the back of the NBG334W to reload the factory-default configuration file. This means that you will lose all configurations that you had previously saved, the password will be reset to “1234” and the IP address will be reset to “192.168.1.1”.

2.3.1 Procedure to Use the Reset Button

- 1 Make sure the power LED is on.
- 2 Press the **RESET** button for five seconds or until the power LED begins to blink and then release it. When the power LED begins to blink, the defaults have been restored and the NBG334W restarts.

2.4 Navigating the Web Configurator

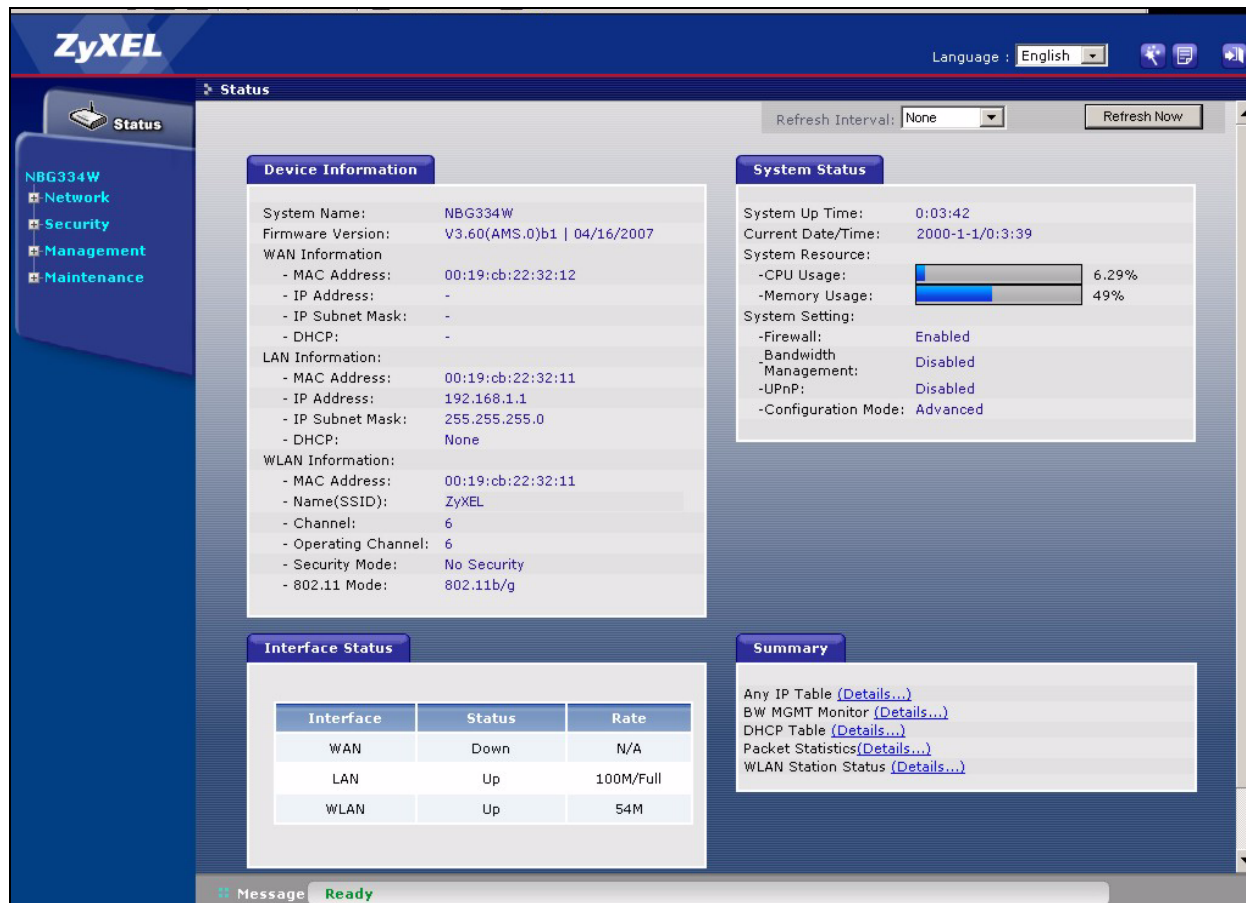
The following summarizes how to navigate the web configurator from the **Status** screen in **Router Mode** and **AP Mode**.

2.5 The Status Screen in Router Mode

Click on **Status**. The screen below shows the status screen in **Router Mode**.

(For information on the status screen in **AP Mode** see [Chapter 4 on page 62.](#))

Figure 5 Web Configurator Status Screen



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

Table 3 Status Screen Icon Key

ICON	DESCRIPTION
	Select a language from the drop-down list box to have the web configurator display in that language.
	Click this icon to open the setup wizard.
	Click this icon to view copyright and a link for related product information.
	Click this icon at any time to exit the web configurator.
	Select a number of seconds or None from the drop-down list box to refresh all screen statistics automatically at the end of every time interval or to not refresh the screen statistics.
	Click this button to refresh the status screen statistics.

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

Table 4 Web Configurator Status Screen

LABEL	DESCRIPTION
Device Information	
System Name	This is the System Name you enter in the Maintenance > System > General screen. It is for identification purposes.
Firmware Version	This is the firmware version and the date created.
WAN Information	
- MAC Address	This shows the WAN Ethernet adapter MAC Address of your device.
- IP Address	This shows the WAN port's IP address.
- IP Subnet Mask	This shows the WAN port's subnet mask.
- DHCP	This shows the WAN port's DHCP role - Client or None .
LAN Information	
- MAC Address	This shows the LAN Ethernet adapter MAC Address of your device.
- IP Address	This shows the LAN port's IP address.
- IP Subnet Mask	This shows the LAN port's subnet mask.
- DHCP	This shows the LAN port's DHCP role - Server or None .
WLAN Information	
- MAC Address	This shows the wireless adapter MAC Address of your device.
- Name (SSID)	This shows a descriptive name used to identify the NBG334W in the wireless LAN.
- Channel	This shows the channel number which you select manually.
- Operating Channel	This shows the channel number which the NBG334W is currently using over the wireless LAN.
- Security Mode	This shows the level of wireless security the NBG334W is using.
- 802.11 Mode	This shows the wireless standard.
System Status	
System Up Time	This is the total time the NBG334W has been on.
Current Date/Time	This field displays your NBG334W's present date and time.
System Resource	
- CPU Usage	This displays what percentage of the NBG334W's processing ability is currently used. When this percentage is close to 100%, the NBG334W is running at full load, and the throughput is not going to improve anymore. If you want some applications to have more throughput, you should turn off other applications (for example, using bandwidth management).
- Memory Usage	This shows what percentage of the heap memory the NBG334W is using. Heap memory refers to the memory that is not used by ZyNOS (ZyXEL Network Operating System) and is thus available for running processes like NAT and the firewall.
System Setting	
- Firewall	This shows whether the firewall is active or not.
- Bandwidth Management	This shows whether the bandwidth management is active or not.
- UPnP	This shows whether UPnP is active or not.
- Configuration Mode	This shows whether the advanced screens of each feature are turned on (Advanced) or not (Basic).
Interface Status	

Table 4 Web Configurator Status Screen (continued)

LABEL	DESCRIPTION
Interface	This displays the NBG334W port types. The port types are: WAN , LAN and WLAN .
Status	For the LAN and WAN ports, this field displays Down (line is down) or Up (line is up or connected). For the WLAN, it displays Up when the WLAN is enabled or Down when the WLAN is disabled.
Rate	For the LAN ports, this displays the port speed and duplex setting or N/A when the line is disconnected. For the WAN port, it displays the port speed and duplex setting if you're using Ethernet encapsulation and Idle (line ppp idle), Dial (starting to trigger a call) and Drop (dropping a call) if you're using PPPoE or PPTP encapsulation. This field displays N/A when the line is disconnected. For the WLAN, it displays the maximum transmission rate when the WLAN is enabled and N/A when the WLAN is disabled.
Summary	
Any IP Table	Use this screen to view details of IP addresses assigned to devices not in the same subnet as the NBG334W.
BW MGMT Monitor	Use this screen to view the NBG334W's bandwidth usage and allotments.
DHCP Table	Use this screen to view current DHCP client information.
Packet Statistics	Use this screen to view port status and packet specific statistics.
WLAN Station Status	Use this screen to view the wireless stations that are currently associated to the NBG334W.

2.5.1 Navigation Panel

Use the sub-menus on the navigation panel to configure NBG334W features.

The following table describes the sub-menus.

Table 5 Screens Summary

LINK	TAB	FUNCTION
Status		This screen shows the NBG334W's general device, system and interface status information. Use this screen to access the wizard, and summary statistics tables.
Network		
Wireless LAN	General	Use this screen to configure wireless LAN.
	MAC Filter	Use the MAC filter screen to configure the NBG334W to block access to devices or block the devices from accessing the NBG334W.
	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.
WAN	Internet Connection	This screen allows you to configure ISP parameters, WAN IP address assignment, DNS servers and the WAN MAC address.
	Advanced	Use this screen to configure other advanced properties.
LAN	IP	Use this screen to configure LAN IP address and subnet mask.
	IP Alias	Use this screen to partition your LAN interface into subnets.
	Advanced	Use this screen to enable other advanced properties.

Table 5 Screens Summary

LINK	TAB	FUNCTION
DHCP Server	General	Use this screen to enable the NBG334W'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 current DHCP client information and to always assign an IP address to a MAC address (and host name).
NAT	General	Use this screen to enable NAT.
	Application	Use this screen to configure servers behind the NBG334W.
	Advanced	Use this screen to change your NBG334W's port triggering settings.
DDNS	General	Use this screen to set up dynamic DNS.
Security		
Firewall	General	Use this screen to activate/deactivate the firewall.
	Services	This screen shows a summary of the firewall rules, and allows you to edit/add a firewall rule.
Content Filter	Filter	Use this screen to block certain web features and sites containing certain keywords in the URL.
	Schedule	Use this screen to set the days and times for the NBG334W to perform content filtering.
Management		
Static Route	IP Static Route	Use this screen to configure IP static routes.
Bandwidth MGMT	General	Use this screen to enable bandwidth management.
	Advanced	Use this screen to set the upstream bandwidth and edit a bandwidth management rule.
	Monitor	Use this screen to view the NBG334W's bandwidth usage and allotments.
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 NBG334W.
	Telnet	Use this screen to configure through which interface(s) and from which IP address(es) users can use Telnet to manage the NBG334W.
	FTP	Use this screen to configure through which interface(s) and from which IP address(es) users can use FTP to access the NBG334W.
	DNS	Use this screen to configure through which interface(s) and from which IP address(es) users can send DNS queries to the NBG334W.
UPnP	General	Use this screen to enable UPnP on the NBG334W.
Maintenance		
System	General	Use this screen to view and change administrative settings such as system and domain names, password and inactivity timer.
	Time Setting	Use this screen to change your NBG334W's time and date.

Table 5 Screens Summary

LINK	TAB	FUNCTION
Logs	View Log	Use this screen to view the logs for the categories that you selected.
	Log Settings	Use this screen to change your NBG334W's log settings.
Tools	Firmware	Use this screen to upload firmware to your NBG334W.
	Configuration	Use this screen to backup and restore the configuration or reset the factory defaults to your NBG334W.
	Restart	This screen allows you to reboot the NBG334W without turning the power off.
Config Mode	General	This screen allows you to display or hide the advanced screens or features.
Sys OP Mode	General	This screen allows you to select whether your device acts as a Router or a Access Point.

2.5.2 Summary: Any IP Table

This screen displays the IP address of each computer that is using the NBG334W via the any IP feature. Any IP allows computers to access the Internet through the NBG334W without changing their network settings when NAT is enabled. To access this screen, open the **Status** screen (see [Section 2.5 on page 35](#)), and click **(Details...)** next to **Any IP Table**.

Figure 6 Any IP Table

Any IP TABLE		
#	IP Address	MAC Address
Refresh		

2.5.3 Summary: Bandwidth Management Monitor

Select the **BW MGMT Monitor (Details...)** hyperlink in **Status** screen. View the bandwidth usage of the WAN configured bandwidth rules. This is also shown as bandwidth usage over the bandwidth budget for each rule. The gray section of the bar represents the percentage of unused bandwidth and the blue color represents the percentage of bandwidth in use.

Figure 7 Summary: BW MGMT Monitor

BW MGMT Monitor		
VoIP (SIP)	0 %	0 / 10000 kbps
FTP	4 %	408 / 10000 kbps
E-Mail	0 %	0 / 10000 kbps

2.5.4 Summary: 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 NBG334W as a DHCP server or disable it. When configured as a server, the NBG334W provides the TCP/IP configuration for the clients. If DHCP service is disabled, you must have another DHCP server on your LAN, or else the computer must be manually configured.

Click the **DHCP Table (Details...)** hyperlink in the **Status** screen. Read-only information here relates to your DHCP status. The DHCP table shows current DHCP client information (including **IP Address**, **Host Name** and **MAC Address**) of all network clients using the NBG334W's DHCP server.

Figure 8 Summary: DHCP Table

DHCP Table			
#	IP Address	Host Name	MAC Address
1	192.168.1.33	1147	00:00:8d:48:00:00

Refresh

The following table describes the labels in this screen.

Table 6 Summary: DHCP Table

LABEL	DESCRIPTION
#	This is the index number of the host computer.
IP Address	This field displays the IP address relative to the # field listed above.
Host Name	This field displays the computer host name.
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.
Refresh	Click Refresh to renew the screen.

2.5.5 Summary: Packet Statistics

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

Figure 9 Summary: Packet Statistics

Packet Statistics							
Port	Status	TxPkts	RxPkts	Collisions	Tx B/s	Rx B/s	Up Time
WAN	Idle	210266	156607	0	0	448	0:00:00
LAN	100M/Full	247620	61040	0	0	0	8:01:43
WLAN	54M	1138	0	0	0	0	8:01:43

System Up Time : 8:01:49

Poll Interval(s) : sec

The following table describes the labels in this screen.

Table 7 Summary: Packet Statistics

LABEL	DESCRIPTION
Port	This is the NBG334W's port 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 you're using Ethernet encapsulation and Idle (line (ppp) idle), Dial (starting to trigger a call) and Drop (dropping a call) if you're using PPPoE or PPTP encapsulation. This field displays Down when the line is disconnected. For the 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.
Tx B/s	This displays the transmission speed in bytes per second on this port.
Rx B/s	This displays the reception speed in bytes per second on this port.
Up Time	This is the total amount of time the line has been up.
System Up Time	This is the total time the NBG334W has been on.
Poll Interval(s)	Enter the time interval 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.

2.5.6 Summary: Wireless Station Status

Click the **WLAN Station Status (Details...)** hyperlink in the **Status** screen. View the wireless stations that are currently associated to the NBG334W in the **Association List** screen. Association means that a wireless client (for example, your network or computer with a wireless network card) has connected successfully to the AP (or wireless router) using the same SSID, channel and security settings.

Figure 10 Summary: Wireless Association List

Association List		
#	MAC Address	Association Time
001	00:0e:35:96:6d:6a	01:38:47 2000/01/01

Refresh

The following table describes the labels in this screen.

Table 8 Summary: Wireless Association List

LABEL	DESCRIPTION
#	This is the index number of an associated wireless station.
MAC Address	This field displays the MAC address of an associated wireless station.
Association Time	This field displays the time a wireless station first associated with the NBG334W.
Refresh	Click Refresh to reload the list.

Connection Wizard

This chapter provides information on the wizard setup screens in the web configurator.

3.1 Wizard Setup

The web configurator's wizard setup helps you configure your device to access the Internet. Refer to your ISP (Internet Service Provider) checklist in the Quick Start Guide to know what to enter in each field. Leave a field blank if you don't have that information.

- 1 After you access the NBG334W web configurator, click the **Go to Wizard setup** hyperlink.
You can click the **Go to Basic setup** or **Go to Advanced setup** hyperlink to skip this wizard setup and configure basic or advanced features accordingly.

Figure 11 Select Wizard or Advanced Mode



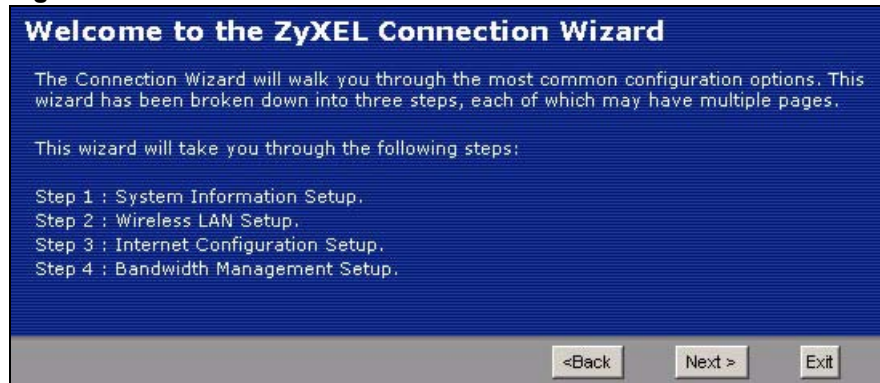
- 2 Choose your language from the drop-down list box.
- 3 Click the **Next** button to proceed to the next screen.

Figure 12 Select a Language



- 4 Read the on-screen information and click **Next**.

Figure 13 Welcome to the Connection Wizard



3.2 Connection Wizard: STEP 1: System Information

System Information contains administrative and system-related information.

3.2.1 System Name

System Name is for identification purposes. However, because some ISPs check this name you should enter your computer's "Computer Name".

- In Windows 95/98 click **Start, Settings, Control Panel, Network**. Click the Identification tab, note the entry for the **Computer Name** field and enter it as the **System Name**.
- In Windows 2000, click **Start, Settings** and **Control Panel** and then double-click **System**. Click the **Network Identification** tab and then the **Properties** button. Note the entry for the **Computer name** field and enter it as the **System Name**.
- In Windows XP, click **Start, My Computer, View system information** and then click the **Computer Name** tab. Note the entry in the **Full computer name** field and enter it as the NBG334W **System Name**.

3.2.2 Domain Name

The **Domain Name** entry is what is propagated to the DHCP clients on the LAN. If you leave this blank, the domain name obtained by DHCP from the ISP is used. While you must enter the host name (System Name) on each individual computer, the domain name can be assigned from the NBG334W via DHCP.

Click **Next** to configure the NBG334W for Internet access.

Figure 14 Wizard Step 1: System Information

The following table describes the labels in this screen.

Table 9 Wizard Step 1: System Information

LABEL	DESCRIPTION
System Name	System Name is a unique name to identify the NBG334W in an Ethernet network. Enter a descriptive name. This name can be up to 30 alphanumeric characters long. Spaces are not allowed, but dashes "-" and underscores "_" are accepted.
Domain Name	Type the domain name (if you know it) here. If you leave this field blank, the ISP may assign a domain name via DHCP. The domain name entered by you is given priority over the ISP assigned domain name.
Back	Click Back to display the previous screen.
Next	Click Next to proceed to the next screen.
Exit	Click Exit to close the wizard screen without saving.

3.3 Connection Wizard: STEP 2: Wireless LAN

Set up your wireless LAN using the following screen.

Figure 15 Wizard Step 2: Wireless LAN

The following table describes the labels in this screen.

Table 10 Wizard Step 2: Wireless LAN

LABEL	DESCRIPTION
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 NBG334W, make sure all wireless stations use the same SSID in order to access the network.
Security	Select a Security level from the drop-down list box. Choose Auto to have the NBG334W generate a pre-shared key automatically. A screen pops up displaying the generated pre-shared key after you click Next . Write down the key for use later when connecting other wireless devices to your network. Click OK to continue. Choose None to have no wireless LAN security configured. If you do not enable any wireless security on your NBG334W, your network is accessible to any wireless networking device that is within range. If you choose this option, skip directly to Section 3.4 on page 50 . Choose Basic (WEP) security if you want to configure WEP Encryption parameters. If you choose this option, go directly to Section 3.3.1 on page 49 . Choose Extend (WPA-PSK or WPA2-PSK) security to configure a Pre-Shared Key. Choose this option only if your wireless clients support WPA-PSK or WPA2-PSK respectively. If you choose this option, skip directly to Section 3.3.2 on page 50 .
Channel Selection	The range of radio frequencies used by IEEE 802.11b/g wireless devices is called a channel. Select a channel that is not used by any nearby devices.
Back	Click Back to display the previous screen.
Next	Click Next to proceed to the next screen.
Exit	Click Exit to close the wizard screen without saving.



The wireless stations and NBG334W must use the same SSID, channel ID and WEP encryption key (if WEP is enabled), WPA-PSK (if WPA-PSK is enabled) or WPA2-PSK (if WPA2-PSK is enabled) for wireless communication.

3.3.1 Basic (WEP) Security

Choose **Basic (WEP)** to setup WEP Encryption parameters.

Figure 16 Wizard Step 2: Basic (WEP) Security

The following table describes the labels in this screen.

Table 11 Wizard Step 2: Basic (WEP) Security

LABEL	DESCRIPTION
Passphrase	Type a Passphrase (up to 32 printable characters) and click Generate . The NBG334W automatically generates a WEP key.
WEP Encryption	Select 64-bit WEP or 128-bit WEP to allow data encryption.
ASCII	Select this option in order to enter ASCII characters as the WEP keys.
HEX	Select this option to enter hexadecimal characters as the WEP keys. The preceding "0x" is entered automatically.
Key 1 to Key 4	The WEP keys are used to encrypt data. Both the NBG334W and the wireless stations must use the same WEP key for data transmission. If you chose 64-bit WEP , then enter any 5 ASCII characters or 10 hexadecimal characters ("0-9", "A-F"). If you chose 128-bit WEP , then enter 13 ASCII characters or 26 hexadecimal characters ("0-9", "A-F"). You must configure at least one key, only one key can be activated at any one time. The default key is key 1.
Back	Click Back to display the previous screen.