

GbE 11ac Fiber Gateway

Model # M6240V

User Guide

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Introduction

1

Thank you for purchasing the GbE 11ac Fiber Gateway. The Gateway features four Ethernet ports, making it one of the most versatile Gateways available. If you want to take your home or office networking to the next level, the Actiontec Broadband Gateway is sure to be one of the keys to your success.

Getting to Know the Gateway

This section contains a quick description of the Gateway's LEDs, ports, etc. The Gateway features several indicator lights on its front panel, and a series of ports and switches on its rear panel.

Front Panel

The front panel of the Gateway features 3 indicator LEDs: Internet, Wireless, and WPS.

Internet LED

The Internet LED is illuminated when the Gateway is connected to the Internet.

Wireless LED

The Wireless LED illuminates when the Gateway is broadcasting a wireless signal. If the LED blinks, a wireless device is connected to the Gateway's wireless network.

WPS Button/LED

The WPS button is used to connect other wireless devices to the Gateway's wireless network via WPS. When the LED ring around the button is illuminated, it is in operation.

Rear Panel

LAN Ethernet Ports (4)

The Ethernet ports connect devices to the Gateway via Ethernet cables to create a local area network (LAN). The Ethernet ports are 100/1000 Mbps auto-sensing ports, and are equipped with two LEDs. If one LED is illuminated, the port is operating at 100 Mbps; if both are illuminated, the port is operating at 1000 Mbps.

WAN Ethernet Port

The WAN Ethernet port connects the Gateway via Ethernet cable to the Internet. It is a 100/1000 Mbps auto-sensing port, and equipped with two LEDs. If one LED is illuminated, the port is operating at 100 Mbps; if both are illuminated, the port is operating at 1000 Mbps.

SFP Port

The SFP port connects the Gateway via SFP cable to the Internet. It is equipped with one LEDs which, if illuminated, denotes that the port is operational.

MoCA Port

The MoCA port connects the Gateway via coaxial cable to the Internet. It is equipped with two LEDs: a WAN LED (signifying the MoCA port is operating as a WAN port), and a LAN LED (signifying the MoCA port is operating as a LAN port).

Introduction

Reset Button

To restore the Gateway's factory default settings, press and hold the Reset button for approximately ten seconds. The reset process will start about ten seconds after releasing the button. When the Gateway resets, all the lights on the front panel turn off, and then the lights start flashing. The Gateway has completed its reset process when the Power light glows steadily green.



Caution: Do not unplug the Power cord from the Gateway during the reset process. Doing so may result in the loss of the Gateway's configuration information. If this occurs, reset the Gateway again.

Power Switch

The Power switch powers the Gateway on and off.

Power Port

The Power port connects the Gateway to an electrical wall outlet via the Power cord.



Caution: Do not unplug the Power cord from the Gateway during the reset process. Doing so may result in the loss of the Gateway's configuration information. If this occurs, reset the Gateway again.

Connecting the Gateway

2

Connecting a computer or local network to the Gateway is a simple procedure, varying slightly depending on the computer's operating system, and designed to seamlessly integrate the Gateway with the computer or local network. Moreover, zero-configuration is attained when taking advantage of Universal Plug-and-Play support in Windows XP.

The Windows default network settings dictate that in most cases, the setup procedure described in the "Computer Network Configuration" will be unnecessary. For example, the default DHCP setting in Windows 2000 is "client," requiring no further modification.

However, Actiontec advises following the setup procedure described below to verify all communication parameters are valid and the physical cable connections are correct.

Setting Up the Gateway

There are three parts to setting up the Gateway: Connecting the Cables, Configuring the Gateway, and Connecting Other Computers/Set Top Boxes.

Connecting the Cables



Note: If a different Gateway was being used, disconnect it.

Remove all Gateway components, including power supplies and cables, since they will not work with the Gateway.

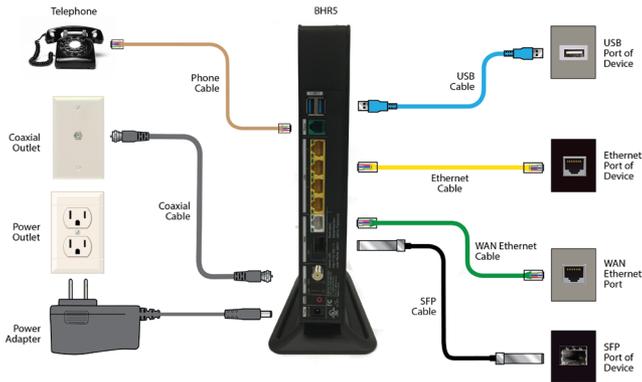
1. Get the Gateway and its black Power cord (external, 12V DC, 3.5A, model # NBS40C120350VU, manufactured by Actiontec) from the box.
2. Plug the black Power cord in the black port on the back of the Gateway and then into a power outlet.
3. Turn the Gateway on.
4. Plug the yellow Ethernet cable from the box into one of the four yellow Ethernet ports on the back of the Gateway.
5. Make sure the computer is powered on, then plug the other end of the yellow Ethernet cable into an Ethernet port on the computer.

Connecting the Gateway

6. Make sure at least one of the Ethernet LAN lights on the front of the Gateway glows steadily green. This may take a few moments.
7. The phone company previously installed a high-speed Ethernet wall jack somewhere in the house. Locate it and plug one end of the white Ethernet cable in the wall jack.
8. Plug the other end of the white Ethernet cable in the white port on the back of the Gateway.
9. Make sure the Ethernet WAN light on the front of the Gateway glows steadily green.



Note: If the Ethernet WAN light does not illuminate, make sure the Ethernet cable is connected properly at both ends.



Configuring the Gateway

1. Open a web browser on the computer connected to the Gateway. In the “Address” text box, type:

http://192.168.1.1

then press **Enter** on the keyboard.



2. The “Login” screen appears. Enter the default user name (admin) and password (password) in the appropriate text boxes, then click **OK**.

A screenshot of the "Login" screen. The title is "Login". Below the title, it says "Wireless Broadband Router is up again, please login:". There are two input fields: "User Name:" and "Password:". Below the fields is an "OK" button.

3. The “Login Setup” screen appears. Select a new user name and password and enter them in the appropriate text boxes (the password must be entered twice, for validation purposes). Write the new user name and password down on a piece of paper and keep it in a safe place, since they will be needed to access the Gateway’s MegaControl Panel™ in the future.

A screenshot of the "Login Setup" screen. The title is "Login Setup". It is divided into two steps. Step 1: "We now require you to change your default login User Name and Password. Please select a new login User Name and Password and type it into the appropriate fields below." There are three input fields: "New User Name:" (with "admin" entered), "New Password:", and "Retype New Password:". A note below states: "NOTE: The password must be at least 6 characters long and include at least one alpha numeric character. The password cannot begin with characters such as '?!@#%&*". Step 2: "Please select your appropriate Time Zone and click OK." There are two input fields: "Local Time:" (with "Aug 4, 2006 19:25:52" entered) and "Time Zone:" (with a dropdown menu showing "Eastern_Time (GMT-05:00)"). An "OK" button is at the bottom.

Connecting the Gateway

4. In the bottom part of the screen, select the correct time zone from the “Time Zone” drop-down list, then click **OK** at the bottom of the screen.
5. The Gateway is now configured.

Connecting Other Computers/Set Top Boxes

To connect the Gateway to other computers or set top boxes:

1. Get an Ethernet cable and plug one end into one of the open yellow Ethernet ports on the back of the Gateway.
2. Plug the other end of the Ethernet cable into an Ethernet port on the computer.
3. Make sure the corresponding Ethernet LAN light on the front of the Gateway glows steadily green.
4. Repeat these steps for each computer to be connected to the Gateway.

Computer Network Configuration

Each network interface on the computer should either be configured with a statically defined IP address and DNS address, or instructed to automatically obtain an IP address using the Network DHCP server. The Gateway is set up, by default, with an active DHCP server, and Actiontec recommends leaving this setting as is.

Configuring a Computer to Use Dynamic IP Addressing

To configure a computer to use dynamic IP addressing:

Windows XP

1. Select **Network Connections** in the Control Panel.
2. Right-click **Ethernet Local Area Connection**, then click **Properties**.
3. In the “General” tab, select **Internet Protocol (TCP/IP)**, then click **Properties**.
4. The “Internet Protocol (TCP/IP) Properties” window appears.

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5. Click the “Obtain an IP address automatically” radio button.
6. Click the “Obtain DNS server address automatically” radio button.
7. Click **OK** to save the settings.

Windows 2000/98/Me

1. Select **Network and Dialing Connections** in the Control Panel.
2. Right-click on the Ethernet connection’s icon, then click **Properties**.
3. Select **Internet Protocol (TCP/IP)** component, then click **Properties**.
4. The “Internet Protocol (TCP/IP) Properties” window appears.
5. Click the “Obtain an IP address automatically” radio button.
6. Click the “Obtain DNS server address automatically” radio button.

Windows NT

1. Click **Network** in the Control Panel. The “Network” window appears.
2. In the “Protocol” tab, select **Internet Protocol (TCP/IP)** then click **Properties**.
3. In the “IP Address” tab, click the “Obtain an IP address automatically” radio button.
4. In the “DNS” tab, verify no DNS server is defined in the “DNS Service Search Order” text box and no suffix is defined in the “Domain Suffix Search Order” text box.

Linux

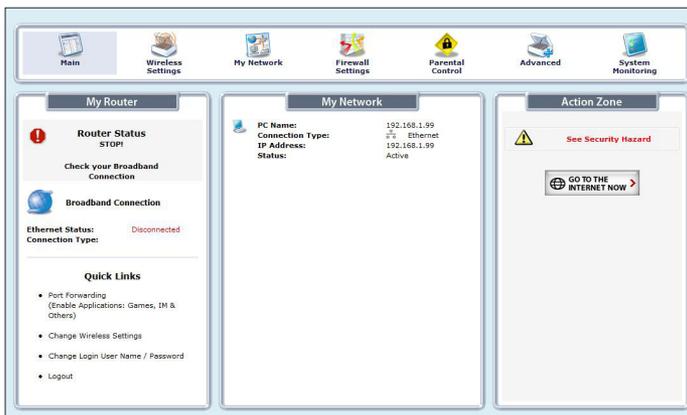
1. Login into the system as a super-user, by entering “su” at the prompt.
2. Type “ifconfig” to display the network devices and allocated IPs.
3. Type “pump -i <dev>,” where <dev> is the network device name.

Connecting the Gateway

4. Type “ifconfig” again to view the newly allocated IP address.
5. Make sure no firewall is active on device <dev>.

Home Page

After logging into the Gateway’s GUI, (see “Configuring the Gateway” at the beginning of this chapter), the *Home* screen appears.



The Home screen has a menu that occupies the top of the screen. Below that, the screen is divided into three columns: “My Router,” “My Network,” and “Action Zone.” A brief description of each continues below.

Main Menu

The “Main Menu” contains links to all of the configuration options of the Gateway: **My Network** (explained in chapter 3 of this manual), **Firewall Settings** (chapter 5), **Parental Controls** (chapter 6), **Advanced** (chapter 7), and **System Monitoring** (chapter 8).

My Router

This section displays the status of the Gateway's network and Internet connection. A green light signifies the Gateway is connected; a yellow light means the Gateway is attempting to connect; and a red light signifies the Gateway's connection is down.

Broadband Connection

The "Broadband Connection" section of My Gateway displays the state of the Gateway's broadband connection ("Connected" or "Disconnected") for the connection option ("Ethernet Status").

Quick Links

The "Quick Links" section of My Gateway contains a list of frequently accessed settings, including "Change Login User Name & Password," "Enable Gaming," and "Logout."

My Network

The "My Network" section of the Home screen displays the connection type, name, IP address, and MAC (Media Access Control) address of all devices connected to the Gateway's network. The icon associated with the device will be displayed normally (signifying an active device) or shaded (signifying the device has not been active for at least 60 seconds). The user can also configure the basic settings of each device by clicking on its icon. These settings are described in more detail in chapter 3, "Configuring My Network Settings."

Connecting the Gateway

Action Zone

This section contains links to various Verizon Web sites, and other informational links. Clicking on the flashing icon above “Go to Internet Now” connects the user to the home page configured on the user’s web browser.

Specifications



General

Model Number

M6240V (GbE 11ac Fiber Router)

Standards

Wireless IEEE 802.11ac

Wireless IEEE 802.11n

Wireless IEEE 802.11a/b/g

Ethernet IEEE 802.3/802.3u/802.3ab 10/100/1000 Base-T

IP

IPv6 Dual Stack

DHCPv6 with PD on WAN

Stateful or Stateless on LAN

Speed

LAN Ethernet: 10/100/1000 Mbps auto-sensing

Cabling Type

Ethernet 10BaseT: UTP/STP Category 3 or 5

Ethernet100BaseTX: UTP/STP Category 5

LED Indicators

Internet, Wireless, WPS, LAN (8), WAN (2), SFP, MoCA (2)

Environmental

Power

External, 12V DC, 3.5A
Model # NBS40C 120350VU
Manufactured by Actiontec

Certifications

FCC Part 15B, 15C
UL
WiFi
WPS

Operating Temperature

0° C to 40° C (32° F to 104° F)

Storage Temperature

-20° C to 70° C (-4° F to 158° F)

Operating Humidity

8% to 93% (non-condensing)

Storage Humidity

5% to 100% (non-condensing)



Note: Specifications are subject to change without notice.

Notices

Warranty

This product has a one-year Limited Hardware Warranty and 90-day free software updates from date of purchase.

Local Law

This Limited Warranty Statement gives the customer specific legal rights. The customer may also have other rights, which vary from state to state in the United States, and from country to country elsewhere in the world.

To the extent that this Limited Warranty Statement is inconsistent with local law, this Statement shall be deemed modified to be consistent with such local law. Under such local law, certain disclaimers and limitations of this Warranty Statement may not apply to the customer.

Go to <http://www.actiontec.com/products/warranty.php> for more information.

Important Safety Instructions

Basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and personal injury, including the following:

Do not use this product near water – for example, near a bathtub, kitchen sink, laundry tub, or swimming pool, or in a wet basement; only clean with dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus including amplifiers that produce heat.

Do not use the telephone to report a gas leak in the vicinity of the leak;

Use only the power cord and batteries indicated in this manual if applicable. Note: you may need to reword for batteries or adapters.

Do not dispose of batteries in fire, as they may explode – check with local codes for possible special disposal instructions if applicable.

Telephone Line Cord Caution

To reduce the risk of fire, use only No. 26 AWG or larger (e.g., 24 AWG) UL Listed or CSA Certified Telecommunication Line Cord.

Coaxial Cable

If applicable, the coaxial cable screen shield needs to be connected to the Earth at the building entrance per ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93, “Grounding of Outer Conductive Shield of a Coaxial Cable,” or in accordance with local regulation.

For Audio/Video Apparatus

This reminder is provided to call the CATV system installer’s attention to Section 820.93 of the National Electric Code (NEC), which provides guidelines for proper grounding and, in particular, specifies that the coaxial cable shield shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

TV Interface Device

If a transfer switch is not required for a TV interface device, including system terminal devices, the following label shall be used in addition to the label shown in § 15.19(a):

This device is intended to be attached to a receiver that is not used to receive over-the-air broadcast signals. Connection of this device in any other fashion may cause harmful interference to radio communications and is in violation of the FCC Rules, part 15.

This device is verified to comply with part 15 of the FCC Rules for use with cable television service.

FCC Class B Equipment

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

Reorient or relocate the device;

Increase the separation between the equipment and receiver;

Connect the equipment to an outlet on a circuit different from that to which the receiver is connected; (applicable only to powerline products)

Consult the dealer or an experience radio or television technician for help.

Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference;
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

Notices

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Actiontec Electronics, Inc, may void the user's authority to operate the equipment.

Important Note on WiFi

If applicable, this equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

The radio has been found to be compliant to the requirements set forth in CFR 47 Sections 2.1091, 15.247 (b) (4), 15.407 addressing RF Exposure from radio frequency devices as defined in Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields. The equipment should be installed more than 30 cm (~12 in.) from your body or nearby persons.

Only channel 1~11 can be operated for the 2.4 GHz ISM band and channels 36 to 48 and 149-165 for the UNII and ISM Bands. (Channels 52-64 and 100-144 are available if the device is enabled for DFS Band) Channels 124-128 are currently permanently disabled for weather radar. Selection of other channels is not possible.

Contact Info

For questions regarding your product or the FCC declaration, contact:

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