

Verizon Router **USER GUIDE**



CR1000A

©2021 Verizon

CONTENTS

01/ INTRODUCTION

1.0	Package Contents	6
1.1	System Requirements	6
1.2	Features	6
1.3	Getting to Know Your Verizon Router	9
02 CON ROU	NECTING YOUR VER	IZON
2.0	Setting up Your Verizo Router	n 21
2.1	Expanding Wi-Fi Coverage	29
2.2	Computer Network Configuration	32

2.3Main Screen39

03/ WI-FI SETTINGS

- 3.0Overview452.1Decis Catting46
- **3.1** Basic Settings**46**
- 3.2 Advanced Settings 56

04/

CONNECTED DEVICES			
4.0	Overview	64	
4	Davias Cattings	C 4	

4.1Device Settings64

05/

SETTING PARENTAL CONTROLS 5.0 Activating Parental Controls 70 5.1 Active Rules 73

06/ CONFIGURING ADVANCED			
Firewall	78		
Utilities	93		
Network Settings	107		
Date & Time	159		
DNS Settings	162		
Monitoring	166		
System Settings	170		
	FIGURING ADVANG FIROURING ADVANG FIREWALL Utilities Network Settings Date & Time DNS Settings Monitoring System Settings		

07/

TROUBLESHOOTING

- 7.0Troubleshooting
Tips176
- 7.1 Frequently Asked Questions 182

08/ SPECIFICATIONS

- 8.0GeneralSpecifications189
- 8.1 LED Indicators 190
- 8.2 Environmental Parameters 191

09/ NOTICES

9.0 Regulatory Compliance Notices 195

O1/ INTRODUCTION

- **1.0** Package Contents
- **1.1** System Requirements
- **1.2** Features
- **1.3** Getting to Know Your Verizon Router

Verizon Router lets you transmit and distribute digital entertainment and information to multiple devices in your home/office.

Your Verizon Router supports networking using coaxial cables, Ethernet, or Wi-Fi, making it one of the most versatile and powerful routers available.

PACKAGE CONTENTS, SYSTEM REQUIREMENTS AND FEATURES

1.0/ PACKAGE CONTENTS

Your package contains:

- Verizon Router
- Power adapter
- Ethernet cable, three meters (white)

1.1/ SYSTEM REQUIREMENTS

System and software requirements are:

- A computer or other network device supporting Wi-Fi or wired Ethernet
- A web browser, such as Chrome[™], Firefox[®], Internet Explorer 8[®] or higher, or Safari[®] 5.1 or higher

1.2/ FEATURES

Your Verizon Router features include:

- Support for multiple networking standards, including
 - WAN 10 Gigabit Ethernet
 - LAN 802.11 a/b/g/n/ac/ax, 10/2.5 Gigabit Ethernet and MoCA 2.5 interfaces
- Integrated wired networking with 3-port Ethernet switch and Coax (MoCA)
 - Ethernet supports speeds up to 10 Gbps

- MoCA 2.5 LAN enabled to support speeds up to 2500 Mbps over coaxial cable
- One Type-C USB 3.0 port
- Integrated Wi-Fi networking with 802.11a/b/g/n/ac/ax access point featuring:
 - backward compatible to 802.11a/b/g/n/ac
 - 2.4 GHz 11ax 4x4
 - 5 GHz 11ax 4x4
 - 6 GHz 11ax 4x4
- Enterprise-level security, including:
 - Fully customizable firewall with Stateful Packet Inspection (SPI)
 - Content filtering with URL-keyword based filtering, parental controls, and customizable filtering policies per computer
 - Intrusion detection with Denial of Service protection against IP spoofing attacks, scanning attacks, IP fragment overlap exploit, ping of death, and fragmentation attacks
 - Virtual server functionality; providing protected access to internet services such as web, FTP, email, and telnet
 - DMZ (demilitarized zone) host support of a network security neutral zone between a private network and the internet
 - Event logging
 - Home Network Protection
 - SIP ALG

FEATURES

- Static NAT
- Port forwarding
- Port triggering
- Access control
- Advanced Wi-Fi protection featuring WPA2 & WPA3 Modes and MAC address filtering
- Wi-Fi Multimedia (WMM) for Wi-Fi QoS (quality-of-service)
- Dual-stack network configuration of IPv4 and IPv6
- DHCP server
- WAN interface auto-detection
- Dynamic DNS
- DNS server
- LAN IP and WAN IP address selection
- MAC address cloning
- QoS support (end to end layer 2/3) featuring: Differentiated Services (Diffserv), 802.1p/q prioritization, and pass-through of WAN-side DSCPs, Per Hop Behaviors (PHBs), and queuing to LAN-side devices
- Secure remote management using HTTPS or Verizon app
- Static routing
- VPN (VPN pass through only)
- IGMP
- Daylight savings time support

1.3/ GETTING TO KNOW YOUR VERIZON ROUTER 1.3a/ FRONT PANEL

The Router Status LED will be solid white when your Verizon Router is turned on, connected to the internet, and functioning normally.

Condition Status	LED Color	Verizon Router
Normal	WHITE	Normal operation (solid) Router is booting (fast blink) System restart (fast blink)
	BLUE	Pairing mode (slow blink) WPS pairing successful (fast blink)
	GREEN	Wi-Fi has been turned off (solid)
lssue(s)	YELLOW	No internet connection (solid)
	RED	Hardware/System failure detected (slow blink) Overheating (fast blink) System update error (fast blink) WPS pairing failure (fast blink)
Power	OFF	Power off

Router Status LED

GETTING TO KNOW YOUR VERIZON ROUTER

1.3b/ REAR PANEL

The rear panel of your router has a label that contains important information about your device, including the default settings for the Verizon Router's Wi-Fi name (SSID), Wi-Fi password (WPA2 key), local URL for accessing the router's network settings, and network settings password. The label also contains a QR code that you can scan with your smartphone, tablet, or other camera-equipped Wi-Fi device to allow you to automatically connect your device to your Wi-Fi network without typing in a password (requires a QR code reading app with support for Wi-Fi QR codes).

Wi-Fi Name: Verizon_HHYN49 Wi-Fi Password: uptown-woo7-web Network Settings URL: mynetworksettings.com Network Settings Password: P9K9DSZ7V Support URL: support.verizon.com/router	
---	--

The rear panel has six ports; F-type coax, Ethernet LAN (three), Ethernet WAN, and USB. The rear panel also includes a DC power jack and a reset button.



• WPS Button - allows quick access to the Wi-Fi Protected Setup (WPS) feature and pairing mode.

The WPS button is used to initiate Wi-Fi Protected Setup. This is an easy way to add WPS capable devices to your Wi-Fi network. To activate the WPS function, press and hold the WPS button located on the rear of your Verizon Router for more than two seconds. When WPS is initiated from your router, the Router Status LED slowly flashes blue for up to two minutes, allowing time to complete the WPS pairing process on your Wi-Fi device (also known as a Wi-Fi client). When a device begins connecting to your router using WPS, the Router Status LED rapidly flashes blue for a few seconds, and then solid white as the connection completes.

If there is an error during the WPS pairing process, the Router Status LED rapidly flashes red for two minutes after the error occurs.

Refer to the "Connecting A Wi-Fi Device Using WPS" on page 35 for more details. In addition, the Router Status LED also provides a quick view of the operational state of the Verizon Router using various colors as indicated in the chart above.

- Ethernet LAN connects devices to your Verizon Router using Ethernet cables to join the local area network (LAN). The three Ethernet LAN ports:
 - one 10GE LAN port is 100 Mbps, 1/2.5/5/10 Gbps auto-sensing
 - the other two 2.5GE LAN ports are 10/100 Mbps, 1/2.5 Gbps auto-sensing

GETTING TO KNOW YOUR VERIZON ROUTER

- **Type-C USB** provides up to 1000 mA at 5 VDC for attached devices. For example, you could charge a cell phone.
- **10Gbps Ethernet WAN** connects your Verizon Router to the internet using an Ethernet cable.
- **Coax LAN** connects your router to other MoCA devices using a coaxial cable.

Warning: The coax port is intended for connection to Verizon devices only. It must not be connected to any exterior or interior coaxial wires not designated for Verizon devices.

- **Reset Button** allows you to reset your router to the factory default settings. To perform a soft reboot, press and hold the button for at least three seconds. To reset your router to the factory default settings, press and hold the button for at least ten seconds.
- **Power** connects your Verizon Router to an electrical wall outlet using the supplied power adapter.

Warning: The included power adapter is for home use only, supporting voltages from 105-125 voltage in AC. Do not use in environments with greater than 125 voltage in AC.

1.3c/ REAR LIGHTED INDICATORS LAN/WAN Ethernet

• Unlit – Indicates no Ethernet link or dims after 5 minutes idle

Left LED

- Solid yellow Indicates 1 Gbps link
- Flash yellow Indicates LAN/WAN activity. The traffic can be in either direction.

Right LED

- Solid white Indicates 2.5/10 Gbps link
- Flash white Indicates LAN/WAN activity. The traffic can be in either direction.

1.3d/ MOUNTING THE VERIZON ROUTER TO A WALL

For optimum performance, the Verizon Router is designed to stand in a vertical upright position. Verizon does not recommend wall mounting the Verizon Router. However, if you wish to mount your Verizon Router, you can purchase a wall mount bracket from the Verizon Accessories Store at verizon.com/home/accessories/networking-wifi

To mount your Verizon Router to a wall:

1. Select a mounting spot near a power outlet and the Ethernet port of the device that provides internet on your premises.

GETTING TO KNOW YOUR VERIZON ROUTER

- 2. Mark screw hole positions on the wall. Drill holes for the wall anchors using a 1/4 inch (6.35 mm) drill bit.
- 3. Insert the anchors in the drilled holes and hammer until they are flush with the wall.



4. Place the screws into the small holes of the bracket and tighten the screws into your wall for securing the wall mount bracket.



GETTING TO KNOW YOUR VERIZON ROUTER

5. Align the mounting hole located on the bottom of the router to the screw of the wall mount bracket.



6. Rotate and align the router to the preferred position. While using the hole in the mounting bracket, connect the Ethernet cable providing internet to the router's WAN port and other cables as needed. Tighten the bracket screw to lock the device in place.



GETTING TO KNOW YOUR VERIZON ROUTER

7. To fasten the attached cables of the router, manage the cables, then tighten the Velcro[®] strap with buckle.



CONNECTING YOUR VERIZON ROUTER

- 2.0 Setting up Your Verizon Router
- 2.1 Expanding Wi-Fi Coverage
- 2.2 Computer Network Configuration
- 2.3 Main Screen

20

Connecting your Verizon Router and accessing its web-based User Interface (UI) are both simple procedures.

Accessing the UI may vary slightly, depending on your device's operating system and web browser.

SETTING UP YOUR VERIZON ROUTER

2.0/ SETTING UP YOUR VERIZON ROUTER

Before you begin, if you are replacing an existing router, disconnect it. Remove all old router components, including the power supply. They will not work with your new Verizon Router.

2.0a/ INSTALLATION INSTRUCTIONS

- 1. CONNECT YOUR CABLES
 - A. Connect the coax cable from the coax port on your router to a coax outlet. (Required for Fios TV; skip for 5G Home installation)
 - Separate subscription required for Fios TV; not available in all areas.
 - B. Connect the Ethernet cable from your router's WAN port to an Ethernet outlet. (Required for internet speeds greater than 100 Mbps)
 - C. Connect the power cord to your router then to an electrical outlet.



D. Router will take up to 10 minutes to update completely. Move on when the front light is solid white.

2. CONNECT YOUR DEVICES

Wired or Wi-Fi? Your choice.

Wired

- A. Connect the Ethernet cable to any LAN port on your router.
- B. Connect the other end to your computer.

Wi-Fi

A. Get the Wi-Fi name and password off the label on your router. Wired connection



Router label

- B. On your device, choose your Wi-Fi name when it appears.
 - C. Enter the Wi-Fi password exactly as it is on your router label.

SETTING UP YOUR VERIZON ROUTER

Wi-Fi Network

The Verizon Router has one Wi-Fi name supporting 2.4 and 5 GHz signals. 6 GHz can be enabled and included as well with heightened security, WPA3. The Self-Organizing Network (SON) feature lets your devices move between these signals automatically for an optimized Wi-Fi connection.

3. COMPLETE ACTIVATION

Activate your service by opening a web browser on your computer and following the prompts. (Skip for 5G Home installation)

2.0b/ CONFIGURE YOUR VERIZON ROUTER

- 1. Open a web browser on the device connected to your Verizon Router network.
- In the browser address field (URL), enter: <u>mynetworksettings.com</u>, then press the Enter key on your keyboard.

Alternately, you can enter: https://192.168.1.1

e	New tab	× +	
\leftarrow	ightarrow G	mynetworksettings.com	ງ Հ≞

3. You may see a security message warning that Your connection is not private when you visit <u>mynetworksettings.</u> <u>com (https://192.168.1.1)</u> for GUI management. To get to the login screen, click the ADVANCED button, then on Proceed to 192.168.1.1 (unsafe) link.



4. The login screen will appear.

The first time you access your Verizon Router, an Easy Setup Wizard displays to help step you through the setup process.

5. On the Step 1: Please log in to your router screen, enter the password that is printed next to the Network Settings Password on the label on the rear of your router. Click Continue.

SETTING UP YOUR VERIZON ROUTER



- 6. The Change Wi-Fi name screen displays. You can continue with the default settings or customize them as needed. For your protection, your Verizon Router is pre-set at the factory to use WPA2 (Wi-Fi Protected Access II) encryption for your Wi-Fi network. This is the best setting for most users and allows the most devices to securely connect.
- 7. You can optionally set up the **Guest Wi-Fi** network by toggling the selection to **On**. You can continue with the default settings or customize them as needed.

 You can optionally enable the 6 GHz Wi-Fi band by toggling the selection to On. Review the notification that enabling 6 GHz will modify the existing 2.4 & 5 GHz security from WPA2 to WPA2/WPA3 and 6 GHz will be enabled using WPA3. You can continue to use one Wi-Fi Name and Password across all Wi-Fi bands.

The IoT Wi-Fi will also be enabled for any devices that do not support WPA3, and this will use a unique Wi-Fi name and password based on the default SSID & Password. Devices on this Wi-Fi will be able to communicate with other devices on the Primary network with no firewall restrictions separating them.

- 9. Click **Continue** to review your settings.
- The Apply Wi-Fi changes screen is displayed. Review your current settings. You may optionally save your settings as an image on your device by selecting the button, Save as Image. Click Apply to save the Wi-Fi changes to your Verizon Router.

SETTING UP YOUR VERIZON ROUTER

	Change Wi-Fi name
	Wi-Fi Name
Wi-Fi Name: Verizon_0HY10HN Wi-Fi Password: moci-cur7-roz5	Verizon_4G4YQT
Network Settings Password: OUDSINIA7 Support URL: support verizon conv/router	WI-FI Password
1	•••••••
	Guest Wi-Fi Enabled
	Guest Wi-FI Name Verizon_4G4YQT-Guest
0 7 • -	Guest Wi-Fi Password
~	Enter new passsword 👁
Back view	Minimum 8 characters
	6 GHz Wi-Fi Enabled
	Back. Continue
	Copyright © 2021 Verizon

For your protection, your Verizon Router is pre-set at the factory to use WPA2 (Wi-Fi Protected Access II) encryption for your Wi-Fi network. This is the best setting for most users and provides security.

11. Click Continue. The Apply Wi-Fi changes screen appears. You have an option of saving the Wi-Fi settings as an image on your device by clicking the Save as image button. After you click Save as image to save your Wi-Fi settings as an image, click Apply to save the Wi-Fi changes to your Verizon Router.

Note: If you select *Save as image*, the image file is saved to your web browser's download folder.



Important: If you are on a Wi-Fi device when setting up your Verizon Router and changes are made to the Wi-Fi name or password, then you will be disconnected from the Wi-Fi network. When this occurs, review the Wi-Fi networks available and choose the network name when it appears. Enter the Wi-Fi password you have applied, and your device will reconnect to the Verizon Router.

	Apply Wi-Fi changes
WI-FIName Sector SHTNEN WF/Preserved modified/Press	WI-FIInfo
Network Settings Passwork COURSHAT	Wi-FI Name Verizon_4G4YQT
	Wi-Fi Password egg6-vanish-ane
	Becurity WPA2/WPA3 (2.4 & 5 GHz) WPA3 (6 GHz)
	Guest WI-FI ON
0	Guest Wi-Fi Name Verizon_4G4YQT-Guest
Back view	Guest Wi-FI Password 123450789
	Back
	Copyright © 2021 Verizon

EXPANDING WI-FI COVERAGE

The **You're all set up!** screen displays once your Verizon Router verifies the final settings and has successfully connected to the internet and is ready for use. You can click on **Go to Network Settings** to access the main screen of the Verizon Router.



If your Verizon Router is subsequently reset to the factory default settings, the settings printed on the label will again be in effect.

If your Verizon Router fails to connect, follow the troubleshooting steps in the Troubleshooting section of this guide.

2.1/ EXPANDING WI-FI COVERAGE

Connecting one or more of Verizon's Wi-Fi Extender Minis or Fios Extenders to the Verizon Router allows you to extend the Verizon Router's Wi-Fi signal range and to eliminate Wi-Fi dead zones on your Wi-Fi network.

2.1a/ Wi-Fi Installation with Wi-Fi Extender Mini

1. Plug the Wi-Fi Extender Mini into a power outlet next to the Verizon Router.



2. When the light on front is solid yellow, press the *(g)* pair button on the Verizon Router and the Extender Mini. Both devices will blink blue while pairing.



3. Wait until you see a blinking yellow light then unplug the Wi-Fi Extender Mini.

EXPANDING WI-FI COVERAGE

4. Move it to an area between the router and the weak Wi-Fi coverage, then plug it in.

Note: When plugging in the Wi-Fi Extender Mini, ensure there is proper ventilation to all sides and in front of the extender. Do not plug in the unit behind furniture, curtains, or anything that obstructs its air flow.

5. Once the light turns solid white, your setup is complete.

You're all set! Your Wi-Fi Extender Mini will automatically connect to your Wi-Fi network, there is nothing more to do.

Note: If there is an error during the WPS pairing process, the Status LED slowly flashes red for two minutes after the error occurs.

2.1b/ Wired Installation with Fios Extender

- 1. Connect the Verizon Router to a coax outlet. (If the coax outlet is already in use, use a coax splitter.)
- 2. Connect the extender to a coax outlet ideally in an area with spotty Wi-Fi coverage.
- 3. Connect the power cords to your router and extender then to an electrical outlet.
- **4**. After 10 minutes, the light on the extender should turn solid white, indicating the connection is complete.

Note: If using Ethernet wiring, follow the same steps as above with an Ethernet cable instead of a coax cable.

You're all set! Your devices will connect automatically with the same Wi-Fi network name and password as your Verizon Router.

2.2/ COMPUTER NETWORK CONFIGURATION

Each network interface on your computer should either automatically obtain an IP address from the upstream Network DHCP server (default configuration) or be manually configured with a statically defined IP address and DNS address. We recommend leaving this setting as it is.

2.2a/ CONFIGURING DYNAMIC IP ADDRESSING

To configure a computer to use dynamic IP addressing:

WINDOWS 7/8

- 1. In the Control Panel, locate **Network and Internet**, then select **View Network Status and Tasks**.
- 2. In the View your active networks Connect or disconnect section, click Local Area Connection in the Connections field. The Local Area Connection Status window displays.
- 3. Click **Properties**. The Local Area Connection Properties window displays.

COMPUTER NETWORK CONFIGURATION

- 4. Select Internet Protocol Version 4 (TCP/IPv4), then click Properties. The Internet Protocol Version 4 (TCP/IPv4) Properties window displays.
- 5. Click the **Obtain an IP address automatically** radio button.
- 6. Click the Obtain DNS server address automatically radio button, then click OK.
- 7. In the Local Area Connection Properties window, click **OK** to save the settings.
- To configure Internet Protocol Version 6 (TCP/IPv6) to use dynamic IP addressing, repeat steps 1 to 7. However for step 4, select Internet Protocol Version 6 (TCP/IPv6) in the Properties option (refer to IPv6 section for Verizon Router configuration).

WINDOWS 10

- 1. On the Windows desktop, click on the **Start** icon. Select **Settings** and click **Network & Internet**.
- 2. In the Network & Internet, click **Ethernet**.
- 3. Select Network and Sharing Center. The View your basic network information and set up connections window displays.
- 4. In the View your active networks, click Ethernet in the Connections field. The Ethernet Status window displays.
- 5. Click Properties. The Ethernet Properties window displays.

- 6. Select Internet Protocol Version 4 (TCP/IPv4), then click Properties. The Internet Protocol Version 4 (TCP/IPv4) Properties window displays.
- 7. Click the Obtain an IP address automatically radio button.
- 8. Click the Obtain DNS server address automatically radio button, then click OK.
- 9. In the Local Area Connection Properties window, click OK to save the settings.
- To configure Internet Protocol Version 6 (TCP/IPv6) to use dynamic IP addressing, repeat steps 1 to 9. However for step 6, select Internet Protocol Version 6 (TCP/IPv6) in the Properties option (refer to IPv6 section for Verizon Router configuration).

MACINTOSH OS X

- 1. Click the **Apple** icon in the top left corner of the desktop. A menu displays.
- 2. Select **System Preferences**. The System Preferences window displays.
- 3. Click Network.
- 4. Verify that **Ethernet**, located in the list on the left, is highlighted and displays **Connected**.
- 5. Click Assist Me.
- 6. Follow the instructions in the Network Diagnostics Assistant.

COMPUTER NETWORK CONFIGURATION

2.2b/ CONNECTING OTHER COMPUTERS AND NETWORK DEVICES

You can connect your Verizon Router to other computers or set top boxes using an Ethernet cable, Wi-Fi connection (Wi-Fi), or coaxial cable.

ETHERNET

- 1. Plug one end of an Ethernet cable into one of the open Ethernet ports on the back of your Verizon Router.
- 2. Plug the other end of the Ethernet cable into an Ethernet port on the computer.
- 3. Repeat these steps for each computer to be connected to your Verizon Router using Ethernet. You can connect up to three.

CONNECTING A WI-FI DEVICE USING WPS

Wi-Fi Protected Setup (WPS) is an easier way for many devices to set up a secure Wi-Fi network connection. Instead of manually entering passwords or multiple keys on each Wi-Fi client, such as a laptop, printer, or external hard drive, your Verizon Router creates a secure Wi-Fi network connection.

In most cases, this only requires the pressing of two buttons – one on your Verizon Router and one on the Wi-Fi client. This could be either a built-in button or one on a compatible Wi-Fi adapter/card, or a virtual button in software. Once completed, this allows Wi-Fi clients to join your Wi-Fi network. To initialize the WPS process, you can either press and hold the WPS button located on the rear of your Verizon Router for more than two seconds or use the UI and press the on-screen button.

You can easily add Wi-Fi devices to your Wi-Fi network using the WPS option if your Wi-Fi device supports the WPS feature.

To access WPS using the user interface:

1. From the **Basic** menu, select **Wi-Fi** settings, then click **Wi-Fi Protected Setup**.

verizon ⁴ Basic A	Advanced	1	Hale 🛞 -
Network Device		WI-Fi > WI-Fi Protected Setup	
Verizon Router	~	Wi-Ei Protected Setup	
Home		Wi-Tit Tolected Setup	
WI-FI	^	Enable Wi-Fi Protected Setup	WPS Enabled
Primary Network		Wi-Fi Protected Setup is an easy way to add Wi-Fi devices to your network. To use this feature, your Wi-Fi client device needs to support WPS.	
GuestNetwork		▲ Wi-Fi devices may briefly lose connectivity when turning WPS on or off.	
IoT Network			
Wi-Fi Protected Setup		Option 1 (Recommended)	Option 2
Devices	~	If your client device has a WPS button, press it and then click the button below to start WPS registration.	If your client device has a WPS PIN, enter that number below (usually found on a sticker on the back of the device) and click "Register":
Parental Controls	0	start WPS	Enter PIN Register
Status	~		If your client supports it enter the muter's PIN into the client device-
			Enable router's PIN: 87432558

- 2. Enable the protected setup by moving the selector to on.
- 3. Use one of the following methods:
 - If your Wi-Fi client device has a WPS button, press the WPS button on your router for more than two seconds, then click the start WPS button in the Option 1 to start the WPS registration process.
COMPUTER NETWORK CONFIGURATION

- If your client device has a WPS PIN, locate the PIN printed on the client's label or in the client documentation. Enter the PIN number in the Enter PIN field. The Client WPS PIN field is located in the Option 2 on the user interface.
- Click Register.
- Alternatively, you can enter the router's PIN shown on this screen into the WPS user interface of your device, if this PIN mode is supported by your Wi-Fi device.
- 4. After pressing the WPS button on your router, you have two minutes to press the WPS button on the client device before the WPS session times out.

When the WPS button on your router is pressed, the Router Status LED on the front of your router begins flashing blue. The flashing continues until WPS pairing to the client device completes successfully. At this time, the Router Status LED turns solid white.

If WPS fails to establish a connection to a Wi-Fi client device within two minutes, the Router Status LED on your router flashes red for two minutes to indicate the WPS pairing process was unsuccessful. After flashing red, the light returns to solid white to indicate that Wi-Fi is on.

Note: Wi-Fi Protected Setup (WPS) cannot be used if WPA3 security is enabled or SSID broadcast is disabled or if MAC address authentication is enabled with an empty white list.

CONNECTING A WI-FI DEVICE USING A PASSWORD

- 1. Verify each device that you are connecting with Wi-Fi has built-in Wi-Fi or an external Wi-Fi adapter.
- 2. Open the device's Wi-Fi settings application.
- **3**. Select your Verizon Router's Wi-Fi network name (SSID) from the device's list of discovered Wi-Fi networks.
- 4. When prompted, enter your Verizon Router's Wi-Fi password (WPA2 or WPA3 key) into the device's Wi-Fi settings. Your router's default Wi-Fi network name and password are located on the sticker on the rear panel of your Verizon Router.



- 5. Verify the changes were implemented by using the device's web browser to access a site on the internet.
- 6. Repeat these steps for every device that you are connecting with Wi-Fi to your router.

COAX

- 1. Verify all coax devices are turned off.
- 2. Disconnect any adapter currently connected to the coaxial wall jack in the room where your router is located.
- 3. Connect one end of the coaxial cable to the coaxial wall jack and the other end to the coax port on your network device.
- 4. Power up the network device.

MAIN SCREEN

2.3/ MAIN SCREEN

When you log into your router, the dashboard main page displays the navigation menus of Basic and Advanced settings, Wi-Fi settings, Devices, Parental Controls, and connection status, and Basic quick links.

verizon ^v Basic Advanced	1		Help 🛞 ~
Hetesh Device Vertoon Router V Home WI-F V Devices V Parental Controls O Status V	Status offline	WI-FI @ Wi-FI Name Verson.404Y0T @ Wi-FI Password @ @ ParentalControls	>
	Devices CME1000 /4684286753 A046022-1882 A036077-1882 CME1000-46842867723	> ~ © @	

The configuration options available via the left-hand main menu are described in the following chapters:

- Basic Settings
 - Status this chapter
 - Wi-Fi Chapter 3
 - Devices Chapter 4
 - Parental Controls Chapter 5
- Advanced Settings Chapter 6

40

2.3c/ STATUS

General

To view the status:

Access the dashboard Home page . You can quickly view your router's status by clicking **Status** > on the screen. This section displays the status of your router's local network (LAN) and internet connection (WAN), firmware and hardware version numbers, MAC Address, IP settings of Verizon Router and Extender Mini(s) (if connected).

verizon Basic	Advanced		9211	@~
Network Device		Status > General		
Verizon Router	~	Status	Auto-refresh Refresh	
Home		otatuo		
Wi-Fi	~	Broadband IPv4	Broadband IPv6	1
Devices	~	Status	Status	1
Parental Controls	0	Disconnected	Disconnected	- 11
Status	~	DHCP	DHCPV6-PD	
General		IPv4 address	Delegated Prefix	
Open Source Software	,	Subnet Mask	IPv6 Address	- 11
		Pv4 Default Gateway	Link-Local Address	- 11
		IPv4 DNS Address 1	IPv6 Default Gateway	
		IPv4 DNS Address 2	IPv6 DNS Address 1	
		NATs Supported (used / max) 0 / 30000	IPv6 DNS Address 2	
				-
		Houter		
		Firmware Version 3.1.0.12-eng0		
		Hardware Version 0.0.4		
		Model Name CR1000A		
		Serial Number AAK11300274		-

MAIN SCREEN

verizon Basic A	Advanced			Hele @~
Network Device Verizon Router	~	Status > General		
Home	_	Status	Auto-refresh	Refresh
Wi Ci		Model Name CR1000A		*
Devices	,	Serial Number AAK11300274		
Parental Controls	0	LAN IPv4 Address 192.168.1.1		
Status	^	Broadband MAC address		
General		Broadband Physical Connection		
Open Source Software		Router has been active for		
		0 day(s) 5 hours 15 minutes 30 seconds		
		Extender		
		Device Name CME1000-146942ffa793		
		Model Name CME1000		
		Firmware Version 3.1.0.7-engD		
		Bardware Version		
		Serial Number		
		MAC Address		
		F4:69:42:FF:A7:93		
Verizon Basic	Idvancer			Malo Qu
Verizon Basic A	Advanced			Hele @v
Verizon Basic A	Advanced	Status > General		1180 © ~
Verizon / Basic A Network Device Verizon Router	Advanced	Status 3 General Status	Auto-refresh	<u>Hein</u> ⊚ ∽ Refresh
Verizon ⁷ Basic A Network Device Verizon Router Home Wil Ei	Advanced	Balas > General Status MAC Address	Autoretresh	Hill © ~
Verizon ⁷ Basic A Network Device Verizon Router Home Wi-Fi Devices	Advanced v	Bitter 2 General Status Michaelerst r46b3276/303	Autoretresh	Refresh
Verizon ⁷ Basic A Network Docks Verizon Router Home WI-F1 Devices Parental Controls	Advanced v	Bathan 2: General Status MAC Asservers F4.60x.2017.07403 System Up Firm 0: days of Brown 10: mmunches 4 seconds	Autoretreah	Refresh
Verizon ⁷ Basic A Network Device Verizon Router Home Wi-Fi Devices Parental Controls Status	Advanced v	Bittes 3: General Status NOL Advances NOL	Auto-refreah	List (a) v
Verizon ⁷ Basic A Referent Bease Verizon Router Home Wi-Fi Devices Parental Controls Status General	Advanced v o o ^	Bittels 3: General Status Status States St	Auto-refreah	Liste (2) v Refresh
Verizoni ⁷ Basic A Network Benks Verizon Router VH-Fi Devices Parental Controls Status General Open Source Software	Advanced v v o ^	Bitche 2: General Status Status Michaeler 10 Michaeler	Auto-refresh	Itile (2) ~
Verizoni ⁷ Basic A Network Berker Verizon Router Home VH-Fi Devices Parental Controls Status General Open Source Software	v v o	Bitche 3: General Status Statu	Autoretresh	tiste (€) ~ Refresh
Verizon ⁷ Basic A Neterior Bouter Verizon Router Home WI-FI Devices Parental Controls Status General Open Source Software	× v o o	Ratha 3 General Status MACAdatess F46942F7A730 Roycen Us Prime Garger Reschard Type Reschard Type Wrifi Reschard Type	Auto-refresh	Ida () ~
Vertzont Basic A Network Dense Vertaon Router Home WL-F1 Devices Parental Controls Status General Open Source Software	v v o o	Status 3: General Status Mode Address Fr64542Fr7aga Pr64542Fr7aga Pr6454	Auto-refresh	Ida () ~
Vertzont Basic A Netrest Dense Vertzon Router Wi-Fi Devices Parental Controls Status General Open Source Software	v v o	Bache 2 General Status Ac Adams Ac Adam	Autoretresh	Link (2) ~
Vertzon ⁷ Basic A Meteors Dense Vertzon Router Vir Fi Devices Parental Controls Status General Open Source Software	v v o o	Batche 2 General Status Medic Address Medic	Autoretresh	LER () ~
Vertzon ⁷ Basic A Metersit Beess Vertzon Router Vii-Fi Devices Parental Controls Status General Open Source Software	× v o o	Exten 2 Exercit Status Status Market Synthemis Status Sta	Autoretresh	LER () ~
Vertzon ⁷ Basic A Metersit Beess Vertzon Router Vii-Fi Devices Parental Controls Status General Open Source Software	v v o o	Exten 2 Exercit Status Status Market Synthemis Substanting From Substanting Fro	Autoretresh	LER () ~
Verizon ⁷ Basic A Referent Beerse Verizon Router Home WLFI Devices Parental Controls Status General Open Source Software	× v o o	Exten 2 General Status Autor 2 General Autor 2 Generad	Autoretrent	LER () ~
Vertzon/ Basic A Resears Denor Vertzon Router Vu-Fi Devices Parental Controls Status General Open Source Software	× v o o	Data 2 General Status Note Address Note Ad	Autoretrent	LER () ~

2.3d/ OPEN SOURCE SOFTWARE

verizon Bas	c Advance	d <u>Hei</u> e ® ~
Network Device		Status > Open Source Software
Verizon Router	~	
		Open Source Software
Home		This product includes andtware made weilibble under open source licenses. Additional information about that
WI-FI	~	software, applicable licenses, and downloadable copies of source code, is available at:
Devices	*	https://verizon.com/opensource/
Parental Controls	o	All open source software contained in this product is distributed WITHOUT ANY WARRANTY. All such software is subject to the copyrights of the authors and to the terms of the applicable licenses included in the download.
Status	^	This information is provided for those who wish to edit or otherwise change such programs. You do not need a copy of any of such open source software source code to install or operate the device.
General		
Open Source Softwa	re	

To view: From the **Basic** menu, select **Status** from the left pane and then click **Open Source Software**.

03/ WI-FISETTINGS

- 3.0 Overview
- 3.1 Basic Settings
- 3.2 Advanced Settings

44

Wi-Fi networking enables you to free yourself from wires, making your devices more accessible and easier to use.

You can create a Wi-Fi network, including accessing and configuring Wi-Fi security options.

OVERVIEW

3.0/ OVERVIEW

Your Verizon Router provides you with Wi-Fi connectivity using the 802.11a, b, g, n, ac or ax standards. These are the most common Wi-Fi standards.

The Verizon Router contains 2.4 GHz, 5 GHz and 6 GHz Wi-Fi bands, and the operation modes and speeds are listed as follows:

- 2.4 GHz
 - Legacy operation mode: supports IEEE 802.11b/g/n with maximum theoretical rate at 600 Mbps
 - Compatibility mode: supports IEEE 802.11ax
 - backward compatible with IEEE 802.11b/g/n/ac
 - maximum theoretical rate up to 1.1 Gbps
- 5 GHz
 - Legacy operation mode: supports IEEE 802.11a/n/ac with maximum theoretical rate at 2.2 Gbps
 - Compatibility mode: supports IEEE 802.11ax
 - backward compatible with IEEE 802.11a/n/ac
 - maximum theoretical rate up to 2.4 Gbps
- 6 GHz
 - Operation mode: supports IEEE 802.11ax
 - Maximum rate up to 4.8 Gbps

The Wi-Fi service and Wi-Fi security are activated by default. The level of security is preset to WPA2 encryption using a unique default WPA2 key (also referred to as a passphrase or password) preconfigured at the factory. This information is displayed on a sticker located on the rear of your router.

Your router integrates multiple layers of security. These include Wi-Fi Protected Access, and firewall.



3.1/ BASIC SETTINGS 3.1a/ PRIMARY NETWORK

You can configure the basic security settings for 2.4 GHz, 5 GHz or 6 GHz of your Wi-Fi network.

)
<u> </u>
Â
9
list
~
~
~

©2021 Verizon. All Rights Reserved

BASIC SETTINGS

To configure the Primary Wi-Fi name & password and security settings:

- 1. From the **Basic** menu, select **Wi-Fi** from the left pane and then click **Primary Network**.
- By default the Primary Wi-Fi is enabled. To de-activate, move the selector to off. If the network is not enabled, no Wi-Fi devices will be able to connect to the primary network.
- 3. If desired, enter a new name and password for the Wi-Fi network or leave the default name and password that displays automatically.
- 4. To configure the Wi-Fi Security, click the setup @ button and select WPA2 or WPA3.

You can optionally enable the 6 Ghz Wi-Fi band by toggling the selection to **On**. Enabling 6 GHz will modify the existing 2.4 & 5 GHz security from WPA2 to WPA2/WPA3 and 6 GHz will be enabled using WPA3.

verizon ^{,/} Basic /	Advanced	1					ttele @~
Network Device Verizon Router	~	WI-FI > Primary Network	lotwork			Apply Ch	anges
Home	*	Filliary	CIWOIK				
Wi-Fi	^	Wi-Fi Name Verizon_4G4YQT		Wi-Fi Password	•	Wi-Fi Enabled	a ^
Primary Network							
Guest Network			Security Set encryption type used	to secure the Wi-Fi traffic.		wpa2	^
IoT Network						WPA3	
Wi+Fi Protected Setup			Broadcast Wi-Fi network Broadcast Wi-Fi name fro	k name (SSID) om router to Wi-Fi clients.		WPA2/3 (2.4 & 5 GHz	:) & WPA3 (6 GHz)
Devices	×		Device Access List				
Parental Controls	0		MAC authentication limit:	s the Wi-Fi clients that can connect.			Editlist
Status	×	2.4 GHz				Wi-Fi Enabled	% \
		5 GHz				Wi-Fi Enabled	8 ~
	1	6 GHz				Wi-Fi Enabled	* ^

Caution: These settings should only be configured by experienced network technicians. Changing the settings could adversely affect the operation of your router and your local network.

Broadcast Wi-Fi network name (SSID)

You can configure the Verizon Router's SSID broadcast capabilities to allow or disallow Wi-Fi devices from automatically using a broadcast SSID name to detect your router Wi-Fi network.

- To enable SSID broadcasting, move the selector to on.
 SSID broadcast is enabled by default. The SSID of the Wi-Fi network will be broadcast to all Wi-Fi devices.
- To disable SSID broadcasting, move the selector to off. The public SSID broadcast will be hidden from all Wi-Fi devices. You will need to manually configure additional Wi-Fi devices to join the Wi-Fi network.

Device Access List

You can configure your router to limit access to your Wi-Fi network to only those devices with specific MAC addresses.

BASIC SETTINGS

Home		Prima	Device Access List	×	Apply Changes
WI-FI		Wi-FI Name Verizon_4G			Wi-Fi Enabled
Primary Network					
Guest Network					WPA2/WPA3 mixed mode
IoT Network					
					Enabled
Devices					
Parental Controls	0		Enter MAC address	Add new device	<u>Edit list</u>
Status		2.4	Allow access to all devices		Wi-Fi Enabled 💽 🛞 🗸
		5 (Deny access to all devices		Wi-Fi Enabled 🌑 🔅 ^
			Cancel	Apply changes	259200 Enabled

To set Wi-Fi MAC authentication:

- 1. To setup access control, click on the Edit List.
- 2. Enter the MAC address of a device and click **Add new device**.
- 3. Select either:
 - Allow access to all devices allows the listed devices to access the Wi-Fi network.

Warning: This will block Wi-Fi network access for all devices not in the list. Only devices in the list will be able to connect to the Wi-Fi network.

- Deny access to all devices denies access to the listed devices. All other Wi-Fi devices will be able to access the Wi-Fi network if they use the correct Wi-Fi password.
- 4. Repeat step 2 and step 3 to add additional devices, as needed.
- 5. When all changes are complete, click **Apply changes** to save the changes.

To activate the Wi-Fi 2.4 GHz, 5 GHz or 6 GHz frequency for your Wi-Fi network, move the selector to **on**, click the setup @ button and configure access security of your Wi-Fi network.

verizon Basic	Advance	8		Help
etwork Device		Wi-Fi > Primary N	vork	
Verizon Router	~	Drimor	Notwork	Apply changes
lome		Frimar	Network	Appry changes
VLEI	~		Security Set encryption type used to secure the Wi-Fi traffic.	WPA2/3 (2.4 & 5 GHz) &
				WPA3
Primary Network			Broadcast Wi-Fi network name (SSID) Broadcast Wi-Fi name from couter to Wi-Fi clients	WPA2/3 (2.4 & 5 GHz) & WPA
Guest Network				
IoT Network			Device Access List MAC authentication limits the Wi-Fi clients that can connect.	Edit li
Wi-Fi Protected Setup				
levices	~	2.4 (z	Wi-Fi Enabled 💽 🦉 🗸
arental Controls	0	5 GI		Wi-Fi Enabled 🌒 🖓 🗸
itatus	~	6 Gł		Wi-Fi Enabled 🔵 🚳 ^
			Group Key Update Group Key based on time interval used to update the WPA shared key.	259200 Enabled
			Wi-Fi QoS (WMM) Improves the quality of service (QoS) for voice, video, and audio streaming over Wi-Fi by prioritizing these data streams.	Enabled
			WMM Power Save Improve battery life on mobile Wi-Fi devices such as smart phones and tablets by fine-tuning power consumption.	Enabled

- Group key to update the WPA shared key, move the selector to on.
- Wi-Fi QoS (WMM) improves the quality of service (QoS) for voice, video, and audio streaming over Wi-Fi by prioritizing these data streams.
- WMM Power Save improves battery life on mobile Wi-Fi devices such as smart phones and tablets by fine-tuning power consumption.

BASIC SETTINGS

3.1b/ GUEST NETWORK

The **Guest Network** is designed to provide internet connectivity to your guests but restricts access to your primary network and shared files. The primary network and the guest network are separated from each other through firewalls. You create one Guest Wi-Fi SSID and one password, and use it for all guests. The guest network SSID does not change when you make a change to your primary network SSID.

The Verizon Router is shipped from the factory with Guest Wi-Fi turned off. The default SSID for Guest Wi-Fi is preconfigured at the factory to the default Wi-Fi network name (SSID) which is displayed on a sticker located at the rear of the router followed by hyphen guest (-Guest). For example – if the router is shipped with a default SSID of "Verizon-ABCDE" then the default SSID for Guest Wi-Fi is "Verizon-ABCDE-Guest".

verizon ⁴ Basic Ad	vanced		Help & ~
Network Device		Wi-Fi > Guest Network	
Verizon Router	~	Guest Network	Apply Changes
Home		duest Network	
WI-FI	^	Band Wi-FI Name Wi-FI Password Verizon_4G4YQT-Guest	Wi-Fi Enabled 💽 💩 ^
Primary Network			
Guest Network		Security	WPA2 ^
IoT Network		out energinerit gen daele to accure the treatment	WPA2
WI-FI Protected Setup			None
Devices	~		
Parental Controls	0		
Status	~		

To configure the security settings for your guest network:

1. From the **Basic** menu, select **Wi-Fi** and then click **Guest Network**.

- 2. Move the selector to on.
- 3. If desired, enter a new name and password for the Wi-Fi network or leave the default name and password that displays automatically.
- 4. Press Apply changes to save the changes.

Important: It is not recommended to create a guest network without a password.

3.1c/IOT NETWORK

The router supports connection of multiple IoT devices on a separate WiFi SSID. The IoT Network is designed to provide an easier setup experience for your Internet of Things (IoT) devices which benefit from connecting to the 2.4 GHz band while keeping your Primary Network settings unchanged. IoT devices and Primary devices can communicate with no firewall restrictions separating them.

The Verizon Router is shipped from the factory with IoT Wi-Fi turned off. The default SSID for IoT Wi-Fi is preconfigured at the factory to the default Wi-Fi network name (SSID) which is displayed on a sticker located at the rear of the router followed by hyphen IoT (-IoT). For example – if the router is shipped with a default SSID of "Verizon-ABCDE" then the default SSID for IoT Wi-Fi is "Verizon-ABCDE-IoT".

BASIC SETTINGS

Network Device		Wi-Fi > IoT Network	
Verizon Router	\sim		
		loT Network	
Home		Wi-E Nama Wi-Fi Pasisavet	
WI-FI	^	Band Verizon 4G4YQT-IoT ····································	Wi-Fi Enabled
Primary Network		2.4 GHz -	
Guest Network		Security	WPA2
IoT Network		Set encryption type used to secure the Wi-Hi traffic.	
W. C.B. Harden and A.			

To enable IoT Wi-Fi link:

- 1. From the **Basic** menu, select **Wi-Fi** and then click **IoT Network**.
- 2. Move the selector to on.
- 3. If desired, enter a new name and password for the Wi-Fi network or leave the default name and password that displays automatically.
- 4. Press Apply changes to save the changes.

3.1d/ WI-FI PROTECTED SETUP (WPS)

Wi-Fi Protected Setup (WPS) is an easier way for many devices to set up a secure Wi-Fi network connection. Instead of manually entering passwords or multiple keys on each Wi-Fi client, such as a laptop, printer, or external hard drive, your Verizon Router creates a secure Wi-Fi network connection.

In most cases, this only requires the pressing of two buttons – one on your Verizon Router and one on the Wi-Fi client. This could be

either a built-in button or one on a compatible Wi-Fi adapter/card, or a virtual button in software. Once completed, this allows Wi-Fi clients to join your Wi-Fi network.

To initialize the WPS process, you can either press and hold the WPS button located on the front of your Verizon Router for more than two seconds or use the UI and press the on-screen button.

You can easily add Wi-Fi devices to your Wi-Fi network using the WPS option if your Wi-Fi device supports the WPS feature.

To access WPS using the user interface:

1. From the **Basic** menu, select **Wi-Fi** and then click **Wi-Fi Protected Setup (WPS)**.



BASIC SETTINGS

- 2. Enable the protected setup by moving the selector to on.
- **3**. Use one of the following methods:
 - If your Wi-Fi client device has a WPS button, press the WPS button on your router for more than two seconds, then click the start WPS button in the Option 1 to start the WPS registration process.
 - If your client device has a WPS PIN, locate the PIN printed on the client's label or in the client documentation. Enter the PIN number in the Enter PIN field. The Client WPS PIN field is located within Option 2 on the user interface.
 - Click Register.
 - Alternatively, you can enter the router's PIN shown on this screen into the WPS user interface of your device, if this PIN mode is supported by your Wi-Fi device.
- 4. After pressing the WPS button on your router, you have two minutes to press the WPS button on the client device before the WPS session times out.

When the WPS button on your router is pressed, the Router Status LED on the front of your router begins flashing blue. The flashing continues until WPS pairing to the client device completes successfully. At this time, the Router Status LED turns solid blue.

If WPS fails to establish a connection to a Wi-Fi client device within two minutes, the Router Status LED on your

router flashes red for two minutes to indicate the WPS pairing process was unsuccessful. After flashing red, the light returns to solid white to indicate that Wi-Fi is on.

Note: Wi-Fi Protected Setup (WPS) cannot be used if WPA3 security is enabled or SSID broadcast is disabled or if MAC address authentication is enabled with an empty white list.

3.2/ ADVANCED SETTINGS 3.2a/ PRIMARY NETWORK

Self-Organizing Network (SON)

The Verizon Router supports 2.4 GHz, 5 GHz and 6 GHz signals. The Self-Organizing Network (SON) feature lets your devices move between these signals automatically for an optimized Wi-Fi connection.

verizon Basic	Advanced	ł					Help Q~
Network Device		Wi-Fi > Primary Network					
Verizon Router	~	Drimory	lotwork			Apply Cl	hanges
Home	A	F Timar y P	CLWOIN				
Wi-Fi	^	Verizon_4G4YQT			0	Wi-Fi Enabled	* *
Primary Network	- 1		Security			WPA2/3 (2.4.8.5 GH	7) 8
Guest Network	- 1		Set encryption type us	sed to secure the Wi-Fi traffic.		WPA3	
IoT Network	- 1		Broadcast Wi-Fi netw Broadcast Wi-Fi name	work name (SSID) a from router to Wi-Fi clients.		WPA2/3 (2.4 & 5 GH	tz) & WPA3 (6 GHz)
Wi-Fi Protected Setup	- 1		Device Access List				- 1
Radio Management	- 1		MAC authentication lin	mits the Wi-Fi clients that can conr	nect.		Editlist
Devices	×	2.4 GHz				Wi-Fi Enabled	@ ~
Parental Controls	0	5 GHz				Wi-Fi Enabled	* ~
Status	*						
Firewall	~	6 GHz				Wi-Fi Enabled	@ ~
Utilities	× _						

ADVANCED SETTINGS

To configure SON, Primary Wi-Fi name & password and security settings:

- 1. From the Advanced menu, select Wi-Fi from the left pane and then click Primary Network.
- 2. To enable SON, move the selector to on.
- 3. By default the Primary Wi-Fi is enabled. To de-activate, move the selector to **off**. If the network is not enabled, no Wi-Fi devices will be able to connect to the primary network.
- 4. If desired, enter a new name and password for the Wi-Fi network or leave the default name and password that displays automatically.
- To configure the Wi-Fi security, click the setup [®] button and select WPA2 or WPA3.



Caution: These settings should only be configured by experienced network technicians. Changing the settings could adversely affect the operation of your router and your local network.

3.2b/RADIO MANAGEMENT

You can configure the channel settings for the 2.4 GHz, 5 GHz and 6 GHz band(s) of your Wi-Fi network.

verizon Basic	Advance		Hele & ~
Verizon Router	~	Wift > Radio Management	
Home	^	Settings History	
WI-FI	^	Channel Analysis	Settings Sean
Primary Network	- 1	_	<hr/>
Guest Network	- 1	2.4 GHz 5 GHz 2.4 GHz 10 -10	5 GHz
IoT Network	- 1	8	
Wi-Fi Protected Setup		4	
Radio Management	- 1	0 1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 8 7 8 9 10 11 12 13 14
Devices	~	Soore Channel Signal	Channel
Parental Controls	0	Channel Settings	
Status	~	Band Channel Width	Health
Firewall	~	2.4 GHz Ch. 1 (Auto) Ch. 1 (Auto) 20/40MHz	1.57 Radio Enabled 💽 🗡
Utilities	÷	Band Channel Width	Health
Network Settings	×	5 GHz Ch. 136 (Auto) V 80MHz V	1.96 Radio Enabled 💽 🗸
Date & Time	÷	Band Channel Width	Health
DNS Settings	٠. ب	6 GHz Auto V 160MHz V	Not available Radio Enabled

ADVANCED SETTINGS

To view and configure the channel settings:

- 1. From the Advanced menu, select Wi-Fi and then click Radio Management.
- 2. Click on **Settings** on the top right-hand side of the **Radio Management** page to configure the channel scan settings:

Primary Network Guest Network		2.4 GHz 5 G	Scan Settings	×	3Hz
IoT Network			Keep my channel selection during power cycle	~	
Wi-Fi Protected Setup		2			
Radio Management		1 2 Score	Enable DFS channels during channel scan	~	2 3 4 5 8 7 8 9 10 11 12 13 14 Channel
Devices		oh u u do	Cancel Apply Changes		
Parental Controlo	0	Channel Se		_	

- Select the Keep my channel selection during power cycle check box to save your channel selection when your Verizon Router is rebooted.
- Enable DFS channels during channel scan: DFS channels are enabled by default during channel scans.

Note: DFS channels are a subset of the 5 GHz network that is shared with radar systems. Some consumer devices do not support these channels and cannot connect to routers using them. Examples include some media streaming devices. Disabling this feature will allow the router to select the best available channel to broadcast on and allow these devices to connect.

• Press Apply changes to save the changes.

- 3. Click **Perform Scan** to perform channel availability scan for the Verizon Router accommodating the best radio channel and providing the best Wi-Fi performance.
- On the Radio Management page for 2.4 GHz, 5 GHz or 6 GHz, the following information displays and can be configured:
 - Channel Score displays a network congestion score of one to ten in each Wi-Fi channel. It can be used to determine which channels to use or to avoid. Higher score indicates less congestion in a channel.
 - **Channel Analysis** scans and displays channel bandwidth and signal strength of available APs.
 - Channel this is the radio channel used by the Wi-Fi router and its clients to communicate with each other. The channel must be the same on the router and all of its Wi-Fi clients. Select the channel you want the Wi-Fi radio to use to communicate, or accept the default (Auto) channel selection. Then the router will automatically assign itself a radio channel.
 - Width displays the Wi-Fi channel currently in use on each band. Users can select from available channels.

ADVANCED SETTINGS

To view the channel settings history:

- 1. From the Advanced menu, select Wi-Fi and then click Channel Settings.
- 2. Click on **History** to display the channel settings history.

twork Device		Wi-Fi > Radio Mi	anagement				
Verizon Houter	~	Radio	Managem	ent			
/I_F1	~	Settings Hi	story				
	- 1	Band	Channel	Time	Date		
Primary Network Guest Network	- 1	5 GHz	Ch. 136	N/A	N/A		
oT Network	- 1	5 GHz	Ch. 149	N/A	N/A		
VI-FI Protected Setup	- 1	2.4 GHz	Ch. 1	N/A	N/A		
ladio Management	- 1	6 GHz	Ch. 37	N/A	N/A		
evices	ž	2.4 GHz	Ch. 6	N/A	N/A		
atus	Ŭ	6 GHz	Ch. 133	N/A	N/A		
rewall	v	2.4 GHz	Ch. 1	N/A	N/A		
liities	•	5 GHz	Ch. 136	N/A	N/A		
twork Settings	~						

04/ CONNECTED DEVICES

4.0 Overview4.1 Device Settings

04 / CONNECTED DEVICES



You can view the settings of the network devices connected to your Verizon Router's network.

OVERVIEW

4.0/ OVERVIEW

The **Devices** section allows you to view and manage all the devices connected to your Primary, Guest, and IoT networks. You can view device details, block internet service, and rename devices.

4.1/ DEVICE SETTINGS

To view and manage the connected devices on your network:

- 1. From the **Basic** menu, select **Devices** from the left pane.
- 2. The screen displays information about connected devices including **Device Name** and identifiers, **Parental Controls**, the type of network connection, and settings that you can view and configure.
- 3. The Verizon Router provides a sort function for listing connected devices in a meaningful order. For example, select **Sort A to Z** from the dropdown list to view the connected device in alphabetical order.

Devices > /	411		
Devi	ces		
All (2)	Primary (2)	Guest (0)	Io
Sort A to 2	2		<u>_</u> lm
Sort A to	z	`	
Sort Z to	A		
Sort Stro	ng to Weak		-
Sort Wea	k to Strong		
Sort IPv4	0 to 9		
Sort IPv4	9 to 0		_

4. Select **Show All** from the dropdown list to display all devices on your network.

5. Select **Expanded List** from the dropdown list to view additional device information for all connected devices.

	Devices > All				
~					
	Devices				
	All (2) Primary (2) Guest (0) Id	oT (0)			
~	Sort A to Z	Show All	~	Expanded List	
^	Device Name	Parental Controls	Connection	Compact List	
2	Online			Expanded List	
0					
~	A040025-NB2	None	Ethernet		40 >
	Device: PC Connected to: CR1000A				
	Mac Address: 48:5b:39:41:56:08 IPv4 Address: 192.168.1.152				
	CME1000-f46942ffa793	None	🛜 6 GHz		@ >
	Device: Extender				Ð
	Connected to: CR1000A Mac Address 14.69-42.ff-a7-93				
	IPv4 Address: 192.168.1.101				
	Offline				Clear list
	A030071-NB2	None	(Offline		直線、
	 2 0 			> Device 3 x 40 > Devices All (2) Primary (2) Guest (0) IoT (0) Sort A to Z Iboue All Imode Device Name Parental Controls Connection Device Name Parental Controls Connection Device Name None © Element Device Name None © Element Device Element Consection 0.0000A None © 0.012 Image: Consection 0.0000A None © 0.012 Device Element Device Element Consection 0.0000A None © 0.012 October Element Device Element Device Element Device Element Device Element Device Element Prime Advesses 102.082.1102 Prime Advesses 102.082.1102 Offline Consection 0.0000A None © 0.012 Prime Advesses 102.082.101	V Devices All (2) Primary (2) Guest (0) IoT (0) Sort A to Z V Sort A to Z Sort A to

• **Block/Allow** - Click this option to quickly enable/disable a device from having internet access.

For additional information about blocking websites, refer to Chapter 5 Setting Parental Controls.

6. Click the Settings icon to access the Device Details page for that device:

DEVICE SETTINGS

stwork Device	Daulasa A Daulas Turitori			
Verizon Router	v Devices > Device settings			
	Device Set	tings Reset to Default Settings		Save
ome				
1-FI	Device Information			
	Name:	CME1000-f46942ffa79(Online	
WICES				
levices	2 Location:	Other 🗸		
rental Controls	O Mobility:	Portable ~		
atus	V Device Information:	Edit		
	Type:	Extender		
	Device Add-Ons			
	Port Forwarding Rule			Go to Port Forwarding
	Device Connection	l		
	Connection Info		Network Info	
	Conservation .		Mar Adda	
erizon ^{,/} Basic	Connection Wi-Fi / 6 GHz Advanced		Mac Address 14:69:42:ff:a7:93	Hale
erizon ^{,/} Basic	Connection WI-Fi / 6 GHz Advanced		Mac Address 14.69.42.Hta7.93	Help
vork Device	Connection Wi-F1/8 GHz Advanced		Mac Address 1460-42/11a7/93	Hele
rizon [√] Basic	Advanced Connection W-F1/6 GH: Advanced Devices 3 Device Settings Device Set	ttings Reset to Default Settions	Mac 650ws 1469-4276793	Hole
rizon ^{v/} Basic	Advanced Perices > Device Settings Device Set	ttings Reset to Datael Settions	Mar 2.450ms 14.69.42/tra700	Hole Save
rizon ⁷ Basic	Advanced Connection Connection Connection Wir/ / 6 dH2	ttings Read to Oxford Settions	Mar: Address 14.69-42/Ha700	Hole Save
rizon ⁷ Basic	Advanced Advanced Connection Connection Wir1/6 Bits Connection Wir1/6 Bits Connection Connectio	ttings React to Datam Settions	Mac Address 14.69-42/18.700 Mac Address 14.69-42/18.700 Connected to	Hale Save
rizon ⁷ Basic ex Device Fi Fi Icces	Advanced Cennection WHP/8 GHz Advanced Cennection Cennection Cennection Cennection Cennection S021ax	ttings React to Datam Settions	Mac Address 14.69-42/tra700	Har d
rizon / Basic	Advanced Connection WHF/3 6 Bit Advanced Converses > Device Settings Converses Conv	ttings React to Datam Settions	Mac Address 14.69-42/18/703	Har d
rizon / Basic an Dreke rizon Router rizon Router Fi fices wides ental Controls	Advanced Advanced Device 3 Device Settings Connection Wir F/ 6 dat Connection Wir F/ 6 dat Prequency Prequency Prequency Precess Rupported Protocol Rupported	ttings React to Datam Settions	Mac Address 14.69-42/18/703 Mac Address 14.69-42/18/703 Connected to Childon 19.2168.101 Splore Mask 252.252.250.0	Har d
rizon' <u>Basic</u> art Deutor Frizion Router Fri Holes ental Controls tus	Advanced Advanced	ttings Read to Oxford Settions	Mac Address 14 69-42 # a700 Mac Address Chroock 44 Chroock 44 20 24 24 a703 Chroock 40 Chroock 40 Chroock 40 Subart Mask 20 25 20 20 300 Subart Mask 20 25 20 20 300	Hall d
rizon' <u>Basic</u> art Deutor Fritzon Router Fri Notes ental Controls tus	Advanced Advanced	ttings React to Default Settions	Nac Address 14 69-42/18/703 Nac Address 44 69-42/18/703 Connected to CRI000A Subret Mask 2023/08/2030 Subret Mask 2023/08/200 Subret Mask 2023/08/2000 Subret Mask 2023/08/2000 Subret Mask 2023/08/2000 Subret Mask 2023/08/2000 Subret Mask 2023/08/2000 Subret Mask 2023/08/2000 Subret Mask 2023/08/2000 Subret Mask 2023/08/2000 Subret Mask 2023/08/200 Subret Mask 2023/08/200 Subret Mask 2023/08/200 Subret	Here of
rizon' <u>Basic</u> en: Device erizon Router Fi Aces wices ental Controls tus	Advanced Device 3 Device Settings Device 3 Device Settings Device 3 Device Settings Device Settings Dev	ttings React to Oxford Bettions	Mac Address 14 69-42 Ha700 Mac Address Chroock de Chroock de 192268.101 Subart Mask 2023.02.03.00 Subart Mask 2023.02.03.00 Subart Mask Subart Mask Subart Mask Subart Mask Subart Mask Subart Mask Subart Mask Subart Mask	Hall d
rizon ⁴ Basic en: Device rizon Router Fi Aces ental Controls tus	Advanced Device 3 Device Settings Device 3 Device Settings Connection WHP / 6 SMA Connection WHP / 6 SMA Connection Protocol Supported A 1.4 1 Protocol Supported A 1.4 1 Protocol Supported A 1.4 1 Protocol Supported A 1.4 1 Protocol Supported RESS -277	ttings React to Default Settions	Mac Address 14 69-42 Ha700 Mac Address ChrootAdress ChrootAdress 192268.101 Subart Mask 2023.02.030 Solid Address Allocation System Solid Address Allocation System Dec Modess Allocation System Dec Modess Allocation System Dec Modess Allocation System Dec Modess Allocation System Dec Modess Allocation	Edda -
rizon ⁴ Basic en: Deuter rizon Router Fi Aces wices ental Controls tus	Advanced Advanced	ttings React to Default Settions	Nac Address 14 69-42/18/703 Mac Address 44 69-42/18/703 Connected to CRINDOA Subject Maca 2023/08/200 Subject Maca 2023/0	Here of
rizon' <u>Basic</u> en: Destee erizon Router Fi Aces wices ental Controls tus	Advanced Device 3 Device Settings Device 3 Device 3 Device Settings Device 3 Device 3 De	ttings React to Oxfault Settions	Nac Address 14 69-42 Ha700 Mac Address 44 69-42 Ha700 Mac Address 1923 68 100 Buhat Address 1923 68 100 Buhat Address 1923 68 100 Buhat Address 1923 88 200 Buhat Address 1924 88 200 Buhat Address 1925	Here of
rizon ⁴ Basic en: Deska erizon Router Fi Vices ental Controls ttus	Advanced Device 3 Device Settings Device 3 Device 3 Device Settings Device 3 Device 3 De	ttings React to Default Settions	Nac Address 14 69 42 Ha703 Mac Address 44 69 42 Ha703 Mac Address 192 18 100 Burd Address 194 100 Burd Address 194 100 Burd Park 194 100 Burd Pa	Edd -
rizon' Basic	Advanced Advanced Device 3 Device Settings Device 3 Device 3 Device Settings Device 3 Device 3 Device Settings Device 3 Device 3 Dev	ttings Reset to Darkal Settions	Nac Address 146942/18783 Mac Address 146942/18783 Consolution 146942/18783 Consolution 1904 20151 Subret Address 192268100 Subret Address 192068100 Subret Address 19206810	Edd of
rtzon / Basic	Advanced Advanced Period 2 Device 3 - Device Settings Connection Wi-F1/6 GHz Connection Wi-F1/6 GHz Connection Wi-F1/6 GHz Connection Protocol Supported AX Prog Table Modultaen Relat Prog Ta	ttings Reset to Default Bettinos	No. Address 14 69-42/14/703 No. Address 14 69-42/14/703 Concelled to Childon 202/06/14/703 Submit Mata 203/07/200 202/06/10/16/10/10/10/10/10/10/10/10/10/10/10/10/10/	Los

- Device Information:

- Name, Location, Mobility, and Type Displays the current known information of the device. These can be updated or corrected as needed. Click Edit and Save to apply any changes.
- This section also provides the device MAC Address, Access Point information the device is connected to as well as the IPv4 Address of the device.
- Device Add-Ons

Port Forwarding - Port Forwarding allows your network to be exposed to the internet in specific limited and controlled ways. For example, you could allow specific applications, such as gaming, voice, and chat, to access servers in the local network. To access the Port Forwarding page, click **Go to Port Forwarding**.

For additional information, refer to the Port Forwarding section in Chapter 6 Configuring Advanced Settings.

If any Port Forwarding Rules are applied to this device, then the first row of that rule will be displayed here.

Device Connection

This section displays Connection information of how and how well the device is connected to the Access Point. It also displays the Network related information, including IPv6 addresses and a **Ping Test** option.

05/ SETTING PARENTAL CONTROLS

- 5.0 Activating Parental Controls
- 5.1 Active Rules

69

The abundance of harmful information on the internet poses a serious challenge for employers and parents alike as they ask "How can I regulate what my employee or child does on the internet?"

With that question in mind, your Verizon Router's Parental Controls were designed to allow control of internet access on all locally networked devices.

ACTIVATING PARENTAL CONTROLS

5.0/ ACTIVATING PARENTAL CONTROLS

You can create a basic access policy or using the provided **Rule Templates** for any computer or device on your Verizon Router network. Parental controls limit internet access to specific websites based on a schedule that you create.

Access can be limited on specific websites or keywords embedded in a website. For example, you can block access to the 'www. anysite.com' as well as block any website that has the word 'any' in its site name.

verizon Basic	Advanced		Help 🛞 🗸
Network Device		Parental Controls > All	
Verizon Router	~	Parental Controls	New Rule
WI-FI	v	Home Network Protection Get more rebust security features to protect your devices in your home or business.	Get app now
Devices	v	Start using it today on the My Fios app.	
Parental Controls	0	Rule Templates	
Status	×	Bestime School Day Off Limits No Wiff typer -tum School Statu Only tum - zym Bucket Silves Aways on	
		Active Rules	
		No active rules	

To limit device access:

- 1. From the **Basic** menu, select **Parental Controls** from the left pane.
- 2. To use the default **Rule Templates**, select one of the predefined rules as shown on screen to quickly setup access policy for devices on your network.

3. To create a new access policy, click on the **New Rule** and the configuration page displays.

verizon ^y Basic							
letwork Device		Parental Controls > All					
Verizon Router	~	Create Ne	ew R	ule			
Home							
WI-FI	~	Name:		-	Required		Change rule name >
Devices	*	Rule Name		(Done		
Parental Controls	٥						
Status	×	Days:		-	Required		Change days when rule is active >
		Days			\frown		
		Sun Mon Tue	Wed	Thu Fri Sat	Done		
		Time:		-	Required		Change time when rule is active >
		Start Time		End Time			
		12:00 am	~	12:00 am	V (Done)		
		Condition:			Required		Change rule condition >
		All Internet OFF					
'erizon√ Basic	Advanced	- All Internet OFF					ныя (8)
erizon Basic	Advanced	All Internet OFF					Han (C
work Device Verizon Router	Advanced	All Internet OFF	ew R	ule			Hala (S Apply Changes
Prizon / Basic work Device Verizon Riouter	Advanced	All Internet OFF Parental Controls > All Create Ne 12:00 am	ew R	uie 12:00 am	V (wije)		Haia 🤇
erizon / Baalo	Advanced	All Internet OFF All Internet OFF Parental Controls > All Create Net L2:00 am Condition:	ew R	ule 1200 am	V Louie Required		Hale 🤅 Auguly Changes
erizon / Bealc	Advanced v v	All Internet OFF All Internet OFF Condition: All Internet OFF All Internet OFF All Internet OFF All Internet OFF	ew R	ule 1200am	V Cone Pequired		Hala (È Apply Changes Change rule condition :
erizon* Basic work Device VerizonRouter • • • • • • • • • • • • • • • • • • •	Advanced v v o v	All Internet OFF All Internet OFF Condition: All Internet OFF All Internet OFF All Internet OFF All Internet OFF All Internet ON	ew R	ule 1200 am	V Love Required		Lisia 🔇
erizon / <u>Basic</u> work Device Verizon Router ome I-F1 evices arental Controls atus	Advanced ~ ~ o	All Internet OFF All Internet OFF Create Ne 12:00 am Condition: All Internet OFF All Internet OFF All Internet OF Devices:	ew R	ule 1200am	Pequired		Leis C Apply Changes Change rule condition a Change rule condition a
verizon / Basic work Device work Device were tail Controls atus	Advanced v v v v	All Internet OFF All Internet OFF Condition: All Internet OFF All Internet OFF All Internet ON Devices: Exceptions (Webcitte	ew R	ule 1200am	Cone Required Required		Else accession to bin min.
erizon/ Baale teet Device Verizon Router ome evices arental Controls tatus	Advanced v v v v v v v v v v v	All Internet OFF All Internet OFF Create Net Condition: All Internet OFF All Internet OFF All Internet ON Descession Exception Exc	ew R ×	ule 12:00 am 	Pequired Pequired Optional		Les () Apply Changes Change rule condition : Assign devices to this rule : Make exceptions to this rule :
erizonr/ saic	Advanced v	All Internet OFF All Internet OFF Create Net 2:00 am Condition: All Internet OFF All Internet OFF All Internet OFF All Internet ON Devices: Exception (Webdite sevece amplificion)	ew R	ule 1200am - - - Enter w	Pequired Pequired Optional ebatte	Add	Lein C Apply Changes Change rule condition : Change rule condition : Make exceptions to this rule :
erizon*/ Basic	Advanced v v o v v	All Internet OFF All Internet OFF Condition: All Internet OFF Exceptions (Website Excepti	ew R	ule 12:00 am - - - Enter wa	Pequired Pequired Pequired Optional ebothe Optional	Add	Hise 🤅
erizon / Basic	Advanced v v o v	All Internet OFF All Internet OFF Create Net 2:00 am Condition: All Internet OFF Exceptions (Webcitte Exceptions (Webci	ew R	ule 1200am - - Enter w Enter w	v v required Pequired Optional ebathe Optional	Add	Here

ACTIVATING PARENTAL CONTROLS

- 4. Create a rule name.
- 5. Create a schedule by selecting the days of the week when the rule will be active or inactive.
- 6. Set the time when the rule will be active or inactive, then specify the start time and end time.
- 7. Select the **Condition** rule of **All Internet OFF/All Internet ON** to block/allow the access to all internet websites.
- 8. Click **Assign devices to this rule** to select the computers or device where you are limiting access. Click **Apply** to save changes.

		Create				
Home			Assign devices to this rule	•	×	
WI-FI		All Interne	A030071-NB2	PC		
Devices		All Interne	CME1000-146942ffa793	Extender		
Parental Controlo	0	Devices:	A040025-NB2	PC		
Status		Exceptions (V Enter a specific www.example.co				
		Exceptions (U Enter a word the				
			Аррі			

- 9. To remove a device from the list, click **Remove** to the assigned device.
- 10. Click Make exceptions to this rule for the following Exceptions options:
 - Enter the name of the website or keywords within a URL to block/allow the specified websites and websites with names containing the specified keyword.
- 11. To remove a website or keyword, click Remove to the word.
- 12. Click Apply changes to save changes.

NEW! The *Verizon* app provides robust security to protect your home and business networks. Click the *Get app now* link to download the Verizon app for using the

Verizon app on the iOS or Android OS.

5.1/ ACTIVE RULES

You can view the rules created for your Verizon Router shown on the **Parental Controls** page.



CONFIGURING ADVANCED SETTINGS

- 6.0 Firewall
- 6.1 Utilities
- 6.2 Network Settings
- 6.3 Date & Time
- 6.4 DNS Settings
- 6.5 Monitoring
- 6.6 System Settings

Advanced settings cover a wide range of sophisticated configurations for your Verizon Router's firmware, security setup and network.

Verizon Router's security suite includes comprehensive and robust security services, such as stateful packet inspection, firewall security, user authentication protocols, and password protection mechanisms.

These and other features help protect your computers from security threats on the internet.

This chapter covers the following advanced features:

Firewall - select the security level for the firewall.

- Access Control restrict access from the local network to the internet.
- Port Forwarding enable access from the internet to specified services provided by computers on the local network.
- Port Triggering define port triggering entries to dynamically open the firewall for some protocols or ports.
- DMZ Host allows a single device on your primary network to be fully exposed to the internet for special purposes such as internet gaming.
- SIP ALG support the Application Layer Gateway for Session Initiation Protocol
- Static NAT allow multiple static NAT IP addresses to be designated to devices on the network.
- IPv6 Pinhole provide access tunnel to a service on a host for a particular application.

Utilities

- Diagnostics performs diagnostic tests.
- Save and Restore resets your Verizon Router to its default settings.
- Reboot Router restarts your Verizon Router.
- MAC Cloning clones the MAC address.

- ARP Table displays active devices with their IP and MAC addresses.
- NDP (Neighbor Discovery Protocol) Table displays active devices with their IPv6 and MAC addresses of DHCP connection.
- Users creates and manages remote users.
- Remote Administration enable remote configuration of your Verizon Router from any internet-accessible computer.
- LED Brightness controls the Router Status LED light to either dim or brighten and sets the dimming time of the LED light.

Network Settings

- Network Objects defines a group, such as a group of computers.
- Network Connections displays and manages the details of a specific network connection.
- Universal Plug and Play (UPnP) checks the validity of all UPnP services and rules.
- Port Forwarding Rules displays port forwarding rules.
- IPv6 enables IPv6 support.
- Routing manages the routing and IP address distribution rules.
- IPv4/IPv6 Address Distribution adds computers configured as DHCP clients to the network.
- Port Configuration sets up the Ethernet ports as either full- or half-duplex ports, at either 10 Mbps, 100 Mbps, 1000 Mbps or 10 Gigabit.

Date & Time

- Date & Time Settings sets the time zone and enables automatic time updates.
- Scheduler Rules Settings limits the activation of firewall rules to specific time periods.

DNS Settings - manages the DNS server host name and IP address.

Monitoring - displays the details and status of:

- System Logging
- Full Status/System wide Monitoring of Connections/Traffic Monitoring
- Bandwidth Monitoring

System Settings - sets up various system and management parameters.

6.0/ FIREWALL

The firewall is the cornerstone of the security suite for your Verizon Router. It has been exclusively tailored to the needs of the residential or office user and is pre-configured to provide optimum security.

The firewall provides both the security and flexibility that home and office users seek. It provides a managed, professional level of network security while enabling the safe use of interactive applications, such as internet gaming and video conferencing.

Additional features, including surfing restrictions and access control, can also be configured locally through the user interface or remotely by a service provider.

The firewall regulates the flow of data between the local network and the internet. Both incoming and outgoing data are inspected, then either accepted and allowed to pass through your Verizon Router or rejected and barred from passing through your Verizon Router, according to a flexible and configurable set of rules. These rules are designed to prevent unwanted intrusions from the outside, while allowing local network users access to internet services.

The firewall rules specify the type of services on the internet that are accessible from the local network and types of services in the local network that are accessible from the internet.

Each request for a service that the firewall receives is checked against the firewall rules to determine whether the request should be allowed to pass through the firewall. If the request is permitted to pass, all subsequent data associated with this request or session is also allowed to pass, regardless of its direction.

For example, when accessing a website on the internet, a request is sent to the internet for this site. When the request reaches your Verizon Router, the firewall identifies the request type and origin, such as HTTP and a specific computer in the local network. Unless your Verizon Router is configured to block requests of this type

from this computer, the firewall allows this type of request to pass to the internet.

When the website is returned from the web server, the firewall associates the website with this session and allows it to pass; regardless HTTP access from the internet to the local network is blocked or permitted. It is the origin of the request, not subsequent responses to this request, which determines whether a session can be established.

6.0a/ SETTING FIREWALL CONFIGURATION

You can select a normal, high, or low security level to limit, block, or permit all traffic. The following table shows request access for each security level.

Security Level	Internet Requests Incoming Traffic	Local Network Requests Outgoing Traffic
High	Blocked	Limited
Normal	Blocked	Unrestricted
Low	Unrestricted	Unrestricted

The request access is defined as:

- Blocked traffic no access allowed, except as configured in Port Forwarding and Remote Access
- Limited permits only commonly used services, such as email and web browsing

 Unrestricted - permits full access of incoming traffic from the internet and allows all outgoing traffic, except as configured in Access Control

6.0b/ SPECIFYING GENERAL SETTINGS FOR IPV4 OR IPV6

To set your firewall configuration:

 From the Firewall General settings page, click on desired IPv4 settings/IPv6 settings option to configure IPv4/IPv6 security.

verizon Basic	Advanced		Help (2)	~
Network Device		Firewall > General		
Verizon Router	~	General		
Home		General		
WI-FI	~	IPv4 Settings		Î
Devices	~	Rormal Security Remote administration will overide the security		l
Parental Controls	0	inbound policy		L
Status	~	O High Security Remote administration will overide the security	Set Top Box traffic disabled	l
Firewall	^	inbound policy		L
General		O Remote administration will overide the security indexnet collect		l
Access Control		menane para		L
Port Forwarding	- 1	IPv6 Settings		L
Port Triggering	- 1	Normal Security Remote administration will overide the security		L
DMZ Host		inbound policy		L
SIP ALG		High Security Remote administration will overide the security		ł
Static NAT		inbound policy		
IPv6 Pinholes		O Remote administration will overide the security		
Utilities	· .	inbound policy		+

- 2. Select a security level by clicking one of the radio buttons. Using the **Low Security** setting may expose the local network to significant security risks, and should only be used for short periods of time to allow temporary network access.
- 3. Click Apply changes to save changes.

6.0c/ ACCESS CONTROL

You can block individual computers on your local network from accessing specific services on the internet. For example, you could block one computer from accessing the internet, then block a second computer from transferring files using FTP as well as prohibit the computer from receiving incoming email.

Access control incorporates a list of preset services, such as applications and common port settings.

ALLOW OR RESTRICT SERVICES

To allow or restrict services:

1. From the Advanced menu, select Firewall from the left pane and then click Access Control. The Access Control page opens with the Allows and Blocked sections displayed. The Allowed section only displays when the firewall is set to maximum security.

06 / CONFIGURING ADVANCED SETTINGS



verizon Basic	Advanced					Help (
letwork Device		Firewall > Access Control				
Verizon Router	~					
Home		Access Cor	ntrol			
WI-FI	~	Block access to the Internet :	services from within the Home Network	ILAN).		
Devices	~	Create Rule				
Parental Controls	0	Networked Device	Network Address	Protocols	Status	Action
Status	~		١	fou have no rules.		
Firewall	^					
General	- 1	(bba)				
Access Control	- 1					

2. To block a service, click Add. The Add Access Control page displays.

verizon Basic	Advanced		<u>Help</u>	® ~
Network Device		Firewall > Access Control > Create rule		
Venzon Houter	×	Access Control		
Home WI-FI	•	Block access to the Internet services from within the Home Network (LAI0,		
Devices	÷	Add Access Control		_
Parental Controls	0	Networked Device Any ~		
Status	~	Protocol Any V		
Firewall	^			
General		Always		
Access Control		Cancel User Defined		
Port Forwarding	- 1			

- **3**. To apply the rule to:
 - Networked Computer/Device select Any.
 - Specific devices only select User Defined.

- 4. In the Protocol field, select the internet protocol to be allowed or blocked. If the service is not included in the list, select User Defined. The Edit Service page displays. Define the service, then click Apply. The service is automatically added to the Add Access Control section.
- 5. Specify when the rule is active as **Always** or **User Defined**.

verizon	Basic	Advanced										Help	8~
Network Device			Firewall > Access Control	> Create rule									
Verizon Router	r	~											
Home			Access C	ontrol									
WI-FI		v	Block access to the Inter	net services from withi	n the Home Ne	work (LAN).							
Devices		×	Set Rule Schedul	e									^
Parental Contro	ola	0	Rule name:										
Status		~	Rule days:	Sup	Men. Tur	Mod	Thu	Ed	S				
Firewall		^	nac obja	Juli		med			Jai				- 1
General		- 1	Rule time:	Start Tir 9:00 p	ne m	~	End Tim 12:00	ie am		~			
Access Contro	l.	- 1		Ru	le will be activ e	during sche	eduled tim	•					
Port Forwardin	0			-									-1
Port Triggering				() Bu	le will be inact i	ve during so	heduled ti	me					-1
DMZ Host			Cancel	Apply									
SIP ALG					-								

- 6. Enter the rule name, specify days of the week, and set the start time and end time when the rule will be active or inactive.
- 7. Click **Apply** to save changes.
- 8. The Access Control page displays a summary of the new access control rule.

DISABLE ACCESS CONTROL

You can disable an access control and enable access to the service without removing the service from the Access Control table. This can make the service available temporarily and allow you to easily reinstate the restriction later.

- To disable an access control, clear the check box next to the service name.
- To reinstate the restriction, select the check box next to the service name.
- To remove an access restriction, select the service and click **Remove**. The service is removed from the Access Control table.

6.0d/ PORT FORWARDING

You can activate port forwarding to expose the network to the internet in a limited and controlled manner. For example, enabling applications, such as gaming and voice, to work from the local network as well as allowing internet access to servers within the local network.

To create port forwarding rules:

1. From the Advanced menu, select Firewall from the left pane and then click Port Forwarding. The Port Forwarding page opens with the current rules displayed.

		Firewall > Port Fo	rwarding					
Verizon Router	~							
		Port Fo	prwarding	g				
		Open a tunnel be	tween remote compute	rs and a device port o	n your Home Network (LA	N). Supports gaming	, IoT, home security dev	vices and more.
levices	×	Create Rule						
arental Controls	0	Application	Original Port	Protocol	Fwrd to Address	Fwrd to Port	Schedule	
status	~			TCP 🗸			Always 🗸	Add to I
Irewall	<u>^</u>					-		- '
General	- 1	Rules List						
	- 1	Application	Original Port	Protocol	Fwrd to Address	Fwrd to Port	Schedule	Enable
A server Combrel			4567	TCP	127.0.0.1	4567	Always	
Access Control								

- 2. To create a new rule, enter the application name, configure its inbound and outbound port numbers, then select the protocol.
- 3. To schedule the rule, select either **Always** or **User Defined** in the **Schedule** list box.
- 4. Click Add to list. The rule displays in the Rules List section.
- 5. Click Apply changes to save changes.

6.0e/ PORT TRIGGERING

Port triggering can be described as dynamic port forwarding. By setting port triggering rules, inbound traffic arrives at a specific network host using ports that are different than those used for outbound traffic. The outbound traffic triggers the ports where the inbound traffic is directed.

For example, a gaming server is accessed using UDP protocol on port 2222. The gaming server then responds by connecting the user using UDP on port 3333, when a gaming session is initiated.

87

In this case, port triggering must be used since it conflicts with the following default firewall settings:

- Firewall blocks inbound traffic by default.
- Server replies to your Verizon Router IP, and the connection is not sent back to the host since it is not part of a session.

To resolve the conflict, a port triggering entry must be defined, which allows inbound traffic on UDP port 3333 only after a network host generated traffic to UDP port 2222. This results in your Verizon Router accepting the inbound traffic from the gaming server and sending it back to the network host which originated the outgoing traffic to UDP port 2222.

To configure port triggering:

1. From the Advanced menu, select Firewall and then click Port Triggering.

verizon ^v Ba	isic Advanced	1					Help & ~
Network Device		Firewall > Port Trig	pgering				
Verizon Router	~	Port Tri	iaaerina				
Home	-	1 ort m	iggernig				
WI-FI	~	Open a tunnel bet	ween remote computers and a	device port on your H	lome Network (LAN). Supports ga	ming, IoT, home sec	arity devices and more.
Devices	~	Create Rule					
Parental Controls	0	Application	Triggered Port Range	Protocol	Forwarded Port Range	Schedule	
Status	~		Start End	TCP	Start End	Always	V Add to list
Firewall	^						
General		Rules List					
Access Control		Application	Triggered Port Range	Protocol	Forwarded Port Range	Schedule	Enable
Port Forwarding				You have n	o rules. Add a rule above.		
Port Triggering							
DMZ Host							

- 2. To add a service as an active protocol, enter the application name, configure its inbound and outbound (triggered/ forwarded) port range, then select the protocol.
- 3. To schedule the rule, select either **Always** or **User Defined** in the **Schedule** list box.
- 4. Click Add to list. The rule displays in the Rules List section.
- 5. Click **Apply changes** to save changes.

6.0f/ DMZ HOST

DMZ Host allows a single device on your primary network to be fully exposed to the internet for special purposes like internet gaming.

Warning: Enabling DMZ Host is a security risk. When a device on your network is a DMZ Host, it is directly exposed to the internet and loses much of the protection of the firewall. If it is compromised, it can also be used to attack other devices on your primary network.

Follow these steps to designate a device on your primary network as a DMZ Host:

- 1. From the Advanced menu, select Firewall and then click DMZ Host.
- 2. Select Enable for the DMZ Host.
- 3. Enter the IP address or select the MAC address of the device you want to designate as the DMZ Host.
- 4. Click **Apply changes** to save changes.

06 / CONFIGURING ADVANCED SETTINGS



verizon ⁴ Basic	Advanced	4		Help & ~
Network Device		Firewall > DMZ Host		
Verizon Houter	~	DMZ Host		
Home				
WI-FI	~	How It worka Allow a single computer or device to be fully expos	ed to the	
Devices	~	Internet.		
Parental Controls	0	DMZ IPv4 Host	Disabled	
Status	~	IPv4 Address	192 168 1 0	
Firewall	^			
General	. 1	DMZ IPv6 Host	Disabled	
Access Control	. 1	Select Host	Menu ~	
Port Forwarding		MAC Address		
Port Triggering				
DMZ Host				

6.0g/ SIP ALG

SIP ALG (Application Level Gateway) - supports various multiple application protocols by allowing dynamic ephemeral TCP/ UDP ports to communicate with the known ports which a particular client application (such as FTP, VoIP service, net meeting or streaming media) requires.

To enable the SIP ALG settings:

- 1. From the Advanced menu, select Firewall and then click SIP ALG.
- 2. Move the selector to on
- 3. Click Apply changes to save changes.

verizon ⁴ Basic	Advanc	d	Hele 🛞
letwork Device		Firewall > SIP ALG	
Verizon Router	~		
Home		SIP ALG	
WI-FI	×	How It works Manage the Application Layer Gateway for Session Initiation Protocol	
Devices	×		
Parental Controls	0	SIP ALG Disabled	
Status	~		
Firewall	^		
General			
Access Control			
Port Forwarding			
Port Triggering			
DMZ Host			
SIP ALG			
Static NAT			

6.0h/ StATIC NAT

Static NAT allows devices located behind a firewall that is configured with private IP addresses to appear to have public IP addresses to the internet. This allows an internal host, such as a web server, to have an unregistered (private) IP address and still be accessible over the internet.

To configure static NAT:

1. From the Advanced menu, select Firewall and then click Static NAT.

06 / CONFIGURING ADVANCED SETTINGS



verizon [/] Basic	Advanced			Help 🛞 -
Network Device		Firewall > Static NAT		
Verizon Router	~	Static NAT		
Home	^	otationAl		
WI-FI	~	Trigger opening of ports for incoming data.		
Devices	~	Create Rule		
Parental Controls	0	Local Host	Public IP Address	Port Fwd
Status	×	Select	0 0 0	Add to list
Firewall	^	192.168.1.151 - A030071-NB2		
General		192.168.1.152 - NB1		
Access Control		ID Device	Public IP Address	Port Fwd
Port Forwarding				
Port Triggering	- 1			
DMZ Host				
SIP ALG				
Static NAT				

- 2. To create a static NAT, select a source address in the Local Host field.
- 3. Enter the Public IP Address.
- 4. If using port forwarding, select the **Port Fwd** check box.
- 5. Click Add to list. The rule displays in the Rules List section.
- 6. Click Apply changes to save changes.
- 7. Repeat these steps to add additional static IP addresses.

6.0i/ IPV6 PINHOLES

The IPv6 Pinhole feature of the Verizon Router allows an application to send incoming packets for a certain port number to the destination computer by setting up the rule of authorization.

To configure the rules:

1. From the Advanced menu, select Firewall and then click IPv6 Pinhole.

× +	_	FTP (File Transfer)	^
t secure 192.168.1.1/#	#/adv/firewa	/pinholes HTTP (Web Server)	
verizon Basic	Advanced	HTTPS (Secured Web Server)	~
Network Device		IMAP (Messaging Server)	Ŀ
Verizon Router	\sim	L2TP (Layer Two Tunneling Protocol)	
Firewall	^	Pv6 Pinholes POP3 (Incoming Mail)	E
General		How It worke SMTP (Outgoing Mail)	
Access Control		Open a tunnel between remote computers and a device port on your Home Netw SNMP (Simple Network Management Protocol) gaming, IoT, home security devices and more.	
Port Forwarding		Telnet (Remote Connection)	-
Port Triggering		TFTP (Trivial File Transfer Protocol)	-
DMZ Host	- 1	Traceroute (Route Tracking Utility)	-
SIP ALG	- 1	Select external host V Select Internal host V TCP V Beloct application Always V Add t	<u>o list</u>
Static NAT	- 1	RulesList	
IPv6 Pinholes		External Host Protocol Application/Port Schedule	
Utilities	~		
Network Settings			
Date & Time	~		
DNS Settings	÷		
Monitoring	~		

- 2. Select external and internal host, protocol and the application port type.
- 3. To schedule the rule, select either **Always** or **User Defined** in the **Schedule** list box.

- 4. Click Add to list. The screen displays opened pinhole port and its status. It shows the IP addresses of remote device and connected device on your network.
- 5. Click **Apply changes** to save changes.

6.1/ UTILITIES

You can access the following advanced settings:

- Diagnostics performs diagnostic tests.
- Save and Restore resets your Verizon Router to its default settings.
- Reboot Router restarts your Verizon Router.
- MAC Cloning clones the MAC address.
- ARP Table displays active devices with their IP and MAC addresses.
- NDP (Neighbor Discovery Protocol) Table displays active devices with their IPv6 and MAC addresses of DHCP connection.
- Users creates and manages remote users.
- Remote Administration enable remote configuration of your Verizon Router from any internet-accessible computer.
- LED Brightness controls the Router Status LED light to either dim or brighten, and sets the dimming time of the LED light.

UTILITIES

6.1a/ DIAGNOSTICS

You can use diagnostics to test network connectivity.

To diagnose network connectivity:

- 1. From the Advanced menu, select Utilities.
- 2. Select **Diagnostics** in the **Utilities** section.
- 3. To ping an IP address, enter the IP address or domain name in the **Destination** field and click **Go**.

verizon Basic	Adva	nced			Help	® ~
Network Device			Utilities > Diagnostics			
Verizon Router	~					
Firewall	×	*	Diagnostics			
Utilities	^		How It works			Î
Diagnostics			Diagnotics can assist in testing network connectivity. This feature pings (ICMP echo) an IP packets transmitted and received, round trip time, and success status.	address and displays the results, such a	s the number of	
Save & Restore		į.	IPv4 Ping (ICMP Echo)			
Reboot Router		L			<u> </u>	5
MAC Cloning		L	Destination		Go	_
ARP Table		l	Number of pings	4		
NDP Table		I	Status			
Users		L				- 1
Remote Administration		I	IPv6 Ping (ICMP Echo)			- 1
LED Brightness		I	Destination		Go	2
Network Settings	*		Number of pings	4		1
Date & Time	*					- 8
DNS Settings	~		Status			
Monitorina						

The diagnostics will display the number of pings, status, packets sent, and round trip time.

If no diagnostic status displays, click refresh in your web browser.

6.1b/ SAVE AND RESTORE

You can use this functionality to save and load configuration files. These files are used to backup and restore the current configuration of your Verizon Router.

Only configuration files saved on a specific Verizon Router can be applied to that Verizon Router. You cannot transfer configuration files between Verizon Routers.

Warning: Manually editing a configuration file can cause your Verizon Router to malfunction or become completely inoperable.

Save Options

To save the configuration file:

1. Select Save & Restore in the Utilities section.

verizon Basic	Advar	iced	Help 🛛 🗸 🗸
Network Device		Utilities > Save & Restore	
Verizon Router	\sim		
Firewall	~	Save & Restore	
Utilities	^	How It worka	
Diagnostics		Saving your router configuration allows you to backup your custom settings on the router, such as your Wi-Fi names, passwords, DNS Sett Fiewall, Port Forwarding Rules, and more. These can be used in the event changes are made which make the router perform poorly or in device change.	ings, the case of a
Save & Restore			
Reboot Router		Save Options (Save as con	nfiguration
MAC Cloning		O Save to router and your Verizon account Saved settings are maintained for 14 days and are limited to Wi-Fi, DNS Server, and Statio WAN.	
ARP Table		Save as file	
NDP Table			
Users		Restore Options Restore con	figuration
Remote Administration		Automated Backups (Set to "On" by default until disabled below) Not Available	
LED Brightness		Disable & Delete Automated backups	
Network Settings	×	Manual Backup Not Available	
Date & Time	~		
DNS Settings	~	Factory Default This will erase the current configuration and return to an out of box state. Default Settings	×
Monitoring	×	Loada File Browse to locate file, then press Apply to begin the configuration file uploading process.	hoose file

UTILITIES

- 2. Select Save to router and your Verizon account or Save as file to save the current configuration, then click Save as configuration.
- 3. If you select **Save as file**, the configuration file is saved to you web browser's download folder.

Restore Options

You can restore your configuration settings to your Verizon Router factory default settings. Restoring the default settings erases the current configuration, including user defined settings and network connections. All connected DHCP clients must request new IP addresses. Your Verizon Router must restart.

Prior to restoring the factory defaults, you may want to save your current configuration to a file. This allows you to reapply your current settings and parameters to the default settings, as needed.

Note: When restoring defaults, the setting and parameters of your Verizon Router are restored to their default values. This includes the administrator password. A user-specified password will no longer be valid.

To backup your Verizon Router's settings:

- 1. Select Save & Restore in the Utilities section.
- 2. To take a backup of the current settings, click **Automated Backups** or **Manual Backup**. You will be prompted to save a file with the extension ".enc".
- 3. Click **Backup** to begin the configuration backup process.

To restore your Verizon Router's factory default settings:

- 1. Select Save & Restore in the Utilities section.
- 2. Click Factory Defaults.

verizon Basic	Advanced		Help	8~
Network Device		Utilities > Save & Restore		
Verizon Router	~			
Firewall	× .	Save & Restore		
Utilities	^	O Save as file		^
Diagnostics		Restore Options	(Restore configurati	on)
Save & Restore				_
Reboot Router	- 1	Automated Backups (Set to "On" by default until disabled below)	Not Available	
MAC Cloning	- 1	Disable & Delete Automated backups		. 1
ARP Table	- 1	Manual Backup	Not Available	
NDP Table	- 1	Factory Default	Default Settings	~
Users	- 1	 This will erase the current conliguration and return to an out or box state. 		- 1
Remote Administration	- 1	O Loada File Browse to locate file, then press Apply to begin the configuration file uploading process.	Choose	ile
LED Brightness	- 1	Restore From Account O To complete this action, use the My Fios App or My Verizon account to view your recently saved se	Go to Apple App S	tore
Network Settings	~	and restore them to the router.	do to doogle hier a	

- **Default Settings** will erase all router settings including user settings for SSID and Passwords.
- Default Settings except current user settings will erase all router settings but will retain the user settings for SSID and passwords.
- 3. Click **Restore configuration** button. The factory default settings are applied and your Verizon Router restarts. Once complete, the Login page for the First Time Easy Setup Wizard displays.

UTILITIES

To load the configuration file:

- 1. Select Save & Restore in the Utilities section.
- 2. To load a previously saved configuration file, click **choose file**.
- **3**. Browse to the location of the file, and click **Restore configuration** button to begin the configuration uploading process.
- Accessing the Verizon app or the My Verizon account also allows you to restore the previously saved settings. Click Restore From Account and select Go to Apple App Store/ Go to Google Play Store to restore the saved settings to the router.
- 5. Click **Restore configuration** button. Your Verizon Router will automatically restart with that configuration.

6.1c/ REBOOT VERIZON ROUTER

Warning: Only select Reboot Router if instructed to do so by Verizon support.

You can reboot your Verizon Router using the Reboot Router Only feature. Refer to 1.3b/ REAR PANEL for power button options.

To reboot your Verizon Router using the user interface:

1. Select **Reboot Router** in the **Utilities** section.

06 / CONFIGURING ADVANCED SETTINGS



verizon Basic	Advan	iced		Helo 🕲 🗸
Network Device			Utilities > Reboot Router	
Verizon Router	~			
Firewall	~	^	Reboot Device	Rebool Device
Utilities	^			9
Diagnostics				
Save & Restore				
Reboot Router				
MAC Cloning				

- 2. To reboot, click **Reboot Device**. Your router will reboot. This may take up to a minute.
- 3. To access your Verizon Router user interface, refresh your web browser.
- 4. After the Router Status LED on the front panel turns solid white, you will automatically be sent to the web browser login page.

6.1d/ MAC CLONING

A MAC address is a hexadecimal code that identifies a device on a network. All networkable devices have a unique MAC address.

When replacing a network device on your Verizon Router, you can simplify the installation process by copying the MAC address of the existing device to your Verizon Router.

To copy the MAC address of the existing device:

1. Select MAC Cloning in the Utilities section.

UTILITIES

verizon Basic	Advanc	ed		Help	8
Network Device		Utilities > MAC Cloning			
Verizon Router	~				
Firewall	× .	MAC Cloning			
Utilities	^	How It works			
Diagnostics		MAC Address Cloning provides the ability	to emulate the routers MAC address to appear identical to the original hardware address.		
Save & Restore		Set MAC of Device	Broadband Connection (Ethernet)	App	
Reboot Router		To physical address	88 : 5A : 85 : FE : C5 : 65		
MAC Cloning			Beatore factory MAC address		
ARP Table					
NDP Table					
Users					

- 2. In the **To physical address** field, enter the MAC address of your new device.
- **3**. To locate the MAC address, refer to the documentation from the device manufacturer.
- 4. Click Apply to save changes.

6.1e/ ARP TABLE

You can view the IPv4 and MAC addresses of each DHCP connection.

*To view the IPv4 and MAC addresses for each device: s*elect **ARP Table** in the **Utilities** section.

06 / CONFIGURING ADVANCED SETTINGS



verizon Basic	Ad	vanced					Help 🛞 🗸
Network Device			Utilities > ARP Table				
Verizon Router		~					
Firewall		· •	ARP Tal	ble			Refresh
Utilities	,	~	The ARP Table below	w displays the IPv4 and MAC addres	ss of each DHCP connection		
Diagnostics			IPv4 Address	MAC Address	State	Device	
On a Destruct			192.168.1.254	-	FAILED	Network (Home/Office)	
Save & Hestore		1	192.168.1.152	48:5b:39:4f:56:08	REACHABLE	Network (Home/Office)	
Reboot Router			192.158.1.101	14:69:42:ff:a7:93	REACHABLE	Network (Home/Office)	
MAC Cloning							
ARP Table							
NDP Table							

6.1f/ NDP TABLE

You can view the IPv6 and MAC addresses of each DHCP connection.

To view the IPv6 and MAC addresses for each device: select **NDP** (Neighbor Discovery Protocol) **Table** in the **Utilities** section.

verizon ^v Basic	Advan	ced					Help	2 ®~
Network Device		Utilities > NDP Table						
Verizon Router	\sim							
Firewall	×	• NDP Table					Refre	sh
Utilities	^	The NDP Table below displays the	he IPv6 and MAC address of each DHCP conn	ection				
Diagnostics		IPv6 Address	MAC Address	State	Rtr	Device		
Save & Restore		fe80:1116.b.296.bd9-91d7	48.55:39:41.56:08	REACHABLE	No	Network (Home/Office)		
Reboot Router								
MAC Cloning								
ARP Table								
NDP Table								
Users								

UTILITIES

6.1g/USERS

You can view the users that can currently access your Wi-Fi network. In addition, you can modify their login password and name as well as manage the number of unsuccessful login attempts a user can enter before your Verizon Router temporarily denies all further login attempts by that user.

To view users:

1. Select Users in the Utilities section.

verizon Basic	Advanced	4			Helq 🔕 -
Network Device		Utilities > Users			
Verizon Router	~				
Firewall	× .	Users			
Utilities	^	The User page provides t	e ability to edit device administrator set	tings.	
Diagnostics		Login Configuration		Maximum Unsuccessful Login Attempts:	10 ~
Save & Restore					
Reboot Router	- 1	Full Name	Username	Permissions	Action
MAC Cloning		Administrator	Admin	Administrator	Edit
ARP Table					
NDP Table					
Users					
Remote Administration					
LED Brightness					
Network Settings	~				
Date & Time	~				

- 2. In the Login Configuration section, enter the maximum number of unsuccessful login attempts.
- 3. To edit usernames and passwords, click the **Edit** in the **Action** column. The **Edit User Settings** page displays.

06 / CONFIGURING ADVANCED SETTINGS



verizon Basic	Advance	ed		Help 🔕 -
Network Device		Utilities > Users > Edit User Settings	5	
Verizon Router	~		_	
Firewall	× 4	Edit User Sett	ings	Apply Changes
Utilities	^	Full name	Administrator	
Diagnostics		User name	Admin	
Save & Restore	- 1	Permissions	Administrator	
Reboot Router		Set new password	minimum 8 characters	
MAC Cloning				
ARP Table		Retype new password		
NDP Table				
Users				
Remote Administration				
LED Brightness				
Network Settings	~			
Date & Time	*			

- 4. Edit the Full name, User name and set a new password.
- 5. To add a new user, specify the following parameters:
 - Full Name name of the user.
 - User Name name the user enters to remotely access the home or office network. This field is case-sensitive.
- 6. Verify the level of access for the user in the **Permissions** field.
- 7. Click **Apply changes** to save changes. The **Users** page opens with the user information displayed.

UTILITIES

6.1h/ REMOTE ADMINISTRATION

Caution: Enabling Remote Administration places your Verizon Router network at risk from outside attacks.

You can access and control your Verizon Router not only from within the local network, but also from the internet using **Remote Administration**.

You can allow incoming access to the following:

- Allow incoming WAN Access to Web Management used to obtain access to your Verizon Router's UI and gain access to all settings and parameters through a web browser.
- **Diagnostic Tools** used for troubleshooting and remote system management by a user or Verizon.

Web Management remote administration access may be used to modify or disable firewall settings. Web Management services should be activated only when absolutely necessary.

To enable remote administration:

1. Select Remote Administration.

06 / CONFIGURING ADVANCED SETTINGS



verizon [,] Basic	Advan	ed	Hele 🛞 -
Network Device		Utilities > Remote Administration	
Verizon Router	\sim		
Firewall	×	Remote Administration	
Utilities	^	Configure Remote Administration to the router	
Diagnostics		Attention With Remote Administration enabled, your local network will be at risk from outside attacks	
Save & Restore		Allow Incoming WAN Access to Web-Management	System Settings
Reboot Router			
MAC Cloning		Using Primary ni i PS Port (443)	
ARP Table		Diagnostic Tools	
NDP Table		Allow Incoming WAN ICMP Echo Requests (e.g. pings and ICMP traceroute queries)	
Users			
Remote Administration		Allow Incoming WAN UDP Traceroute Queries	
LED Brightness			
Network Settings	~		

- 2. To enable access, select the check box.
- **3**. To remove access, clear the check box.
- 4. Click Apply changes to save changes.

UTILITIES

6.1i/ LED BRIGHTNESS

The Verizon Router allows yout to set the LED brightness to turn Off (0%) or stay bright (50% or 100%) using the user interface.

To control the LED brightness:

1. Select LED Brightness in the Utilities section.

verizon Basic	Advan	ced		Help	® ~
Network Device			Utilities > LED Brightness		
Verizon Router	~				
Utilities	^	*	LED Brightness		
Diagnostics			Set the LED brightness to turn Off or stay bright when everything is normal. The light will activate again on status changes like WPS pairing or loss of connection.		
Save & Restore			LED Brightness		
Reboot Router			9700 9700 9700 		
MAC Cloning		I.			
ARP Table					
NDP Table		l			
Users					
Remote Administration		L			
LED Brightness					
Network Settings	×				
Date & Time	~				

- 2. Slide the bar to adjust the brightness of the LED.
- 3. Click Apply changes to save changes.

Note: The light will activate again on status changes like WPS pairing or loss of connection.

6.2/ NETWORK SETTINGS

You can configure the following network settings:

- Network Objects defines a group, such as a group of computers.
- Network Connections displays and manages the details of a specific network connection.
- Universal Plug and Play (UPnP) checks the validity of all UPnP services and rules.
- Port Forwarding Rules displays port forwarding rules.
- IPv6 enables IPv6 support.
- Routing manages the routing and IP address distribution rules.
- IPv4/IPv6 Address Distribution adds computers configured as DHCP clients to the network.
- **Port Configuration** sets up the Ethernet ports as either full- or half-duplex ports, at either 10 Mbps, 100 Mbps, or 1000 Mbps.

6.2a/ NETWORK OBJECTS

Network objects define a group, such as a group of computers, on your Verizon Router network by MAC address, IP address, and/ or host name. The defined group becomes a network object. You can apply settings, such as configuring system rules, to all devices defined in the network object.

NETWORK SETTINGS

For example, instead of setting the same website filtering configuration individually to five computers one at a time, you can define the computers as a network object. Website filtering can then be simultaneously applied to all the computers.

You can use network objects to apply security rules based on host names, instead of IP addresses. This is useful since IP addresses change from time to time. In addition, you can define network objects according to MAC address to make the rule application more persistent against network configuration settings.

To define a network object:

- 1. From the Advanced menu, select Network Settings.
- 2. Select Network Objects in the Network Settings section.



3. To define a network object, click **Add new**. The **Edit Network Objects** page displays.


	verizon Basic	Ad	anced			<u>Help</u>	8~
	Network Device			Network Settings > Network Objects >	Edit Network Objects		
	Verizon Router		/				
	Firewall		*	Edit Network O	bjects		
	Utilities			Edit Network Objects			
l	Network Settings	1		Description	Global Object		
ļ	Network Objects			Item	Action		
	Network Connections		1	Add			
	Universal Plug & Play			25			
	Port Forwarding Rules		1	Cancel App	oly Changes		

- 4. In the **Description** field, enter a name for the network object.
- 5. Click Add. The Edit Item page displays.

verizon Basic	Advanced			<u>Help</u>	8~
Network Device		Network Settings > Network Objects > 1	Edit Network Objects		
Verizon Router	~				
Firewall	× .	Edit Network O)bjects		
Utilities	*	Edit Items			
Network Settings	^	Network Object Type	IP Address		
Network Objects			IP Address		
Network Connections	- 1	IP Address	IP Subnet		
Universal Plug & Play	- 1	Cancel	P IP Range		
Port Forwarding Rules	- 1		MAC Address		
IPv6	- 1		Host Name		
Routing			DHCP Oplion		

- Select and configure the type of network object as IP address, IP subnet, IP range, MAC address, host name, or DHCP option, and click **Apply** to save changes.
- 7. Repeat the above steps to create additional network objects.
- 8. When complete, click **Apply changes** to save changes.

6.2b/ NETWORK CONNECTIONS

Caution: The settings described in this chapter should only be configured by experienced network technicians. Changes could adversely affect the operation of your router and your local network.

To view the network connections:

1. From the Advanced menu, select Network Settings from the left pane and then click Network Connections.

verizon Basic	Advanc	ed			Help 🛞 -
Network Device		Network Settings > Network Connections			
Verizon Router	~				
Firewall	×	Network Connection	າຣ		
Utilities	×	Network name	Status		
Network Settings	^	Network (Home/Office)	Connected	Edit	
Network Objects		5 GHz Wi-Fi Access Point	Disconnected	Edit	
Network Connections		6 GHz Wi-Fi Access Point	Disconnected	Edit	
Network Connections		2.4 GHz Wi-Fi Access Point	Disconnected	Edit	
Universal Plug & Play		Ethernet	Connected	Edit	
Port Forwarding Rules		Coax	Cable Disconnected	Edit	
IPv6		Broadband Connection (Ethernet)	Disconnected	Edit	
Routing		Full Status			

2. To view and edit the details of a specific network connection, click the hyperlinked name or the action icon. The following sections detail the types of network connections that you can view.

NETWORK (HOME/OFFICE) CONNECTION

You can view the properties of your local network. This connection is used to combine several network interfaces under one virtual network. For example, you can create a home/office network connection for Ethernet and other network devices.

Note: When a network connection is disabled, the underlying devices formerly connected to it will not be able to obtain a new DHCP address from that Verizon Router network interface.

To view the connection:

 On the Network Connections page, click the Network (Home/Office) connection link. The Network (Home/ Office) Properties page displays.

verizon Basic	Advanced				Hele 🛞 -
Network Device	_	Network Settings > Network Conne	ctions > Network (Home/Office)		
Verizon Router	\sim	Network (11-	······································		
Firewall	v *	Network (Ho	me/Office)	Settings	
Utilities	•	Important: Only advanced technic	al users should use this feature.		Â
Network Settings	^	Name:	Network (Home/Office)		
Network Objects	- 1	Status:	Connected		
Network Connections	- 1	Network:	Network (Home/Office)		
Universal Plug & Play	- 1				
Port Forwarding Rules	- 1	Underlying Device:	5 GHZ WI-FI Access Point 6 GHZ WI-FI Access Point 2 4 GHZ WI-FI Access Point		
IPv6	- 1		Ethernet Coax		
Routing	- 1	Connection Type:	Bridge		
IPv4 Address Distribution	- 1				
IPv6 Address Distribution	- 1	MAC Address:	88:5A:85:FE:C5:66		
Port Configuration		IPv4 Address:	192.168.1.1		

etwork Device		Network Settings > Network Conne	ections > Network (Home/Office)		
Verizon Router	~			\frown	
Firewall	, ·	Network (Ho	me/Office)	Settings	
Jtilities	÷	IPv4 Address:	192.168.1.1		
Network Settings	^	Subnet Mask:	255.255.255.0		
Network Objects	- 1	IP Address Distribution:	DHCP Server		
Network Connections		Ipvő LAN Prefix:	0		
Universal Plug & Play		Ipv6 Address:			
Port Forwarding Hules		Link Local Address:	0		
Routing		IPv6 Address Distribution:	Stateless		
IPv4 Address Distribution		Received Packets:	182		
IPv6 Address Distribution		Sent Packets:	143		

- 2. To rename a network connection, enter the new network name in the **Name** field.
- 3. Click Save to save the changes.

CONFIGURING THE HOME/OFFICE NETWORK

To configure the network connection:

1. In the Network (Home/Office) Properties page, click Settings. The configuration page displays.



etwork Device		Network Settings > Network Conne	ctions > Network (Home/Office)				
Verizon Router	\sim					_	
Firewall		Network (Ho	me/Office)				Save Change
Utilities	•	Important: Only advanced technic	al users should use this feature				
Network Settings	^	General					
Network Objects	- 6	Status:		Connected			
Network Connections							
Universal Plug & Play		Gonnection Type:		Network (H	ome/Office)		
Port Forwarding Rules		Physical Address:		88:5A:85 FE	C5:66		
IPv6		MTU:	Automatic ~		1500		
Routing		Internet Protocol:	Use the Followin $$				
IPv4 Address Distribution		IP Address:	192 168 1	1			
IPv6 Address Distribution		Subnet Maskr	255 255 294		-		
Port Configuration							
Date & Time	×	Bridge Name		VLAN	Status		
Date & Time	Advanced	Bridge		VLAN	Status		Help
Verizon Verice	Advanced	Name Network Settings > Network Conne	ctions > Network (Home/Office)	VLAN	Status		Help
Verizon V Basic Verizon Revice Verizon Router	Advanced	Bridge Name Network Settings > Network Conne Network (Ho	ctions > Network (Home/Office)	VI. AN	Status		Help Save Change
Verizon Pouloe Verizon Router Trewall Valities	Advanced	Bridge Name Network Gettings > Network Conver Network (Ho Bridge	ctions > Network Disenzotifice)	VIAN	Status		Hele Save Change
verizon / Basic etaut Detice Verizon Router Firewall Utilities	Advanced	Bridge Name Network Settings > Metwork Come Network (Ho Bridge Name	ctions > Network (Home/Office)	VLAN	Status Status		<u>Help</u> Save Change
Verizon V Basic etaus Deste Verizon Router Frewall Jällites Network Settingo	Advanced	Bridge Name Network Settings > Network Correc Network (Ho Bridge Name D Bradband Convection (El	ction > Network (HenerOffice) mme/Office)	VLAN VLAN Disable	Ratus Status Disconnected	ta	Holo Save Change
Verizon // Basic etaut Device Verizon Router Frewall Julities Network Settings Network Copjects Network Corpectons	× Advanced	Bridge Name Network Settings > Network Conve Network (Hoo Bridge Name Broadband Convection (Efi S Broadband Convection (Efi S 10 ftr Vh.Fl. Access Public	ctors > Network (HamedOffice) mme/Office) Nerreet	VLAN VLAN Disable	Ratus Status Disconnected Disconnected	<u>E01</u> E01	Holo I
Verizon V Basic etaut Dete Verizon Router Frewall Julities Network Settings Network Connectons Universit Plos & Pay	Advanced	Bridge Name Network Settings > Network Conver Network (Hoo Bridge Name Broadhand Goneetlon (Ef S 1 Strift Wirfl Access Pailed S 1 Strift Wirfl Access Pailed S 1 Strift Wirfl Access Pailed	ctors > Network (Hame:Office) me/Office) hernet	VLAN VLAN Disable Disable	Status Status Disconnected Disconnected	<u>Eas</u> Eas Eas	Help (
Verizon V Basic eteorit Derke Verizon Router Frevall Utilities Network Settings Network Opjects Network Connections Universal Plug & Play	Advanced	Bridge Name Network Settings > Network Conver Network (Hoo Bridge Bridge Bridge Briddhand Convection (Et S Sitter Wich Access Public Siter Siter Siter Siter Access Public Siter S	ctors > Network (Hemed)Office me/Office) hermet	VLAN VLAN Disable Disable Disable	Status Status Status Disconnected Disconnected Disconnected	<u>हिवा</u> हिवा हिवा हिवा	Hola I
Vertizon V Basic etsust Decke etsust Decke Vertizon Router Frevall Utilities Network Settings Network Connections Universal Plug & Play Port Forwarding Rules	× Advanced	Bridge Name Network Settings > Network Conver Network (Hoo Bridge Brane Brankand Convection (EE S 5016 Wh/F Access Public S 5016 Wh/F Access Public S 2.4 Gifts Wh/F Access Public S 2.4 G	etters > heterok (HamaOffice) me/Office) hermet	VLAN VLAN Disable Disable Disable Disable	Status Status Status Disconnected Disconnected Connected	Eat Eat Eat Eat	Hela (
Perf20n Base estant Device estant Device estant Device estant Device Perevall Ustitutes Network Settings Network Objects Network Opjects Universal Plug & Play Port Forwarding Flues IPv6	Advanced	Bridge Rame Network Settings > Network Conver Network (Hoo Bridge Brankhand Connection (EE S 5015 VH7/ Access Public C 5016 VH7/ Access Public E Access Public E Shornet E Shorn	ctors > hetwork (HomeOffice) me/Office) hermet)	VLAN VLAN Disable Disable Disable Disable	Status Status Status Disconnected Disconnected Disconnected Connected Disconnected	Edi Edi Edi Edi Edi Edi Edi	Hala (
Vertizon V Basic eterost Decke eterost Decke Vertizon Router Frevall Utilities Network Settings Network Objects Network Objects Universal Plug & Play Port Forwarding Rules IPv6 Routing	Advanced	Bridge Name Network Settings > technols Conver Network (Hoo Bridge Branken Brankend Convection (EE Brankend Convection (EE S 5016 Wh7 Access Public S 5016 Wh7 Access Public S 5016 Wh7 Access Public C Coss Pr Address Distribution: Pr Address Distribution:	etters > hetwork (HomeOffice) me/Office) hermet DECP Server: v	VLAN Disable Disable Disable	Status Status Status Disconnected Disconnected Connected Disconnected	Eat Eat Eat Eat Eat	Hela I
Verizon // Basic eteoro Device Verizon Router Prevail Utilities Network Settings Network Opjects Network Opjects Universal Plug & Play Port Forwarding Rules IPv6 Routing	Advanced	Bridge Rame Network Settings > Network Conver Network (Hoo Bridge Rame Bradhand Goneection (Et S 5 Gits Win/ Access Public F Address Distribution: Blant IP Address Distribution: Blant IP Address C	ctors > Network (HemeOffice) me/Office) hermet DHCP Server	VLAN VLAN Disable Disable Disable 2 Sisable 2	Status Status Status Disconnected Disconnected Connected Disconnected Disconnected	ित्व दिवा दिवा दिवा दिवा	Haka I
Perf20n Pasea Perf20n Pasea Perf20n P	Advanced	Bridge Name Network Settings > Network Conver Network (Hoo Bridge Name Bridge Bridge Bridge Bridge Access Public S Site Wir/F Access Public S Cons Public Starter Public Starters Find Phadress Converted End	ctors > Network (Hemed)Cifice me/Office) hermet1 DHCP Server V 22 06 1 92 108 1	VLAN VLAN Disable Disable Disable Disable 254 254	Status Status Status Disconnected Disconnected Connected Disabled	<u>Бал</u> Бал Бал Бал Бал	변화한 1

letwork Device		Network Settings > Network	Connections > Netv	vork (Home/Office)				
Verizon Router	\mathbf{v}							
Firewall	× 4	Network (H	lome/O	ffice)				Save Changes
Utilities	*	Start IP Address:	192	168 1	2			
Network Settings	^	End IP Address:	192	168 1	254			
Network Objects	- 1							
Network Connections	- 1	WINS Server:	0	0 0	0			
Universal Plug & Play	- 1	Lease time in minutes:	1440					
Port Forwarding Rules	- 1	IP Address Distribution Aco	ording to DHCP Opti	on 60 (Vendor Clas	s Identifier)			
IPv6	- 1	Vendor Class ID		IP Address	MAC Address		QoS	
Routing	- 1	MSFT 5.0		192.168.1.154	A8:5E:45:38:8A:65			
IPv4 Address Distribution	- 1	MSFT 5.0		192.168.1.151	48:5B:39:4F:56:08			
IPv6 Address Distribution	- 1	Routing Table						
Port Configuration	- 1	Name D	estination	Gateway	Netmask	Metric	Status	Action
Date & Time	÷	Add new route						
DNS Settings	÷	< Im						

2. Configure the following sections, as needed.

General

In the General section, verify the following information:

- Status displays the connection status of the network.
- **Connection Type** displays the type of connection interface.
- **Physical Address** displays the physical address of the network card used for the network.
- **MTU** displays the Maximum Transmission Unit (MTU) indicating the largest packet size permitted for internet transmissions:

- **Automatic**: sets the MTU (Maximum Transmission Unit) at 1500.
- Automatic by DHCP: sets the MTU according to the DHCP connection.
- Manual: allows you to manually set the MTU.
- Internet Protocol

In the Internet Protocol section, specify one of the following:

- No IPv4 Address: the connection has no IP address. This is useful if the connection operates under a bridge.
- Obtain an IPv4 Address Automatically: the network connection is required by Verizon to obtain an IP address automatically. The server assigning the IP address also assigns a subnet mask address, which can be overridden by entering another subnet mask address.
- Use the Following IP Address: the network connection uses a permanent or static IP address and Subnet Mask address, provided by Verizon or experienced network technician.

Bridge

In the **Bridge** section of the **Network (Home/Office) Properties**, you can configure the various LAN interfaces.

Caution: Do not change these settings unless specifically instructed to by Verizon. Changes could adversely affect the operation of your Verizon Router and your local network.

Verify the following information:

- **Status** displays the connection status of a specific network connection.
- Action contains an Edit hyperlink that, when clicked, generates the next level configuration page for the specific network connection or network device.

IP Address Distribution

The **IP Address Distribution** section is used to configure the Dynamic Host Configuration Protocol (DHCP) server parameters of your Verizon Router.

Once enabled and configured, the DHCP server automatically assigns IP addresses to any network devices which are set to obtain their IP address dynamically. If DHCP Server is enabled on your Verizon Router, configure the network devices as DHCP Clients. There are 2 basic options in this section: **Disabled** and **DHCP Server**.

To set up the Verizon Router's network bridge to function as a DHCP server:

- In the IP Address Distribution section, select the DHCP server. Once enabled, the DHCP server provides automatic IP assignments (also referred to as IP leases) based on the preset IP range defined below.
 - Start IP Address Enter the first IP address in the IP range that the Verizon Router will automatically begin assigning IP addresses from. Since your Verizon Router's IP address is 192.168.1.1, the default Start IP Address is 192.168.1.2.
 - End IP Address Enter the last IP address in the IP range that the Verizon Router will automatically stop the IP address allocation at. The maximum end IP address range that can be entered is 192.168.1.254.
- 2. If Windows Internet Naming Service (WINS) is being used, enter the **WINS Server** address.
- 3. In the Lease Time in Minutes field, enter the amount of time a network device is allowed to connect to the Verizon Router with its currently issued dynamic IP address.

IP Address Distribution According to DHCP option 60 (vendor class Identifier)

DHCP vendor class is related to DHCP option 60 configuration within the router. Adding option 60 configurations allows a particular vendor to get a lease from a specified pool of addresses.

Click Save Changes to save changes.

Routing Table

You can configure your Verizon Router to use static or dynamic routing.

- **Static routing** specifies a fixed routing path to neighboring destinations based on predetermined metrics.
- **Dynamic routing** automatically adjusts how packets travel on the network. The path determination is based on network/ device reachability and the status of the network being traveled.

To configure routing:

1. In the **Routing Table** section, click **Add new route** button to display and modify the new route configuration page.



verizon [/] Basic	Advance	ed	Hele (
letwork Device	_	Network Settings > Network	k Connections > Network (Home/Office) > Route Settings
Verizon Router	~		
Firewall	× .	Route Set	tings
Utilities	~	Routing Entry:	IPv4 ~
Network Settings	^	Name:	Network (Home/Office)
Network Objects	- 1	Destination:	0 0 0 0
Network Connections			
Universal Plug & Play		Netmask:	0 0 0 0
Port Forwarding Rules		Gateway:	0 0 0
IPv6		Metric:	0
Routing			

2. To save your changes click Apply.

WI-FI ACCESS POINT CONNECTION

A Wi-Fi Access Point network connection allows Wi-Fi devices to connect to the local area network (LAN) using the 2.4 GHz, 5 GHz or 6 GHz Wi-Fi network.

Note: Once disabled, all Wi-Fi devices connected to that Wi-Fi network will be disconnected from the LAN network and internet.

To view the connection settings:

- 1. From the Advanced menu, select Network Settings from the left pane and then click Network Connections.
- On the Network Connections page, click the Network (Home/Offiffice) connection link. The Network (Home/ Offiffice) Properties page displays.

3. To access the connection settings pages, click on the link of any of the connections listed under **Network name**.

Verizon ^v Basic	Advanced	d		Hele 🔕
etwork Device		Network Settings > Network Conne	ections > 6 GHz Wi-Fi Access Point	
Verizon Router	~		D. J. J.	
Firewall	v *	6 GHZ WI-FIA	Access Point	
Utilities	~	Enable Settings.		Enabled
Network Settings	^	Important: Only advanced technic	al users should use this feature.	
Network Objects	1	Name:	6 GHz WI-FI Access Point	
Network Connections		Status:	Disconnected	
Universal Plug & Play		Network:	Network (Home/Office)	
Port Forwarding Rules		Connection Type:	6 GHz Wi-Fi Access Point	
IPv6 Routing		MAC Address:	88-54-85-FE-C5-69	
IPv4 Address Distribution		IP Address Distribution:	Disable	
IPv6 Address Distribution		Received Packets:	0	
Port Configuration		Sent Packets:	39	
Date & Time	*	Time Span:	0.36-07	
DNS Settings	~			

- 4. From the connection's **Enable Settings** page, to enable or disable the connection, move the selector to **on or off**.
- 5. To rename the connection, enter a name in the **Name** field.
- 6. Click **Apply** to save the changes.
- 7. Reboot your Verizon Router.

CONFIGURING WI-FI ACCESS POINT PROPERTIES

To configure the connection:

 On the bottom of the Access Points specific Enable Settings page, click Settings. The configuration page displays.



verizon Basic	Advance	d	Halla 🛞 ~
Network Device		Network Settings > Network Con	nections > 6 GHz Wi-Fi Access Point
Verizon Router	~	6 CH-W: F:	Assess Drint
Firewall	~ ^	OGHZ WI-FI	Access Point
Utilities	÷	General	
Network Settings	^	Important: Only advanced techn	nical users should use this feature.
Network Objects	- 1	Status:	Disconnected
Network Connections	- 1	Network:	Network (Home/Office)
Universal Plug & Play	- 1		
Port Forwarding Rules	- 1	Connection Type:	6 GH2 Wi-Fi Access Point
IPv6	- 1	Physical Address:	88.54.85.FE.C5.69
Routing		MTU:	Automatic ~ 1500
IPv4 Address Distribution	1		
IPv6 Address Distribution		Apply	

- 2. Verify the following information:
 - Status displays the connection status of the network.
 - **Network** displays the type of network connection.
 - **Connection Type** displays the type of connection interface.
 - **Physical Address** displays the physical address of the network card used for the network.
 - **MTU** specifies the largest packet size permitted for internet transmissions:
 - Automatic: set the MTU (Maximum Transmission Unit) at 1500.
 - Automatic by DHCP: sets the MTU according to the DHCP connection.
 - Manual: allows you to manually set the MTU.
- 3. Click **Apply** to save changes.

ETHERNET CONNECTION

You can view the properties of your Ethernet LAN connection using an Ethernet cable inserted into one of your Verizon Router's Ethernet LAN ports.

To view the connection settings:

- 1. In the **Network Connections** page, click the **Network(Home/Office)** connection link.
- 2. Next, to access the **Ethernet** properties page, click the **Ethernet** link listed under the **Underlying Device** section.

verizon Basic Ad	ivanced			Hele 🛞	~
Network Device		Network Settings > Network Connection	ns > Ethernet		
Verizon Router	~	_			
Firewall	× .	Ethernet			
Utilities	~	Important: Only advanced technical us	sers should use this feature.		
Network Settings	^	Name:	Ethernet		L
Network Objects	1	Status:	Connected		L
Network Connections					L
Universal Plug & Play		Network:	Network (Home/Office)		L
Port Forwarding Rules		Connection Type:	Hardware Ethernet Swlich		L
IPv6		MAC Address:	88.5A.85.FE.C5.66		L
Routing		IP Address Distribution:	Disable		L
IPv4 Address Distribution		Received Packets:	53910		L
IPv6 Address Distribution					L
Port Configuration		Sent Packets:	102391		L
Date & Time	·	Time Span:	6.40.59		
DNS Settings	~	Sattions			
Monitoring	~				

- 3. To rename the network connection, enter the new name in the **Name** field.
- 4. Click Apply to save changes.

CONFIGURING ETHERNET PROPERTIES

To configure the connection:

1. In the **Ethernet** page, click **Settings**. The configuration page displays.

verizon Basic	Advan	ced			Help	® ~
Network Device			Network Settings > Network Connectio	ns > Ethernet		
Verizon Router	~	_	F .1			
Firewall	×	*	Ethernet			
Utilities	~		General			Â
Network Settings	^		Important: Only advanced technical u	sers should use this feature.		-
Network Objects		ł	Status:	Connected		- 1
Network Connections						- 1
Universal Plug & Play		l	Network:	Network (Home/Office)		- 1
Port Forwarding Rules		l	Connection Type:	Hardware Ethernet Switch		.
IPv6		l	Physical Address:	88:5A-85:FE-C5:66		
Routing		l	MTU:	Automatic ~ 1500		
IPv4 Address Distribution						- 1
IPv6 Address Distribution		l	HW Switch Ports:			- 1
Port Configuration			Port:	Status		
Date & Time	v		LAN 10GE	Disconnected		
DNS Settings	×		LAN Port 1	Connected 100 Mbps Full-Duplex		
Monitoring	×		LAN Port 2	Disconnected		

2. Configure the following settings, as needed.

General

Verify the following information:

- Status displays the connection status of the network.
- Network displays the type of network connection.
- Connection Type displays as Hardware Ethernet Switch.

- **Physical Address** displays the physical address of the network card used for the network.
- MTU specifies the largest packet size permitted for
 - **Automatic**: sets the MTU (Maximum Transmission Unit at 1500).
 - Automatic by DHCP: sets the MTU according to the DHCP connection.
 - Manual: allows you to manually set the MTU.
- HW Switch Ports displays the status of each LAN port.
- 3. Click **Apply** to save the changes.

COAX

twork Device	_	Naturek Sattines > Naturek Conr	ections > Foay	
Verizon Router	\sim	Network Settings > Network Conr	ections > Coax	
irewall	× .	Coax		
Itilities	•	Enable Settings.		Enabled
etwork Settings	~	Important: Only advanced techni	cal users should use this feature.	
Network Objects		Name:	Coax	
letwork Connections		Status:	Cable Disconnected	
Iniversal Plug & Play		Natwork	Network (Neme/Office)	
ort Forwarding Rules	- 1	Network.	Network (Home/Onice)	
Pv6	- 1	Connection Type:	Hardware MoCA	
louting		MAC Address:	88:5A-85:FE:C5:66	
Pv4 Address Distribution		IP Address Distribution:	Disable	
Pv6 Address Distribution		Received Packets:	0	
ort Configuration	- 1			
ate & Time	~	Sent Packets:	0	
NS Settings	•	Time Span:	0:00:00	
entering				

To view the connection settings:

- 1. In the **Network Connections** page, click the **Coax** link.
- 2. From the connection's **Enable Settings** page, to enable or disable the connection, move the selector to **on** or **off**.
- 3. To rename the network connection, enter the new name in the **Name** field.
- 4. Click Apply to save changes.

CONFIGURING COAX PROPERTIES

To configure the connection:

1. In the **Coax** page, click **Settings**. The configuration page displays.

verizon [/] Basic	Advance	d		Help	<u>®</u> ~
Network Device		Network Settings > Network Connect	lions > Coax		
Verizon Router	\sim	•			
Firewall	× *	Coax			
Utilities	~	General			Î
Network Settings	^	Important: Only advanced technical	users should use this feature.		
Network Objects	- 1	Status:	Cable Disconnected		1
Network Connections	- 1				- 1
Universal Plug & Play	- 1	Network:	Network (Home/Office)		- 1
Port Forwarding Rules		Connection Type:	Hardware MoCA		.
IPv6		Physical Address:	88:54:85FE:C5:06		
Routing		MTU:	Automatic ~ 1500		
IPv4 Address Distribution	- 1	CooxLink			- 1
IPv6 Address Distribution	- 1				- 1
Port Configuration		Privacy:	Enable 🗌		. 1
Date & Time	÷	Password:	888888888888888888888888888888888888888		
DNS Settings	÷	Coax Connection Stats:	Go to LAN Coax Stats		
Monitoring	× .	Apply			_

2. Configure the following settings, as needed.

General

Verify the following information:

- Status displays the connection status of the network.
- **Network** displays the type of network connection.
- **Connection Type** displays the type of connection interface.
- **Physical Address** displays the physical address of the network card used for the network.
- **MTU** specifies the largest packet size permitted for internet transmissions:
 - Automatic: sets the MTU (Maximum Transmission Unit at 1500).

Coax Link

- **Privacy** to set **Privacy**, select the **Enabled** check box. This causes all devices connected to the coaxial cable to use the same password. This is recommended. To set the password, enter the Coax Link password in the **Manual entry of privacy password** field.
- To enable or disable the Coax link, click **Enable** or **Disable**.
- To view the devices connected using the coaxial cable, click the **Go to LAN Coax Status** link.
- 3. Click **Apply** to save changes.

BROADBAND CONNECTION (ETHERNET)

You can view the properties of your broadband connection (your connection to the internet). This connection may be via Ethernet cable.

To view the connection settings:

1. In the Network Connections page, click the Broadband Connection (Ethernet) link.

verizon Basic	Advance	d		Help 🛞 -
Network Device		Network Settings > Network Connecti	ons > Broadband Connection (Ethernet)	
Verizon Router	~	Broadband Co	onnection (Ethernet)	
Firewall	× *	Bioaubana Ot		
Utilities	v	Enable Settings.		
Network Settings	^	Important: Only advanced technical	users should use this feature.	
Network Objects	- 1	Name:	Broadband Connection (Ethernet)	
Network Connections		Status:	Disconnected	
Universal Plug & Play	- 1			
Port Forwarding Rules	- 1	Network:	Broadband Connection	
IPv6		Connection Type:	Disconnected	
Routing		MAC Address:		
IPv4 Address Distribution		IPv4 WAN Address:		
IPv6 Address Distribution		Subnet Mask:		
Port Configuration	- 1	Defenti Calence		
Date & Time	*	Derault Gateway:		
DNS Settings	~	IPv4 DNS Address 1:		
Monitoring	× .	IPv4 DNS Address 2:		

etwork Device		Network Settings > Network Connections > Broadband Connection (Ethernet)	
Verizon Houter	~	Broadband Connection (Ethernet)	
Firewall	× ^	Broadband Connection (Ethernet)	
Itilities		IPv4 DNS Address 2:	
letwork Settings	~	IP Address Distribution: DHCP	
Network Objects	- 1	IPv6 WAN Address:	
Network Connections		IPv8 Link Local Address:	
Universal Plug & Play		IPvő DNS Address 1:	
Port Forwarding Rules		IPv0 DNS Address 2:	
IPv6	- 1		
Routing	- 1	Received Packets: 0	
IPv4 Address Distribution		Sent Packets: 0	
Pv6 Address Distribution		Time Span: 0:00:00	
Port Configuration	- 1		
ate & Time	÷	Apply Settings	
NS Settings	÷		
feultering			

CONFIGURING BROADBAND CONNECTION

To configure the connection:

1. In the **Broadband Connection (Ethernet) Properties** page, click **Settings**. The configuration page displays.



Verizon Basic	Advanced		Hele (Q ~
Network Device		Network Settings > Network Connectio	ns > Network Connection Broadband Settings	
Verizon Router	~	D		
Firewall	× *	Broadband Co	nnection (Ethernet) Settings	
Utilities	~	General		Î
Network Settings	~	Important: Only advanced technical u	sers should use this feature.	
Network Objects	- 1	Status:	Disconnected	
Network Connections	- 1			
Universal Plug & Play	- 1	Network:	Broadband Connection (Ethernet)	
Port Forwarding Rules	- 1	Connection Type:		
IPv6	- 1	Physical Address:		
Routing	- 1	MTU:	Automatic ~ 1500	
IPv4 Address Distribution	- 1	WAN IP Address		
IPv6 Address Distribution	- 1			
Port Configuration	- 1	Internet Protocol:	Obtain IPv4 Address Automatically	
Date & Time	•	Override Subnet Mask:	Obtain IPv4 Address Automatically	
DNS Settings	•	DHCP Lease:	Use the following Ipv4 Address	
Monitoring	~	Expires In:	Expired	
the set of the second				
verizon [,] Basic	Advanced		Holo () ~
Network Device	Advanced	Network Settings > Network Connection	Halle 🧕	Q~
Verizon Basic	Advanced	Network Settings > Network Connectio	Hate (no > Network Connection Disabilities Settings nnection (Ethernet) Settings	Q ~
Verizon Basic Network Device Verizon Router Firewall	Advanced	Network Settings > Network Connectio	Here (Ins. > Network Connection Disabilities Settings Innection (Ethernet) Settings	•
Verizon / Basic Network Device Verizon Router Firewall Utilities	Advanced	Network Settings > Network Connection Broadband Coo MTU:	Hale (Ins. > Network Connection Divertings Innection (Ethernet) Settings Automatic	•
verizon ⁷ Basic Network Device Verizon Router Firewall Utilities Network Settings	Advanced	Network Settings > Network Connection Broadband Co MTU: WAN IP Address	Here (Ins. > Network Connection Dealbard Settings Innection (Ethernet) Settings Automate 1000 1000	•
verizon ⁷ Basic Petessit Device Verizon Router Firewall Utilities Network Settings Network Objects	Advanced	Noteen's Setting > Noteen's Connection Broadband Co NTU: WAN IP Address Internet Protocols	Here (Ins. > Network Connection Dealbard Settings Ins. > Network Connection (Ethernet) Settings Automatic I 1000 Obtain the Address Automaticaty	•
verizon ⁷ Basic reteasit Device Verizon Router Firewall Utilities Network Settings Network Objects Network Connections	Advanced	Inducts Setting 3 Inducts Connector Broadband Con NTU: WANIP Address Internet Protocot	Itel Itel Itel Itel Itel Itel Itel Itel	•
verizon ⁷ Basic Intersort Device Verizon Router Frewall Utilities Network Settings Network Objects Network Connections Universal Plug & Play	Advanced	Noteen's Settings 3 Noteen's Connection Broadband Con NTU: WANIP Addrees Internet Protocol: Override Subnet Mask:	Itel Itel Itel Itel Itel Itel Itel Itel	•
verizon ⁷ Basic Intersort Device Verizon Router Frewall Utilities Network Settings Network Objects Network Connections Universal Pug & Play Port Forwarding Rules	Advanced	Network Setting:) Network Connection Broadband Coo NTU: WANIP Address Internet Protocol: Override Subnet Mask: DHCP Lesse:	Itel Itel Itel	•
verizon ⁷ Basic Intersort Device Verizon Router Frewall Utilities Network Settings Network Connections Universal Plug & Play Port Forwarding Plues IPv6	Advanced	Network Setting:) Network Connection Broadband Coo NTU: WANIP Address Internet Protocol: Override Subnet Mask: DIGP Lesse: Explore In:	Itel Itel Itel Itel Itel Itel Itel Itel	•
verizon ⁷ Basic Intersort Joedan Verizon Router Frewall Utilities Network Settings Network Objects Network Connections Universal Plug & Play Port Forwarding Plules IPv6 Routing	Advanced v ^ ^	Network Setting: 3 Network Connection Broadband Coo NTU: WANIP Addrees Network Protocol: Dictr Lesse: Expires In: Expires In: Pr-4 DIR5:		•
verizon ⁷ Basic Intersort Device Verizon Router Frewnil Utilities Network Settings Network Objects Network Connectons Universal Plug & Play Port Forwarding Plues IPv6 Routing IPv4 Address Distribution	Advanced	Network Setting:) Network Connection Broadband Coo NTU: WANIP Addrees Network Protocol: Dictrenset Protocol: Dictrenset Protocol: Expires in: Pr-4 DBS: Internet Connection Fireu-th		•
verizon ⁷ Basic Intersort Joekte Verizon Router Frewnil Uiiities Network Settings Network Objects Network Connections Universal Plug & Play Port Forwarding Rules IPv6 Routing IPv4 Address Distribution	Advanced v Advanced	Network Setting: 3 Network Connection Broadband Coo NTU: WANIP Address Network Protocol: OHCP Losse: Expires In: Pin4 DBS; Internet Connection Firewalt		•
verizon ⁷ Basic Intersort Joekte Verizon Router Frewail Utilities Network Settings Network Objects Network Connections Universal Plug & Play Port Forwarding Rules IPv6 Routing IPv6 Address Distribution IPv6 Address Distribution	Advanced	Network Setting: > Network Connector Broadband Coo MTG: WANIP Address Internet Protocol: DHCP Losse: Expres In: IPP4 DNS: Internet Connection Firewalt:	Attention of the state of t	•
verizon ⁷ Basic Intersort Joence Verizon Router Frewall Utilities Network Settings Network Objects Network Objects Network Objects Network Objects Network Objects Network Objects Network Objects Port Forwarding Rules IPv6 Routing IPv4 Address Distribution IPv4 Address Distribution Port Configuration Date & Time	Advanced	Network Setting: > Network Connection Broadband Coo MTG: WANIP Address Internet Protocol: DHCP Lease: Exples In: Internet Connection Firewalt: Internet Connection Firewalt:	And a standard st	•
verizon ⁷ Basic Intersort Joence Verizon Router Frewall Utilities Network Settings Network Objects Network Objects Network Objects Network Objects Network Objects Network Objects Network Objects Port Forwarding Rules IPv6 Routing IPv6 Address Distribution Port Contiguration Dotte & Time DNS Settings	Advanced	Network Setting: 3 Network Connection Broadband Coo NTU: WANIP Addrees Network Protocol: Override Subnet Mask: DHCP Lesse: Espires In: Espires In: Expires I	All a versus exercises descentioned of the defendence of the d	

2. Configure the following settings, as needed.

General

Verify the following information:

- Status displays the connection status of the network.
- **Network** displays the type of network connection.
- **Connection Type** displays the type of connection interface.
- **Physical Address** displays the physical address of the network card used for the network.
- **MTU** specifies the largest packet size permitted for internet transmissions:
 - **Automatic**: sets the MTU (Maximum Transmission Unit at 1500).
 - Automatic by DHCP: sets the MTU according to the DHCP connection.
 - Manual: allows you to manually set the MTU.

6.2c/ UNIVERSAL PLUG AND PLAY

You can use Universal Plug and Play (UPnP) to support new devices without configuring or rebooting your Verizon Router.

In addition, you can enable the automatic cleanup of invalid rules. When enabled, this functionality verifies the validity of all UPnP services and rules every five minutes. Old and unused UPnP defined services are removed, unless a user-defined rule depends on it. UPnP services are not deleted when disconnecting a computer without proper shutdown of the UPnP applications, such as messenger. Services may often not be deleted and eventually this leads to the exhaustion of rules and services. No new services can be defined. The cleanup feature locates the invalid services and removes them, preventing services exhaustion.

To access this setting:

1. Select Universal Plug & Play in the Network Settings section.

verizon Basic	Advanced	Hala 🛞 ~
Network Device		Network Settings > Universal Plug & Play
Verizon Router	~	Line and Direct & Direct
Home		Universal Plug & Play
WI-FI	÷	Universal Plug and Plug provides the ability for the router to have new UPAP supported devices connected without having to reconfigure or reboot the router.
Devices	~	✓ UPnPEnabled
Parental Controls	0	
Status	~	Enable Automatic Cleanup of Old Unused UPnP Services
Firewall	v	
Utilities	×	
Network Settings	^	
Network Objects	- 1	
Network Connections		
Universal Plug & Play		
Port Forwarding Rules	5	

- 2. To enable UPnP and allow UPnP services to be defined on any network hosts, select the **UPnP Enabled** check box.
- 3. To enable automatic cleanup of invalid rules, select **Enable Automatic Cleanup of Old Unused UPnP Services** check box.
- 4. Click Apply changes to save changes.

6.2d/ PORT FORWARDING RULES

You can view, modify, and delete port forwarding rules.

To access the rules:

1. Select **Port Forwarding Rules** in the **Network Settings** section.

_			
	Network Settings > Port Forwar	ding Rules	
~	Dort Corrus	uding Duloo	
	FortForwar	ang Rules	
~	Below is a list of currently cont	igured Protocols that are implemented in the router.	
	Protocols	Ports	
× I	FTP	TCP Any $ ightarrow$ 21	Edit Remove
0	HTTP	TCP Any $ ightarrow$ 80	Edit Remove
~	HTTPS	TCP Any $ ightarrow$ 443	Edit Remove
~	IMAP	TCP Any $ ightarrow$ 143	Edit Remove
	L2TP	UDP Any $ ightarrow$ 1701	Edit Remove
	Ping	ICMP Echo Request	Edit Remove
	POP3	TCP Any $ ightarrow$ 110	Edit Remove
	SMTP	TCP Any $ ightarrow$ 25	Edit Remove
	SHMP	UDP Any $ ightarrow$ 161	Edit Remove
	Telnet	TCP Any $ ightarrow$ 23	Edit Remove
	IFTP	UDP 1024 - 65535 $ ightarrow$ 69	Edit Remove
	Traceroute	UDP 32769 - 65535 $ ightarrow $ 33434 - 33523	Edit Remove
	Add new		
	× × 0 × × × × × × × ×		Potential control und participante Potential control und participante<

2. To create or edit a protocol rule, click the Add new or **Edit** icon in the Action column. The **Edit Service** page displays.



	verizon Basic	Advanced		<u>Help</u>	8~
	Network Device		Network Settings > Port Forwarding Rules > Edit Service		
	Verizon Router	~			
	Home		Edit Service		
	WI-FI	~	Edit Service		_
	Devices	~	Service Name		
	Parental Controls	o	Service Description		
	Status	×	Service Ports		
	Firewall	~			_
	Utilities	~	Protocois Ports		_
	Network Settings	~	Add		
	Network Objects	- 1	Cancel Apply		
	Network Connections				
	Universal Plug & Play				
I.	Port Forwarding Rules				
	IPu6				

- 3. Modify the Service Name and Service Description, as needed.
- 4. To add server ports, click Add.
- 5. To modify the current protocol, click the **Edit** icon in the Action column. The **Edit Service Server Ports** page displays.

letwork Device		Network Settings > Port Forw	arding Rules > Edit Service			
Verizon Router	~					
Home		Edit Servic	е			
WI-FI	•	Edit Service Server	Ports			
Devices	~	Protocol	TCP	~		
Parental Controls	0	Source Ports	Any	~		
Status	~	Destination Ports	Any	~		
Firewall	~					
Utilities	~	Cancel	Apply			
Network Settings	~					
Network Objects	- 1					
Network Connections						
Universal Plug & Play				Copyright © 2	021 Verizon	

- 6. Enter the **Protocol, Source Ports** and **Destination Ports**, as needed.
- 7. Click **Apply** to save changes.

6.2e/ IPV6

Use the IPv6 feature settings to enable, disable, or configure an IPv6 Internet connection and IPv6 LAN settings.

 To configure your network to use the IPv6 Internet connection type, select IPv6 from the Advanced page to display the IPv6 service options:



Network Device		Network Settings > IPv6 Configurat	tion Controls
Verizon Router	~	IPv6 Configu	ration Controls Apply Changes
Home		ii vo coniiga	
Wi-Fi	×	1. Enable IPv6 Support	Enabled
Devices	×	2. Specify the method t	o be used to obtain your WAN IPv6 Address
Parental Controls	0	IPv6 WAN Configuration:	DHCPv6-PD
Status	*	Delegated Prefix:	None
Firewall	ř	Expires In:	DHCPv6-PD
Utilities	Ť		Static (Auto-Configure)
Network Settings	^	Prefix Lifetime:	Static (Manually Configure)
Network Objects		WAN Link-Local Address:	0
Network Connections		Obtain IPv6 DNS Server ad	dress automatically
Universal Plug & Play		Use the following IPv6 DNS	3 Server addresses
Port Forwarding Rules	- 1	IDv6 DNS Arithese 1-	
IPv6			
Routing		IPv6 DNS Address 2:	
IPv4 Address Distribution		3. Specify the method t	o be used to assign LAN IPv6 addresses
IPv6 Address Distribution		IPv6 LAN Configuration:	Stateless V
Port Configuration	-		

- 2. Select **Enable** in the **Enable IPv6 Support** field. (Once IPv6 is enabled the default setting will be IPv6 WAN as DHCPv6 and IPv6 LAN as Stateless).
- 3. Select the appropriate IPv6 connection method from the dropdown list (DHCPv6 or Static) to specify the method to be used to obtain your WAN IPv6 Address.
- 4. Click **Apply changes** to have changes take effect.

Note: The Internet IPv6 service is required for this feature to work over the internet.

- To disable the IPv6 service, click on the Disable option in the Enable IPv6 Support field.
- 6. Click **Apply changes** to have changes take effect.

Once configured using valid IPv6 WAN and LAN configurations, you should not see any errors when you click on the **Apply changes** button and the **Status** page on the main menu will reflect the router's new IPv6 address.

You should also see the IPv6 address for all IPv6 supported devices on your local network displayed on the **Basic/Devices/ Devices** page by selecting **Expanded List** from the dropdown list.

etwork Device	Devices > All				
Verizon Router	~				
	Devices				
lome	All (2) Primary (2) Guest	(0) IoT (0)			
WI-FI	Sort A to Z	~ Show All	~	Expanded List	
Devices	Device Name	Parental Controls	Connection	Compact List	
Devices	2 Online			Expanded List	
Parental Controls	0				
Status	□ \vee A040025-NB2	None	C Ethernet		Ø >
	Device: PC Connected to: CR1000A Mac Address: 48:5b:39:41:56:08 IPv4 Address: 192:168:1152				
	CME1000-f46942ffa793	None	😤 6 GHz		@ >
	Device: Extender				
	Connected to: CR1000A Mac Address: 14:69:42:ff:a7:93 IPv4 Address: 192:168:1301				
	Offline				(Clear list)

Static - WAN IPv6 Address Connection

The IPv6 WAN Static configurations are IPv6 settings that you enter manually. These specific IPv6 addresses and settings are not expected to change frequently.

1. To configure IPv6 WAN Static mode, select the **Static** option on the **IPv6 Configuration Control** page as shown below:



Network Device		Network Settings > IPv6 Configuration	Controls	
Verizon Router	~	IDv6 Configur	ation Controls	Apply Changes
Home		IF VO COIlingui		
Wi-Fi	~	1. Enable IPv6 Support		Enabled
Devices	×	2. Specify the method to I	be used to obtain your WAN IPv6 Address	
Parental Controls	0	IPv6 WAN Configuration:	Static (Auto-Confi 🗸	
Status	ř	Assigned Prefix:		
Firewall	č	IPv6 WAN Address:	1	
Network Settings	^	Default Gateway:		
Network Objects		IPv6 DNS Address 1:		
Network Connections		IPv6 DNS Address 2:		
Universal Plug & Play				
Port Forwarding Rules		3. Specify the method to I	be used to assign LAN IPv6 addresses	
IPv6		IPv6 LAN Configuration:	Stateless ~	
Routing		LAN Prefix:		
IPv4 Address Distribution		IPv6 LAN Address:	fecO::1 / D	
IPv6 Address Distribution		LAN Link-Local Address:	0	
Port Configuration	-	Router Advertisement Lifetime:	15 minutes (0-150)	

- 2. Specify the **Static** method to be used to obtain your WAN IPv6 Address by entering:
 - IPv6 WAN Configuration (select Static)
 - Assigned Prefix (A numeric value between 16 and 128)
 - IPv6 WAN Address
 - Default Gateway: Verizon Router
 - IPv6 (Primary) DNS Address 1
 - IPv6 (Secondary) DNS Address 2
- 3. After entering all appropriate IPv6 settings, click **Apply changes** to have changes take effect.

Static WAN with LAN IPv6 Stateful Settings

 To configure IPv6 LAN Stateful mode with Static WAN, select the Stateful (DHCPv6) option on the IPv6 Configuration Control page as shown below:

Network Device		Network Settings > IPr6 Configuration Controls	
Verizon Router	~	IPv6 Configuration Controls	Apply Changes
Home	-		
Wi-Fi	~	IPv6 DNS Address 1:	
Devices	×	IPv6 DNS Address 2:	
Parental Controls	0		
Status	~	 Specify the method to be used to assign LAN IPv6 addresses 	
Firewall	~	IPv6 LAN Configuration: Statetul (DHCPv6)	
Utilities	~	LAN Prefix:	
Network Settings	^	IPv6 LAN Address: fec0=1 /	
Network Objects		DHCPv6 Client Address Range: 1000 - 2000	
Network Connections	- 1	LAN Link-Local Address: 0	
Universal Plug & Play	- 1		
Port Forwarding Rules		Router Advertisement Lifetime: 15 minutes (0-150)	
IPv6		IPv6 Address Lifetime: 60 minutes (3-150)	
Routing		Option	
IPv4 Address Distribution		Allow ICMDxE Ecko Downests for LAN devices using their Olehal IDxE Address from WAN side	
IPv6 Address Distribution			

- 2. Specify the **Stateful (DHCPv6)** settings to be used to assign LAN IPv6 addresses by entering the following details:
 - IPv6 LAN Configuration (select Stateful from the dropdown list)
 - LAN Prefix (automatically populated)
 - IPv6 LAN Address (automatically populated)
 - DHCPv6 Client Address Range (start and end)
 - LAN Link Local Address (automatically populated)

- Subnet ID set the site topology for your internal site
- Router Advertisement Lifetime (minutes between 0-150)
- IPv6 Address Lifetime (minutes between 3-150)
- Option: Allow ICMPv6 Echo Request for LAN devices
 using their Global IPv6 Address from WAN side requesting an IPv6 address from any available DHCPv6
 servers available on the ISP
- **3**. After entering all appropriate IPv6 settings, click **Apply changes** to have changes take effect.

Static WAN with LAN IPv6 Stateless Settings

1. To configure IPv6 LAN Stateless mode with **Static** WAN, select the **Stateless** option on the **IPv6 Configuration Control** page as shown below:

Network Device		Network Settings > IPv6 Configuration Controls	
Verizon Router	~	IPv6 Configuration Controls	
Home	Â		
Wi-Fi	~	IPv6 DNS Address 1:	
Devices	~	IPv6 DNS Address 2:	
Parental Controls	0	2. Snapify the method to be used to opping I AN IDVR oddresses	
Status	~	5. specily the method to be used to assign LAN IP to addresses	
Firewall	~	IPv6 LAN Configuration: Stateless	
Utilities	~	LAN Prefix: Stateless	
Network Settings	^	IPv6 LAN Address: fec0:1 / 0	
Network Objects	- 1	LAN Link-Local Address: 0	1
Network Connections	- 1	Poster Advartisement Lifeliner 15 microlec (0.450)	•
Universal Plug & Play	- 1		1
Port Forwarding Rules	- 1	Option	
IPv6		Allow ICMPv6 Echo Requests for LAN devices using their Global IPv6 Address from WAN side	
Routing			1

- 2. Specify the settings to be used to assign LAN IPv6 addresses by entering the following details:
 - IPv6 LAN Configuration (select Stateless from the dropdown list)
 - LAN Prefix (automatically populated)
 - IPv6 LAN Address (automatically populated)
 - LAN Link Local Address (automatically populated)
 - Subnet ID set the site topology for your internal site
 - Router Advertisement Lifetime (minutes between 0-150)
 - Option: Allow ICMPv6 Echo Request for LAN devices using their Global IPv6 Address from WAN side requesting an IPv6 address from any available DHCPv6 servers available on the ISP
- **3**. After entering all appropriate IPv6 settings, click **Apply changes** to have changes take effect.

DHCPv6 PD - WAN IPv6 Address Connection

The IPv6 WAN DHCPv6 configurations are IPv6 settings that you enter that will allow your IPv6 connection to be updated by the ISP as needed.

 To configure IPv6 WAN Stateful (DHCPv6) mode, select the DHCPv6-PD option on the IPv6 Configuration Control page as shown below:



Network Device		Network Settings > IPv6 Configura	ation Controls
Verizon Router	~	IPv6 Config	Iration Controls Apply Changes
Home	-	in vo coninge	
Wi-Fi	~	1. Enable IPv6 Support	Enabled
Devices	×	2. Specify the method	to be used to obtain your WAN IPv6 Address
Parental Controls	0	IPv6 WAN Configuration:	DHCPV6-FD
Status	ř	Delegated Prefix:	None
Firewall	ř	Expires In:	DHCPv8-PD
Utilities	ř		Static (Auto-Configure)
Network Settings	^	Prefix Lifetime:	Static (Manually Configure)
Network Objects	- 1	WAN Link-Local Address:	0
Network Connections	- 1	Obtain IPv6 DNS Server an	ddress automatically
Universal Plug & Play	- 1	Use the following IPv6 DN	IS Server addresses
Port Forwarding Rules	- 1	IPv6 DNS Address 1:	
IPv6			
Routing		IPVO DNO ADDRESS 2:	
IPv4 Address Distribution		3. Specify the method	to be used to assign LAN IPv6 addresses
IPv6 Address Distribution		IPv6 LAN Configuration:	Stateless V
Port Configuration		LAN Prefix:	

- 2. Check to either Obtain IPv6 DNS Server address automatically, or Use the following IPv6 DNS Server addresses
- **3**. After entering all appropriate IPv6 settings, click **Apply changes** to have changes take effect.

DHCPv6 WAN with LAN IPv6 Stateful (DHCPv6) Settings

 To configure IPv6 WAN Stateful (DHCPv6) mode, select the Stateful (DHCPv6) option on the IPv6 Configuration Control page as shown below:

Network Device		Network Settings > IPv6 Configuration	Controls
Verizon Router	~	IPv6 Configura	ation Controls Apply Changes
Home	Â		
Wi-Fi	×	IPv6 DNS Address 1:	
Devices	~	IPv6 DNS Address 2:	
Parental Controls	0	3 Specify the method to b	a uned to control AN IDuB oddresses
Status	~	o. opecity the method to t	
Firewall	~	IPv6 LAN Configuration:	Stateful (DHCPv6)
Utilities	~	LAN Prefix:	Stateless Stateless
Network Settings	^	IPv6 LAN Address:	fee0:1 /
Network Objects		DHCPv6 Client Address Range:	1000 - 2000
Universal Plug & Play		LAN Link-Local Address:	0
Port Forwarding Rules		Router Advertisement Lifetime:	15 minutes (0.150)
IPv6		IPv6 Address Lifetime:	60 minutes (3-150)
Routing		Option	
IPv4 Address Distribution		Allow ICMPv6 Echo Requests	for LAN devices using their Global IPv6 Address from WAN side
IPv6 Address Distribution			
Port Configuration	-		

- 2. Specify the **Stateful (DHCPv6)** settings to be used to assign LAN IPv6 addresses by entering the following details:
 - IPv6 LAN Configuration (select Stateful from the dropdown list)
 - LAN Prefix (automatically populated)
 - IPv6 LAN Address (automatically populated)
 - DHCPv6 Client Address Range (start and end)
 - LAN Link Local Address (automatically populated)

- Subnet ID set the site topology for your internal site
- Router Advertisement Lifetime (minutes between 0-150)
- IPv6 Address Lifetime (minutes between 3-150)
- Option: Allow ICMPv6 Echo Request for LAN devices using their Global IPv6 Address from WAN side requesting an IPv6 address from any available DHCPv6 servers available on the ISP
- 3. After entering all appropriate IPv6 settings, click **Apply changes** to have changes take effect.

DHCPv6 WAN with LAN IPv6 Stateless Settings

 To configure IPv6 LAN Stateless mode with DHCPv6 WAN, select the Stateless option on the IPv6 Configuration Control page as shown below:

Network Device		Network Settings > IPv6 Configuration	n Controls	
Verizon Router	~	IPv6 Configur	ration Controls Apply Changes	
Home	^			
Wi-Fi	~	IPv6 DNS Address 1:		
Devices	×	IPv6 DNS Address 2:		
Parental Controls	0	2 C	he would be a scient AND of a data and	
Status	~	3. Specify the method to	De used to assign LAN IPVO addresses	
Firewall	~	IPv6 LAN Configuration:	Stateless of	
Utilities	v	LAN Prefix:	Stateless	
Network Settings	^	IPv6 LAN Address:	Bitateful (DHCPv6) Rec0:1 / 0	
Network Objects	- 1	LAN Link-Local Address:	0	
Network Connections	- 1	Router Advertisement Lifetime:	15. minutes (0450)	
Universal Plug & Play	- 1			
Port Forwarding Rules		Option		
IPv6		Allow ICMPv6 Echo Requests	for LAN devices using their Global IPv6 Address from WAN side	
Routing				

- 2. Specify the settings to be used to assign LAN IPv6 addresses by entering the following details:
 - IPv6 LAN Configuration (select Stateless from the dropdown list)
 - LAN Prefix (automatically populated)
 - IPv6 LAN Address (automatically populated)
 - LAN Link Local Address (automatically populated)
 - Subnet ID set the site topology for your internal site
 - Router Advertisement Lifetime (minutes between 0-150)
 - Option: Allow ICMPv6 Echo Request for LAN devices using their Global IPv6 Address from WAN side requesting an IPv6 address from any available DHCPv6 servers available on the ISP
- **3**. After entering all appropriate IPv6 settings, click **Apply changes** to have changes take effect.

LAN IPv6 Configuration without An IPv6 WAN Connection

 To configure IPv6 to use either the IPv6 LAN Stateful or Stateless mode without using an IPv6 Internet WAN connection, select the None option on the IPv6 Configuration Control page.


Network Device		Network Settings > IPv6 Configura	ation Controls
Verizon Router	\sim	IDv6 Config	wation Controlo
Home	-	IPvo Conligu	
Wi-Fi	~	1. Enable IPv6 Support	Enabled
Devices	~	2. Specify the method	to be used to obtain your WAN IPv6 Address
Parental Controls	0	IPv6 WAN Configuration:	DHCPV6-FD
Status	ř	Delegated Prefix:	None
Firewall	č	Expires In:	DHCPv6-PD
Network Settings	^	Prefix Lifetime:	Static (Auto-Configure) Static (Manually Configure)
Network Objects		WAN Link-Local Address:	0
Network Connections		Obtain IPv6 DNS Server a	ddress automatically
Universal Plug & Play		 Use the following IPv6 DN 	IS Server addresses
Port Forwarding Rules	. 1	-	
IPv6		IPv6 DNS Address 1:	
Routing		IPv6 DNS Address 2:	
IPv4 Address Distribution		3. Specify the method	to be used to assign LAN IPv6 addresses
IPv6 Address Distribution		IPv6 LAN Configuration:	Stateless v
Port Configuration			
	*	LAN Prefix:	

2. After entering all appropriate IPv6 settings, click **Apply changes** to have changes take effect.

LAN IPv6 Stateful (DHCPv6) with No WAN Settings

 To configure IPv6 LAN Stateful mode with No WAN connection, select the Stateful option on the IPv6 Configuration Control page as shown below:

Network Device		Network Settings > IPv6 Configuration Controls	
Verizon Router	\sim		
Home		IPv6 Configuration Controls	ly changes
Wi-Fi	÷	IPv6 DNS Address 1:	
Devices	~	IPv6 DNS Address 2:	
Parental Controls	0		
Status	~	3. Specify the method to be used to assign LAN IPv6 addresses	
Firewall	~	IPv6 LAN Configuration:	
Utilities	~	LAN Prefix:	
Network Settings	^	Brateful (DHCPVE) IPv6 LAN Address: TecO:1 /	
Network Objects	- 1	DHCPv6 Client Address Range: 1000 - 2000	
Network Connections	- 1		
Universal Plug & Play	- 1	LAN LINK-LOGAI Address: 0	
Port Forwarding Rules		Router Advertisement Lifetime: 15 minutes (0-150)	
IPv6		IPv6 Address Lifetime: 60 minutes (3150)	
Routing		Option	
IPv4 Address Distribution		Allow MND-d Pake Remode for LAN devices using their Clobal Dark Address from WAN side	
IPv6 Address Distribution		NINW TOWERD CONDINEQUESIS FOR LAW DEVICES USING LIFER GIODAL IPYO Address from WAN side	

- 2. Specify the **Stateful (DHCPv6)** settings to be used to assign LAN IPv6 addresses by entering the following details:
 - IPv6 LAN Configuration (select Stateful from the dropdown list)
 - LAN Prefix (automatically populated)
 - IPv6 LAN Address (automatically populated)
 - DHCPv6 Client Address Range (start and end)
 - LAN Link Local Address (automatically populated)
 - Subnet ID set the site topology for your internal site
 - Router Advertisement Lifetime (minutes between 0-150)
 - IPv6 Address Lifetime (minutes between 3-150)

- Option: Allow ICMPv6 Echo Request for LAN devices using their Global IPv6 Address from WAN side requesting an IPv6 address from any available DHCPv6 servers available on the ISP
- **3**. After entering all appropriate IPv6 settings, click **Apply changes** to have changes take effect.

LAN IPv6 Stateless with No WAN Settings

 To configure IPv6 LAN Stateless mode with No WAN connection, select the Stateless option on the IPv6 Configuration Control page as shown below:

		-	
Network Device		Network Settings > IPv6 Configuration	Controls
Verizon Router	~	IPv6 Configur	pation Controls Apply Changes
Home	<u></u>		
Wi-Fi	~	IPv6 DNS Address 1:	
Devices	×	IPv6 DNS Address 2:	
Parental Controls	0		
Status	~	3. Specify the method to	be used to assign LAN IPV6 addresses
Firewall	v	IPv6 LAN Configuration:	Stateless n
Utilities	~	LAN Prefix:	Stateless
Network Settings	^	IPv6 LAN Address:	Stateful (DHOPv6) hes0=1 / 0
Network Objects	- 1	LAN Link-Local Address:	0
Network Connections	- 1		
Universal Plug & Play	- 1	Router Advertisement Lifetime:	15 minutes (0-150)
Port Forwarding Rules		Option	
IPv6		Allow ICMPv6 Echo Requests	for LAN devices using their Global IPv6 Address from WAN side
Routing			

- 2. Specify the settings to be used to assign LAN IPv6 addresses by entering the following details:
 - IPv6 LAN Configuration (select Stateless from the dropdown list)

- LAN Prefix (automatically populated)
- IPv6 LAN Address (automatically populated)
- LAN Link Local Address (automatically populated)
- Subnet ID set the site topology for your internal site
- Router Advertisement Lifetime (minutes between 0-150)
- Option: Allow ICMPv6 Echo Request for LAN devices using their Global IPv6 Address from WAN side requesting an IPv6 address from any available DHCPv6 servers available on the ISP
- **3**. After entering all appropriate IPv6 settings, click **Apply changes** to have changes take effect.

6.2f/ ROUTING SETTINGS

You can view the routing and IP address distribution rules as well as add, edit, or delete the rules.

Routing Table

To view the rules:

1. Select Routing in the Network Settings section.



verizon Basic	Advance	d 	Helo 🛞 ~
Network Device		Network Settings > Routing	
Verizon Router	\sim		
Firewall	× .	Routing	
Utilities	~	This page provides the ability to add, edit, or delete routing rules.	A
Network Settings	^	- Routing Table	
Network Objects	- 1	Name Destination Gateway Netmask Metri	c Status
Network Connections	- 1	New Route	
Universal Plug & Play	- 1		
Port Forwarding Rules	- 1	Internet Group Management Protocol (IGMP)	
IPv6	- 1	Enable Ethernet	
Routing	- 1	Enable MoGA - Coax	
IPv4 Address Distribution	- 1	Enable 2.4 GHz Wi-Fi	
IPv6 Address Distribution	- 1	Enable 5 GHz Wi-Fi	
Port Configuration	- 1		

2. To add a new Route, click New Route.

	verizon Basic	Adva	nced			<u>Help</u>	® ~
	Network Device			Network Settings > Routing > Route Se	ettings		
	Verizon Router	~					
	Firewall	×	*	Route Settings	i		
	Utilities	~		Routing Entry:	IPv4		
	Network Settings	^		Name:	IPv4		
	Network Objects				IPv6		
	Network objecto		ii.	Destination:	0 0 0 0		
	Network Connections		L				
	Universal Plug & Play		L	Netmask:	0 0 0		
	Port Forwarding Rules		l	Gateway:	0 0 0 0		
	IPv6		l	Metric:	0		
ļ	Routing		l	Apply			

- 3. Specify the following parameters:
 - Routing Entry select the IP address type.
 - Name the network connection type.

- **Destination** enter the destination IP of the destination host, subnet address, network address, or default route. The destination for a default route is 0.0.0.0.
- **Netmask** enter the network mask. This is used in conjunction with the destination to determine when a route is used.
- Gateway enter the IP address of your Verizon Router.
- **Metric** enter a measurement preference of the route. Typically, the lowest metric is the most preferred route. If multiple routes exist to a specific destination network, the route with the lowest metric is used.
- 4. Click Apply changes to save changes.

Internet Group Management Protocol (IGMP)

IGMP allows for managing a single upstream interface and multiple downstream interfaces of the IGMP/MLD (Multicast Listener Discovery)-based forwarding. This function enables the system to send IGMP host messages on behalf of hosts that the system discovers through standard IGMP interfaces. Also, IGMP snooping allows an Ethernet switch to "listen in" on the IGMP conversation between hosts and routers, while IGMP querier will send out periodic IGMP queries.

To enable this function:

- 1. Choose the IGMP interfaces by clicking on the checkboxes on the screen.
- 2. Click Apply changes to save changes.

6.2g/ IPV4 ADDRESS DISTRIBUTION

You can easily add computers configured as DHCP clients to the network. The DHCP server provides a mechanism for allocating IP addresses to these hosts and for delivering network configuration parameters to the hosts.

For example, a client (host) sends a broadcast message on the network requesting an IP address for itself. The DHCP server then checks its list of available addresses and leases a local IP address to the host for a specific period of time and simultaneously designates this IP address as taken. At this point, the host is configured with an IP address for the duration of the lease.

The host can renew an expiring lease or let it expire. If it renews a lease, the host receives current information about network services, as it did during the original lease, allowing it to update its network configurations to reflect any changes that occurred since the first connection to the network.

If the host wishes to terminate a lease before its expiration, it sends a release message to the DHCP server. This makes the IP address available for use by other hosts.

The DHCP server performs the following functions:

- Displays a list of all DHCP host devices connected to your Verizon Router
- Defines the range of IP addresses that can be allocated in the network
- Defines the length of time the dynamic IP addresses are allocated

- Provides the above configurations for each network device and can be configured and enabled or disabled separately for each network device
- Assigns a static lease to a network computer to receive the same IP address each time it connects to the network, even if this IP address is within the range of addresses that the DHCP server may assign to other computer
- Provides the DNS server with the host name and IP address of each computer connected to the network

To view a summary of the services provided by the DHCP server:

1. Select IPv4 Address Distribution in the Network Settings section.



- 2. You can edit the DHCP server settings for a device. On the IPv4 Address Distribution page, click the Edit icon in the Action column. The DHCP Settings page opens with the device information displayed.
- 3. To enable the DHCP server, select **DHCP Server** in the **IPv4** Address Distribution field.



4. Once enabled, the DHCP server provides automatic IP assignments (IP leases) based on the preset IP range defined below.

verizon Basic	Advanced	I		Help Q
Network Device		Network Settings > IPv4 Address D	stribution > DHCP Settings	
Verizon Router	~			
Guildes		DHCP Setting	gs for Network (Home/Office)	
Network Settings	^	Service		
Network Objects		IPv4 Address Distribution:	DHCP Server	
Network Connections			Disabled	
Universal Plug & Play		DHCP Server	DHCP Server	
Port Forwarding Rules		Start IP Address:	192 168 1 2	
IPv6		End IP Address:	192 168 1 254	
Routing		WIN Server:	0 0 0 0	
IPv4 Address Distribution	- 1	Lease Time in Minutes	1440	
IPv6 Address Distribution		Lease time in minutes.	here?	
Port Configuration		IPv4 Address Distribution Ac	cording to DHCP Option 60 (Vendor Class Identifier)	
	- 1	Vendor Class Id	IP Address MAC Address QoS	
Date & Time	Ť	MSFT 5.0	192.168.1.151 A8:5E:45:38:8A:65	
DNS Settings	×	Verizon BHRx1 DHCP Detect	192.168.1.100 02:69:42:FF:A7:95	
Monitoring	~	Verizon BHRx1 DHCP Detect	192.168.1.101 F4:69:42:FF:A7:93	
System		MSFT 5.0	192.168.1.152 48:5B:39:4F:50:08	

- 5. To configure the DHCP server, complete the following fields:
 - Start IP Address enter the first IP address that your Verizon Router will automatically begin assigning IP addresses from. Since your Verizon Router's default IP address is 192.168.1.1, the default start IP address should be 192.162.1.2.
 - End IP Address enter the last IP address that your Verizon Router will stop at for the IP address allocation. The maximum end IP address range that can be entered is 192.168.1.254.

- WINS Server determines the IP address associated with a network device.
- Lease Time in Minutes assigns the amount of time in minutes that each device is assigned an IP address by the DHCP server when it connects to the network.

When the lease expires, the server determines if the computer has disconnected from the network. If it has, the server may reassign this IP address to a newly connected computer.

6. Click **Apply** to save changes.

IPv4 Address Distribution According to DHCP option 60 (Vendor Class Indentifier)

DHCP vendor class is related to DHCP option 60 configuration within the router. User can add option 60 configurations such that particular vendor can get lease from a specified pool of address. The existing vendor class ID, IP address, MAC address and QoS are shown on the screen above.

DHCP Connection List

You can view a list of the connections currently assigned and recognized by the DHCP server.

To view a list of computers:

1. On the IPv4 Address Distribution page, click Connection List.



verizon Basic	Advanced							Help	8~
Network Device		Network Settings > IPv	4 Address Distribution >	DHCP Connections					
Verizon Router	\sim								
Guildeo		DHCP Co	onnection	าร					
Network Settings	^	IPv4 Address Distributi	on provides the ability t	o allocate and configuration p	armeters to se	lected hosts.			
Network Objects		Host Name	IP Address	Physical Address	Lease Type	Connection Name	Status	Expired in	
Network Connections		CME1000-f46942	192.168.1.100	02:69:42:FF:A7:95	Dynamic	Network (Home/O	Active	1417	Search Edit
Port Forwarding Rules	- 1	CME1000-f46942	192.168.1.101	F4:69:42:FF:A7:93	Dynamio	Network (Home/O	Active	1417	Search Edit
IPv6		A030071-NB2	192.168.1.151	A8:5E:45:38:8A:65	Dynamic	Network (Home/O	Active	1401	Search Edi
Routing		NB1	192.168.1.152	48:58:39:4F:56:08	Dynamic	Network (Home/O	Active	1401	Search Edi
IPv4 Address Distribution	- 1								
IPv6 Address Distribution	- 1	Add static connect	ion						

2. To define a new static connection with a fixed IP address, click **Add static connection**.

verizon Basic Advance	d		Help	®~
Network Device	Network Settings > IPv4 Address Distri	ibution > DHCP Connection Settings		
Verizon Router 🗸 🗸				
-	DHCP Connec	tion Settings		
Network Settings	Host name:			
Network Objects	IP Address:	0 0 0 0		
Network Connections				
Universal Plug & Play	MAC ADDRESS:			
Port Forwarding Rules	Apply			
IPv6				
Routing				
IPv4 Address Distribution				
IPv6 Address Distribution				

- 3. Enter the host name.
- 4. Enter the fixed IP address to be assigned.
- 5. Enter the MAC address of the network interface of the computer used with this DHCP static connection.
- 6. Click **Apply** to save changes.

6.2h/ IPV6 ADDRESS DISTRIBUTION

To view a summary of the services provided by the DHCP server:

1. Select IPv6 Address Distribution in the Network Settings section.

verizon Basic	Advanced					Help (Q) ~
Network Device		Network Settings > IF	v6 Address Distribution			
Verizon Router	~					
Guildes		IPv6 Ad	dress Dis	tribution		
Network Settings	^	IPv6 Address Distribu	tion provides the ability	to allocate and configuration	parmeters to selected hosts.	
Network Objects		Name	Service	Prefix	IP Range	
Network Connections		Network (Home/Office)	Stateless	0/0		
Universal Plug & Play	- 1	Connection List				
Port Forwarding Rules	- 1					
IPv6	- 1					
Routing	- 1					
IPv4 Address Distribution	- 1					
IPv6 Address Distribution						
Port Configuration						

- 2. You can edit the DHCP server settings for a device. On the IPv6 Address Distribution page, click the Edit icon in the Action column. The DHCP Settings page opens with the device information displayed.
- **3**. To configure the DHCP server complete the following fields:
 - Start IPv6 Address the starting IPv6 address in the consecutive list of addresses that makes up this LAN pool for the DHCPv6 server.
 - End IPv6 Address the ending IPv6 address in the consecutive list of addresses that makes up this LAN pool for the DHCPv6 server.

• Lease Time in Minutes – assigns the amount of time in minutes that each device is assigned an IP address by the DHCP server when it connects to the network.

When the lease expires, the server determines if the computer has disconnected from the network. If it has, the server may reassign this IP address to a newly connected computer.

4. Click Apply to save changes.

DHCP Connection List

You can view a list of the connections currently assigned and recognized by the DHCP server.

To view a list of computers:

- 1. On the IPv6 Address Distribution page, click Connection List.
- 2. To define a new static connection with a fixed IP address, click **Add static connection**.
- **3**. Enter the host name.
- 4. Enter the fixed IP address to be assigned.
- 5. Enter the MAC address of the network interface of the computer used with this DHCP static connection.
- 6. Click **Apply** to save changes.

6.2i/ PORT CONFIGURATION

Ethernet port configuration allows you to set up the Ethernet ports as either full- or half-duplex ports, at either 10 Mbps, 100 Mbps, or 1000 Mbps.

To configure the ports:

1. Select **Port Configuration** in the **Network Settings** section.

verizon Basic	Advance	d			Hele @
Network Device		Network Settings	> Port Configuration		
Verizon Router	\sim				
ounues	× .	Ethern	et Port Configu	ration	
Network Settings	^	Port	Service		Status
Network Objects		WAN Port		Auto ~	Disconnected
Network Connections		L AN 100E		áuto 🗸	Diseased
Universal Plug & Play	- 5			7410	Disconnected
Port Forwarding Rules	- 1	LAN Port 1	Full-Duplex 100 Mbps	Auto	Connected
IPv6	- 1	LAN Port 2		Auto	Disconnected
	- 1			10 Half-Duplex	
Routing	- 1			10 Full-Duplex	
IPv4 Address Distribution	- 1			100 Half-Duplex	
IPv6 Address Distribution				100 Full-Duplex	
Port Configuration				1,000 Full-Duplex	
Date & Time	•				
DNS Settings	~				
Monitoring					

- 2. To emulate the speed and duplex configuration of the port with which it's communicating, select **Auto** or select the port speed and duplicity.
- 3. Click Apply changes to save changes.

6.3/ DATE & TIME

You can configure the following settings:

- Date & Time Settings sets the time zone and enables automatic time updates.
- Scheduler Rules Settings limits the activation of firewall rules to specific time periods.

6.3a/ DATE & TIME SETTINGS

You can set the time zone and enable automatic time updates.

To configure the settings:

- 1. From the Advanced menu, select Date & Time.
- 2. Select Date & Time in the Date & Time section.

verizon	Basic	Advanced			Help & ~
Network Device			Date & Time > Date & Time		
Verizon Router		~	Date & Tin	ne	Refresh
Parental Control	la i	0	Bute a Thi		
Status		~	Press the Refresh button t	o update the status.	
Firewall		~	Localization		
Utilities		~	Local Time:	Jan 01, 2026 00:41:11am	Edit
Network Setting	0	~	Time Zone:	Eastern_Time (Default)	
Date & Time		^	Automatic Time U	pdate	Enable
Date & Time		- 1			
Scheduler Rules		- 1	Protocol:	Network Time Protocol (NTP)	
DNS Settings		~	Time Server		bba
Monitoring		~	0.north-america.pool.ntp.o	rg	Edit. Remove
System		- 1	1.north-america.pool.ntp.or	rg	Edit. Remove
		- 1	Last updated:		

DATE & TIME

- 3. Select the local time zone. Your Verizon Router automatically detects daylight saving times for selected time zone.
- 4. In the Automatic Time Update section, select the Enabled checkbox to perform an automatic time update.
- 5. Define the time server addresses by clicking **Add**. The **Time Server Settings** page displays.



6. Enter the IP address or domain name of the time server, then click **Apply changes** to save changes.

6.3b/ SCHEDULER RULES

Scheduler Rules are used for limiting the activation of firewall rules to specific time periods. The time periods are either for days of the week or for hours of each day based on activity or inactivity.

To define a rule:

- 1. Verify that the date and time of your Verizon Router is correct.
- 2. Select Scheduler Rules in the Date & Time section.





3. Click Add. The Set Rule Schedule page displays.

verizon Basic	Advanced	1		Help 🛞 v
Network Device		Date & Time > Scheduler Rules > Rule	e scheduler	
Verizon Router	~			
Parental Controls	• *	Rule Schedule	Apply	Changes
Status	U.	Rule name:		
Firewall	•	Rule days:	Sun Mon Tue Wed Thu Fri Sat	
Utilities	÷	Rule time:	Start Time End Time 9.00 pm 12.00 am ^	
Network Settings	~		12:00 am	
Date & Time	~		Rule will be active during schedu	
Date & Time			Rule will be inactive during sche 2:00 am	
Scheduler Rules			3:00 am	
DNS Settings	~		4:00 am	
Monitoring			5:00 am	
Monitoring	Ť		6:00 am	
System			7.00 am 👻	

- 4. Enter the name of the rule, select the active or inactive days of the week and the start and end time range.
- 5. Specify if the rule is active at the scheduled time or inactive at the scheduled time.
- 6. Click Apply changes to save changes.

DNS SETTINGS

6.4/ DNS SETTINGS

You can view and manage the DNS server host name and IP address as well as add a new computer. The DNS server does not require configuration.

6.4a/ DYNAMIC DNS

Typically, when connecting to the internet, your router is assigned an unused public IP address from a pool, and this address changes periodically.

Dynamic DNS allows a static domain name to be mapped to the dynamic IP address, allowing a computer within your network to be more easily accessible from the internet.

When using Dynamic DNS, each time the public IP address changes, the DNS database is automatically updated with the new IP address. In this way, even though the IP address changes often, the domain name remains constant and accessible.

To set up dynamic DNS:

- 1. From the Advanced menu, select DNS Settings.
- 2. Select Dynamic DNS in the DNS Settings section.





3. To set up a new entry, click the Add button.

verizon	Basic	Advar	nced		Hell	2 ® ~
Network Device				DNS Settings > Dynamic DNS		
Verizon Houte	r	~		Dynamic DNS		
Parental Contro	ols	0	^	2,1		
Status		~		easily accessible from the Internet.	is a dynamic P. Address to be allased to a static nostname, allowing a computer on your network to be more	
Firewall		v	J.	Setup Dynamic DNS ((Domain Name Server)	- 1
Utilities		×	l	Host name		
Network Settin	ige	×	L	Provider	changeip.com	_
Date & Time		~	L	Initials and manage subsectivities	changelp.com	- 1
DNS Settings		^	L		dyndns.com	- 1
Dynamic DNS			L	User name	easydns.com	. 1
DNS Server			l	Password	no-ip.com	- 1
Monitoring		×		SSL Mode		
System				Cancel	Apply	

- 4. Configure the following parameters:
 - Host Name enter the full domain name for your Dynamic DNS domain.
 - **Provider** select the Dynamic DNS account provider from the menu.

DNS SETTINGS

- User Name enter your user name for your Dynamic DNS account.
- **Password** enter the password for your Dynamic DNS account.
- SSL Mode select if your Dynamic DNS service supports SSL.
- 5. Click **Apply** to save your changes.

To edit the host name or IP address:

- 1. In the Action column, click the Edit icon. The DNS Entry page displays.
- 2. Edit the settings.
- 3. Click **Apply** to save the changes.

6.4b/ DNS SERVER

You can edit the host name and/or IP address, if the host was manually added to the DNS table. If not, you can only modify the host name.

To access the DNS server:

1. Select DNS Server in the DNS section.



verizon Basic	Advanced				Hele 🛞 -
Network Device		DNS Settings > DNS Server			
Verizon Router	~				
		DNS Server			
Parental Controls	0	Add, edit, or delete computers known by	the router's DNS server		
Status	~				
Firewall	~	Host Name	IP Address	Source	
		A040025-NB2	192.168.1.152	DHCP	
Utilities	Ť	CME1000-146942#a793	192.168.1.101	DHCP	
Network Settings	~	Add DNS Entry			
Date & Time	~				
DNS Settings	~	Enable DNS Rebind Protection			
Dynamic DNS	- 1	To disable DNS Rebind Protection for all To disable DNS Rebind Protection for sp	devices connected to this router, ecific IP addresses, create an exc	untick the checkbox above. reption with the dropdown below.	
DNS Server	- 1	Exceptions to DNS Rebind Pr	otection		
Monitoring	×	IP/Netmask			
System	- 1	-			
	- 1	Add Exceptions Entry +	~		
	- 1				

2. To disable DNS rebind protection, untick the checkbox of Enable DNS Rebind Protection.

Warning: Disabling this protection may create a risk of cybersecurity attack to devices connected to this router.

3. To view and add computers stored in the DNS table, click Add DNS Entry. The DNS Entry page displays.

verizon Basic	Advanced	1		<u>Help</u>	® ~
Network Device		DNS Settings > DNS Server > DNS Ser	ver Setting		
Verizon Router	~	DNS Server			
Parental Controls	•				
Status	~	DNS Entry			
Firewall	v	Host Name:			
Utilities	×	IP Address:	0 0 0 0		
Network Settings	~				
Date & Time	v	Apply			
DNS Settings	^				
Dynamic DNS	- 1				

MONITORING

- 4. In the **Host Name** field, enter the name of the computer, then enter the **IP address** and click **Apply** to save changes.
- 5. Then the **DNS Server** page displays.
- To edit the host name or IP address, click the Edit icon in the Action column. The DNS Entry page displays. Edit the host name and/or IP address.
- 7. To remove a host from the DNS table, click the **Delete** icon in the **Action** column.
- 8. Click **Apply changes** to save changes.

6.5/ MONITORING

You can view the details and status of:

- System Logging
- Full Status/System wide Monitoring of Connections/Traffic Monitoring
- Bandwidth Monitoring

6.5a/ SYSTEM LOGGING

System logging provides a view of the most recent activity of your Verizon Router. In addition, you can view additional logs, such as the security, advanced, firewall, WAN, DHCP, and LAN DHCP.

To view the system log:

- 1. From the Advanced menu, select Monitoring.
- 2. In the **Monitoring** section, click the **System Logging** link.



letwork Device		Monitoring > System Lo	ogging > System Log		
Verizon Router	\sim				Ontions Refresh St
Parental Controls	•	System Log Sector	_Ogging urity Log Advanced	i Log Firewall Log	WANDHCPLog LANDHCPLog
itatus	×	Time	Event type	Log Level	Details Clear
irewall	•	2026 Jan 1 00:13:00	CRI000A	notice	[SYS] LED dim on(led pattern:)
tilities	×	2026 Jan 1 00:01:34	aro_wista_monitor	info	[WIFL6][SYS] ACTION+assoc, WLAN+ath22, phy rate=4 Mbps, txop=96
etwork Settings	*	2026 Jan 1 00:01:34	aro_wista_monitor	info	[WIFL6](SYS) ACTION=assoc, WLAN=ath22, MAC=fe:69:42:ff:a7:93, RSSI=-30, RATE=2882 Mbps
ate & Time	~	2026 Jan 1	dnsmasq	info	[SYS.6][SYS] using local addresses only for domain myfiosgateway.co
NS Settings	~	00:01:32			
ionitoring	~	2026 Jan 1 00:01:32	dnsmasq	info	[SYS.6][SYS] using local addresses only for domain networksettings.com
System Logging		2026 Jan 1 00.01.32	dnsmasq	info	[SYS.6][SYS] read /etc/ipv4_hosts - 4 addresses
System-wide Connections		2026 Jan 1 00:01:32	dnsmasq	info	[SYS.6][SYS] read /etc/ipv6_hosts - 0 addresses
andwidth Monitoring		2026 Jan 1 00:01:32	dnsmasq	info	[SYS.6][SYS] read /etc/hosts.dnsmasq-dns-lan0 - 7 addresses
rstem		2026 Jan 1 00:01:32	dnsmasq	info	[SYS.6][SYS] read /etc/hosts - 3 addresses
		2026 Jan 1 00:01:18	dnsmasq	info	[SYS.6][SYS] using local addresses only for domain myfiosgateway.co
		2005 1	decenses	inte	10V0 6110V01 using logal addresses only far demain

3. To view a specific time of log event, click on the **options** button.

verizon ⁴ Basi	c Advanced		Help	® ~
Network Device		Monitoring > System Logging > System Log		
Fios Router	~			
Home	^	System Logging SystemLog Security Log Advanced Log Firewnil Log WANDHCPLog LANDHCPLog		
WI-FI	× 1	Log viewing options		-
Devices		Log viewing options		-
Parental Controls	0	O Past day		- 1
Status	÷	O Past week		. 1
Firewall	×	Gustom range		
Utilities		Start Date Start Time		1
Network Settings	×	I 12/31/00 12:00 am ~		
Date & Time		End Date End Time		
DNS Settings	÷	I2/31/00 I2/00 am ✓		- 1
Monitoring	^	Cancel Save		
System Logging				

4. Click Save to save changes.

MONITORING

- To view a specific type of log event such as Security Log, WAN DHCP Log, etc., click the appropriate link in the menu on the top.
- 6. To update the data, click Refresh.

6.5b/ SYSTEM-WIDE CONNECTIONS

You can view a summary of the monitored data collected for your Verizon Router.

To view your Verizon Router's full system status and traffic monitoring data:

1. In the Monitoring section, click System-wide Connections.

Verizon [*] Basic	Advanced						Hele (શ ~
Network Device		Monitoring > System-w	ide Traffic Connections					
Verizon Router	~	. .						
WI-FI	~ ^	System- Connect	wide ions		Auto-refr	esh		
Devices	× -	Name	Network (Home/Office)	Broadband Connection (Ethernet/Coax)	5 GHz Wi-Fi Access Point 1	6 GHz Wi-Fi Access Point 1	2.4 GHz Wi-Fi Access Point	^
Parental Controls	0	Status	Connected	Connecting	Disconnected	Connected	Disconnected	
Statu: Firewall	÷	Underlying Device	Network (Home/Office)	Broadband Connection (Ethernet/Coax)	Network (Home/Office)	Network (Home/Office)	Network (Home/Office)	1
Utilities	×		5 GHz WI-FI Acce 6 GHz WI-FI Acce 2.4 GHz WI-FI	Broadband	5 GHz Wi-Ei Access	6 GHz Wi-Ei Accourt	2.4 GH= Wi-5i	
Date & Time	~	Connection Type	Access Point Ethernet Coax	Connection (Ethernet/Coax)	Point	Point	Access Point	
DNS Settings	×	MAC Address	88.5A.85.FE.C5.66		88:54:85-FE-C5:68	88:54:85:FE:C5:69	88:5A:85:FE:C5:67	
System Logging		IPv4 Address	192.168.1.1	-	-	-		
System-wide Connection	s	Subnet Mask	255.255.255.0				-	
Bandwidth Monitoring	- 1	IPv4 Default Gateway	192.168.1.1					
System		IPv4 DNS Address						



etends Deutes Verizon Router Wi-Fi V V Parental Controls Status Certizon 7 Verizon Router Verizon Router Verizon Router Verizon Router Verizon Router Verizon Router Verizon V Easlo Advanced Status Verizon V Easlo Advanced Verizon V Easlo Advanced Verizon V Easlo Verizon V Ea	Altorice > Byster System Construction 4 Default toway 4 DNS Address 4 Address 4 Address 6 Disk Address 6 DNS Address 6 Address	wide traffic Connections wide traffic Connections 192308.11 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0	 Disable 	Aut Disable 	o-refresh 💽 Disable 	 Diable
Verzon Router V FFI Seal Advanced Prizem Verzon Router V revelation Commontoring A NS Settings V HS Setings V HS Settings V HS Setings V HS Settings	A Default teway 4 DNS Address 4 Address 4 Address 6 Porfix 6 Porfix 6 DNS Address 7 DNS Address 7 DNS Address 7 DNS Address	- wide 192368.11 DHCP Server 0,00 	 Disable 	Aut Disable 	orefresh C	 Disable
FFI V C vivices V FM vivices V </td <td>4 Default teway 4 DNS Address 4 Address 4 Address 6 Prefix 6 Address 6 DNS Address 6 DNS Address 7 Address 7 DNS Address</td> <td>-wide stimute 102368.13 - DHCP Server 0,0 - - - - - - - - - - - - -</td> <td> Disable </td> <td> Ad </td> <td></td> <td> Disable</td>	4 Default teway 4 DNS Address 4 Address 4 Address 6 Prefix 6 Address 6 DNS Address 6 DNS Address 7 Address 7 DNS Address	-wide stimute 102368.13 - DHCP Server 0,0 - - - - - - - - - - - - -	 Disable 	Ad 		 Disable
erkices v line rental Controls 0 tatus v line tatus v line rental Controls v line rental Controls v line etwork Settings v line etwork Settings v line rental Controls v line patholic Controls v line setting v line etwork Setting v line rental Controls v line setting v line setting v line setting v line rental Controls v line setting v line setting v line rental Controls v line setting v line rental Controls v line setting v line rental Controls v line setting v line settin	r4 Default teway r4 DNS Address r4 Address r6 Prefix r6 Address r6 DNS Address r6 DNS Address r6 Address		 Disable 	 Disable 	 Disable 	 Disable
rental Controls 0 revail	4 Default 44 DNS Address 44 ADNS Address 44 Address 46 Prefix 46 Prefix 46 Address 47 DNS Address 47 DNS Address 48 Address	192368.11 DHCP Server 0,0 	 Disable 	 Disable 	 Disable	 Disable
atus - Inve reveal - Inve reveal - Inve etwork Settings - Inve etwork Settings - Inve reveal - Inve reveal - Inve - Inv	4 DNS Address 4 Address tritin. 6 Prefix 6 Address 6 Link-Local dress 6 DNS Address 6 Address 6 Address	 DHCP Server 0/0 	 Disable 	 Disable 	 Disable 	 Disable
revail v like titties v like titties v like titties v like tetwork Settings v like revail v like sandwich Montoring v like	r4 Address stritn. r6 Prefix r6 Address r6 Link-Local dress r6 DNS Address r6 Address r6 Address	DHCP Server 0/0 	Disable	Disable 	Disable 	Disable
Alties	r6 Prefix r6 Address r6 Link-Local dress r6 DNS Address r6 Address trbtn.	0/0 	-			
Attvork Settings v Prod te & Time v Prod te & Time v Prod set & Tim	rð Address rð Link-Local dress rð DNS Address rð Address tribtn.			-		
ste à Time	r6 Link-Local dress r6 DNS Address r6 Address strbtn.		-			-
VS Settings v International Voltage v Internationa Voltage v International Voltage	r6 DNS Address					
antiving free and a set of the se	rð Address					
ystem Logarg ystem Logarg andwath Montoring eritzon / Baalo Avanced Britzon / Baalo Avanced Britzon Router Verizon Veri	r6 Address					
system-wide Connections andwath Monitoring reterm andwath Monitoring set set set set set set set set		Stateless	Disable	Disable	Disable	Disable
Andwidth Monitoring and avidth Monitoring attem	c'd Packets	11178	0	0	0	0
Settem	nt Packets	8474	0	0	0	0
EFTZON Basic Advanced with Deck With	o'd Bytes	1189811	0	0	0	0
Verticon-Houter V k-FI V vices V rental Controls O newall V littles V sem	nitoring > System	n-wide Traffic Connections				<u>Help</u> (
vyloes v Disk vrental Controla O Ree atua v Sen revvall v Ree illites v Sen	Sonnec	-wide tions		Aut	o-refresh	
arental Controls 0 Rec ²	strbtn.	Statesaa	Landore -	praetice	Dianore	Dianore
atua · Seni rewali · Rec' ilities · Seni	c'd Packets	11443	0	0	0	0
rewall ~ Rec ¹	nt Packets	8695	0	0	0	0
llities ~	o'd Bytes	1225137	0	0	0	0
		7416804	0	0	0	0
etwork Settings 🗸	nt Bytes		0	0	0	0
ate & Time ~	nt Bytes	0	~	v	v	v
NS Settings v Rec	nt Bytes c'd Errors	0				0

- 2. To modify the connection properties, click the individual connection links.
- 3. To continuously refresh the page, click Automatic refresh on.

SYSTEM SETTINGS

6.5c/ BANDWIDTH MONITORING

You can view and monitor the recorded bandwidth usage measured in Kbps.

To view the bandwidth:

1. In the Monitoring section, select Bandwidth Monitoring.

etwork Device		Monitoring > Ba	ndwidth Monitoring							
Verizon Router	~									
WI-FI		Bandy	vidth M	onitor	ing		Auto-ref	resh 🕌		Refresh
levices	×	Last min	1min	2min	3min	4min	5min	6min	7min	8min
arental Controls	0	Tx Rate	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s
itatus	~	Rx Rate	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s
Firewall	~	Last Hr	1hr	2hr	3hr	4hr	5hr	6hr	7hr	8hr
Itilities	~	Tx Rate	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s
letwork Settings		Rx Rate	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s	0 kb/s
ate & Time	~									

- 2. To refresh the page, click **Refresh**.
- 3. To continuously refresh the page, click **Automatic refresh** on.

6.6/ SYSTEM SETTINGS

You can configure various system and management parameters.

To configure system settings:

1. From the Advanced menu, select System.



work Device		System Settings		
verizon Houter	~	System Settings		
(I-FI	~ ^	oyotennoettinigo		
levices	~	Router Status		
arental Controls	0	Router's Hostname:	CR1000A	
tatus	×	Local Domain:	m/insateway.com	
irewall	~		nynosyatemajoon	
Itilities	×	Location:	Other V	
letwork Settings	~	Router		
late & Time	~	Automatic Refresh of System Monitorin	g Web Pages	
ONS Settings	~	Prompt for Password When Accessing v	ia LAN	
Monitoring	~	Ware licer Refere Configuration Change	<i>v</i>	
System	- 1	Wall over before configuration on ange		
	- 1	Session lifetime:	600 seconds	
		Number of concurrent users that can be		
		logged into the router:	5 ~	
	- 1	Remote Administration	5 ~	
	Ŧ	logged into the router: Remote Administration	5 ~	
/erizon [/] Basic	Advanced	Ingred into the router:	5 ~	Hale
Verizon ^y Basic etwork Device Verizon Router	Advanced	Ingred into the router: Remote Administration Relation UPTER Management Rest. System Settings System Settings	5 ~	Hole Apply Changes
Verizon ⁷ Basic etwork Device Verizon Router VN-FI	Advanced	Ingred into the router: Remote Administration Reference Internet Advancement Advancement System Settings System Settings	5 ~	보라 Apply Changes
terizon / Basic tstark Device Verizon Router V-FI tevices	Advanced	Ingred into the router: Remote Administration Induced internet System Settings System Settings Session lifetime:	5 V	Hola Apply Changes
verizon ⁷ Basic trusk Dekta Verizon Router Verizon Router Verices arental Controls	Advanced v v o	Ingred into the router: Remote Administration System Settings System Settings Session lifetime: Number of concurrent users that can be logged into the router:	5 v 	Hole Apply Changes
Verizon ⁷ Basio International Devices Verizon Router Verizon Router Verices Parental Controls Istatus	Advanced v v o v	Ingred into the reuter: Remote Administration System Settings System Settings Bession lifetime: Number of concurrent users that can be logged into the reuter: Remote Administration	5 v 500 seconds 5 v	Las Apply Changes
Verizon ⁷ Baalo eteest Device Verizon Router Verizon Router Verices Parental Controls Itatus	Advanced v v v v	Ingged into the router: Remote Administration System Settings Bession lifetime: Number of concurrent users that can be logged into the router: Remote Administration	5 v	Hold Apply Changes
Verizon ⁴ Baalo tevek bester Verizon Router VI-Fi Verices arental Controls tatus trewall titlittes	Advances v v v v v v v v	Ingred into the router: Remote Administration System Settings System Settings Remote Administration Primary HTPS Management Port:	5 v 	Hole Apply Changes
verizon / Basic tearit Desice Verizon Router verices tatus Irevall Itewall Stitutes Letwork Settings	Advanced v v v v v v v v v v v	Ingred into the reuter: Remote Administration System Settings System Settings Session lifetime: Number of concurrent users that can be logged into a votor: Remote Administration Primary HTTPS Management Port: System Logging:	5 v 	Hole Apply Changes
Verizon ⁷ Basic tesist Device Verizon Router vy-Fi vevices tatus trevall titlus tetwork Settings tate & Time	Advances v ^ v	Ingred into the reuter: Remote Administration	5 V 600 seconds 5 V 443 Disable Hore D	Hole Apply Changes
Verizon / Basic stast: Datos Verizon Router Verizon Router verides status Prevail Pitties Status Pitties NS Settings	Advances v v v v v v v v v v v v v	Ingred into the reuter: Remote Administration System Settings System Settings Session Internet Number of concurrent users that can be forged into the reuter: Number of concurrent users that can be forged into the reuter: Number of concurrent users that can be forged into the reuter: Number of concurrent users that can be forged into the reuter:	5 V 600 seconds 5 V 643 Disable Nore	Lak Apply Changes
Verizon Ovice encor Doute Verizon Route Virigon Route Parental Controls Status Parental Controls Status Villities Status	Advanced V V V V V V V V V V V V V	Inged into the reuter: Remote Administration System Settings System Settings Session lifetime: Number of concurrent users that can be regret into the reuter: Remote Administration Primary HTTPS Management Port: System Logging: Remote Security Notity Levet: Remote Security Notity Levet: PICP Timeout:	5 V 800 seconds 5 V 443 1000 Deable 1000 seconds 1000 seconds 1000 seconds 1000 seconds 1000 seconds	Link of Apply changes

SYSTEM SETTINGS

- 2. In the **Router Status** section, configure the following:
 - Verizon Router's Hostname enter the host name or URL address of your Verizon Router. Both names are the same.
 - Local Domain view the local domain of the network.
- 3. In the **Router** section, configure the following by selecting the check box:
 - Automatic Refresh of System Monitoring Web Pages activates the automatic refresh of system monitoring web pages.
 - Prompt for Password when Accessing via LAN causes your Verizon Router to ask for a password when trying to connect to the network.
 - Warn User Before Configuration Changes activates user warnings before network configuration changes take effect.
- 4. In the **Session Lifetime** field, specify the length of time required before re-entering a user name and password after your Verizon Router has been inactive.
- 5. In the Number of concurrent users that can be logged into the router field, select the number of users that can access your Verizon Router at the same time.
- 6. Select **Remote Administration** to configure the remote administration to your Verizon Router.

- Enter the Primary HTTP Management Port.
 Refer to 6.1h Remote Administration for using this feature.
- 8. In the **System Logging** section, configure the following system log options:
 - Enable Logging move the selector to on to activate system logging.
 - **Remote System Notify Level** specify the type of information, such as none, error, warning, and information, received for remote system logging.
 - **Remote Security Notify Level** specify the type of information, such as none, error, warning, and information, received for remote system logging.
 - Remote System Host IP Address enter the IP address of system log server for Security Logging messages.
- 9. In the **DHCP Timeout** section, specify the DHCP timeout.
- **10.** Click **Apply changes** to save changes.

- **7.0** Troubleshooting Tips
- 7.1 Frequently Asked Questions

This chapter lists solutions for issues that may be encountered while using your Verizon Router as well as frequently asked questions.

Although the majority of the router's internet connectivity is automatic and transparent, if an issue does occur accessing the internet (e.g. complete loss of connectivity, inability to access services, etc.), you may need to take additional steps to resolve the problem.

TROUBLESHOOTING TIPS

Note: The advanced settings should only be configured by experienced network technicians to avoid adversely affecting the operation of your Verizon Router and your local network.

7.0/ TROUBLESHOOTING TIPS 7.0a/ IF YOU ARE UNABLE TO CONNECT TO THE INTERNET:

- The first thing to check is whether your Verizon Router is powered on and is connected to the internet. Check the Router Status LED on the front of the Verizon Router. Be sure to refer to the "1.3a/ FRONT PANEL" on page 9 to determine status of the Verizon Router. Check the WAN cable connecting your Verizon Router to the internet to make sure it is properly connected on both ends.
- If the prior tips do not resolve your connection issue, try restarting (rebooting) the router portion of the Verizon Router by manually pressing the 'red' reset power button on the rear panel of the Verizon Router for 2-4 seconds (the Router Status LED should go off) to begin rebooting your Verizon Router. Your Verizon Router will begin rebooting and will return to service in 3 5 minutes depending on your network connection. Check Router Status LED and if it is solid white, try again to access the internet.
- If rebooting your router does not resolve your connection issue, try power cycling the Verizon Router by unplugging the power cable from the adapter or the wall and wait 2 minutes. During the 2 min. wait period, also power cycle the network device (e.g.

the computer, tablet, etc.) and then plug the power cable back into the Verizon Router. After 3-5 minutes, recheck the Router Status LED and try again to access the internet.

7.0b/ IF YOU ARE UNABLE TO CONNECT TO YOUR VERIZON ROUTER USING WI-FI:

- Be sure your Wi-Fi device is within range of your Verizon Router; move it closer to see if your connection improves.
- Check your network device's Wi-Fi settings to be sure your device's Wi-Fi is on (enabled) and that you have the correct Wi-Fi network and password (if using a Wi-Fi password) as configured on your Verizon Router.
- Be sure you are connecting to the correct Wi-Fi network; check to be sure you are using your Verizon Router's SSID. In some cases, if using a Wi-Fi password, you may need to enter the Wi-Fi password into your network device again to be sure your device accepts the password.
- Check to be sure you are running the latest software for your network device.
- Try turning your network device's Wi-Fi off and on, and try to connect.
- If you have made any changes in your network settings and turning your network device's Wi-Fi off and on does not help, try to restart your network device.
- You may need to turn the Wi-Fi settings from on to off, and back to on again and apply the changes.

TROUBLESHOOTING TIPS

 If you are still unable to access your Verizon Router, you may need to try connecting to the Verizon Router using another network device. If the issue goes away with another network device, the issue is likely with that individual network device's configuration.

7.0c/ ACCESSING YOUR VERIZON ROUTER IF YOU ARE LOCKED OUT

• If your Verizon Router connection is lost while making configuration changes, a setting that locks access to your Verizon Router's UI may have inadvertently been activated.

The common ways to lock access to your Verizon Router are:

- Scheduler If a schedule has been created that applies to the computer over the connection being used, your Verizon Router will not be accessible during the times set in the schedule.
- Access Control If the access control setting for the computer is set to block the computer, access to your Verizon Router is denied.

To gain access, restore the default settings to your Verizon Router.

7.0d/ RESTORING YOUR VERIZON ROUTER'S DEFAULT SETTINGS

There are two ways to restore your Verizon Router's default settings. It is important to note that after performing either procedure, all previously save settings on your Verizon Router will be lost. For additional information regarding the Restore Defaults feature, refer to section 6.1/ Utilities/Save And Restore.

- Using the tip of a ballpoint pen or pencil, press and hold the Reset button on the back of your Verizon Router for three seconds.
- Access the UI and navigate to the Advanced Settings page. Select the 6.1b Save and Restore option. After saving your configuration, if desired, click the Restore Factory Defaults radio button. For additional details, refer to the 6.1/ Utilities/Save And Restore section of this guide.

Note: If you reset or reboot your Verizon Router, you may also need to disconnect your Verizon Router's power supply for a few minutes (3 or more) and then reconnect the power cable. However, in order to provide full synchronization to the coaxial network, disconnecting and reconnecting the power may be required.

7.0e/ LAN CONNECTION FAILURE

To troubleshoot a LAN connection failure:

- Verify your Verizon Router is properly installed, LAN connections are correct, and that the Verizon Router and communicating network devices are all powered on.
- Confirm that the computer and Verizon Router are both on the same network segment.

If unsure, let the computer get the IP address automatically by initiating the DHCP function, then verify the computer is using

TROUBLESHOOTING TIPS

an IP address within the default range of 192.168.1.2 through 192.168.1.254. If the computer is not using an IP address within the correct IP range, it will not connect to your Verizon Router.

• Verify the subnet mask address is set to 255.255.255.0.

7.0f/ TIMEOUT ERROR OCCURS WHEN ENTERING THE URL OR IP ADDRESS

Verify the following:

- All computers are working properly.
- IP settings are correct.
- Verizon Router is on and connected properly.
- Verizon Router settings are the same as the computer.

For connections experiencing lag or a slow response:

- Check for other devices on the network utilizing large portions of the bandwidth and if possible temporarily stop their current utilization and recheck the connection.
- If lag still exists, clear the cache on the computer and if still needed, unplug the Ethernet cable or disable the Wi-Fi connection to the computer experiencing the slow connection and then reconnect or enable the Wi-Fi connection and try the connection again.

In rare cases you may also need to:

• Unplug the Ethernet cable to Verizon Router and restart the Verizon Router, wait 1-2 mins. and insert the Ethernet cable again.
• Under limited circumstances you may use a port forwarding configuration on the router, based on the application you are using (refer to the 6.0d/ Port Forwarding section or Verizon's support online help for more details).

7.0g/ ROUTER STATUS LED

The Router Status LED provides a visual display of the Verizon Router's current condition. Refer to the chart below for details.

Condition Status	LED Color	Verizon Router
Normal	WHITE	Normal operation (solid) Router is booting (fast blink) System restart (fast blink)
	BLUE	Pairing mode (slow blink) WPS pairing successful (fast blink)
	GREEN	Wi-Fi has been turned off (solid)
Issue(s)	YELLOW	No internet connection (solid)
	RED	Hardware/System failure detected (slow blink) Overheating (fast blink) System update error (fast blink) WPS pairing failure (fast blink)
Power	OFF	Power off

FREQUENTLY ASKED QUESTIONS

7.1/ FREQUENTLY ASKED QUESTIONS 7.1a/ I'VE RUN OUT OF ETHERNET PORTS ON MY VERIZON ROUTER. HOW DO I ADD MORE COMPUTERS OR DEVICES?

Plugging in an Ethernet hub or switch expands the number of ports on your Verizon Router.

• Run a straight-through Ethernet cable from the Uplink port of the new hub to the Verizon Router.

Use a crossover cable if there is no Uplink port/switch on your hub, to connect to the Verizon Router.

• Remove an existing device from the Ethernet port on your Verizon Router and use that port.

7.1b/ HOW DO I CHANGE THE PASSWORD ON MY VERIZON ROUTER UI?

To change the password:

- 1. On the main screen, select **Advanced**, then select **Users** in the **Utilities** section.
- 2. Click the **Edit** in the **Action** column. The **User Settings** page displays.
- 3. Edit the user name and set a new password.

7.1c/ IS THE WI-FI OPTION ON BY DEFAULT ON MY VERIZON ROUTER?

Yes, your Verizon Router's Wi-Fi option is activated out of the box.

7.1d/ IS THE WI-FI SECURITY ON BY DEFAULT WHEN THE WI-FI OPTION IS ACTIVATED?

Yes, with the unique WPA2 (Wi-Fi Protected Access II) key that is printed on the sticker on the rear panel of your Verizon Router.

7.1e/ ARE MY VERIZON ROUTER'S ETHERNET PORTS AUTO-SENSING?

Yes. Either a straight-through or crossover Ethernet cable can be used.

7.1f/ CAN I USE AN OLDER WI-FI DEVICE TO CONNECT TO MY VERIZON ROUTER?

Yes, your Verizon Router can interface with 802.11b, g, n, ac or ax devices. Your Verizon Router also can be setup to handle only n Wi-Fi cards, g Wi-Fi cards, b Wi-Fi cards, or any combination of the three.

FREQUENTLY ASKED QUESTIONS

7.1g/ CAN MY WI-FI SIGNAL PASS THROUGH FLOORS, WALLS, AND GLASS?

The physical environment surrounding your Verizon Router can have a varying effect on signal strength and quality. The denser the object, such as a concrete wall compared to a plaster wall, the greater the interference. Concrete or metal reinforced structures experience a higher degree of signal loss than those made of wood, plaster, or glass.

7.1h/ HOW DO I LOCATE THE IP ADDRESS THAT MY COMPUTER IS USING?

In Windows 7 or Windows 10, click the Windows button and select Control Panel, then click View Network Status and Tasks. In the next window, click Local Area Connection. In the Local Area Network Connection Status window, click Details.

On Mac OS X, open System Preferences and click the Network icon. The IP address displays near the top of the screen.

To find the IP address from the router GUI:

- 1. From the **Basic** menu, select **Devices** from the left pane.
- 2. Select **Expanded List** from the dropdown list to view detailed IP address information for all connected devices.

7.1i/ I USED DHCP TO CONFIGURE MY NETWORK. DO I NEED TO RESTART MY COMPUTER TO REFRESH MY IP ADDRESS?

No. In Windows 7, Windows 10 and OSX, unplug the Ethernet cable or Wi-Fi card, then plug it back in.

7.1j/ I CANNOT ACCESS MY VERIZON ROUTER UI. WHAT SHOULD I DO?

If you cannot access the UI, verify the computer connected to your Verizon Router is set up to dynamically receive an IP address.

7.1k/ I HAVE A FTP OR WEB SERVER ON MY NETWORK. HOW CAN I MAKE IT AVAILABLE TO USERS ON THE INTERNET?

For a web server, enable port forwarding for port 80 to the IP address of the server. Also, set up the web server to receive that port. Configuring the server to use a static IP address is recommended.

For a FTP server, enable port forwarding for port 21 to the IP address of the server. Also, set up the web server to receive that port. Configuring the server to use a static IP address is recommended.

FREQUENTLY ASKED QUESTIONS

7.11/ HOW MANY COMPUTERS CAN BE CONNECTED THROUGH MY VERIZON ROUTER?

Your Verizon Router is capable of 254 connections, but we recommend having no more than 132 connections. As the number of connections increases, the available speed for each computer decreases.

08/ Specifications

- 8.0 General Specifications
- 8.1 LED Indicators
- 8.2 Environmental Parameters

188

The specifications for your Verizon Router are as follows.

This includes standards, cabling types and environmental parameters.

GENERAL SPECIFICATIONS

Note: The specifications listed in this chapter are subject to change without notice.

8.0/ GENERAL SPECIFICATIONS

Model Number:	CR1000A
Standards:	IEEE 802.3x, 802.3u, 802.3ab, 802.3bz, 802.3 an
	IEEE 802.11a/b/g/n/ac/ax
IP:	IP versions 4 and 6
MoCA LAN:	1125 – 1675 MHz 2500 Mbps
Speed:	Wired:
	10GE WAN Ethernet: 100 Mbps, 1/2.5/5/10 Gbps auto-sensing
	10GE LAN Ethernet: 100 Mbps, 1/2.5/5/10 Gbps auto-sensing
	2.5GE LAN Ethernet: 10/100 Mbps, 1/2.5 Gbps auto-sensing
	Wireless:
	2.4 GHz - IEEE 802.11b/g/n: maximum up to 600 Mbps IEEE 802.11ax: maximum up to 1.1 Gbps

	5 GHz - IEEE 802.11a/n/ac: maximum up to 2.2 Gbps IEEE 802.11ax: maximum up to 2.4 Gbps
	6 GHz - IEEE 802.11ax: maximum up to 4.8 Gbps
Cabling Type:	Ethernet 100BaseT: UTP/STP Category 5
	Ethernet 1000BaseT: UTP/STP Category 5e
	Ethernet 2.5/5/10GBaseT: UTP/STP Category 6a
Firewall:	ICSA certified

8.1/ LED INDICATORS

Front Panel:	Router Status LED
Rear Panel:	WAN Ethernet and LAN Ethernet [3]

ENVIRONMENTAL PARAMETERS

8.2/ ENVIRONMENTAL PARAMETERS DIMENSIONS AND WEIGHT

Verizon Router (unit only): Size: 4.72" wide x 9.85" high x 4.72" deep Weight: 2.96 lbs / 1.344 kg Complete System (inc. packaging): Size: 10.71" wide x 7" high x 8.66" deep Weight: 5.51 lbs / 2.5 kg Power: External, 12V, 5A Mounting Bracket (optional): Size: 3.97" wide x 6.86" high x 6.6" deep Weight: 0.39 lbs / 175 g PH TP+N: 0.157" x 0.984" Screws (optional): PE Anchor: 0.236" x 0.984"

192

Certifications:	FCC, UL 62368, WFA
Operating Temperature:	5° C to 40° C (41° F to 104° F)
Storage Temperature:	-5° C to 50° C (23° F to 122° F)
Operating Humidity:	5% to 85%
Storage Humidity:	5% to 93% (non-condensing)

09/ Notices

9.0 Regulatory Compliance Notices

09 / NOTICES



This chapter lists various compliance and modification notices, as well as the NEBS requirements and GPL.

REGULATORY COMPLIANCE NOTICES

9.0/ REGULATORY COMPLIANCE NOTICES 9.0a/ Class B Equipment

Federal Communication Commission Interference Statement:

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

FCC regulations restrict the operation of this device to indoor use only.

The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet.

Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

RF Exposure:

To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 31cm from all persons (indoor), and must not be co-located or operating in conjunction with any other antenna or transmitter.

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

REGULATORY COMPLIANCE NOTICES

9.0b/ Safety Warning:

- 1. The circuit of cable distribution system under consideration is TNV-1 circuit.
- 2. The common sides or earthed side of the circuit are connected to the screen of the coaxial cable through an antenna connector of tuner and to all accessible parts and circuits (SELV, LCC and accessible metal parts).
- 3. The screen of the coaxial cable is intended to be connected to earth in the building installation.

9.0c/ Alerte de sécurité:

- Le circuit de distribution par câble considéré est le circuit TNV-1.
- Les côtés communs ou côté terre du circuit sont connectés à l'écran du câble coaxial via un connecteur d'antenne du syntoniseur et à toutes les parties et circuits accessibles (SELV, LCC et parties métalliques accessibles).
- 3. L'écran du câble coaxial est destiné à être mis à la terre dans l'installation du bâtiment.

The cable distribution system should be grounded (earthed) in accordance with ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93, Grounding of Outer Conductive Shield of a Coaxial Cable. Le système de distribution par câble doit être mis à la terre conformément à ANSI / NFPA 70, Code national de l'électricité (NEC), en particulier à la section 820.93, Mise à la terre du blindage conducteur extérieur d'un câble coaxial.

9.0d/ NEBS (Network Equipment Building System) Statement

An external SPD is intended to be used with CR1000A/CME1000.

WARNING: The intra-building ports of the equipment or subassembly is suitable for connection to intra-building or unexposed wiring or cabling only. The intra-building port(s) of the equipment or subassembly MUST NOT be metallically connected to interfaces that connect to the OSP or its wiring. These interfaces are designed for use as intra-building interfaces only (Type 4 ports as described in GR-1089) and require isolation from the exposed OSP cabling. The addition of Primary Protectors is not sufficient protection in order to connect these interfaces metallically to OSP wiring.

REGULATORY COMPLIANCE NOTICES

Caution: The Verizon Router must be installed inside the home. The Router is not designed for exterior installation.

9.0e/ GENERAL PUBLIC LICENSE

This product includes software made available under open source licenses. Additional information about that software, applicable licenses, and downloadable copies of source code, is available at:

https://verizon.com/opensource/

All open source software contained in this product is distributed WITHOUT ANY WARRANTY. All such software is subject to the copyrights of the authors and to the terms of the applicable licenses included in the download.

This information is provided for those who wish to edit or otherwise change such programs. You do not need a copy of any of such open source software source code to install or operate the device.