



MC550 MODEM

Product user guide

DRAFT ONLY_1F
11.06.08

Welcome

Congratulations on purchasing the Verizon Wireless the MC550 Modem Wireless Modem for Broadband**Access** and Wi-Fi!

Before installing the MC550 Modem Modem, **VZ**Access Manager software and drivers, review this manual, which outlines the features and functions of the MC550 Modem Modem hardware.

This device operates over the high-speed Broadband**Access** and National**Access** networks in the 800/1900 bands and Wi-Fi enabling you to connect multiple devices at high speeds to the Internet, your corporate Intranet, WiFi-enabled devices and email virtually anywhere!

The MC550 Modem Package



The Verizon Wireless MC550 Modem package includes:

1. Verizon Wireless MC550 Modem
2. Travel Charger
3. Battery
4. Storage Pouch
5. USB Cable
6. Quick Reference Guide (not shown)

Wireless communications

IMPORTANT Notice

Due to the transmission and reception properties of wireless communications, data can occasionally be lost or delayed. This can be due to the variation in radio signal strength that results from changes in the characteristics of the radio transmission path. Although data loss is rare, the environment where you operate the MC550 Modem may adversely affect communications.

Variations in radio signal strength are referred to as fading. Fading is caused by several different factors including signal reflection, the ionosphere, and interference from other radio channels.

Verizon Wireless or its partners will not be held responsible for damages of any kind resulting from the delays or errors in data transmitted or received with the MC550 Modem device, or failure of the MC550 Modem device to transmit or receive such data.

Safety hazards

Do not operate the MC550 Modem device in an environment that may be susceptible to radio interference resulting in danger specifically;

Areas where prohibited by the law

- Follow any special rules and regulations and obey all signs and notices. Always turn off the host device and remove the modem from the USB port when instructed to do so, or when you suspect that it may cause interference or danger.

Where explosive atmospheres may be present

- Do not operate the MC550 Modem in any area where a potentially explosive atmosphere may exist. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Be aware and comply with all signs and instructions.
- Users are advised not to operate the MC550 Modem while at a refueling point or service station. Users are reminded to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants or where blasting operations are in progress.
- Areas with a potentially explosive atmosphere are often but not always clearly marked. Potential locations can include gas stations, below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where you would normally be advised to turn off your vehicle engine.

Near Medical and life support equipment

- o Do not operate the MC550 Modem in any area where medical equipment, life support equipment, or near any equipment that may be susceptible to any form of radio interference. In such areas, the host communications device must be turned off. The MC550 Modem may transmit signals that could interfere with this equipment.

On an aircraft, either on the ground or airborne

- o In addition to FAA requirements, many airline regulations state that you must suspend wireless operations before boarding an airplane. Please ensure that the host device is turned off and the MC550 Modem is removed from the USB port prior to boarding aircraft in order to comply with these regulations. The MC550 Modem can transmit signals that could interfere with various onboard systems and controls.

While operating a vehicle

- o The driver or operator of any vehicle should not operate a wireless data device while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some countries, operating such communications devices while in control of a vehicle is an offense.

Limitation of liability

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5,506,865	5,109,390	5,511,073	5,228,054	5,535,239
5,267,261	5,544,196	5,267,262	5,568,483	5,337,338
5,600,754	5,414,796	5,657,420	5,416,797	5,659,569
5,710,784	5,778,338			

Software Drivers License

Proprietary Rights Provisions:

The software drivers provided with this product are copyrighted by Verizon Wireless and/or Verizon Wireless' suppliers. And although copyrighted, the software drivers are unpublished and embody valuable trade secrets proprietary to Verizon Wireless and/or Verizon Wireless' suppliers. The disassembly, decompilation, and/or Reverse Engineering of the software drivers

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U.S. Government Restricted Rights Clause:

The software drivers are classified as "Commercial Computing device Software" and the U.S. Government is acquiring only "Restricted Rights" in the software drivers and their Documentation.

U.S. Government Export Administration Act Compliance Clause:

It is forbidden by US law to export, license or otherwise transfer the software drivers or Derivative Works to any country where such transfer is prohibited by the United States Export Administration Act, or any successor legislation, or in violation of the laws of any other country.

MC550 Wireless Modem Hardware: Overview

Thank you for choosing the advanced and compact the MC550 Modem with BroadbandAccess and Wi-Fi from Novatel Wireless! This 2-in-1 is the ultimate Mobile Broadband Modem, empowering you with high-speed data access on the Verizon Wireless BroadbandAccess wireless data network and Wi-Fi connectivity.

- **High Speed Wireless Data (BroadbandAccess)**
The MC550 Modem enables subscribers to access the latest in CDMA EV-DO technology, referred to as Rev A, resulting in higher data rates and higher system capacity that enable richer applications and services.
- **Wi-Fi Connectivity**
Stay connected with multiple WiFi devices.
- **Universal Solution for all Devices, including CE and PDAs**
About the size of a credit card and a few millimeters thick, the MC550 Modem works with virtually all computing devices equipped with Wi-Fi capability such as notebooks, desktops, tablet PCs, personal digital assistants, CE devices, and most Wi-Fi enabled consumer devices.
- **Your own Mobile Broadband Modem for total mobile internet!**
The MC550 Modem enables multiple Wi-Fi enabled devices to connect at one time.
Typical battery usage time is four hours active and forty hours standby in standalone mode (*for one Wi-Fi client)*

NovaSpeed Technology

NovaSpeed, the latest software technology from Novatel Wireless, enhances performance with streaming video, online gaming, simultaneous uploads and downloads, and large file transfers with minimal interruptions or buffering.

- **Intuitive Software – VZAccess Manager and Web UI**
The MC550 Modem includes VZAccess Manager for automatic installation without a CD and easy navigation and a single web-based UI for device status and activation via USB and Wi-Fi.

VZACCESS Manager: Manages your BroadbandAccess connection

WebUI: Manages your Wi-Fi connection

Two Operating Modes: BroadbandAccess vs WiFi

The MC550 includes a battery for operation via WiFi and a USB cable.

Compatibility with Different Operating Systems USB MODEM MODE (I.E. TETHERED)

Designed to operate on different computing platforms and operating systems including, Windows Vista, XP, 2000; Mac OS X 10.4 or higher; and Linux.

**See System Requirements for a complete list of operating system support.*

More features of this 2-in-1 device include

- Advanced embedded antenna design for Broadband**Access** and Wi-Fi
- VPN capability
- Auto installation and connectivity options
- 2-Way Short Messaging Service (SMS) (Broadband**Access** only)
- NDIS configuration

Care of Your MC550 Modem Wireless Modem

As with any electronic device, the MC550 Modem must be handled with care to ensure reliable operation. Verizon Wireless recommends the following handling guidelines:

- Do not apply adhesive labels to the MC550 Modem; they may cause the device to potentially overheat and they may alter the performance of the antenna.
- The USB connector should plug easily into your computer's Type A USB port. Forcing the device into a port may damage the connector.
- Protect the MC550 Modem from liquids, dust, and excessive heat.
- Store the MC550 Modem in a safe place, when not in use.

Getting Started

IMPORTANT: The MC550 Modem requires an activated account with Verizon Wireless in order to function.

The MC550 Modem can be activated three ways:

- in a Verizon Wireless store
- by contacting Verizon Wireless Telesales
- self-activated through the Verizon Wireless activation website.

Customer Service

For Customer Service while in the U.S. or Canada, dial 1-800-922-0204.

The MC550 Modem System Requirements

To install and use the MC550 Modem, your host computer must meet these requirements:

Operating System * IN USB MODEM MODE/TETHERED ONLY	Windows® Vista, XP (SP2 or higher), 2000 NOTE: Windows XP SP1, Windows 2000 SP3 and SP4 require specific OS patches. For details please go to www.vzam.net . - OR - Mac® OS X 10.4 or higher Linux
Software	Internet browser software (i.e. Internet Explorer, Netscape, Safari, Firefox, AOL)
Modem Software	Tethered Mode: VZ Access Manager included on the device, no CD required. Standalone (battery) Mode: BROWSER BASED WEB-UI
CPU	166 MHz or higher
Interface	One Type-A USB port and/or 802.11 b/g
Memory (RAM)	32 MB
Hard Disk Space	14 MB:

Your Verizon Wireless the MC550 Modem Wireless Modem

Your MC550 Modem has the following parts:



1. **Power Button** : Indicates power, battery, and roaming activity. Please see the following page for an explanation of the Power button LED states.
2. **MICRO USB Connector**: Connects to your computing device via a Type A USB port.
3. **Service Status Indicator (LED)**: Visual service status LED indicator that shows you service and data modes. Please see the following page for an explanation of these Service Status LED states.



Service Status Indicator (LED)

The MC550 Modem is designed with a status light that simply indicates what the connection status is.

LED Color	Meaning
LED not lit	No Power to Modem
LED GREEN - Solid	Modem is powered but not transmitting or receiving
LED GREEN – slow blinking	Modem is powered on but there is no service
LED GREEN – intermittent blinking	Modem transmitting/receiving data; blinking rate proportional to data speed



Power Button (LED)

The MC550 Modem is designed with a power button that lights up to indicate whether or not the device is powered on and what the charging status is.

LED Color	Meaning
LED not lit	No Power to Modem
LED BLUE – Solid	Modem is Powered on and Roaming
LED GREEN - Solid	Modem is powered on and fully charged
LED GREEN – glowing	Modem is in hibernate
LED RED - blinking	Modem Battery is Critically Low
LED AMBER - solid	Modem Battery is Charging
LED AMBER - blinking	Modem Error, see Troubleshooting

Ways to Access

The MC550 Modem supports **BroadbandAccess** and Wi-Fi service for a superior wireless data connection.

BroadbandAccess/NationalAccess

Now you can get the broadband-like speed you require to work efficiently outside the home or office. You can connect to the Internet, corporate intranet, check your email and download attachments with average download speeds of 400 - 700 Kbps. **BroadbandAccess** gives you the freedom to stay productive and connected whether you're on the road or in a meeting across town. You also receive **NationalAccess** service when outside the **BroadbandAccess** Rate and Coverage Area. **NationalAccess** is available in thousands of cities and towns and allows download speeds of 60-80 Kbps and burst up to 144 Kbps.

Rev. A capable data devices

- Download: typical download speeds of 600 kbps - 1.4 Mbps.
- Upload: typical upload speeds of 500-800 kbps.

Rev. 0 capable data devices

- Download: typical download speeds of 400-700 kbps with a maximum download speeds burst to 2Mbps.
- Upload: typical upload speeds of 60-80 kbps) with peak speeds burst to 144 kbps.

Subject to Customer Agreement, Calling Plan, credit approval & other service terms.

BroadbandAccess Rev.A speed claim based on our network tests with 5 MB FTP data files without compression. Verizon Wireless is rapidly adding Rev. A capability to your BroadbandAccess service area. Your BroadbandAccess Rev. A-enabled device will indicate coverage when you are in a BroadbandAccess Rev. A service area. When outside the Rev. A service area, your wireless device will revert to BroadbandAccess Rev. 0 (typical download speeds will be 400-700 Kbps and upload speeds will be 60-80 Kbps) or NationalAccess coverage areas, where available. Actual throughput speed and coverage may vary. Speed claims not applicable when roaming.

NationalAccess Rev.0 speed claim based on our network test with 101 KB FTP data files, without compression. Actual throughout speed and coverage may vary. Speed claim not applicable when roaming.

Wi-Fi 802.11b/g

802.11b uses the 2.4GHz frequency spectrum with a bandwidth of 11 Mbps.

802.11g (2.4Ghz, 54Mbps).

How to Use Your MC550 Modem

The Quick Reference Guide that was included in the box when you purchased your product and the **VZ**Access Manager Software User Guide details the installation and configuration of the MC550 Modem with the **VZ**Access Software.

Using the Device for the First Time

Follow these steps to begin using the MC550 Modem:

IMPORTANT: Before using the MC550 Modem for the first time, please insert the battery and charge fully.

IMPORTANT: Installation must be performed within a Broadband**Access** and/or National**Access** coverage area in tethered mode via the USB Cable. VZAccess Manager must be installed prior to activation.

IMPORTANT: Before installing your new software, delete or uninstall any previously existing modem or dialer software from your computing system.

Power Modes

There are two power modes in which the MC550 may be used:

- Tethered Mode (with microUSB cable)
- Standalone Mode (with battery)

Tethered Mode: In this mode, the MC550 is powered directly by your Wi-Fi device via the microUSB cable. In order to access the Verizon Wireless Broadband**Access** network, the device must be in tethered mode.

Standalone Mode: In this mode, the MC550 is powered by the rechargeable battery. In order to connect with Wi-Fi, the device must be in standalone mode.

Standalone Mode

Battery Use

Battery tips

Battery life depends on the network, signal strength, temperature, features, and accessories you use.

- Always use Novatel Wireless Original batteries and chargers. The warranty does not cover damage caused by non-Novatel Wireless batteries and/or chargers.
- New batteries or batteries stored for a long time may take more time to charge.
- When charging your battery, keep it near room temperature.
- When storing your battery, keep it uncharged in a cool, dark, dry place.
- Never expose batteries to temperatures below -10°C (14°F) or above 45°C (113°F). Never leave the device in an unattended vehicle due to uncontrollable temperatures that may be outside the desired temperature for this device.
- It is normal for batteries to gradually wear down and require longer charging times. If you notice a change in your battery life, it is probably time to purchase a new battery.



Contact your local recycling center for proper battery disposal. See page XX for details on proper disposal of the battery.

WARNING: Never dispose of batteries in a fire because they may explode.

Before using the MC550 Modem, read the battery safety information in the “Safety and General Information” section at the back of this guide. You will need to install and charge the battery as described below. Some batteries perform best after several full charge/discharge cycles.

How to insert and charge the battery

1. Open the battery compartment, located on the bottom of the device.



2. Insert the battery by lining up the gold contact points on the battery with the gold contact point in the battery compartment.



3. Once the battery is secure, place the battery cover back on the device until it locks into place.



1. Connect the microUSB end of the Wall Charger to the microUSB port of the device as shown.



2. Plug the other end of the wall charger into the appropriate electrical outlet. Total charge time should take less than three hours.
3. After the MC550 Modem is fully charged, the Power LED becomes solid green. You are now ready to install the drivers and **VZAccess Manager** software. The first time you use the device, you must connect via the USB Cable.

Tethered Mode, with microUSB Cable

Connecting the MC550 Modem

When you connect the MC550 Modem via USB cable, the following should occur once **VZAccess Manager** has been installed:

- The MC550 Modem is powered as soon as you connect it to the Type A USB port of your computing device. Although the MC550 Modem is powered, it does not automatically connect to the Internet.
- The 3G Status LED indicator on the device lights up and is solid.
- The Power LED lights up and is solid.
- If sound effects are enabled, the computing device may beep.
- The **VZAccess Manager** Software starts (unless the auto-launch feature has been disabled).

To properly connect the MC550 Modem with the USB Cable:

1. Grip the MC550 Modem by its sides and gently insert the USB Cable into the microUSB port. Next, insert the other end of the cable in a Type A USB port. The cable should fit easily into the USB port.



2. The Hardware Icon appears in the taskbar (Windows) or on the Desktop (Mac).

IMPORTANT: When using the device in tethered mode, fully extend the cable so that the device remains at an appropriate distance. The recommended minimum distance between you and the device is 20 cm.

Powering the MC550 Modem On and Off

To power the device on:

1. Press the Power LED button until the Power LED lights up solid green.

To power the device off:

1. If the device is plugged into your computing device with the USB Cable, disconnect/unplug the USB cable from the device first.
2. Press the Power LED button until the Power LED shuts off.

Installation: Windows and Mac

IMPORTANT: VZAccess Manager must be installed prior to activation of your device.

Windows

1. Turn on your computing device and close all applications.
2. Connect the MC550 Modem to your computer using the included USB Cable.
 - a) Insert the microUSB connector of the USB cable into the microUSB port of the MC550 Modem.
 - b) Insert the Type A connector of the USB cable into a USB port on your computer.

NOTE: If you are experiencing trouble easily connecting the USB cable into you computer's USB port and into the device:

1. Verify that you are inserting the USB cable in the proper orientation.
2. Verify that you are using a Type-A USB port on your computer.
3. Verify that you are connecting the microUSB connector end of the cable into the microSD port on the device.



3. **VZAccess Manager** and the MC550 Modem drivers automatically install (this may take a few moments). If **VZAccess Manager** does not automatically install, go to **Start>My Computer** and click to open the CD-ROM drive icon. Select **setup.exe** and wait a few moments for the software and drivers to automatically install.

4. Launch **VZ**Access Manager. The first time you launch **VZ**Access Manager the **VZ**Access Manager Setup Wizard appears. Following the on-screen instructions to configure the device.
5. If your device was activated prior to installation of **VZ**Access Manager and you are in a broadband coverage area, you will be connected to the Verizon Wireless network. If your device was not activated prior to installation of **VZ**Access Manager, the software will connect to the Verizon Wireless activation website. Follow the on-screen instructions to complete the activation.

Mac OS X

1. Turn on your computing device and close all applications.
2. Connect the MC550 Modem into your computer's USB port using the included USB Cable.
 - a) Insert the MicroUSB connector of the USB cable into the MicroUSB port of the MC550 Modem.
 - b) Insert the Type A connector of the USB cable into a USB port on your computer.



3. The **VZ**Access Manager CD icon appears. Click to open and select **VZ**Access Manager to launch the installer. Follow the onscreen instructions to install the software and drivers.
4. Launch **VZ**Access Manager. The first time you launch **VZ**Access Manager the **VZ**Access Manager Setup Wizard appears. Following the on-screen instructions to configure the device.
5. If your device was activated prior to installation of **VZ**Access Manager and you are in a broadband coverage area, you will be connected to the Verizon Wireless network. If your device was not activated prior to installation of **VZ**Access Manager, the software will connect to the Verizon Wireless activation website. Follow the on-screen instructions to complete the activation.

Accessing the User Guides

The User Guides may be easily accessed after **VZAccess Manager** has been installed. Your device includes two User Guides:

- **VZAccess Manager Software User Guide** – Details the functions of **VZAccess Manager**
- **The MC550 Modem Product User Guide** – Details the MC550 Modem’s hardware features and Wi-Fi configuration.

The guides will appear on your desktop during installation. If you are unable to locate the guides on your desktop, you may easily locate them in the **VZAccess** folder.

To access the User Guides:

Windows

1. Connect the MC550 Modem to your computer.
2. Go to **My Computer > Devices with Removable Storage**.
3. Right-click the **VZAccess Manager** icon in the Devices with Removable Storage list. A menu appears.
4. Select **Explore** and a window pops up. Click to open the **Docs** folder and the User Guides are visible.

Mac OS X

1. Connect the MC550 Modem to your computer.
2. Go to Finder and click to open the **VZAccess Manager CD** icon.
3. The **VZAccess Manager** folder includes the User Guides.

Unplugging the MC550 Modem when Connected with the USB Cable

To unplug the MC550 Modem, first terminate your Internet connection session and exit **VZAccess Manager**.

NOTE: Once you unplug the MC550 Modem from your computing device, the MC550 Modem remains powered or and reverts to standalone (battery) modem. You must power off the device. See page XX.

Windows

The MC550 Modem's USB technology allows you to safely disconnect the MC550 Modem device from your computing device at any time when you are not connected to the network.

To safely eject hardware:

Quick Removal

1. End your Broadband**Access/Wi-Fi** session by selecting **Disconnect** from **VZAccess Manager**.
2. Exit **VZAccess Manager**.
3. Simply pull the cable from both the MC550 Modem and straight out from the PC.

Standard Unplug/Eject Hardware Removal

1. End your Broadband**Access/Wi-Fi** session by selecting **Disconnect** from **VZAccess Manager**.
2. Exit **VZAccess Manager** to ensure that the MC550 Modem is powered off.
3. Right-click the **Safely Remove Hardware** icon in the notification area, click **Safely Remove Hardware**, click the device, and then click **Stop**.
4. Simply pull the cable from both the MC550 Modem and straight out from the PC.

Mac OS X

1. End your Broadband**Access/Wi-Fi** session by selecting **Disconnect** from **VZAccess Manager**.
2. Exit **VZAccess Manager** to ensure that the MC550 Modem is powered off.
3. Right-Click (Option-Right Click) the **VZAccess Manager** desktop icon and select **Eject**.
4. Simply pull the cable from both the MC550 Modem and straight out from the PC.

Using the MC550 Modem in Standalone Mode (No USB cable)

Note: The battery must be fully charged in order to use the MC550 Modem in standalone mode for the first time.

When you connect the MC550 Modem in standalone mode, the following should occur once you press the power button:

- The MC550 Modem is powered as soon as you press the power button and the Power LED lights up.
- Once the MC550 Modem is powered, it automatically connects to the Internet.
- The 3G Status LED indicator on the device lights up and will blink according to the connection speed.

Connecting in Standalone Mode the first time: Configure the MC550 Modem

Overview

The Web-based User Interface (Web UI) is used to configure the MC550 Modem while it is in “Standalone” mode. In this mode, there is no USB connection from your host PC to the MC550 Modem, and the connection to the MC550 Modem must be made via Wi-Fi.

Connecting to the MC550 Modem’s Web UI

To connect to the Web UI in the MC550 Modem, follow this procedure:

1. Establish a Wi-Fi connection to the MC550 Modem.
 - Use your normal Wi-Fi manager on your computer to establish a Wi-Fi connection from your PC to the MC550 Modem.
 - The Wi-Fi settings must match those in use on the MC550 Modem. If using the default settings, refer to the Quick Start Guide for the default values. If you have previously changed the default profile on the MC550 Modem, or are using a different profile, use the values previously set on the MC550 Modem.
2. Open your Web Browser
3. In the “Address” or “Location” bar, enter the address of the MC550 Modem:
http://192.168.1.1
4. You will then see the Welcome page, as described below.

Welcome Page

The Welcome page is displayed when your first connect to the Web UI in the MC550 Modem, prior to login. This page provides some status information, but no configuration changes can be made until you login.

verizon

Verizon EVDO Connected

Personal Hotspot

Internet Connection

Received:	0.00 KB	IP Address:	0.0.0.0
Transmitted:	0.00 KB	Mask:	255.255.255.255
Connected Time:	00:00:00	Gateway:	0.0.0.0
		DNS:	0.0.0.0

WLAN

Profile:	Open	IP Address:	192.168.1.1
SSID:	Pacific_4753	Mask:	255.255.255.0
Security:	None		
Users :	1 / 10		

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verizon wireless

Login

The "Login" field is on the top right of the screen. Login requires only a password – there is no login name.

Status Information

The Welcome page contains status information about the MC550 Modem. The status information is contained in three sections:

- Status Bar
- Internet
- WLAN

Status Bar

The Status Bar at the top of the screen contains details of the 3G network connection, plus the battery status.

Internet Status

This section provides details of the Internet connection (3G connection) provided by the MC550 Modem. If no Internet connection currently exists, most of the fields will be empty or zero.

- Received - For the current Internet connection, the amount of data received.
- Transmitted - For the current Internet connection, the amount of data transmitted.
- Connection Time - For the current Internet connection, the period of time which has elapsed since the connection was established.
- IP Address - The Internet IP address assigned to this device.
- Mask - The network mask associated with the IP address above.
- Gateway - The gateway IP address associated with the IP address above.
- DNS - The Domain Name Server currently used by this device.

WLAN

The WLAN section contains details of the Wireless LAN, also called Wi-Fi network or an 802.11 network.

The following data is presented.

- Profile - The Wireless (802.11) profile currently in use. There are 3 possible profiles; each has its own settings. Once you login, you can change the profile in use.
- SSID - The SSID (network name) used by the current Wi-Fi profile.
- Security - The security method used by the current Wi-Fi profile.
- Users - The number of users (wireless clients) connected to this device, and the number of wireless clients allowed. This is presented in the form "number connected / number allowed".
- IP address - The IP address of this device, as seen by devices on the WLAN (802.11 wireless network).
- Mask - The network mask associated with the IP address above.

Home Page

Once you login, the Welcome page changes to the Home Page.

This is almost identical to the Welcome page, but now some configuration options are available.

The screenshot shows the Verizon Home Page configuration interface. At the top, there is a navigation bar with the Verizon logo on the left and 'Help | Logout' on the right. Below this is a secondary navigation bar with tabs for 'Home', 'WiFi', 'LAN', 'Security', and 'Advanced'. The 'Home' tab is selected. To the right of the tabs are icons for signal strength, Verizon EVDO, and 'Connected' status, along with a battery level indicator.

The main content area is titled 'Home' and contains two sections:

- Internet Connection:** A table showing network statistics and configuration. A 'Connect' button is located at the bottom left of this section.
- WLAN:** A section for configuring wireless LAN settings, including a profile dropdown menu, SSID, security type, and user count. An 'Apply' button is located at the top right of this section.

At the bottom of the page, there is a footer with the Novatel Wireless logo and the text 'Powered by Novatel Wireless', and the Verizon Wireless logo on the right.

Internet Connection			
Received:	0.00 KB	IP Address:	0.0.0.0
Transmitted:	0.00 KB	Mask:	255.255.255.255
Connected Time:	00:00:00	Gateway:	0.0.0.0
		DNS:	0.0.0.0

WLAN			
Profile:	Open	<input type="text" value="Open"/>	<input type="button" value="Apply"/>
SSID:	Pacific_4753	IP Address:	192.168.1.1
Security:	None	Mask:	255.255.255.0
Users :	1 / 10		

Menu

The menu is now displayed, allowing you to navigate to any of the configuration pages. The available pages are described in the following sections of this chapter.

WLAN Profile

The Wi-Fi Profile in use can now be changed. Just select the desired profile, and click the “Apply” button.

- Changing the Wi-Fi profile will terminate all Wi-Fi connections to the MC550 Modem, including the connection to the Web-based UI.
- You must re-connect to the MC550 Modem using the Wi-Fi settings of the new profile. Ensure you know what these settings are – check the Wi-Fi screen if uncertain.

Wi-Fi Screen

This page is accessed via the menu, and contains all settings related to the WLAN, also called Wi-Fi network or an 802.11 network.

The screenshot displays the Verizon 802.11 Wireless settings interface. At the top, the Verizon logo is on the left, and 'Help | Logout' is on the right. Below this is a navigation bar with 'Home', 'WiFi', 'LAN', 'Security', and 'Advanced' tabs, with 'WiFi' being the active tab. The status bar shows 'Verizon EVDO' and 'Connected'. The main heading is '802.11 Wireless'. The 'Wireless Profiles' section contains the following fields:

Current Profile	Open
Selected Profile	Secure
SSID	Pacific
802.11 Mode	802.11g + 802.11b
Channel	11
Security	WEP 64-bit
Network Key	

At the bottom of the form are three buttons: 'Update Profile', 'Apply', and 'Revert'. The footer includes the Novatel Wireless logo and the Verizon Wireless logo.

Wi-Fi Profiles

Wireless settings are contained in "Profiles". Three (3) profiles are available:

- Secure - Wireless security must be enabled.
- Open - No Wireless security is possible.
- Temporary Hot Spot - Security is enabled, and the network name (SSID) and security key are auto-generated. The other Wi-Fi settings are copied from the "Secure" profile.

This screen contains 2 Profile fields:

- Current Profile – this is the Wi-Fi profile in use.
- Selected Profile – the screen displays the Wi-Fi settings for this screen.

When the screen first loads, the Current and Selected profiles will be the same.

Changing to a Different Profile

To use a different profile:

1. Select the desired profile in the “Selected Profile” list.
2. Wait for the screen to update with the Wi-Fi settings for the selected profile.
3. Click the “Apply” button to cause the MC550 Modem to use the selected profile.
 - Changing the WI-FI profile will terminate all Wi-Fi connections to the MC550 Modem, including the connection to the Web-based UI.
 - You must re-connect to the MC550 Modem using the Wi-Fi settings of the new profile. Ensure you know what these settings are – check the Wi-Fi screen if uncertain.

Updating the Current Profile

When the screen is first loaded, the “Current Profile” and the “Selected Profile” are the same.

To update the Current Profile:

1. Modify the displayed Wi-Fi settings
2. Click the “Apply” button.

If you update the Current Profile, the existing connection will be lost. The effect will depend on which Wi-Fi settings you have changed:

- If the network name (SSID) is changed, you will need to use the Wi-Fi manager on your PC to reconnect.
- If the security method or network key is changed, you will need to use the Wi-Fi manager on your PC to reconnect.
- For other changes, your PC should reconnect automatically after a short interval after the AP (Access Point) in the MC550 Modem restarts.

Updating other Profiles

You can also update a profile which is not in use. This will have no effect on the existing Wi-Fi connection from your PC to the MC550 Modem.

1. Change the Selected Profile to the Profile you wish to change.
2. Wait for the screen to update with the Wi-Fi settings for the selected profile.
3. Change the settings as desired. Note that for the "Temporary Hotspot" profile, these settings can not be changed directly. For this Profile, you can only click "Generate" to generate new values for the network name (SSID) and security key.
4. Click the "Update" button to save your changes. Alternatively, click the "Apply" button to both update this profile and start using it (make it the current profile).

Wi-Fi Settings

Each Wi-Fi Profile contains the following settings. For the "Temporary Hotspot" profile, these settings cannot be changed directly.

- SSID - The SSID or Network Name of the Selected Profile. Note that each profile must have a different SSID to avoid confusing wireless clients.
- 802.11 Mode - Select the desired mode.
- Channel - The default value is "Auto". Using this setting, the best available channel will be automatically selected. It is strongly recommended that this setting is not changed.
- Security - For the "Secure" profile, select the desired security method. Use the most secure method supported by your wireless clients. The options are listed in order, from least secure to most secure.
 - WEP 64-bit
 - WEP 128-bit
 - WPA Personal/PSK (TKIP)
 - WPA2 Personal/PSK (AES)
- Network Key - Enter the network key. The requirements for the network key depend upon the Security option chosen.
 - WEP 64-bit - 5 ASCII characters or 10 HEX characters.
 - WEP 128-bit - 13 ASCII characters or 13 HEX characters.
 - WPA Personal/PSK (TKIP) - ASCII string, 8 to 63 characters in length.
 - WPA2 Personal/PSK (AES) - ASCII string, 8 to 63 characters in length.

Buttons

- Update Profile - Use this to update the settings for the selected profile, without using it. This button is only available if the "Selected Profile" is different to the "Current Profile".
- Apply - Update the "Selected Profile" with the settings shown on screen, and start using it. The Selected Profile will become the Current Profile, if it is not the Current Profile already.
- Generate - Only available for the "Temporary Hotspot" Profile, this button will re-generate the network name (SSID) and network key for this Profile. The other settings for this Profile are copied from the "Secure" Profile.

- **Revert** - Discard any changes made since the last "Update" or "Apply" operation. You can also discard changes by selecting a different profile in the "Selected Profile" list.

LAN Screen

This screen contains information and settings related to the local LAN. Note that for the MC550 Modem, the local LAN is the same as the WLAN (Wi-Fi network), because there are no wired clients.

The screenshot displays the Verizon LAN Settings interface. At the top, there is a navigation bar with tabs for Home, WiFi, LAN, Security, and Advanced. The LAN tab is selected. Below the navigation bar, the title "LAN Settings" is displayed. The main content area is divided into two sections: "TCP/IP" and "LAN Devices".

TCP/IP Settings:

- IP Address: 192.168.1.1
- Subnet Mask: 255.255.255.0
- MAC Address: 00:13:E0:D8:47:53

LAN Devices Table:

IP Address	IP Type	Hostname	MAC Address	Date/Time
192.168.1.2	DHCP	errol-shuttle	00:02:72:56:BC:C7	00:02:59

At the bottom of the LAN Devices section, there is a "Refresh" button. At the bottom right of the screen, there are "Apply" and "Revert" buttons. The footer of the screen includes the Verizon logo and the text "Powered by Novatel Wireless".

The following fields are available.

- LAN IP Address - The IP address for this client, as seen from the local network. Normally, you can use the default value.
- Subnet Mask - The default value 255.255.255.0 is standard for small (class "C") networks. If you change the LAN IP Address, ensure you use the correct Subnet Mask for the IP address range containing the LAN IP address.
- MAC Address - The MAC Address is a low-level network identifier. Every network interface must have a MAC address. This read-only field displays the MAC Address for the WLAN interface. Unlike the IP address, the MAC Address does not change when you connect to a different network.

- LAN Devices - This table lists all known clients on the local LAN. For each client, the following data is provided.
 - IP Address - the IP address of the client.
 - IP Type - indicates "DHCP" if the IP address was allocated by the DHCP Server in this client, or "Fixed" if the IP address was set on the LAN client itself.
 - Hostname - If known, the name of the LAN client.
 - MAC Address - The MAC Address is a low-level network identifier. This field displays the MAC Address of the client
 - Date/Time - The Date/Time when the client was detected.

Password Screen

Available on the Security sub-menu, the Password screen allows you to change the password which you used to login to this Web UI.

The screenshot shows the Verizon Wireless web interface for changing the administration password. At the top, there is a Verizon logo and a 'Help | Logout' link. Below that is a navigation bar with tabs for 'Home', 'WiFi', 'LAN', 'Security', and 'Advanced'. The 'Security' tab is selected. To the right of the navigation bar, there are status indicators for 'Verizon EVDO', 'Connected', and a battery level icon. The main content area has a red header with the word 'Password' in white. Below this is a light blue box with the title 'Set Administration Password'. Inside this box are three text input fields: 'Current Password', 'New Password', and 'Verify New Password'. At the bottom right of the box are two buttons: 'Apply' and 'Revert'. The footer of the page features the Novatel logo and 'Powered by Novatel Wireless' on the left, and the Verizon Wireless logo on the right.

To change the login password:

1. Enter the current password into the "Current Password" field.
2. Enter the new password into the "New Password" field, using only letters, numbers, and standard punctuation symbols. The password must be at least 6 characters long.
3. Verify the new password by re-entering it in the "Verify New Password" field.
4. Click "Apply" to save your changes.

MAC Filter Screen

Available on the Security sub-menu, the MAC Filter screen allows you to control which Wi-Fi clients can use the MC550 Modem to connect to the Internet. Access is allowed only for known and trusted wireless clients. The trusted clients are identified by their MAC address, which is a unique low-level network ID.

verizon [Help](#) | [Logout](#)

Home WiFi LAN Security **Advanced** Verizon EVDO Connected

MAC Filter

Enable MAC Filter

Enable MAC Filter

If enabled, only Trusted Clients can connect to this Access Point.
Trusted clients are identified by their MAC address.

Trusted Client List

12:34:56:78:90:AA

Delete Client

Add Trusted Client MAC Address

Add Client

Apply Revert

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Note: On Windows PCs, the "MAC address" is called the "Physical Address". You can check the properties or status of the wireless interface on your PC to find the MAC address of your PC.

The MAC Filter screen contains the following settings:

1. Enable MAC Filter -Use this checkbox to enable or disable this feature as required.
 - Enabled:- The MAC address of each wireless client is checked. If the MAC address is in the "Trusted Client MAC Address List", access is allowed. Otherwise, access is blocked. Note that allowed clients must still have the correct Wireless Security settings.
 - Disabled:- This feature is disabled, and the MAC address of each Wireless client is not checked. All clients will be allowed. However, clients must still have the correct Wireless Security settings.

2. Trusted Client MAC Address List - This lists the MAC addresses of Wireless clients for which you have allowed access.
 - If you have not entered any MAC addresses, this list will be empty.
 - If the list is not empty, you can remove a client from the list by selecting it and clicking the "Delete" button.

3. Add Trusted Client MAC Address - Use this to add a wireless client to the "Trusted Client MAC Address List".
 - Enter the MAC address of the wireless client,
 - Click the "Add Client" button.

When finished updating the Trusted Client list, click the "Apply" button to save the updated list. Alternatively, clicking the "Revert" button will discard any changes made since the last "Apply" operation.

Port Filtering Screen

Available on the Security sub-menu, this screen allows you to configure the Port Filtering feature. This feature can block outgoing Internet traffic. If enabled, only known applications, identified by port number, can connect to the Internet.

The screenshot displays the Verizon Port Filtering configuration screen. At the top, the Verizon logo is on the left, and 'Help | Logout' is on the right. Below this is a navigation bar with tabs for 'Home', 'WiFi', 'LAN', 'Security', and 'Advanced'. The status bar shows 'Verizon EVDO', 'Connected', and a battery icon. The main heading is 'Port Filtering'. Underneath, there are two main sections: 'Enable Port Filtering' and 'Allowed Applications'. The 'Enable Port Filtering' section has a checkbox labeled 'Enable Port Filter' and a note: 'If enabled, only traffic from Allowed Applications can access the Internet.' The 'Allowed Applications' section lists several protocols with checkboxes: DNS (Domain Name Server), HTTP, HTTPS, FTP, E-mail (POP3), E-mail (IMAP), VPN, Telnet, and RTP. A 'Custom Applications' button is located below the list. At the bottom right of the main content area are 'Apply' and 'Revert' buttons. The footer features the Novatel Wireless logo and the Verizon Wireless logo.

This screen contains the following settings

Enable Port Filter - Use this checkbox to enable or disable the Port Filtering feature as desired.

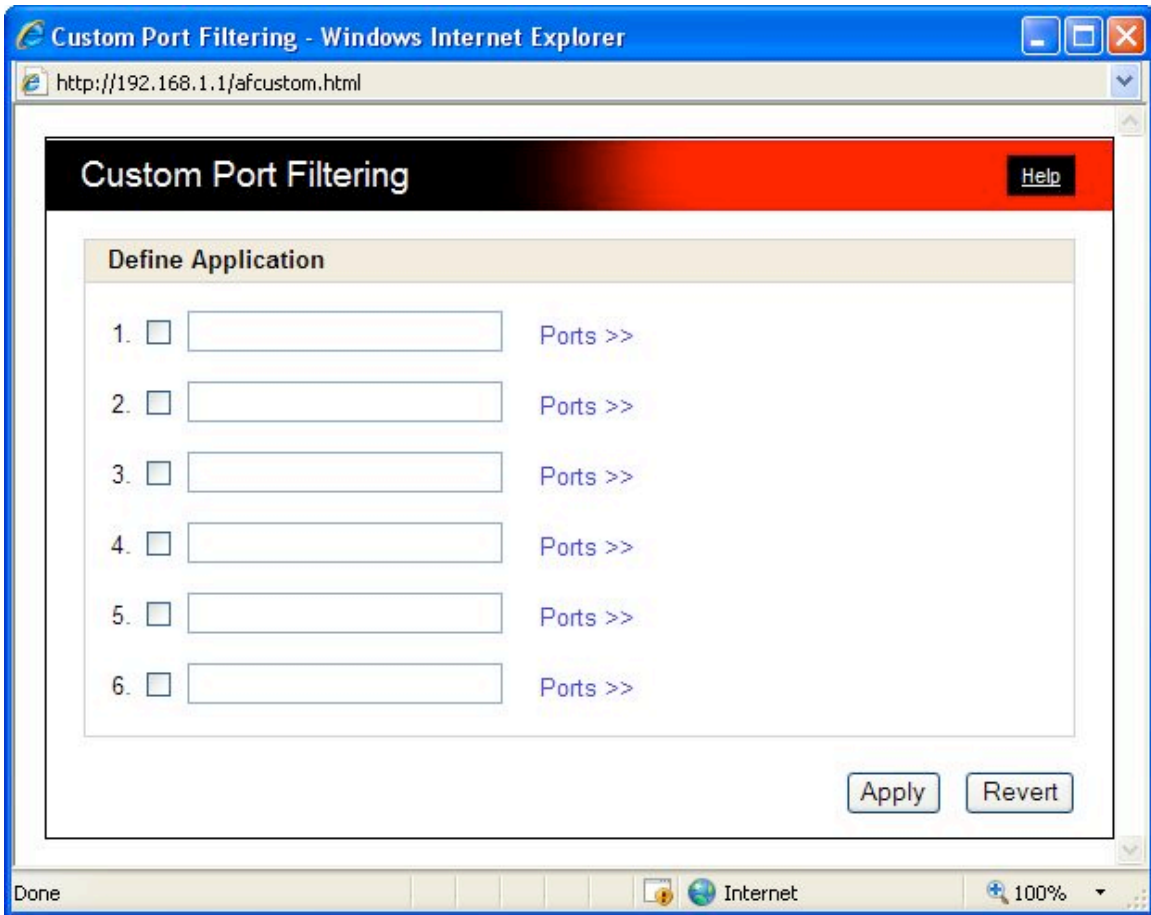
- Enabled:- Only traffic from the specified “Allowed Applications” is allowed. Other outgoing (Internet) traffic is blocked.
- Disabled:- This feature is disabled, and outgoing traffic is not checked.

Allowed Applications - Enable each application which you wish to be able to access the Internet while the Port Filter feature is enabled. All other applications will be blocked.

Custom Applications - Use this button if you wish to define your own applications. A sub-window will open and provide the opportunity to define additional applications. This screen is described in the following section.

Custom Applications Screen

This screen is reached by the “Custom Applications” button on the Port Filter screen. It allows you to define and enable custom Port Filtering applications. You need to know details of the traffic used and generated by the applications you wish to define.



This screen contains the following settings

Checkbox - Use this to enable an application after you have defined it. If enabled, then traffic from this application is allowed to access the Internet. If not checked, traffic for this application is blocked.

Note: These checkboxes have no effect unless the Port Filter is enabled on the Port Filter screen.

Application Name - Enter a suitable name for the application.

Ports - Click this link to display the Port Definition panel, allowing you to define the ports used by this application. Click "Hide" when finished defining the current application; click "Apply" when finished defining all applications.

Port Definition Panel - This panel is displayed when the "Ports" link is clicked, and allows you to define the ports used by the current application, indicated by background shading.

- Start Port - Enter the beginning of the range of port numbers used by outgoing traffic for this application. Use as many rows as necessary to define the required number of port ranges. Unused rows can be left blank.
- End Port - Enter the end of the range of port numbers used by outgoing traffic for this application. Use as many rows as necessary to define the required number of port ranges. Unused rows can be left blank.
- Protocol - For each port range (each row), select the protocol (TCP, UPD, or both) used by that port range.

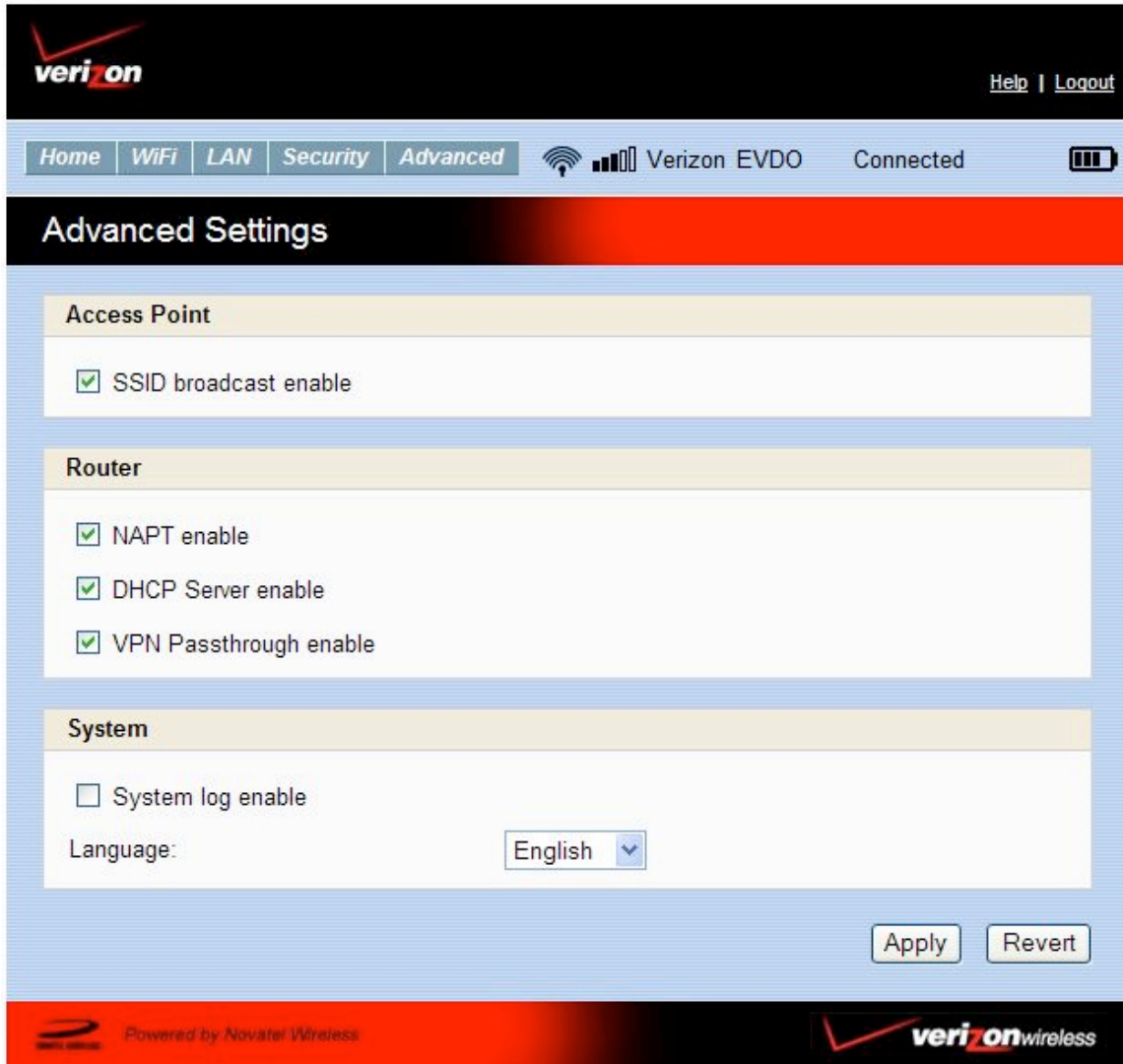
Saving your Changes

You can define all required applications before clicking the "Apply" button.

Use the "Ports" and "Hide" links as necessary to open and close the Port Definition Panel so you can define the ports for each application as needed.

Advanced Settings

Available on the Advanced menu, this screen contains a number of rarely-used settings intended for use in special circumstances.



The settings on this screen are organized into 3 categories

Access Point

Router

System

Access Point Settings

SSID broadcast enable - Normally, this should be left enabled, so that this device will appear in the list of "Available Wireless Networks" on your PC or portable device. If disabled, this device will not be listed, and its details must be entered manually.

Router Settings

NAPT enable - NAPT (Network Address Port Translation) is the technology which allows multiple clients to share the 3G internet connection. Disabling this will normally prevent internet access. This setting is for special circumstances.

DHCP Server enable - The DHCP Server automatically allocates an IP address to each of your wireless clients. Normally, this should be enabled. If disabled, each Wireless client should have a fixed IP address, set on the client.

VPN Passthrough enable - This features allows VPN clients to connect through this device to remote VPN Servers. Normally, this option should be left enabled.

System Settings

System log enable - Enable or disable the system log as desired. The system log can be viewed on the "Diagnostics" screen.

Language - This option sets the language used in this interface. Select the desired option.

Config File

Available on the Advanced menu, this screen provides the ability to download (backup) a copy of the configuration settings from the MC550 Modem to a file on your PC, or restore (upload) a previously-saved configuration file from your PC to the MC550 Modem.

This configuration file contains all settings for the Access Point and Router functions of the MC550 Modem; it does not contain any data for the 3G module.

The screenshot shows the Verizon MC550 Modem's web interface. At the top, there's a Verizon logo and navigation links for Home, WiFi, LAN, Security, and Advanced. The 'Advanced' menu is selected. Below the navigation bar, the page title is 'Config File'. There are two main sections: 'Config File Download' and 'Config File Upload'. The 'Download' section has a 'Download File' button. The 'Upload' section has a file input field with a 'Browse...' button and an 'Upload File' button. The Verizon logo is in the top left, and 'Powered by Novatel Wireless' and 'verizon wireless' are in the bottom left and right respectively.

Config File Download

Click the "Download File" button to download a copy of the current configuration, and store the file on your PC. You will be prompted to save the file; you can rename it if desired.

Config File Upload

Use this to restore a previously-saved configuration file to the MC550 Modem. This action will overwrite all existing settings with the values stored in the config file.

File - Enter the path and filename for the config file you previously downloaded to your PC, or click the "Browse" button to use the normal "Open File" dialog to select the config file on your PC.

Upload File - After selecting a config file on your PC, click "Upload File" button to begin the upload. After uploading, the config file is immediately applied, and this device will restart.

WARNING!

Uploading a configuration file will change ALL of the existing settings to match the configuration file.

If the Wi-Fi settings change, you will lose this connection, and will need to reconnect using the new settings.

Diagnostics

Available on the Advanced menu, this screen displays details of the firmware (software) and other system-level information. You can also view the system log and perform various operations. This screen is used mostly for troubleshooting and is not required for normal operation.

The screenshot shows the Verizon EVDO Diagnostics interface. At the top, there is a navigation bar with tabs for Home, WiFi, LAN, Security, and Advanced. The Advanced tab is selected. The status bar shows Verizon EVDO, Connected, and battery level. The main content area is titled "Diagnostics" and is divided into three sections: System Information, System Status, and Global Traffic Counters. The System Information section contains a table with details for AP/Router, 3G Modem, and Version. The System Status section has a large empty box and buttons for Modem Status and System Log. The Global Traffic Counters section shows connection time, data received, and data transmitted, all at 0, with buttons for Restart Counters and Connection Log. At the bottom, there are buttons for Restart and Reset to Factory Defaults. The footer includes the Novatel Wireless logo and the Verizon Wireless logo.

System Information

AP/Router	3G Modem	Version
Manufacturer: Novatel Wireless	Model: BLUE	AP: rel7
Model: Pacific MC550	ESN: 00000000	Router: pre903_0902_GE
Serial No: LJ050608400070	MDN: 8588123400	Modem: Blue_110

System Status

Modem Status

System Log

Global Traffic Counters

Total connection time	0	Restart Counters
Data Received	0	
Data Transmitted	0	Connection Log
Total		

Restart Reset to Factory Defaults

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System Information

This section contains detailed information about this device.

AP/Router

- Manufacturer - The manufacturer of this device.
- Model - The Modem number or name of this device.
- Serial Number - Each device has a unique serial number.

3G Modem

- Model - The type of 3G modem installed in this device.
- ESN - The ESN is used by the mobile data network to identify this particular modem.
- MDN - The MDN is used by the mobile data network to identify this particular data service.

Version

AP - For the Access Point component, the version of the firmware (software) currently installed.

Router - For the Router component, the version of the firmware (software) currently installed.

Modem - For the Modem component, the version of the firmware (software) currently installed.

System Status

Modem Status - Click this to view details of the Modem status in the panel beside this button. This information is mostly useful for troubleshooting.

System Log - Click this to view the System Log in the panel beside this button. The System Log records various operations, and is mostly useful for troubleshooting.

Global Traffic Counters

These counters record incoming and outgoing Internet traffic. They continue incrementing until restarted. The following data and operations are supported.

- ▶ Total connection time - This records the total time period during which a data connection to the Internet is available.
- ▶ Data Received - The total amount of data received.
- ▶ Data Transmitted - The total amount of data transmitted.
- ▶ Restart Counters - Click to button to set the counters above to zero.
- ▶ Restart Counters - Click to button to set the counters above to zero.
- ▶ Connection Log - Click this to view the Internet Connection Log. Note that the Internet Connection Log shows only the most recent connections rather than all of the connections which have contributed to the Global Traffic Counters.

Operations

The following system-level operations are supported.

- ▶ Restart - Restart this device. All Internet connections, and all Wi-Fi connections, will be lost during the restart.
- ▶ Reset to Factory Defaults - Use this to reset all AP and Router settings to their factory default values. All existing settings will be lost.

WARNING!

The "Reset to Factory Defaults" operation will overwrite ALL existing settings. If the Wi-Fi settings change, you will lose this connection, and will need to reconnect using the new settings.

Port Forwarding

Available on the Advanced menu, this feature allows incoming traffic (from the Internet) to be forwarded to a particular PC or device on your local WLAN. Normally, incoming traffic from the Internet is blocked by the Firewall.

You need to use Port Forwarding to allow Internet users to access any server you are running on your PC, such as a Web server, FTP server, or E-mail server. Also, for some on-line games, Port Forwarding must be used in order for the game to function correctly. Note that Port Forwarding creates a security risk and should be disabled when not required.

verizon [Help](#) | [Logout](#)

[Home](#) [WiFi](#) [LAN](#) [Security](#) [Advanced](#) Verizon EVDO Connected

Port Forwarding

Port Forwarding Applications

Application	IP Address on WLAN
<input type="checkbox"/> DNS (Domain Name Server)	<input type="text"/>
<input type="checkbox"/> FTP Server	<input type="text"/>
<input type="checkbox"/> HTTP (Web) Server	<input type="text"/>
<input type="checkbox"/> NNTP Server	<input type="text"/>
<input type="checkbox"/> POP3 Server	<input type="text"/>
<input type="checkbox"/> SMTP Server	<input type="text"/>
<input type="checkbox"/> SNMP Server	<input type="text"/>
<input type="checkbox"/> Telnet Server	<input type="text"/>
<input type="checkbox"/> TFTP Server	<input type="text"/>

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Using Port Forwarding

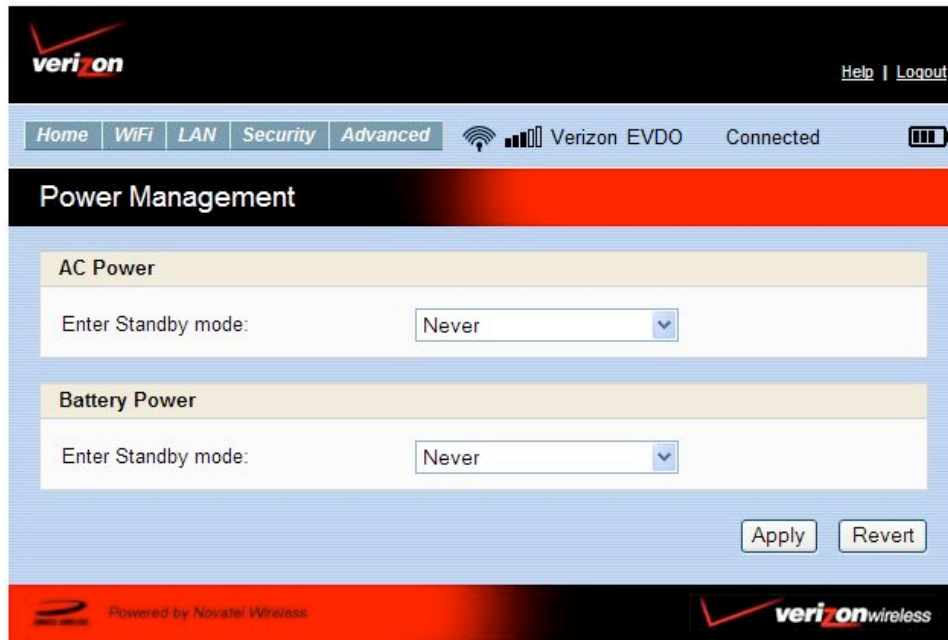
A number of common server applications are listed. To use any of these applications, follow this procedure:

1. Install the application on a PC on your local WLAN.
2. Ensure the PC is connected to this device, and record the PC's IP address for the Wi-Fi interface.
3. On this screen, enter the PC's IP Address in the "IP Address on WLAN" field beside the application name.
4. Enable this application on this screen by checking its checkbox.
5. Save your changes with the "Apply" button.
6. On the "Home" screen, make a note of the Internet IP address of this device.
7. Ask users on the Internet to connect to the Internet IP address of this device. These connection requests will be forwarded to the IP address specified in step 3.
8. When no longer needed, the application should be disabled on this screen by unchecking its checkbox, and saving this change with the "Apply" button. Leaving applications enabled unnecessarily creates a security risk.

Power Management

Available on the Advanced menu, this screen controls the Power Management features of the MC550 Modem.

the MC550 Modem can switch to a low-power Standby mode. When using battery power, switching to Standby mode will greatly extend the battery life. While in Standby mode, the LED will blink slowly, fading in and out. To exit Standby mode, press the power button.



The screenshot shows the Verizon MC550 Modem's Power Management settings. At the top, there is a navigation bar with tabs for Home, WiFi, LAN, Security, and Advanced. The Advanced tab is selected. The status bar shows Verizon EVDO and Connected. The main content area is titled "Power Management" and contains two sections: "AC Power" and "Battery Power". Each section has a label "Enter Standby mode:" followed by a dropdown menu set to "Never". At the bottom right, there are "Apply" and "Revert" buttons. The footer includes the Verizon logo and "Powered by Novatel Wireless".

AC Power

Select the desired Standby option.

When using the AC adapter, this device will switch to Standby mode after being idle for the selected time period. To prevent switching to Standby mode, select "Never".

Battery Power

Select the desired Standby option.

When powered by the battery, this device will switch to Standby mode after being idle for the selected time period. To prevent switching to Standby mode, select "Never".

NOTE

These settings have no effect when using the USB connection.

Technical Support

For additional information and technical support for **VZ**Access Manager and Verizon wireless devices, you can visit the Verizon Wireless Data Technical Support page at:
<http://www.verizonwireless.com/b2c/support/data.jsp>.

Troubleshooting

The following tips will help solve many common problems encountered while using the MC550 Modem:

- Make sure you are using the MC550 Modem in the correct geographic region: a Broadband**Access** and National**Access** the MC550 Modem in the US.
- Ensure that the wireless network's coverage extends to your current location.

When properly installed, the MC550 Modem is a highly reliable product. Most problems are caused by one of these issues:

- The wrong driver has been installed.
- System resources required by the MC550 Modem are being used by other devices.
- Network coverage is not available (either because you are outside the Broadband**Access** and National**Access** coverage area or because of an account or network problem).

Master Reset

There is Master Reset button on the bottom of the device. The Master Reset button restores the device Wi-Fi settings only back the factory default settings.

For issues related to **VZAccess Manager** consult the **VZAccess Manager Software User Guide**.

Product Specification

Technical Specifications

TABLE 1: GENERAL SPECIFICATIONS

Name:	Verizon Wireless the MC550 Modem
Model:	MC550 Modem
Approvals:	TBA
Weight	75 g / 2.65 oz
Dimensions:	90 mm x 60 mm x 8.8 mm 3.54 in x 2.36 in x 0.35 in
Wireless Network – Dual Mode:	CDMA 1X/EV-DO
Wireless Network – Wi-Fi Mode	802.11 b/g
Default SSID	TBD
Battery Size Duration for full charge: AC Charger Duration for full charge: PC USB Cable	1150 mAh 2.5 Hours 7-8 Hours PC USB Cable
Chip Set	QUALCOMM™ QSC6085
Interface Type:	Type A USB Port for PC USB Cable microUSB (on device)

TABLE 2: CDMA TECHNOLOGY

Technology:	CDMA Rev A, Rev 0, 1XRTT
Band Designation:	800/1900 MHz
Transmit Band:	824.7-848.31MHz/1851.25-1908.75MHz
Receive Band:	869.7-893.31MHz/1931.25-1988.75MHz

TABLE 3: OPERATING SPECIFICATIONS

Operating Temperature	TBD
Storage Temperature	TBD
Relative Humidity	TBD
Drop	1 meter drop, no damage – fully operational

Vibration Stability	5 Hz to 500 Hz, 0.1 octave/second
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Regulatory Notices

CE Marking

This device has been tested to and conforms to the essential regulatory requirements of the European Union R&TTE directive 1999/5/EC and has attained CE Marking.

CE 0682

Federal Communications Commission Notice (FCC United States)



This equipment has been tested to, and found to be within the acceptable limits for a Class B digital device, pursuant to part 15 of the FCC Rules and Industry Canada ICES-003. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment.

This equipment generates radio frequency energy and is designed for use in accordance with the manufacturer's user manual. However, there is no guarantee that interference will not occur in any particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are 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 the 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/television technician for help

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

WARNING: DO NOT ATTEMPT TO SERVICE THE WIRELESS COMMUNICATION DEVICE YOURSELF. SUCH ACTION MAY VOID THE WARRANTY. The MC550 Modem DEVICE IS FACTORY TUNED. NO CUSTOMER CALIBRATION OR TUNING IS REQUIRED. CONTACT YOUR SERVICE PROVIDER FOR INFORMATION ABOUT SERVICING YOUR WIRELESS COMMUNICATION DEVICE.

NOTICE TO CONSUMERS: Any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

NOTE: The Radio Frequency (RF) emitter installed in your modem must not be located or operated in conjunction with any other antenna or transmitter, unless specifically authorized by Novatel Wireless Technologies.

MODIFICATIONS: The FCC requires that you be notified that any changes or modifications made to this device that are not expressly approved by Novatel Wireless, Inc. may void your authority to operate the equipment.

RF Exposure Content

FCC Equipment Authorization ID: **PKRNVWMC550**

This device is only authorized for use in Mobile applications. At least 20cm (8 inches) of separation between the antenna and the users body must be maintained at all times.

Safety Content

Safety Notices

Do not operate your MC550 Modem in any area where medical equipment, life support equipment, or near any equipment that may be susceptible to any form of radio interference. In such areas, the host communications device must be turned off. The MC550 Modem may transmit signals that could interfere with this equipment.

On an aircraft, either on the ground or airborne

In addition to FAA requirements, many airline regulations state that you must suspend wireless operations before boarding an airplane. Please ensure that the host device is turned off and your MC550 Modem is removed from the card slot prior to boarding aircraft in order to comply with these regulations. MC550 Modem can transmit signals that could interfere with various onboard systems and controls.

While operating a vehicle

The driver or operator of any vehicle should not operate a wireless data device while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some countries, operating such communications devices while in control of a vehicle is an offense.

The FCC has granted an Equipment Authorization for this wireless modem with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines.

Proper Battery Use and Disposal

IMPORTANT: In event of a battery leak:

- Do not allow the liquid to come in contact with the skin or the eyes. If contact has been made, wash the affected area with large amounts of water and seek medical advice.
- Seek medical advice immediately if a battery has been swallowed.
- Communicate the appropriate steps to be taken if a hazard occurs.

Please review the following guidelines for safe and responsible battery use

- Do not disassemble or open, crush, bend or deform, puncture, or shred.
- Do not modify or remanufacture, attempt to insert foreign object into the battery, immerse or expose to water or other liquids, or expose to fire, explosion, or other hazard.
- Only use the battery for the system for which it was specified.
- Only use the battery with a charging system that has been qualified with the system per this standard. Use of an unqualified battery or charger may present a risk of fire, explosion, leakage, or other hazard.
- Do not short circuit a battery or allow metallic or conductive object to contact the battery terminals.
- Replace the battery only with another battery that has been qualified with the system per this standard. Use of an unqualified batter may present a risk of fire, explosion, leakage, or other hazard.
- Promptly dispose of used batteries in accordance with local regulations.
- Battery usage by children should be supervised.
- **Provide an explanation of security implementation, per 10.2.1.**
- Avoid dropping the device or battery. If the device or the battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- Improper battery use may result in a fire, explosion, or other hazard.

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Glossary

1xRTT

Short for single carrier (1x) Radio Transmission Technology. A high speed wireless technology based on the CDMA platform. 1xRTT has the capability of providing broadband-like speeds of up to 144 Kbps. 1xRTT is also referred to as CDMA2000.

1xEVDO

Part of a family of CDMA2000 1x digital wireless standards. 1xEVDO is a "3G" standard. EVDO stands for "EVolution, Data-Optimized." 1xEVDO is based on a technology initially known as "HDR" (High Data Rate) or "HRPD" (High Rate Packet Data), developed by Qualcomm. The international standard is known as IS-856. 1xEVDO has the capability of providing broadband-like speeds of average speeds of 400-700 kbps.

bps

Bits per second – rate of data flow.

Broadband

High-capacity high-speed, transmission channel with a wider bandwidth than conventional modem lines. Broadband channels can carry video, voice, and data simultaneously.

Computing Device

Personal Computing device (notebook, desktop computer, tablet PC, PDA, etc).

Kbps

Kilobits per second – rate of data flow

LAN

Local Area Network. A data network confined to limited area with moderate to high data rates. Does not use common carrier circuits, although may have gateways or bridges to other public or private networks.

MicroUSB

MicroUSB is not to be confused with miniUSB. The micro USB technology features a small and durable form factor for frequent use. MicroUSB was developed by the USB Implementers Forum, Inc. (USB-IF), an independent non-profit group that works to advance USB technology.

Mbps

Megabits per second

Rev A

CDMA EV-DO Rev. A is a leading-edge wireless technology with higher data rates and higher system capacity. It is a fully backward compatible standard and remains interoperable with deployed EV-DO networks and devices around the world. The increased data rates on Rev. A's physical layer enable richer applications and services.

For more information, visit www.cdg.org.

SMS

Short Messaging Service. Short text messages of generally no more than 140-160 characters sent and received by wireless devices.

Type A USB

The USB ports on computers and hubs have a rectangular Type A socket, and peripheral devices have a cable with a Type A plug. Peripherals that do not have an attached cable have a square Type B socket on the device and a separate cable with a Type A and Type B plug.

USB

Universal Serial Bus. A connection type for computing device peripherals such as a printer, mouse, keyboard, etc.

VPN

Virtual Private Network. A way to communicate through a dedicated server securely to a corporate network over the Internet.

WAN / WWAN

Wide Area Network (WAN). A computer network covering a broad geographical area. WANs are used to connect local area networks (LANs) together, so that users and computers in one location can communicate with users and computers in other locations.

Wi-Fi

Wi-Fi (Wireless Fidelity) refers to any system that uses the 802.11 standard, which was developed by the Institute of Electrical and Electronics Engineers (IEEE) and released in 1997.

WWAN

Wireless Wide Area Network (WWAN). Also called "wireless broadband" or "broadband wireless," wireless WANs (WWANs) use cellular towers to transmit a wireless signal over a range of several miles to a mobile device compared to wireless Wi-Fi LANs (WLANs), which span only a few hundred feet and

generally to only stationary devices.

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