

User Guide

LTE Home Router

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1. Inside the box

Contact Verizon if any item is missing or damaged.

- 1) Gateway
- 2) Power Adapter

****PLACEHOLDER ARTWORK: TO BE REVISED AFTER TECHNICAL REVIEW****

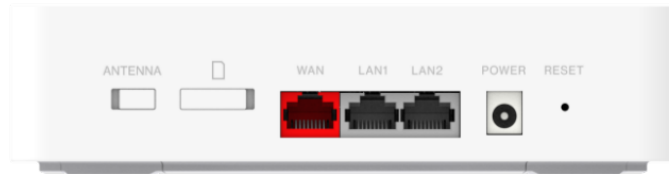
2. Your LTE WiFi Gateway

Front:

Status LED, WPS LED, WPS/LTE? Button

Back:

Power Port, 2 x LAN Ethernet Ports, 1 x WAN Ethernet Port, SIM Card Slot, Reset Button



Bottom:

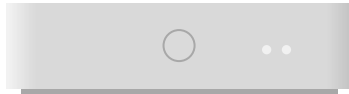
Micro USB



****PLACEHOLDER ARTWORK: TO BE REVISED AFTER TECHNICAL REVIEW****

LEDs

The LEDs indicate the system and connection status, and **WPS activity**.

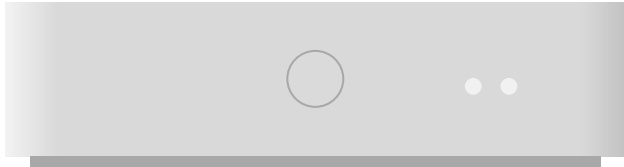


Indicator/ Scenario	Pattern #	Description	Light type	LED2 (WPS)	LED1 (SYS)
System	1	System Off	Off		
	2	System Booting	Green, Slow Blinking		
	3	System Ready	Show SYS status		
	4	Firmware update	Green, Quick blinking <i>(only while firmware is being installed)</i>		
LTE / <u>WiFi</u>	5	Excellent LTE Signal Strength	Green		
	6	Fair LTE Signal Strength	Yellow/Amber		
	7	Poor LTE Signal Strength	Red		
	8	<u>WiFi</u> / LTE / FW Error	Red, Slow Blinking		
	9	No SIM Card	Red, Quick Blinking		
WPS	10	WPS Pairing	Blue, Quick Blinking <i>(blinks until WPS times out)</i>		Existing Status
Factory Reset	11	Reset User data	Yellow/Amber Quick Blinking <i>(only for 2~3 seconds after pressing reset button until device restarts)</i>		

****PLACEHOLDER: TO BE REVISED AFTER TECHNICAL REVIEW****

WPS/LTE Button

Press the WPS button on the front of the gateway to activate WPS. Refer to XY for more information about WPS.



****PLACEHOLDER: TO BE REVISED AFTER TECHNICAL REVIEW****

3. Installation

Disconnect any existing router or from your network before installation.

1. Plug the gateway into a power outlet with the included power adapter.

****INSTALLATION ARTWORK #1****

2. Wait for a couple of minutes for the gateway to power up, and then head to **4. Login to your LTE WiFi Gateway** to login to your gateway and configure settings such as WiFi security.

****INSTALLATION ARTWORK #2****

3.1 Positioning your gateway

For the best wireless signal transmission from the gateway to your network devices:

- Place the gateway in a central area.
- Keep the gateway away from metal obstructions and away from direct sunlight.
- Keep the gateway away from 802.11g or 20MHz only WiFi devices, 2.4GHz computer peripherals, Bluetooth devices, cordless phones, transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators, and other industrial equipment to prevent signal interference or loss.

3.2 Setup requirements

To configure your wireless network via computer, you need a computer that meets the following system requirements:

- Ethernet RJ-45 (LAN) port (10Base-T/100Base-TX/1000BaseTX)
- IEEE 802.11a/b/g/n/ac wireless capability
- An installed TCP/IP service
- Web browser such as Internet Explorer, Firefox, Safari, or Google Chrome

4. Login to Your LTE Gateway

You can configure your gateway's network settings using the Web User Interface (Web UI) by computer or mobile app. First connect to your gateway, then access the Web UI, as shown below. Your gateway is pre-set with the WPA2 security, but you should immediately change the default WiFi password, as well as the Web UI login password.

4.1 Connect by Smartphone

1. On your smartphone, scan available WiFi networks.



****iOS SCREENSHOT****

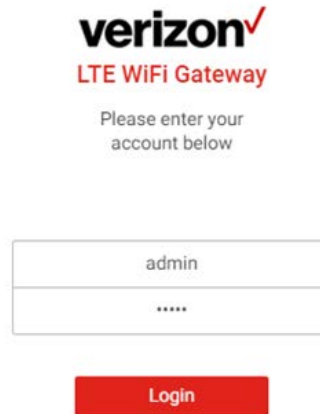
2. Select either of the networks named:

WiFi-2.4G
or
WiFi-5G

3. Enter the unique password found on your gateway's box.

Login to the Web User Interface

1. Open the Verizon Gateway App.
2. Log in using the default username: **admin** and password: **admin**



The image shows the login interface for a Verizon LTE WiFi Gateway. At the top is the Verizon logo with a red checkmark, followed by the text "LTE WiFi Gateway". Below this is a prompt: "Please enter your account below". There are two input fields: the first contains the text "admin", and the second contains six asterisks "*****" to represent a password. Below the input fields is a red button with the word "Login" in white text.

3. Go to **Basic > Network > WiFi** to change your WiFi password and **Expert > Device Settings > Administration** to change your Web UI login password, and remember to save your settings.
4. Check 5. **Basic Settings** and 6. **Expert Settings** in this guide for more information.

4.2 Connect by computer

1. On your computer, scan available WiFi networks.

2. Select either of the networks named:

WiFi-2.4G

or

WiFi-5G

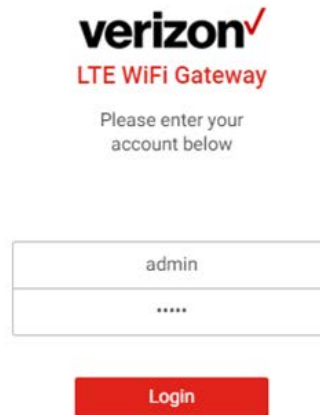
3. Enter the unique password found on your gateway's box.

4. If preferred, you can use an Ethernet cable to connect your computer to the gateway's LAN port for configuration (instead of WiFi).

****PLACEHOLDER ARTWORK: TO BE REVISED AFTER TECHNICAL REVIEW****

Login to the Web User Interface

1. Open a web browser and enter the gateway's default address **http://192.168.1.1** in the address bar.
2. Log in to the Web UI using the default username: **admin** and password: **admin**



The image shows the login interface for a Verizon LTE WiFi Gateway. At the top, the Verizon logo is displayed in black with a red checkmark, followed by the text "LTE WiFi Gateway" in red. Below this, a grey prompt reads "Please enter your account below". There are two input fields: the first contains the text "admin" and the second contains six asterisks "*****". A red "Login" button is positioned below the password field.

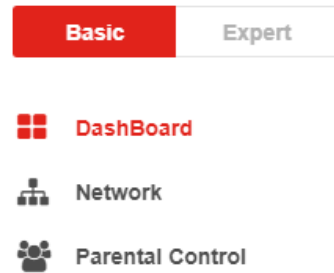
3. Go to **Basic > Network > WiFi** to change your WiFi password and **Expert > Device Settings > Administration** to change your Web UI login password, and remember to save your settings
4. Check 5. **Basic Settings** and 6. **Expert Settings** in this guide for more information.

5. Basic Settings

Your gateway's Web User Interface (Web UI) allows you to easily setup its Basic & Expert features.

Menu

Select the **Basic** tab in the menu:



Save

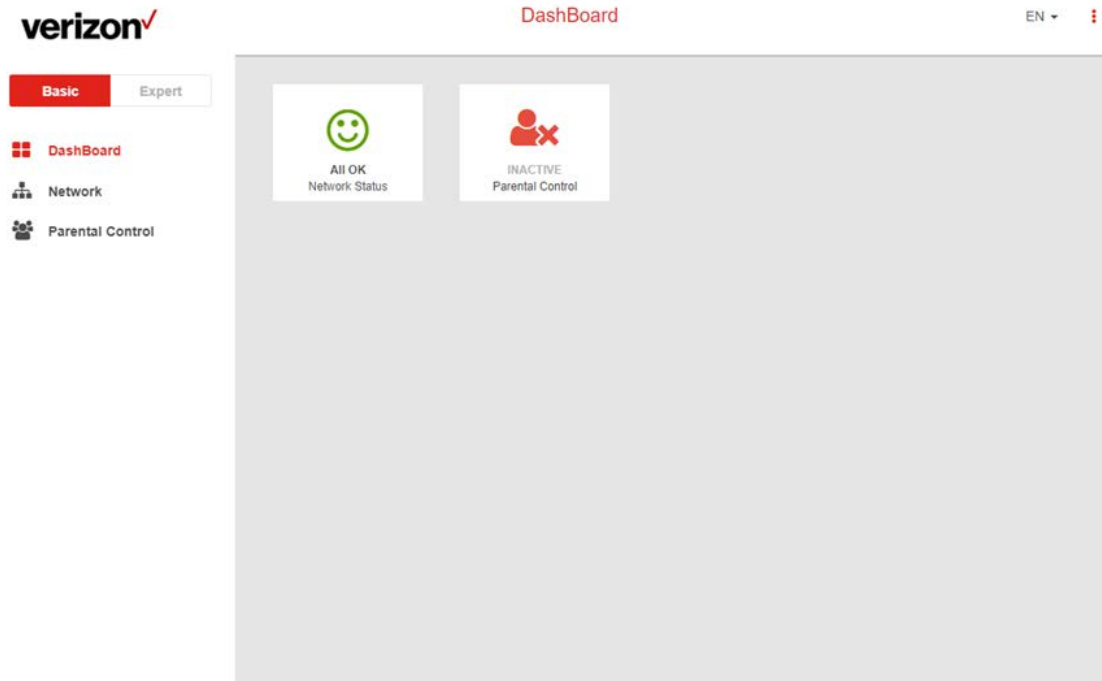
Remember to save your settings with the save button after making changes. The icon takes you back to the Dashboard.



5.1 Dashboard

Basic > Dashboard

The **Dashboard** shows a snapshot of your network status with quick links to key features of your gateway.



Select any icon on the dashboard: **Network Status**, **Parental Control** to access more information and settings.

Network Status takes you to Basic > Network > Status

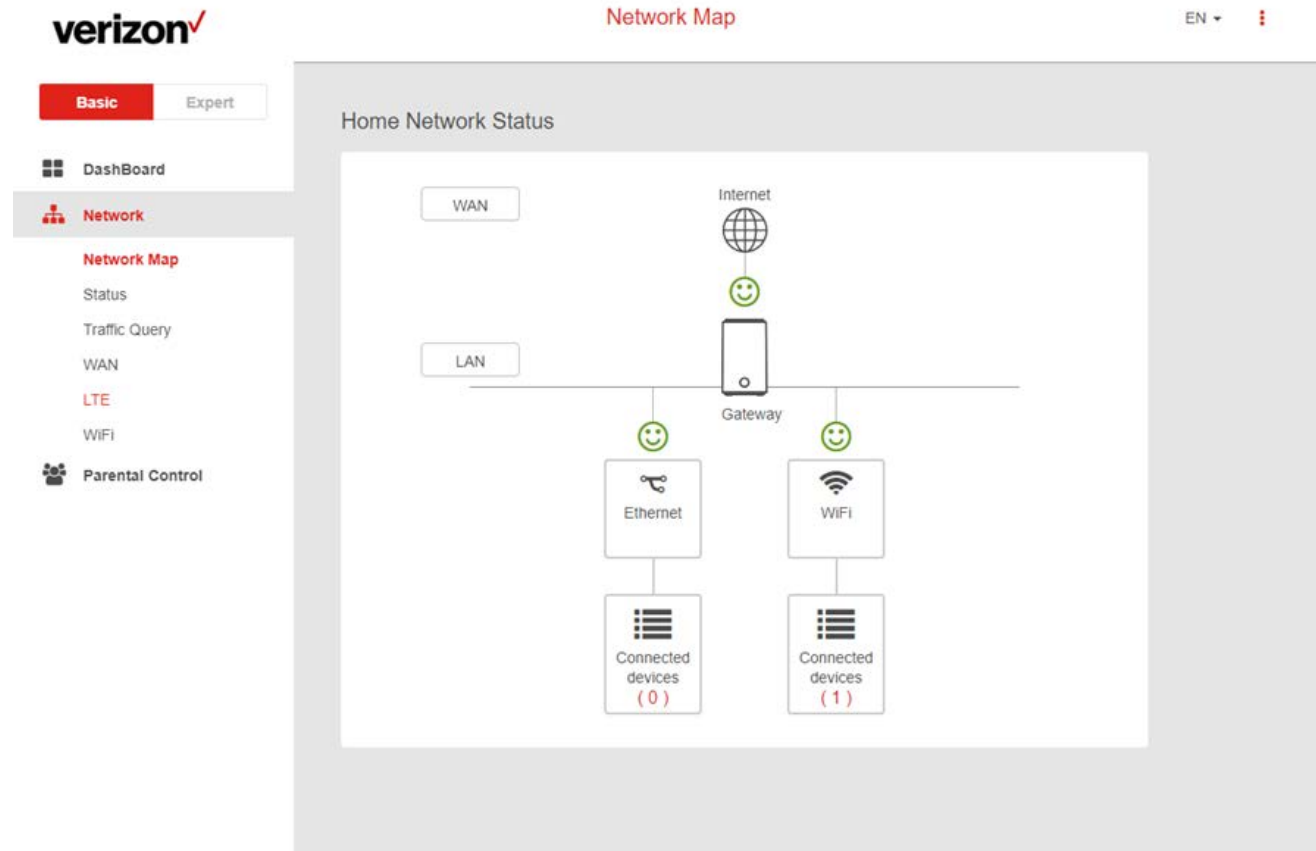
Parental Control takes you to Basic > Network > Parental Control

Network Status should display **All OK** to indicate a functioning LTE network. If you don't see this, check the gateway's LEDs and refer to Troubleshooting to diagnose the problem.

5.2 Network

Basic > Network

The **Network** menu provides quick links to the basic networking functions of your gateway. When you select the **Network** menu, the **Network Map** page is displayed as below.

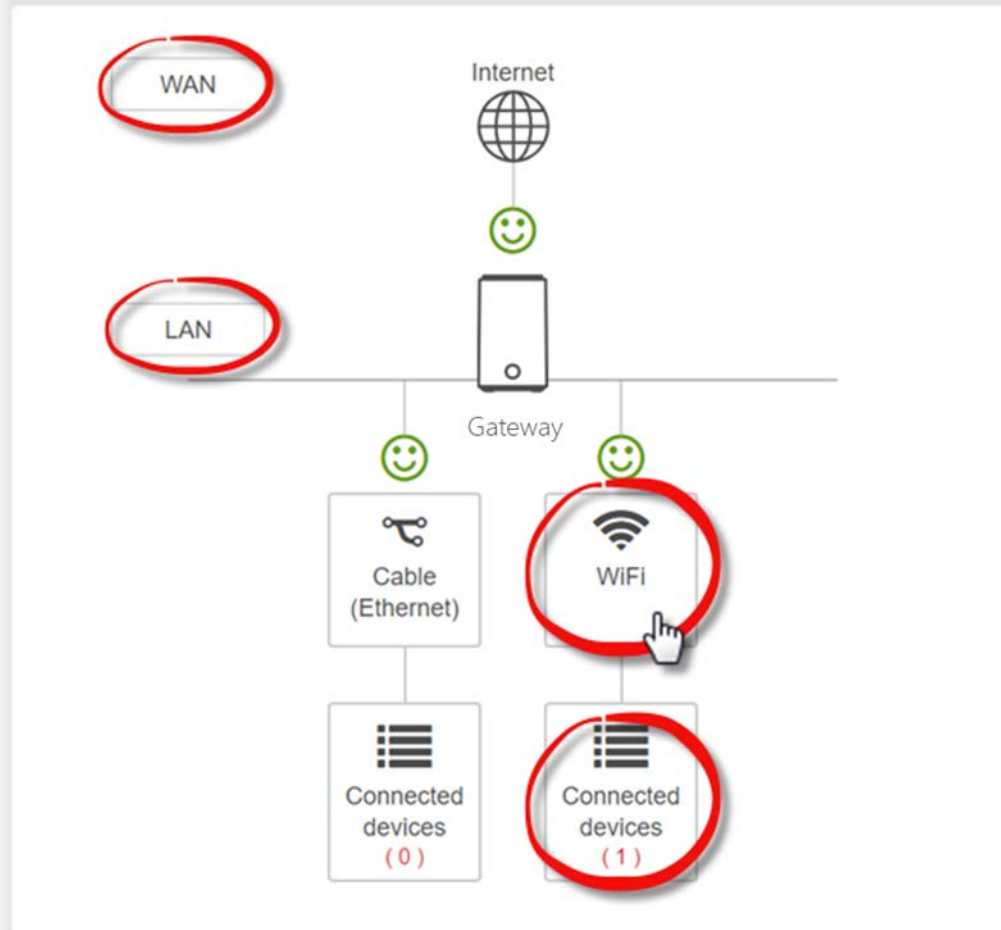


Network Map

Basic > Network > Network Map

The network map provides a visual overview and status information of the network and devices on the network, with quick links to wireless security settings and client lists. It's important to check and configure security settings.

Home Network Status



Select icons on the dashboard for more information and settings, as displayed below:

WAN

Displays the gateway's Wide Area Network (WAN) IP Address and Connection Type (LTE).

WAN	
IP address:	10.130.23.116
Connection type:	LTE
	
WAN SETTINGS	
CANCEL	

LAN

Displays the gateway's Local Area Network (LAN) IP Address and Subnet Mask. Click LAN Settings to modify the settings.

LAN	
IP address:	192.168.1.1
Subnet mask:	255.255.255.0
	
LAN SETTINGS	
CANCEL	

LAN > LAN Settings

This page allows you to configure your gateway on your Local Area Network (LAN). You can specify a static IP address for your gateway, and configure your gateway as a DHCP server to assign IP addresses to other devices on your LAN.

The screenshot displays the Verizon LAN Settings interface. On the left, there is a navigation menu with options: Dashboard, Network (selected), Network Map, Status, Traffic Query, WAN, LTE, WiFi, and Parental Control. The main content area is titled 'Manage LAN Settings' and has two tabs: 'Basic' and 'Advanced'. The 'Basic' tab is active, showing the MAC Address as B4:EE:B4:EA:77:BE, the IP Address as 192.168.1.1, and the Subnet Mask as 255.255.255.0. The 'Advanced' tab is also visible, showing that DHCP is active (indicated by a red toggle switch), and fields for IP Address Pool (192.168.1.100 - 150), Address Lease Time (24 Hours), Primary DNS, and Secondary DNS.

Basic

MAC Address

Displays the MAC address of your gateway. A MAC Address is a unique fixed identifier for any device on a network.

IP Address	Specify the IP address here. This IP address will be assigned to your gateway and will replace the default IP address.
Subnet Mask	Specify a subnet mask. The default value is 255.255.255.0

Advanced

DHCP is active/inactive	Toggle the switch to enable or disable DHCP server.
IP Address Pool	Enter the start and end IP address of the IP address range which your gateway's DHCP server will assign to devices on the network.
Address Lease Time	Enter an address lease time in hours. IP addresses will be assigned for this period of time before being reassigned.
Primary DNS Address	Enter a primary DNS address.
Secondary DNS Address	Enter a secondary DNS address.

WiFi

Displays your gateway's 2.4GHz & 5GHz network name (SSID) with switches to quickly enable or disable either WiFi network. Click WiFi Settings to go to Network > WiFi Settings.

WiFi

2.4 GHz WiFi

Network Name: **WIFI-2.4GHz**

2.4 GHz WiFi is **active**

☒

5 GHz WiFi

Network Name: **WIFI-5GHz**

5 GHz WiFi is **active**

☒



WiFi SETTINGS

CANCEL

Connected Devices

Displays all devices (clients) connected to your gateway, by Ethernet (LAN) or WiFi (wireless) e.g. laptops, smartphones. The device name, MAC address and IP address is listed for each device.



Status

Basic > Network > Status

Network Status displays the status of the network across six categories: Internet v4, Internet v6, LTE, LAN, Wireless & System Information.

Information is listed in Network Status for reference as described below:

Internet v4

Displays IPv4 Wide Area Network WAN information about your gateway's LTE connection. IPv4 is the default Internet protocol widely used across the Internet.

Internet v6

Displays IPv6 Wide Area Network WAN information about your gateway's LTE connection. IPv6 is an alternative Internet protocol which is not yet widely supported. To setup IPv6 go to **Basic > Network > LTE**. Contact your ISP for more information about using IPv6.

LTE

Displays LTE information including signal strength. To edit LTE settings go to **Basic > Network > LTE**.

LAN

Displays the gateway's Local Area Network (LAN) information including MAC Address, IP Address and Subnet Mask, and DHCP Server status. To edit LAN settings go to **Expert > Network > LAN**.

Wireless 2.4GHz & 5GHz

Displays your gateway's WiFi information for both 2.4GHz & 5GHz frequencies. Includes network name (SSID) and radio & channel information. To edit these WiFi settings go to **Expert > Network > WiFi Settings**.

System Information

Displays system identifiers unique to your hardware.

Information



Internet (v4)

IP Address	10.19.151.194
Subnet Mask	255.255.255.252
Default Gateway	10.19.151.193
Primary DNS	168.95.1.1
Secondary DNS	168.95.192.1
Connection Type	LTE - Connected



Internet (v6)



LTE



LAN



Wireless 2.4G



Wireless 5G



System Information

Traffic Query

Basic > Network > Network Map

Traffic Query displays your network data usage, with upload, download and total traffic displayed in MB. Ensure that your gateway's date and time settings are correct in **Expert > Device Settings > Date & Time** for accurate Monthly usage information.

Manage Traffic Settings	
▼ Monthly usage	
Upload	5.03MB
Download	105.06MB
Total Traffic	110.09MB
▼ Currently usage	
Query Range	2020-02-01 12:16
Upload	5.03MB
Download	105.06MB
Total Traffic	110.09MB

WAN

Basic > Network > WAN

The Internet Connection screen allows you to configure the settings of various WAN connection types.

1. From the navigation panel, go to **Basic Settings > Network > WAN**.
2. Configure the following settings below. When done, click **Save**.

Manage WAN Settings

▼ WAN Type

Connection Type: Dynamic IP ▼

▼ Dynamic IP Information

IP Address

Subnet Mask

Default Gateway

Primary DNS

Secondary DNS

▼ Dynamic IP Advanced Setup

DNS Address: ☒ Get dynamically from ISP ☐ Use the Following DNS Addresses

Primary DNS

Secondary DNS

WAN Connection Type: Choose your Internet Service Provider type: Dynamic IP or Static IP – and enter the appropriate IP Address, Subnet Mask and Default Gateway if using Static IP.. Consult your ISP if the router is unable to obtain a valid IP address or if you are unsure the WAN connection type.

Manage WAN Settings

▼ WAN Type

Connection Type

▼ Static Setup

IP Address ⓘ ⓘ

Subnet Mask ⓘ ⓘ

Default Gateway ⓘ ⓘ

Primary DNS ⓘ

Secondary DNS ⓘ

Connect to DNS Server: Allows this router to get the DNS IP address from the ISP automatically. A DNS is a host on the Internet that translates Internet names to numeric IP addresses.

▼ Dynamic IP Advanced Setup

DNS Address ☐ Get dynamically from ISP
☒ Use the Following DNS Addresses

Primary DNS ⓘ

Secondary DNS ⓘ

LTE

Basic > Network > LTE

LTE settings are pre-configured by default. You can disconnect the LTE connection using the Disconnect button if needed, and the connection and SIM status are displayed accordingly.

Manage LTE Settings

▼

LTE Status

Internet Status

Connected

Disconnect

SIM Status

UnLock

▼

Dial-up Settings

Airplane Mode is inactive

☐

Data Roaming is inactive

☐

PDN Type

IPv4+v6 ▼

Auto APN is **active**

☒

▼

SIM Management ⓘ

PIN Protected **Enable**

☒

Change PIN

☐

Data Roaming, APN, PDN and SIM Management PIN settings can be altered using the switch buttons and drop-down menu. These settings are recommended only for expert users.

WiFi

Basic > Network > WiFi

The **WiFi** screen displays the basic settings for your gateway's WiFi. Your gateway is dual-band and uses two Wi-Fi frequencies (2.4GHz & 5GHz) for better wireless performance on your devices. You can edit basic settings for 2.4GHz or 5GHz frequency bands by selecting the respective tab.

Manage Wireless Settings

2.4 GHz

5 GHz

2.4 GHz WiFi Settings

2.4 GHz WiFi is **active**

☒

Guest WiFi is **active**

☒

WiFi-2.4GHz-GST

Wireless Name(SSID)

☐ Hide SSID ⓘ

Wireless Password

☐ Show Password

Version

☐ Mixed WPA/WPA2

☒ WPA2

Encryption

☒ AES

2.4 GHz WiFi Channel Settings

Mode

Channel

Channel Bandwidth

2.4 / 5 GHz WiFi Settings

WiFi is active/inactive	Enable or disable this WiFi frequency.
Wireless Name (SSID)	This is the name of your Wi-Fi network for identification, also sometimes referred to as "SSID". The SSID can consist of any combination of up to 32 alphanumerical characters.
Hide SSID	Check the box to hide your SSID. When hidden, the SSID will not be visible as an available Wi-Fi network to clients – clients must manually enter the SSID in order to connect. A hidden SSID is typically more secure than a visible SSID.
Wireless Password	Enter your WiFi password. A complex, hard-to-guess key is recommended.

5.3 Parental Control

Basic > Parental Control

The **Parental Control** feature allows you to restrict Internet access to selected devices on your network at specified times e.g. disabling Internet access for a child's smartphone.

The screenshot displays the Verizon Parental Control web interface. On the left, the Verizon logo is at the top, followed by a navigation menu with 'Basic' (selected) and 'Expert' tabs. Below these are icons and labels for 'DashBoard', 'Network', and 'Parental Control'. The main content area is titled 'Parental Control' and 'Manage Parental Control'. It features a 'SETTINGS' tab with a toggle switch for 'Parental Control is active' (currently on). Below this is a 'LIST' tab showing a table of managed devices. The table has columns for device name, MAC address, and description. A 'DemoDevice' is listed with MAC address '80:1f:02:9c:8f:ff' and description 'Demo'. To the right of the device entry are three icons: a minus sign for 'REMOVE', a pencil for 'EDIT', and a clock for 'SCHEDULE'. At the top right of the interface, there is a language dropdown set to 'EN' and a menu icon.

verizon

Parental Control

EN

Basic Expert

DashBoard

Network

Parental Control

Manage Parental Control

SETTINGS

Parental Control is **active**

LIST

ADD NEW DELETE ALL

	DemoDevice MAC Address: 80:1f:02:9c:8f:ff Description: Demo	REMOVE EDIT SCHEDULE
--	---	------------------------

1. Set the slider to active to enable parental control.
2. Click **ADD NEW** to add and setup a new device for parental controls.
3. Select a device from the Client menu or enter the MAC address manually.
4. Specify a Device Name and Description for the device easy reference.
5. Check the **ENABLE THIS ENTRY** box and click apply to save the device.

The screenshot shows a mobile application interface for adding a new device. At the top, there is a red back arrow and the text 'Add New'. Below this is a form with the following fields:

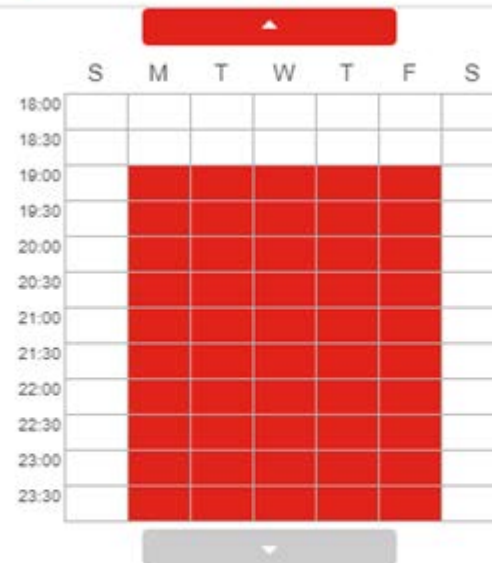
- A checkbox labeled 'Enable This Entry' which is checked.
- A dropdown menu labeled 'Client' with 'Manually' selected.
- A text input field labeled 'MAC Address' containing '80:1f:02:9c:8f:ff'.
- A text input field labeled 'Device Name' containing 'DemoDevice'.
- A text input field labeled 'Description' containing 'Demo'.

At the bottom of the form, there are two buttons: 'APPLY' (with a checkmark icon) and 'CANCEL' (with an 'X' icon).

6. Click the **SCHEDULE** icon beside the new device to setup the schedule for Internet access:
7. Click and drag to fill in the red blocks on the schedule by day and hour. The red blocks indicate the time blocks during which Internet access is not allowed.
8. Click **SAVE SCHEDULE** to save the schedule and the device's Internet access will now be restricted according to the schedule.



Schedule



i If the grid is red, the device is blocked from using the internet.



SAVE



CLEAR ALL



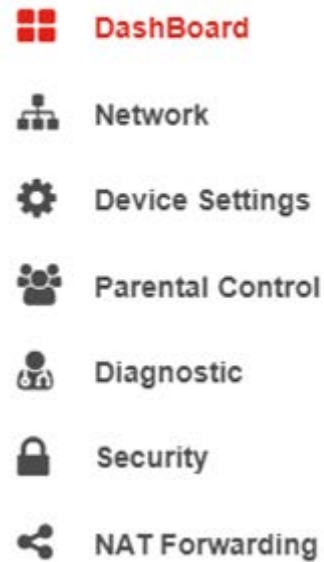
ENABLE ALL

6. Expert Settings

Your gateway's Web User Interface (Web UI) allows you to easily setup its Basic & Expert features.

Menu

Select the **Expert** tab in the menu:



Save

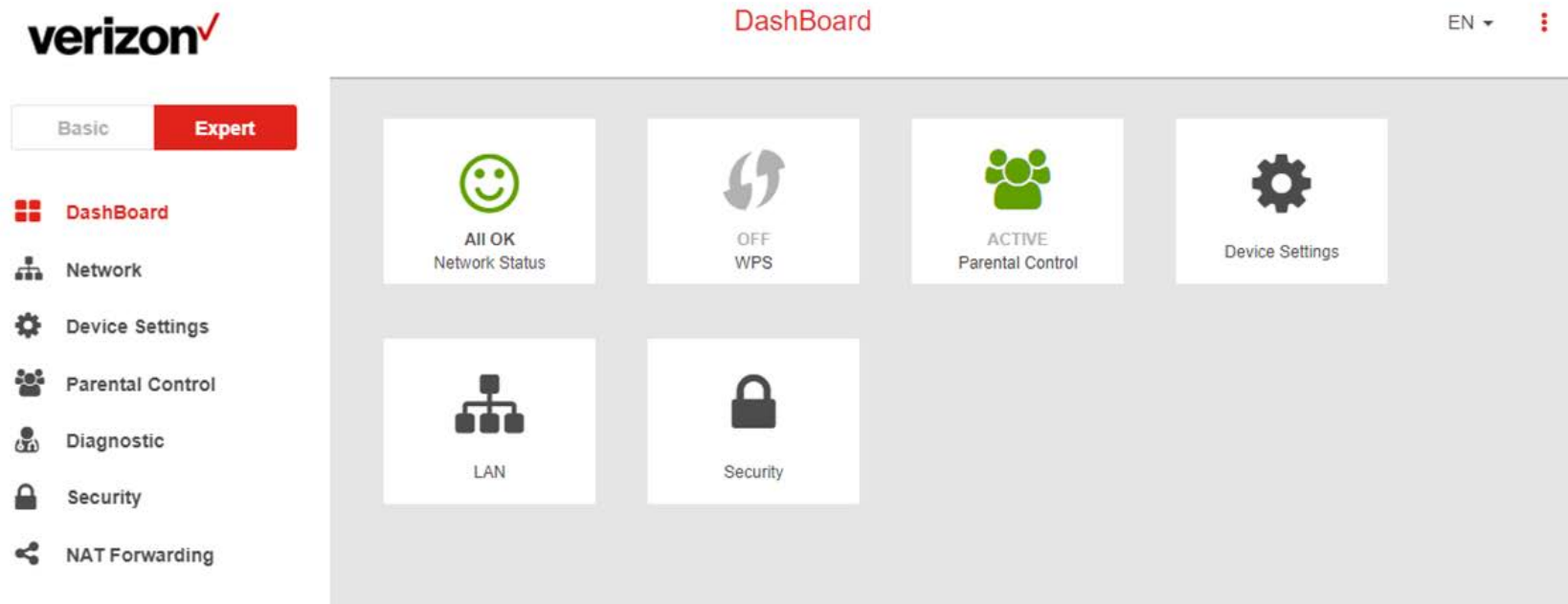
Remember to save your settings with the save button after making changes. The icon takes you back to the Dashboard.



6.1 Dashboard

Expert > Dashboard

The Dashboard shows a snapshot of your network status with quick links to key features of your gateway.



Select any icon on the dashboard: **Network Status, Parental Control, Device Settings, LAN, & Security** to access more information and settings.

Network Status takes you to Expert > Network > Status

WPS allows you to switch on WPS. Refer to Expert > Network > WiFi > WPS

Parental Control takes you to Expert > Network > Parental Control

Device Settings takes you to Expert > Network > Device Settings > Administration

LAN takes you to Expert > Network > LAN

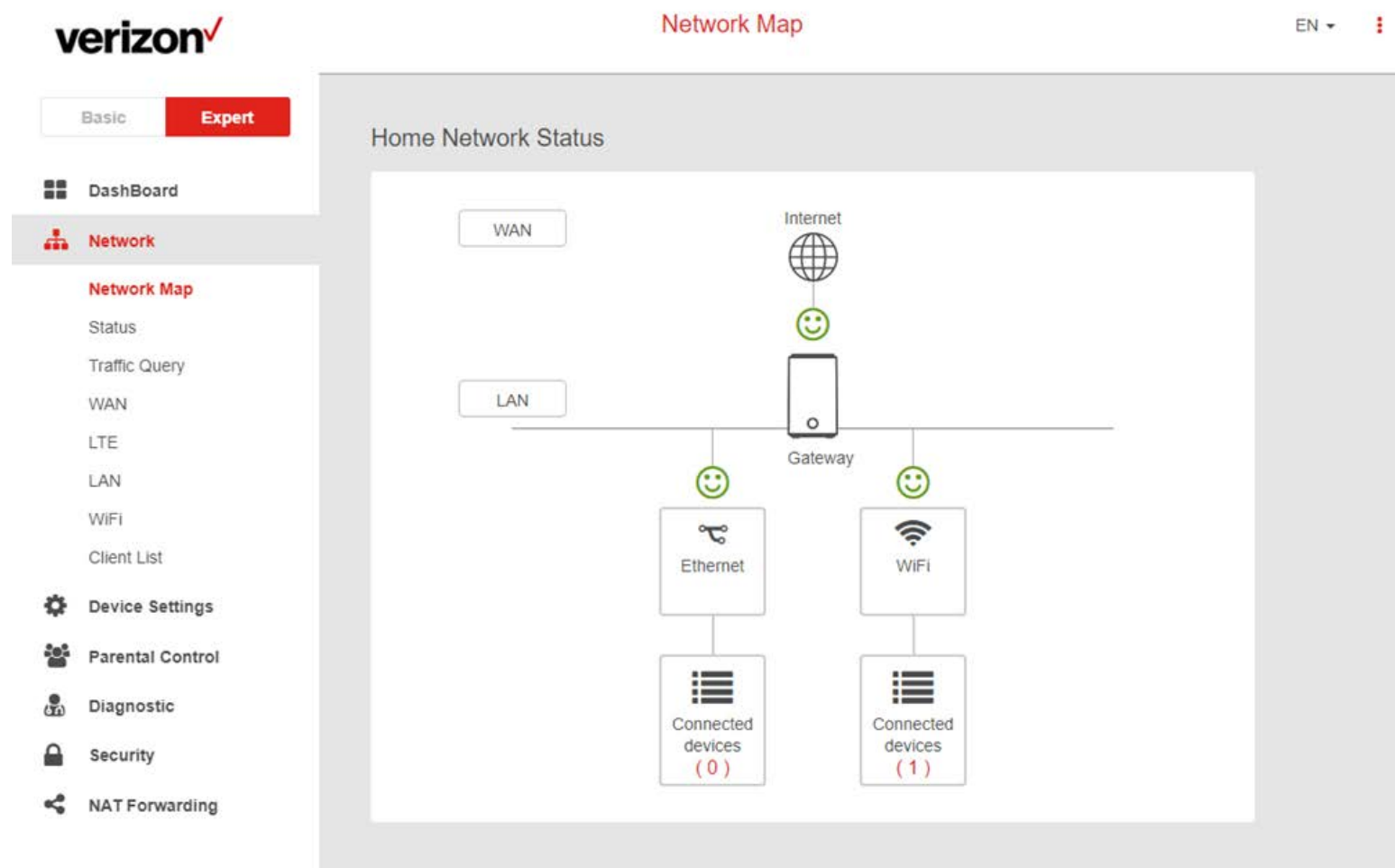
Security takes you to Expert > Security > Firewall

Network Status should display **All OK** to indicate a functioning LTE network. If you don't see this, check the gateway's LEDs and refer to Troubleshooting to diagnose the problem.

6.2 Network

Expert > Network

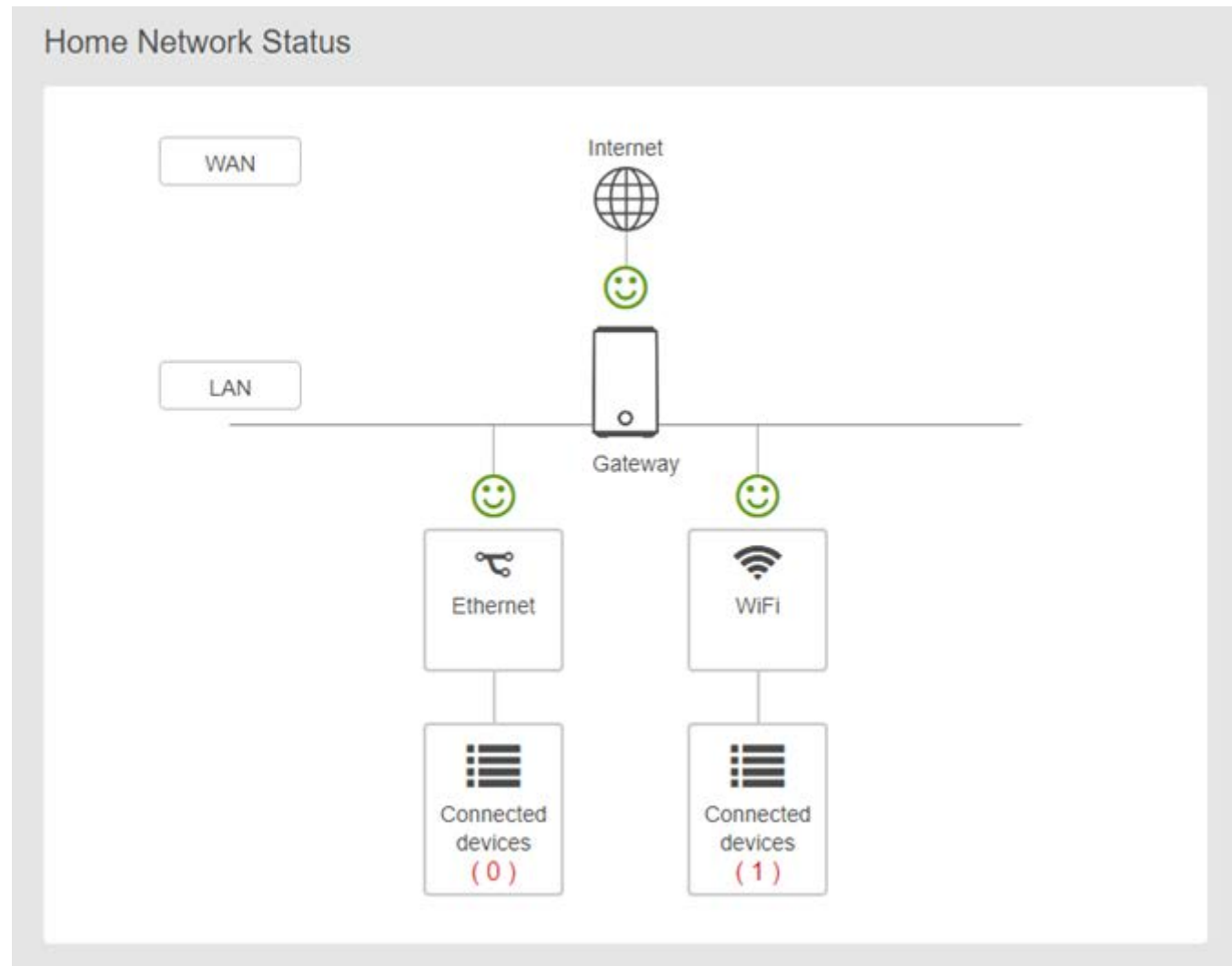
The Network menu provides quick links to the basic networking functions of your gateway. When you select the Network menu, the Network Map page is displayed as below.



Network Map

Expert > Network > Network Map

The network map provides a visual overview and status information of the network and devices on the network, with quick links to wireless security settings and client lists. It's important to check and configure security settings.



Select icons on the dashboard for more information and settings, as displayed below:

WAN

Displays the gateway's Wide Area Network (WAN) IP Address and Connection Type (LTE).

WAN	
IP address:	10.130.23.116
Connection type:	LTE
	
WAN SETTINGS	
CANCEL	

LAN

Displays the gateway's Local Area Network (LAN) IP Address and Subnet Mask. Click LAN Settings to modify the settings.

LAN	
IP address:	192.168.1.1
Subnet mask:	255.255.255.0
	
LAN SETTINGS	
CANCEL	

LAN > LAN Settings

This page allows you to configure your gateway on your Local Area Network (LAN). You can specify a static IP address for your gateway and configure your gateway as a DHCP server to assign IP addresses to other devices on your LAN.

Manage LAN Settings

▼

Basic

MAC Address

B4:EE:B4:EA:77:BE

IP Address

192.168.1.1

Subnet Mask

255.255.255.0 ▼

▼

Advanced

DHCP is active

☒

IP Address Pool

192.168.1.100 - 150

Address Lease Time

24

Hours ⓘ

Primary DNS

(Optional)

Secondary DNS

(Optional)

Basic

MAC Address

Displays the MAC address of your gateway. A MAC Address is a unique fixed identifier for any device on a network.

IP Address

Specify the IP address here. This IP address will be assigned to your gateway and will replace the default IP address.

Subnet Mask

Specify a subnet mask. The default value is 255.255.255.0

Advanced

DHCP is active/inactive
IP Address Pool

Toggle the switch to enable or disable DHCP server.
Enter the start and end IP address of the IP address range which your gateway's DHCP server will assign to devices on the network.

Address Lease Time

Enter an address lease time in hours. IP addresses will be assigned for this period of time before being reassigned.

Primary DNS Address
Secondary DNS
Address

Enter a primary DNS address.

Enter a secondary DNS address.

WiFi

Displays your gateway's 2.4GHz & 5GHz network name (SSID) with switches to quickly enable or disable either WiFi network. Click WiFi Settings to go to Network > WiFi Settings.



Connected Devices

Displays all devices (clients) connected to your gateway, by Ethernet (LAN) or WiFi (wireless) e.g. laptops, smartphones. The device name, MAC address and IP address is listed for each device.



Status

Expert > Network > Status

Network Status displays the status of the network across six categories: Internet v4, Internet v6, LTE, LAN, Wireless & System Information.

Information is listed in Network Status for reference as described below:

Internet v4

Displays IPv4 Wide Area Network WAN information about your gateway's LTE connection. IPv4 is the default Internet protocol widely used across the Internet.

Internet v6

Displays IPv6 Wide Area Network WAN information about your gateway's LTE connection. IPv6 is an alternative Internet protocol which is not yet widely supported. To setup IPv6 go to **Expert > Network > LTE**. Contact your ISP for more information about using IPv6.

LTE

Displays LTE information including signal strength. To edit LTE settings go to **Expert > Network > LTE**.

LAN

Displays the gateway's Local Area Network (LAN) information including MAC Address, IP Address and Subnet Mask, and DHCP Server status. To edit LAN settings go to **Expert > Network > LAN**.

Wireless 2.4GHz & 5GHz

Displays your gateway's WiFi information for both 2.4GHz & 5GHz frequencies. Includes network name (SSID) and radio & channel information. To edit these WiFi settings go to **Expert > Network > WiFi Settings**.

System Information

Displays system identifiers unique to your hardware.

Information



Internet (v4)

IP Address	10.19.151.194
Subnet Mask	255.255.255.252
Default Gateway	10.19.151.193
Primary DNS	168.95.1.1
Secondary DNS	168.95.192.1
Connection Type	LTE - Connected



Internet (v6)



LTE



LAN



Wireless 2.4G



Wireless 5G



System Information

Traffic Query

Expert > Network > Network Map

Traffic Query displays your network data usage, with upload, download and total traffic displayed in MB. Ensure that your gateway's date and time settings are correct in **Expert > Device Settings > Date & Time** for accurate Monthly usage information.

Manage Traffic Settings	
▼	Monthly usage
Upload	5.03MB
Download	105.06MB
Total Traffic	110.09MB
▼	Currently usage
Query Range	2020-02-01 12:16
Upload	5.03MB
Download	105.06MB
Total Traffic	110.09MB

WAN

Expert > Network > WAN

The Internet Connection screen allows you to configure the settings of various WAN connection types.

1. From the navigation panel, go to **Basic Settings > Network > WAN**.
2. Configure the following settings below. When done, click **Save**.

Manage WAN Settings

▼ WAN Type

Connection Type Dynamic IP ▼

▼ Dynamic IP Information

IP Address

Subnet Mask

Default Gateway

Primary DNS

Secondary DNS

▼ Dynamic IP Advanced Setup

DNS Address ☒ Get dynamically from ISP ☐ Use the Following DNS Addresses

Primary DNS

Secondary DNS

WAN Connection Type: Choose your Internet Service Provider type: Dynamic IP or Static IP – and enter the appropriate IP Address, Subnet Mask and Default Gateway if using Static IP.. Consult your ISP if the router is unable to obtain a valid IP address or if you are unsure the WAN connection type.

Manage WAN Settings

▼ WAN Type

Connection Type

▼ Static Setup

IP Address ⓘ ⓘ

Subnet Mask ⓘ ⓘ

Default Gateway ⓘ ⓘ

Primary DNS ⓘ

Secondary DNS ⓘ

Connect to DNS Server: Allows this router to get the DNS IP address from the ISP automatically. A DNS is a host on the Internet that translates Internet names to numeric IP addresses.

▼ Dynamic IP Advanced Setup

DNS Address ☐ Get dynamically from ISP
☒ Use the Following DNS Addresses

Primary DNS ⓘ

Secondary DNS ⓘ

LTE

Expert > Network > LTE

LTE settings are pre-configured by default. You can disconnect the LTE connection using the Disconnect button if needed, and the connection and SIM status are displayed accordingly.

Manage LTE Settings

▼

LTE Status

Internet Status

Connected

Disconnect

SIM Status

UnLock

▼

Dial-up Settings

Airplane Mode is inactive

☐

Data Roaming is inactive

☐

PDN Type

IPv4+v6 ▼

Auto APN is active

☒

▼

SIM Management ⓘ

PIN Protected Enable

☒

Change PIN

☐

Data Roaming, APN, PDN and SIM Management PIN settings can be altered using the switch buttons and drop-down menu. You can also setup, enter or change a PIN to use the LTE data connection.

LAN

Expert > Network > LAN

The **LAN** page allows you to configure your gateway on your Local Area Network (LAN). You can specify a static IP address for your gateway, and configure your gateway as a DHCP server to assign IP addresses to other devices on your LAN.

verizon

LAN

EN

BasicExpert

Dashboard

Network

Network Map

Status

Traffic Query

WAN

LTE

LAN

WiFi

Client List

Device Settings

Parental Control

Diagnostic

Security

NAT Forwarding

Manage LAN Settings

Basic

MAC AddressB4:EE:B4:EA:77:BE

IP Address192.168.1.1

Subnet Mask255.255.255.0

Advanced

DHCP is active

IP Address Pool192.168.1.100 - 150

Address Lease Time24 Hours

Primary DNS(Optional)

Secondary DNS(Optional)

Basic

MAC Address

Displays the MAC address of your gateway. A MAC address is a unique fixed identifier for every device on a

IP Address	network. Specify the IP address here. This IP address will be assigned to your gateway and will replace the default IP address.
Subnet Mask	Specify a subnet mask. The default value is 255.255.255.0

Advanced	
DHCP is active/inactive	Toggle the switch to enable or disable DHCP server.
IP Address Pool	Enter the start and end IP address of the IP address range which your gateway's DHCP server will assign to devices on the network.
Address Lease Time	Enter an address lease time in hours. IP addresses will be assigned for this period of time before being reassigned.
Primary DNS Address	Enter a primary DNS address.
Secondary DNS Address	Enter a secondary DNS address.

WiFi

Expert > Network > WiFi

The **WiFi** screen displays advanced settings for your gateway's WiFi as well as WPS settings. Your gateway is dual-band and uses two Wi-Fi frequencies (2.4GHz & 5GHz) for better wireless performance on your devices. You can edit advanced settings for 2.4GHz or 5GHz frequency bands by selecting the respective tab.

The screenshot shows the 'Manage Wireless Settings' interface. At the top, there are two tabs: '2.4 GHz' (selected) and '5 GHz'. Below the tabs, there is a section for '2.4 GHz WiFi Settings'. This section includes a toggle switch for '2.4 GHz WiFi' which is currently 'active' (red). Below this is a toggle for 'Guest WiFi' which is also 'active' (red), with a label 'WIFI-2.4GHz-GST' next to it. Further down, there are input fields for 'Wireless Name(SSID)' (set to 'WIFI-2.4GHz') and 'Wireless Password' (masked with dots). To the right of these fields are checkboxes for 'Hide SSID' and 'Show Password'. Below the password field, there are radio buttons for 'Version' (set to 'WPA2') and 'Encryption' (set to 'AES'). At the bottom, there is a section for '2.4 GHz WiFi Channel Settings' which includes dropdown menus for 'Mode' (set to '802.11g/n mixed'), 'Channel' (set to 'Auto'), and 'Channel Bandwidth' (set to 'Auto').

2.4 / 5 GHz WiFi Settings

WiFi is active/inactive
Wireless Name (SSID)

Enable or disable this WiFi frequency.
This is the name of your Wi-Fi network for identification, also sometimes referred to as "SSID". The SSID can

Hide SSID	consist of any combination of up to 32 alphanumerical characters. Check the box to hide your SSID. When hidden, the SSID will not be visible as an available Wi-Fi network to clients – clients must manually enter the SSID in order to connect. A hidden SSID is typically more secure than a visible SSID.
Wireless Password	Enter your WiFi password. A complex, hard-to-guess key is recommended.
Security	Select a WiFi security type from the drop-down menu. WPA/WPA2 is the default setting and the most secure. Security can be disabled by selecting None but this is not recommended.
Version	Select which version of security type to use. WPA2 is the most secure but not supported by all wireless clients. Selecting Mixed WPA/WPA2 ensures wireless client compatibility.
Encryption	Displays encryption type according to version. AES encryption is the default setting for WPA2, while Mixed TKIP+AES is default for Mixed WPA/WPA2.

2.4 / 5 GHz Channel Settings

Mode	Select the wireless standard used for the gateway's WiFi. 802.11b/g mixed means 802.11b and 802.11g wireless clients can connect to the gateway, 802.11g/n mixed means 802.11g and 802.11n wireless clients can connect to the gateway.
Channel	Select a wireless radio channel or use the default "Auto" setting from the drop-down menu. Changing radio channel can improve WiFi signal depending on how crowded the channel is with other radio signals and interference.
Channel Bandwidth	Set the channel bandwidth: 20MHz (lower performance

but less interference), 40MHz (better performance but likely more interference), or Auto (automatically select based on interference level).

WPS

Displays the gateway's WPS Settings.
(How can it be Enrollee?)

Manage Wireless Settings

2.4 GHZ5 GHZWPS

▼ Settings

WPS is **active**

PBC

PIN Mode

☒ Registrar☐ Enrollee

Current PIN

Generate

Client List

Expert > Network > Client List

Displays all devices (clients) connected to your gateway, by Ethernet (LAN) or WiFi (wireless) e.g. laptops, smartphones. The device name, MAC address and IP address is listed for each device.



6.3 Device Settings

Expert > Device Settings

Various administrative functions of your gateway can be configured from the **Device Settings** menu, including the Web UI login password, gateway date & time settings, backup, gateway firmware and system logs.

The screenshot shows the Verizon gateway's web interface. At the top left is the Verizon logo. To its right, the word "Administration" is displayed in red. In the top right corner, there is a language dropdown set to "EN" and a red menu icon. On the left side, there is a navigation menu with two tabs: "Basic" and "Expert", with "Expert" being the active tab. Below these tabs are several menu items: "DashBoard", "Network", "Device Settings" (highlighted with a red gear icon), "Administration" (highlighted in red), "Date & Time", "Backup / Restore", "Firmware", "System Log", "Parental Control", "Diagnostic", "Security", and "NAT Forwarding". The main content area is titled "Manage Administration Settings". Under this title, there is a "Settings" section with a dropdown arrow. Below the dropdown are three password fields: "Current password", "New password", and "Confirm new password". The "New password" field has a hint "4 to 30 characters". To the right of the "Current password" field is a checkbox labeled "Show Password".

verizon

Administration

EN

Basic Expert

DashBoard

Network

Device Settings

Administration

Date & Time

Backup / Restore

Firmware

System Log

Parental Control

Diagnostic

Security

NAT Forwarding

Manage Administration Settings

Settings

Current password

New password

Confirm new password

4 to 30 characters

Show Password

Administration

Expert > Device Settings > Administration

The **administration** function allows you to change the login password for the gateway's Web UI. It's essential to change this password for the security of your gateway. Use hard-to-guess password which include combinations of numbers, letters and symbols, and change your password regularly.

Manage Administration Settings

▼

Settings

Current password

☒ Show Password

New password

Confirm new password

1. Enter the current password for authentication.
2. Enter your new password in the New Password field and again to confirm, and choose **Save** to save the new settings.

Date & Time

Expert > Device Settings > Date & Time

Set the **date and time** for your gateway. You can use a Simple Network Time Protocol (SNTP) which synchronizes the date and time with public time servers, or the gateway can get the date and time automatically based on your selected time zone.

Manage Date & Time Settings

Settings

Mode: ☐ Automatically ☒ SNTP

Gateway Current Time: 2020 Feb 03 12:33

Time Zone: Eastern Time

NTP Server 1: time.windows.com

NTP Server 2: time.windows.com

NTP Server 3: time.windows.com

1. Select SNTP from the Version options.
2. Select your time zone from the drop-down menu.
3. If you want to use SNTP to synchronize date and time with public time servers, enter the NTP Servers and Save settings.
4. Set the Version back to Automatic to use the selected time zone automatically, and Save the settings.

Examples of commonly used NTP Servers include time.microsoft.com or time.google.com.

Backup / Restore

Expert > Device Settings > Backup & Restore

The Backup & Restore page enables you to save/backup the gateway's current settings as a file to your local computer, or restore your gateway to previously saved settings by loading a backed up file. You can also reset the gateway back to factory default settings. If the gateway malfunctions or is not responding, then it is recommended that you first reboot the device, and if still experiencing problems reset the device back to its factory default settings. You can reset the gateway back to its default settings using the Reset button on the back of the gateway (press and hold for 2+ seconds).

The screenshot shows a web interface titled "Manage Backup / Restore Settings". It contains three main sections, each with a dropdown arrow on the left:

- Backup:** Contains the text "Save a copy of your current settings." and a "Backup" button.
- Restore:** Contains the text "Restore saved settings from a file". Below this is a "Select file" button and the text "No file selected".
- Factory Default Restore:** Contains the text "Revert all the settings to their default values." and a "Factory Restore" button.

Backup

Save a copy of your current settings

Click the Backup button to save the settings file to your local computer.

Restore

Restore saved settings from a file

Choose Select File to locate a previously saved settings file on your computer and select it to load the

Factory Default Restore
Revert all the settings to
their default values.

file to your gateway.

Select Factory Restore to revert your gateway to it's
original factory default state. This resets all settings.

Firmware

Expert > Device Settings > Firmware

The **Firmware** page displays your gateway's firmware version and hardware version information. You can enter a server path to manually check for a new version or upload a firmware file from your local drive. Contact your ISP or check their website for correct Server Path or to download files manually.

You can also schedule automatic updates according to set time periods by clicking the Automatic Updates switch to Active.

Manage Firmware Settings

Manually

Firmware version installed: 200221

Server Path

Check for new versions

Update from file

Select file

No file selected

Automatic Updates

Automatic Updates is inactive

Mode

Daily

Daily

Weekly

Monthly

Time Mode

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System Log

Expert > Device Settings > System Log

System Log is useful information for network administrators or for potentially troubleshooting gateway/network issues. The page displays a detailed information log of network activities under different categories. You can select a category using the drop-down menu or view all categories, as well as clear log entries using the **DELETE ALL** icon.

Manage System Log Settings

SETTINGS

Connection Type: All  Log Setting Show All Log


DELETE ALL

SYSTEM
Date: 2020-01-07 Time: 00:22:24
Description: HAL ready to launch!!!

SYSTEM
Date: 2020-01-07 Time: 00:22:24
Description: System ready to launch!!!

FIREWALL
Date: 2020-01-07 Time: 00:22:25
Description: Update Access Control Rules.

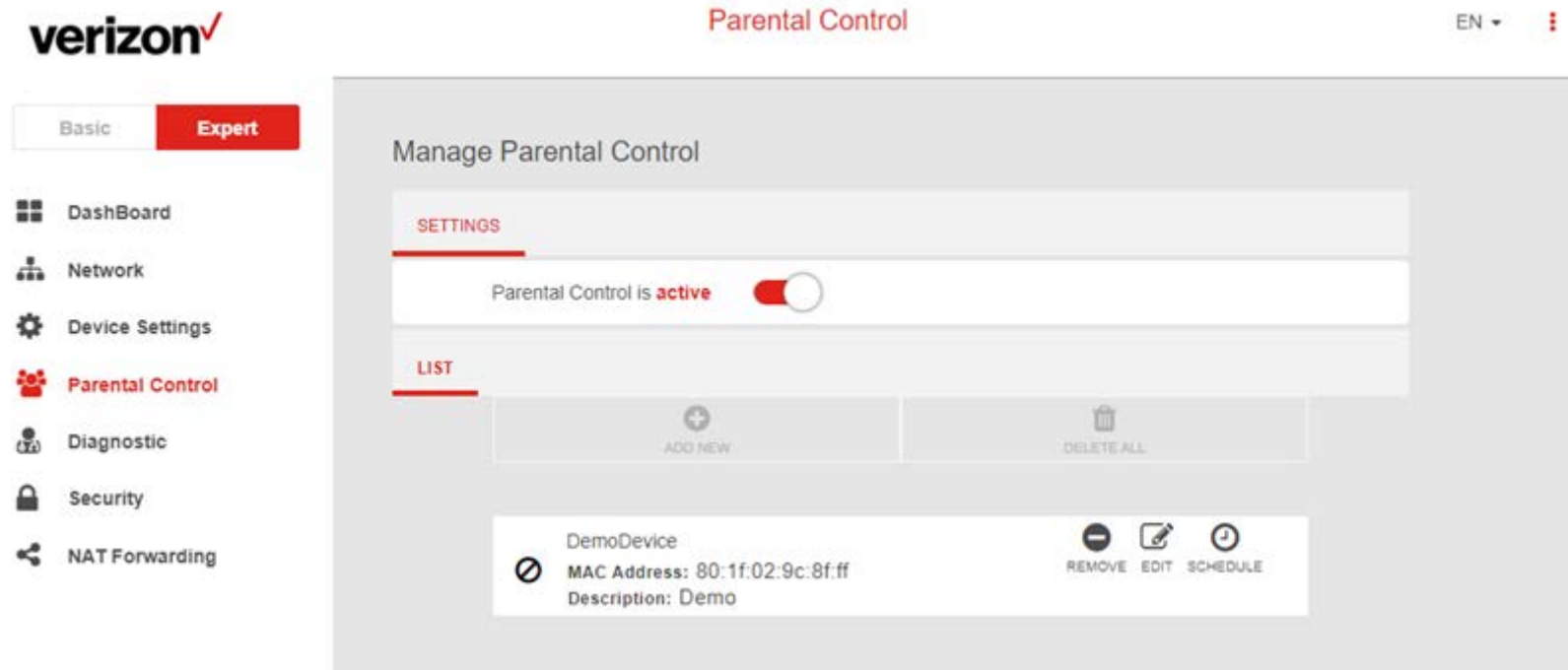
SYSTEM
Date: 2020-01-07 Time: 00:22:25
Description: Restart DHCP Server.

SYSTEM
Date: 2020-01-07 Time: 00:22:25
Description: Restart WIFI Guest DHCP Server.

6.4 Parental Control

Expert > Parental Control

The **Parental Control** feature allows you to restrict Internet access to selected devices on your network at specified times e.g. disabling Internet access for a child's smartphone.



1. Set the slider to active to enable parental control.
2. Click **ADD NEW** to add and setup a new device for parental controls.
3. Select a device from the Client menu or enter the MAC address manually.
4. Specify a Device Name and enter a Description of the device for easy reference.
5. Check the **ENABLE THIS ENTRY** box and click apply to save the device.
6. Click the **SCHEDULE** icon beside the new device to setup the schedule for Internet access:

←

Add New

☒ Enable This Entry

Client

Manually

MAC Address

80:1f:02:9c:8f:ff

Device Name

DemoDevice

Description

Demo

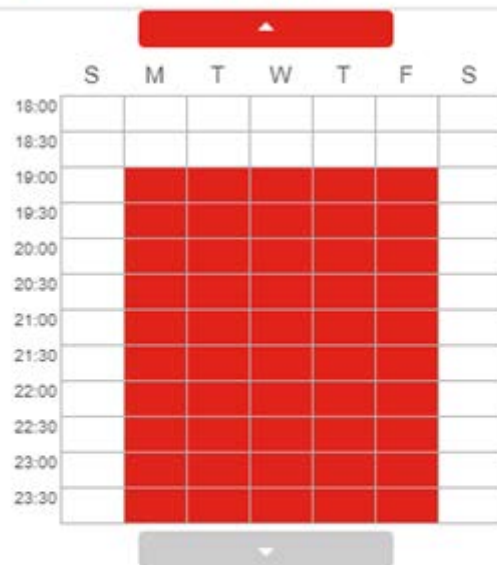
☒ APPLY

☐ CANCEL

7. Click and drag to fill in the red blocks on the schedule by day and hour. The red blocks indicate the time blocks during which Internet access is not allowed.
8. Click **SAVE SCHEDULE** to save the schedule and the device's Internet access will now be restricted according to the schedule.



Schedule



i If the grid is red, the device is blocked from using the internet.



SAVE



CLEAR ALL



ENABLE ALL

6.5 Diagnostic

Expert > Diagnostic

You can run **Ping & Traceroute diagnostic** tests with the gateway. Enter the IP address to use for the test and click Start, results are displayed in the box.

Manage Diagnostic Setting

▼ Ping & Traceroute

Diagnostic Tool ☒ Ping ☐ Traceroute

IP Address/Domain Name

Results

```
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.  
64 bytes from 8.8.8.8: icmp_req=1 ttl=119 time=21.1 ms  
64 bytes from 8.8.8.8: icmp_req=2 ttl=119 time=497 ms  
64 bytes from 8.8.8.8: icmp_req=3 ttl=119 time=250 ms  
--- 8.8.8.8 ping statistics ---  
3 packets transmitted, 3 received, 0% packet loss, time  
2004ms  
rtt min/avg/max/mdev = 21.113/256.327/497.000/194.318 ms
```

6.6 Security

Expert > Security

Use the **Security** menu to configure various security functions if needed, including Firewall, IP/MAC Binding and Access Control.

verizon

Firewall

EN

Basic

Expert

DashBoard

Network

Device Settings

Parental Control

Diagnostic

Security

Firewall

IP / MAC binding

Access Control

NAT Forwarding

Manage Firewall Settings

Firewall

SPI Firewall is active

DoS Protection is active

WAN Block Ping is active

LAN Block Ping is inactive

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Firewall

Expert > Security > Firewall

The gateway features a built-in firewall that provides protection to your network from unauthorized intrusions from the Internet. The firewall features four modules which can be enabled or disabled using the switches.

SPI Firewall

Stateful Packet Inspection (SPI) firewall protection means only packets matching a known active connection will be allowed by the firewall, and others will be rejected. An SPI firewall goes beyond stateless filtering and checks an entire packet's content rather than only packet headers. This is a security feature to help distinguish between legitimate packets of information and potentially harmful packets, and provides greater security for your network.

DoS Protection

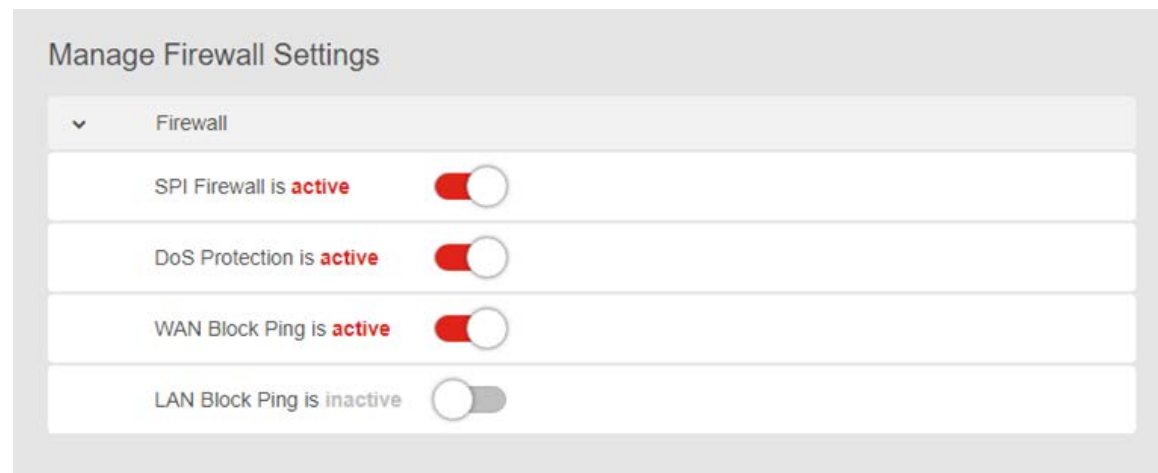
Denial-of-Service (DoS) is a common form of malicious attack against a network. The gateway's firewall can protect against such attacks by filtering unreasonable packets that could flood and disable network with large amounts of traffic.

WAN Block Ping

When active the gateway will not answer ping requests from the Internet. This can increase security as pinging is a common method used by hackers to test networks.

LAN Block Ping

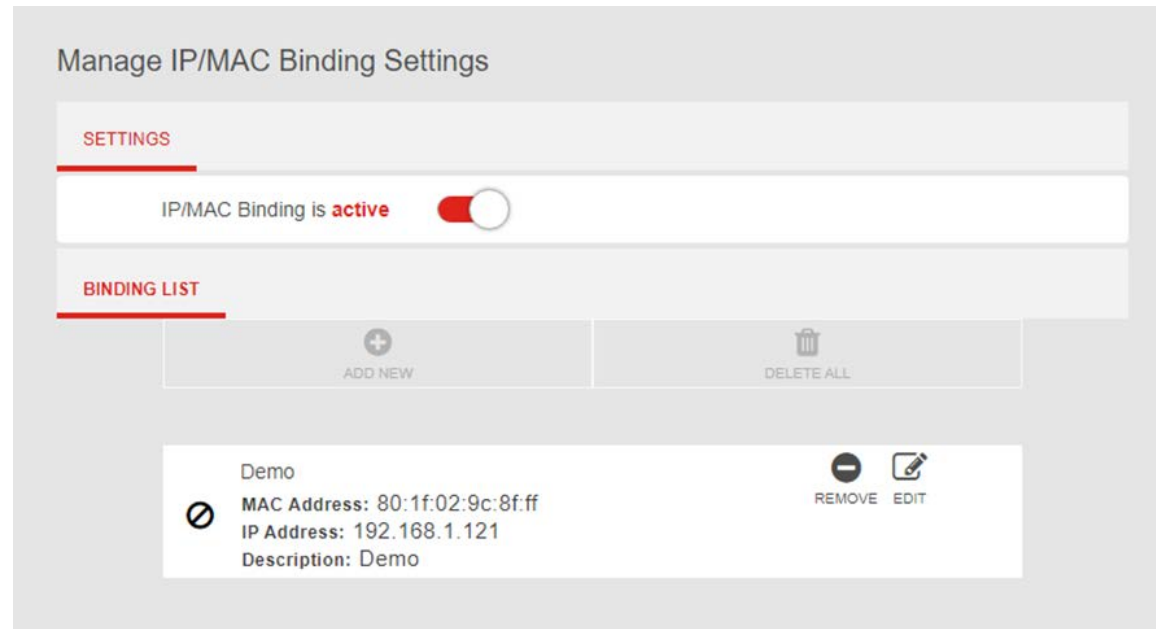
When active the gateway will not answer ping requests from the local network. This can increase security as pinging is a common method used by hackers to test networks.



IP / MAC Binding

Expert > Security > IP / MAC Binding

IP/MAC Binding allows you to reserve a static IP address for a device on the network, rather than being assigned a new (dynamic) IP address by the gateway's DHCP Server every time the device connects to the gateway. Static IP addresses can be useful for using various services on the local network. Every device is identified by a unique MAC address, and the IP address can be bound to the MAC address.



1. Switch **IP/MAC** Binding on using the switch.
2. Click **ADD NEW** to setup a new client for IP/MAC Binding.
3. Select a device from the Client menu or enter the MAC address manually.
4. Specify the IP Address the client will use, and enter a Description of the device for easy reference.
5. Check the **ENABLE THIS ENTRY** box and click apply to save the device.
6. Click the **REMOVE** or **EDIT** icon beside any entry in the Binding List to remove or edit the entry.



Add New



Enable This Entry

Client

Manually



MAC Address

80:1f:02:9c:8f:ff

IP Address

192.168.1.121

Description

Demo



APPLY



CANCEL

Access Control

Expert > Security > Access Control

Access Control is a security feature that can help to prevent unauthorized users from connecting to your gateway. You can define a list of network devices permitted (whitelist) or denied (blacklist) to connect to the gateway. Devices are each identified by their unique MAC address or IP address.

The screenshot shows the 'Manage Access Control Settings' interface. It has two main sections: 'SETTINGS' and 'LIST'. In the 'SETTINGS' section, there is a toggle switch for 'Access Control is active' which is currently turned on (red). Below this, there are radio buttons for 'Access Mode', with 'Whitelist' selected and 'Blacklist' unselected. The 'LIST' section contains two buttons: 'ADD NEW' (with a plus icon) and 'DELETE ALL' (with a trash icon). Below these buttons is a table with one entry. The entry has a checkbox (unchecked), the text 'MAC Address: 80:1f:02:9c:8f:ff' and 'Device Name: Demo', and two action icons: 'REMOVE' (minus icon) and 'EDIT' (pencil icon).

Manage Access Control Settings	
SETTINGS	
Access Control is active ☒	
Access Mode	☐ Blacklist ☒ Whitelist
LIST	
ADD NEW DELETE ALL	
☐	MAC Address: 80:1f:02:9c:8f:ff Device Name: Demo REMOVE EDIT

1. Switch Access Control on using the switch.
2. Select Blacklist (not permitted) or Whitelist (permitted), and click **ADD NEW**.
3. Select a device from the Client menu or enter the MAC address manually.
4. Enter the Name of the device for easy reference.
5. Check the **ENABLE THIS ENTRY** box and click apply to save the device.
6. Click the **REMOVE** or **EDIT** icon beside any entry in your Blacklist or Whitelist to remove or edit the entry.



Add New



Enable This Entry

Client

Manually



MAC Address

80:1f:02:9c:8f:ff

Device Name

Demo



APPLY



CANCEL

6.7 NAT Forwarding

Expert > NAT Forwarding

Functions in the **Network Address Translation (NAT) Forwarding** menu can improve network performance and security.

The screenshot displays the Verizon network management interface. At the top left is the Verizon logo. Below it, a navigation menu includes 'Basic' and 'Expert' tabs, with 'Expert' selected. The left sidebar lists various settings: 'DashBoard', 'Network', 'Device Settings', 'Parental Control', 'Diagnostic', 'Security', 'NAT Forwarding' (highlighted), 'DMZ', 'UPnP', 'ALG', and 'Virtual Servers'. The main content area is titled 'DMZ' and 'Manage DMZ Settings'. It features a dropdown menu set to 'DMZ', a toggle switch for 'DMZ is active' which is turned on, a 'Client' dropdown menu set to 'Manually', and a 'DMZ Host IP Address' input field with a red border and an information icon.

DMZ

Expert > NAT Forwarding > DMZ

A Demilitarized Zone (DMZ) is an isolated area in your local network where a computer runs outside the firewall and receives/intercepts all incoming Internet traffic. This can provide an extra layer of security to the rest of the network, or can be useful if a network client PC cannot run an application properly from behind an NAT firewall. However since it opens the client up to unrestricted two-way access this computer is vulnerable. DMZ should be configured only by expert network users aware of the security risks.

Manage DMZ Settings

DMZ

DMZ is **active** ☒

Client

DMZ Host IP Address

1. Use the switch to set DMZ to **active**.
2. Enter the IP Address of the computer to provide the DMZ service (ensure this computer is using a Static IP Address)

UPnP

Expert > NAT Forwarding > UPnP

Universal plug-and-play (UPnP) is a set of networking protocols which enables network devices to communicate and automatically establish working configurations with each other, such as computers, printers, mobile devices etc.

It's typically used for data sharing, communications and entertainment purposes, although sometimes not preferred due to security concerns. Some devices may require UPnP to be enabled to function properly. Use the switch to set UPnP to active or inactive, according to your requirements.

Manage UPnP Settings



UPnP

UPnP is **active**

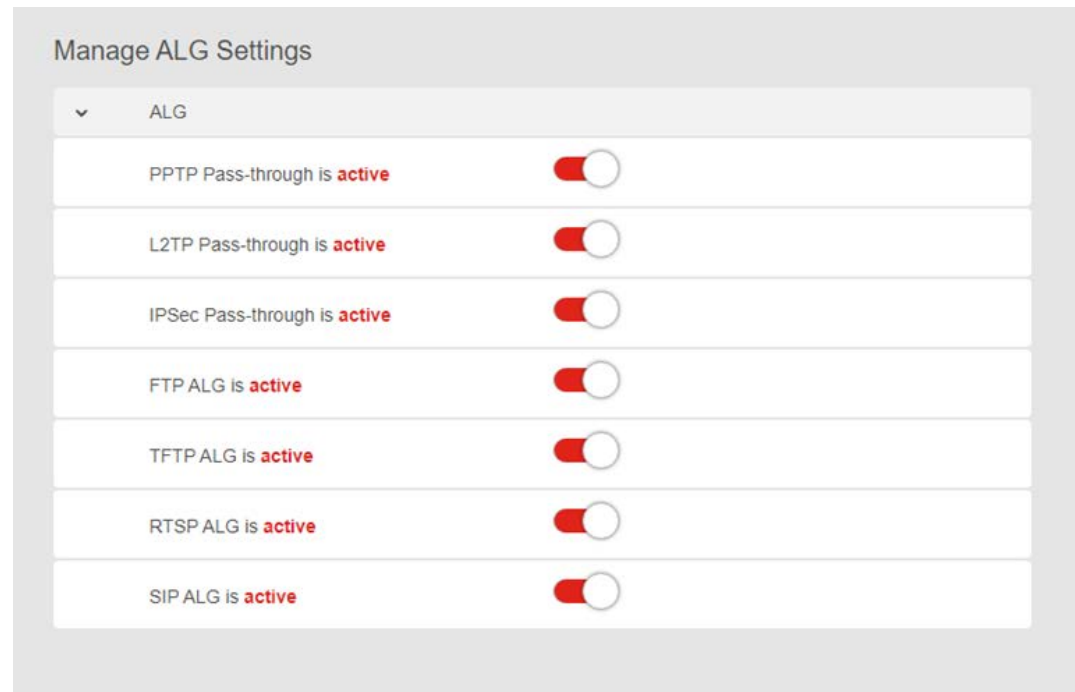


ALG

Expert > NAT Forwarding > ALG

Application Level Gateway (ALG) settings are advanced functions that can resolve issues where services are disrupted by the firewall. Each ALG module is a security component that augments the firewall. Services such as VPNs or Virtual Servers may require ALG modules enabled. By default all ALG modules are active. Use the switches to disable any ALG module required. ALG Settings are recommended for expert users only.

SIP ALG may disrupt WiFi calling for cellphones connected to the network.



Manage ALG Settings

PPTP Passthrough

Point-to-Point Tunneling Protocol (PPTP) is a module for implementing virtual private networks.

L2TP Passthrough

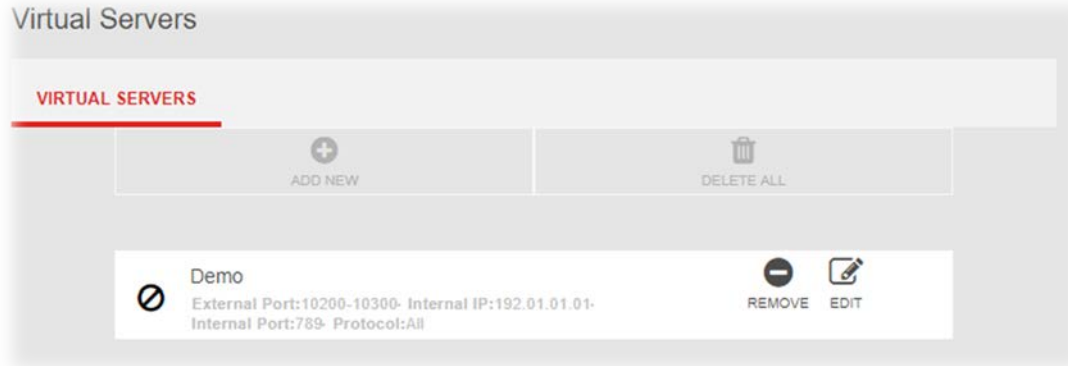
Layer 2 Tunneling Protocol (L2TP) is a tunneling protocol used to support virtual private networks (VPNs)

IPSec Passthrough	or as part of the delivery of services by ISPs. Internet Protocol Security (IPsec) is a protocol suite for securing Internet Protocol (IP) communications by authenticating and encrypting each IP packet of a communication session.
FTP ALG	File Transfer Protocol is a widely and commonly used method of exchanging files over IP networks. The FTP ALG monitors PORT, PASV, and 227 commands. It performs NAT on the IP, port, or both in the message and gate opening on the device as necessary
TFTP ALG	Trivial File Transfer Protocol (TFTP) is a simple protocol used for files transfer (<i>RFC 1350</i>). TFTP is implemented on top of UDP, with destination port 69 as the well-known port. The TFTP Application Layer Gateway (ALG) processes TFTP packets that initiate the request.
RTSP ALG	The Real Time Streaming Protocol (RTSP) is a network control protocol designed for use in entertainment and communications systems to control streaming media servers.
SIP ALG	The Session Initiation Protocol (SIP) is a communications protocol for signaling and controlling multimedia communication sessions. The most common applications of SIP are in Internet telephony for voice and video calls, as well as instant messaging all over Internet Protocol (IP) networks.

Virtual Servers

Expert > NAT Forwarding > Virtual Servers

This function allows you to set up an internet service on a local computer, without exposing the local computer to the internet. Internet traffic is directed to a specific port or range of ports on a device or devices on your local network. You can also build various sets of port redirection, to provide various internet services on different local computers via a single Internet IP address. It also allows PCs outside the network to access services provided by a computer in the local network.



1. Click **ADD NEW** and enter the parameters to setup a virtual server:

← Add New

☒ Enable This Entry

Service Type
Demo

External Port Start
10200

External Port End
10300

Client
Manually

Internal IP
192.168.1.121

Internal Port
789

Protocol
☒ All
 ☐ TCP
 ☐ UDP

APPLY CANCEL

Service Type
 External Port Start
 External Port End
 Internal IP
 Client
 Internal Port
 Protocol

Specify the service type e.g. HTTP, FTP etc.
 Specify the external/public port to access the computer on your local network.
 Select the type of Internet Protocol.
 Enter the IP address of the computer on your local network.
 Select whether to manually assign Internal (Private) IP & Port.
 Specify the internal/private port you wish to use on the computer in your local network.
 Select the connection protocol: TCP, UDP or All.

2. Check **ENABLE THIS ENTRY** and click **APPLY** to save and enable the settings for your virtual server. You can remove or edit any Virtual Server entry using the icons.

7. Troubleshooting

If you are having problems with your gateway, try these basic steps in this section before looking for further solutions.

Phone or computer is disconnected from the gateway.

Your phone or computer might have lost the connection to the gateway due to interference, system updates, or any number of reasons. If you're not connected, reconnect to the gateway's WiFi and make sure the password is correct, or use an Ethernet cable to connect directly to the gateway's LAN port. Follow the steps in **4. Login to your LTE WiFi Gateway** for more help.

Cannot find the Wi-Fi network or cannot connect to the gateway.

If you can't see your gateway's WiFi when scanning available networks, or if you can't establish a connection, try the following:

- Refresh the list of available WiFi networks on your device.
- Switch the gateway off and back on again with the power switch.
- Move the gateway closer to your device or move your device closer to the gateway.
- Restart your device or computer.

If you still can't find the WiFi network or establish a connection, then try resetting your gateway back to factory default settings. To do this, press and hold the reset button on the back of the gateway for at least 2 seconds and wait for the gateway to restart. Then repeat the connection process as described in **4. Login to your LTE WiFi Gateway**.

Can't access the Web User Interface to configure settings.

If you can't access the Web UI, it might be an issue with your device or computer's proxy or IP address settings. Make sure that proxy settings are disabled and that your device or computer can be allocated an IP address on the network by the gateway's DHCP server. You'll need to check the support for your device or computer's operating system e.g. Windows, macOS, for detailed instructions how to do this.

8. Tips & tricks

Taking care of your SIM card

- You should not remove your SIM card from the gateway unless asked to do so by customer service.
- Keep your SIM card dry and clean
- Avoid extreme temperatures and magnetic fields
- Do not bend, cut, trim or modify the SIM card in any way.
- Avoid touching the SIM card's gold contacts.

Get the best WiFi signal

Where you place the gateway can affect your wireless coverage. For the best WiFi performance, your gateway needs open spaces, away from walls, obstructions and heavy-duty appliances or electronics.

Surf the Internet faster

Have you thought of changing your network frequency band to enjoy a faster connection? Your gateway is dual-band (2.4GHz & 5GHz), so you'll likely get better speed by switching to the 5GHz band instead of the more commonly used and congested 2.4GHz band. Make sure your 5GHz WiFi is active at **Basic > Network > WiFi** in the gateway's Web UI, and connect your WiFi device or computer to the 5GHz band instead of 2.4GHz.

Network security

Your gateway is pre-set with the recommended WPA2 security type, but you should immediately change the default WiFi password, as well as the Web UI login password. You can do so at **Expert > Network > WiFi** and **Expert > Device Settings > Administration** in the Web UI. It's not recommended to change WiFi security type: WPA2 with AES is the most secure. And it's **never recommended** to disable WiFi security (no security type), this means your network is open and anybody within range can connect by WiFi.

9. Technical Specification

General

Technical Standard	3GPP LTE , LTE Category 12
Frequency band	LTE FDD: B2, B4, B5, B13, B48, B66
Wi-Fi Standard	802.11 a/b/g/n/ac
Dimensions (L x W x H)	170mm x 124mm x 43.4mm
Operating temperature range	-20 – 45 ° C
Storage temperature range	-40 – 85 ° C

Connections

DC input	12V/ 2A
Ethernet plugs	RJ45 LAN* 2, RJ45 WAN*1

Federal Communication Commission Interference Statement

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.

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 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 party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.