

# User Guide

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#### **Novatel Wireless Revision History**

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Please visit www.verizonwireless.com for the latest information about your device.

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# **Getting Started**

Overview Components Caring for Your MiFi U620L

# Overview

Congratulations on purchasing the MiFi 4G LTE Global USB Modem U620L for 4G LTE Mobile Broadband service.

This 4G LTE USB modem enables you to connect at high speeds to the Internet, your corporate Intranet, and access your email while you're away from the office.

# **Package Contents**

The MiFi 4G LTE Global USB Modem U620L package includes:

- MiFi 4G LTE Global USB Modem U620L
- Quick Reference Guide

# **System Requirements**

- Supported operating systems
  - Windows® 7 or 8
  - Mac OS® 10.5 or higher
- USB port: Type A, v2.0 or higher
- Supported browsers:
  - Microsoft Internet Explorer u or higher
  - Mozille Firefox 3.6 or higher
  - Google Chrome 9 or higher
  - Apple Safari 5 or higher
  - Opera 9 or higher
- Verizon Wireless data plan

# Components



- **Status LED indicator** indicates the network and traffic status; it also indicates when their is no SIM or a SIM error, and when a software update is in progress. (See xxxx on page 4.)
- **Data Usage LED indicator** indicates data usage from less than 80% to 100% or greater; it also indicates when data usage information is not available.
- **3 USB Connector** connects to your computer through a type A USB port.
- **USB Connector Pivot** allows the USB Connector to rotate, making it easier to connect to computers.
- **S** USB Folding Hinge folds xxxxxxxxxxxxxxxx. (See xxxxx on page 14.)
- **6 Back Panel (removable)** covers the 4G LTE SIM card slot. Press gentle on the cover with your thumb and slide the panel off.
- **4G LTE SIM Card Slot** inside under the back panel, insert the 4G LTE SIM card into the spring-loaded SIM card slot (under the back panel not shown). (See <u>Install the 4G SIM Card</u> on page <?>.)

# **Status & Data LED Indicators**

The LED indicates the modem status.

Status LED	Color	Status	Description
No Light			The device is powered off or otherwise is not getting power.
Green		Solid	The Home network is available. No traffic (attached OR data connection).
		Blinking	The Home network is available. With traffic.
Amber		Solid	The Roaming network is available. No traffic.
		Blinking	The Roaming network is available. With traffic.
White		Solid	Service error or SIM card error; no service is available.
		Blinking	No SIM or SIM error.
Data LED			
No Light			Data Usage information is not available.
Green		Solid	Data Usage: < 80%.
Amber		Solid	Data Usage: 80-89%.
Red		Solid	Data Usage: 90-99%
		Blinking	Data Usage: 100% or greater

# Caring for Your Device

Like any electronic device, the modem must be handled with care to ensure reliable operation. Verizon Wireless recommends the following guidelines:

- Protect the device from liquids, dust, and excessive temperatures.
- Do not apply adhesive labels to the device; they might cause the device to overheat or alter antenna performance.
- The USB connector should plug easily into your computer's standard type A USB port. Forcing the device into a port might damage the connector.
- Remove the device from your computer before transporting it.
- Store the device in a safe place when not in use.

# Using the MiFi U630L

Using the MiFi U620L for the First Time Using the MiFi U620L After Setup is Complete Accessing the User Guides

# Using the MiFi U620L Modem for the First Time

**IMPORTANT** Do not connect the device to a USB hub, as it might not provide sufficient power.

See the Quick Reference Guide included in the box.

To get started, follow these steps.

- Onfirm your computer meets the minimum system requirements. (See <u>System Requirements</u> on page 2.)
- 2 Insert the activated 4G LTE SIM Card. (See <u>Install the 4G LTE SIM Card</u> on page 8.)
- Connect the MiFi U620L Modem to your computer. (See <u>Properly Insert the Device in Your Computer</u> on page 10.) For computers running Windows® 7, Windows 8, or Mac OS 10.5 of higher, the USB drivers will install automatically.

**IMPORTANT** The device requires an activated 4G LTE SIM with Verizon Wireless to function.

# Install the 4G LTE SIM Card

If you have not already done so, please follow these instructions to install your new 4G LTE SIM Card.

### To open the case and install the 4G SIM Card

• Open the protective cover on the back of the MiFi U620L by pressing gentle on the cover with your thumb and sliding the door off.



2 Insert the 4G LTE SIM Card with the contact points (typically gold-colored) facing toward the USB modem. Position the card with the notched corner as circled below and slide the card into the SIM slot.



**3** Gently push the 4G LTE SIM Card forward until the spring catches and the card remains securely in the slot.

4 Replace the back cover and snap into place.



The SIM Card must remain in the wireless device when in use.



Should your SIM Card be lost or damaged, visit **verisonwireless.com/myverizon** to order a replacement SIM Card. You can also call **1-800-922-0204** to speak with a Customer Service Representative. For toll-free support outside of the U.S. call **+1-908-559-4899** for 24/7 global support. For additional information about 4G SIM Cards, visit **verisonwireless.com/4GSIM**.

A Subscriber Identity Module (SIM Card) is a "smartcard" that houses personal information, such as your mobile phone number, calling plan, account information, and content, such as contacts, text messages, and call history.

The Verizon Wireless 4G LTE SIM Card is compatible with any Verizon Wireless 4G LTE certified device. You can move the 4G LTE SIM Card from one device to another and your wireless service will work seamlessly as long as you have a compatible device and service plan. To see which devices are compatible with the Verizon Wireless 4G LTE SIM Card, visit **verizonwireless.com/certifieddevice**.

# Properly Insert the Device in Your Computer

### To properly insert the device

Use your thumb to gently flip open the USB connector on your wireless device to a 45-degree angle. Be sure to avoid over-extending the USB connector past its resistance point. Avoid opening the USB connector with metal objects as this might damage the pins.



- 2 Hold the device along the side edges and gently insert the device into your computer's USB port. The U620L should fit easily into the port. Do not force the device into the port as this might damage both the device and the port.
- Position the modem as indicated in the following illustrations to maintain SAR compliance and to ensure proper performance. This modem has been designed and tested to meet SAR compliance as outlined by the FCC. If the modem is connected to USB ports other than those shown, ensure that the device maintains a separation distance of at least 5 mm.

**IMPORTANT** The device must be positioned at 120° for optimal functionality. Failure to maintain a position between the normal operating range of 110° - 130° will cause the device to stop functioning.



If your computer has a sideways or inverted USB port, you can use the cable accessory to connect the device. (See <u>Lanyard Accessory</u> on page 17.)

**NOTE** If you are having difficulty inserting the device into your computer's USB port, verify that you are inserting the device in the correct orientation and that you are using a Type A USB port.

# **Connecting to the Internet**

Getting started with your new wireless MiFi 4G LTE Global USB Modem U620L is simple. Insert the modem into the USB Port, open the computer's web browser, type http://my.usb or 192.168.1.1 in the browser's address line and then press Enter. You are now connected to the Internet and the Verizon Home welcome page.

**IMPORTANT** Installation must be performed within a 4G Mobile Broadband and/or Mobile Broadband coverage area.

# **Properly Remove the Device from Your Computer**

**IMPORTANT** Be sure to disconnect from the network and quit the MiFi Web UI before you remove the device from your computer. Disconnecting from the network and quitting the software avoids potential problems such as automatic shutdown or screen freezing.

#### Windows

The U620L Modem's USB technology allows you to safely remove the device at any time when you are not connected to the network.

- 1 End your Mobile Broadband session by selecting **Disconnect** from the **MiFi Web UI**.
- Exit and close the MiFi Web UI.
- **3** Gently grip the U620L Modem on both sides and pull straight out to avoid damaging the USB connectors.

#### Mac OS X

- 1 End your Mobile Broadband session by selecting **Disconnect** from the MiFi Web UI.
- Exit and close the MiFi Web UI.
- 3 Click the eject icon to the right of the U620L Modem icon in the left column of the Finder window to eject the device.
- Gently grip the U620L Modem on both sides and pull straight out to avoid damaging the USB connectors.

# Using the Device After Setup is Complete

The following steps occur as you use the device on a regular basis.

#### **Open the USB connector**

Use your thumb to gently flip open the USB Connector on your wireless device to a 45-degree angle. Be sure to avoid over-extending the USB Connector past its resistance point. Avoid opening the USB connector with metal objects as this might damage the pins.



#### Insert the device

On most computers, insert the MiFi U620L with the label facing up. Some computers might orient the USB port so the device label faces down or sideways. (See <u>To properly insert the device</u> on page 10.)



The MiFi U620L is powered on as soon as you insert it in your computer's USB port. Although the modem is powered on, it does not automatically connect to the Internet.

The device LED indicators light up. If sound effects are enabled, the computer might beep.

# **Connect To and Disconnect From the Network**

Open the browser on your computer and enter http://my.usb or 192.168.1.1 to display the MiFi U630L Web UI. By default, your MiFi U630L is set to always auto-connect.

To change your connection setting to Auto-connect if not roaming, or Manual Connection:

- **1** Select **Settings** > **Networks** > **Connection Preference**.
- 2 Choose the desire setting from the drop down menu. If you choose **Manual Connection**, you must use the **Connect/Disconnect** button on the Home page.
- Click Save Changes.

# Accessing the MiFi Web User Interface (UI)

The MiFi Web UI allows you to manage, monitor and customize your wireless network activity through an easy-to-use web interface. You'll also be able to:

- Time your network sessions
- View your usage history
- Update your software to the latest version
- Connect to Verizon Wireless for product and account information
- Receive help and support

# MiFi Web UI Content/Screens TBD

# Troubleshooting

Overview Common Problems and Solutions Technical Support

# Overview

When properly installed, the MiFi 4G LTE Global USB Modem U620L is a highly reliable product. Most problems are caused by one of these issues:

- System resources required by the modem are being used by other devices.
- Network coverage is unavailable due to coverage area, an account problem, or a network problem.

The following tips can help solve many common problems encountered while using the MiFi 4G LTE Global USB Modem U620L.

#### First Steps

- Make sure you are using the device in the correct geographic region. Be sure you have 4G
  Mobile Broadband and Mobile Broadband service with the MiFi 4G LTE Global USB Modem
  U620L in the U.S.
- Ensure that your wireless coverage extends to your current location.
- Ensure you have an active subscription plan.
- Restarting your computer and your modem can resolve many issues.

**IMPORTANT** Before contacting support, be sure to restart your computer, and remove and reconnect your device.

# **Common Problems and Solutions**

The following are some common problems and solutions.

# My computer does not start when the device is inserted. I experience an error or a blank screen.

➤ When this happens, remove the device and restart the computer.

# **Technical Support**

## **Customer Service**

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

# **Data Technical Support**

For additional information and technical support for Verizon Wireless devices, you can visit the Verizon Wireless Data Technical Support page at:

http://www.verizonwireless.com/b2c/support/data.jsp.

# Product Specifications and Regulatory Information

Product Specifications
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# **Product Specifications**

## General

Name: MiFi 4G LTE Global USB Modem U620L

Model: USB620L

Approvals: FCC (North America); CDG

Weight: 59 g (2.08 oz)

Dimensions (with USB 83 mm x 35 mm x 11.4 mm folded out): (3.27 in x 1.38 in x 0.45 in)

Wireless Network LTE

Dual Mode: CDMA 1X/EV-DO Rev A
Chip Set: QUALCOMM® MDM9625

Interface Type: Type A USB Port

# Technology/Bands

Technology: LTE; CDMA Rev A, Rev 0, 1XRTT

Band Designation: LTE with receive MIMO; 700 MHz

CDMA 1X/EV-DO RA; 800/1900 MHz

# **Environmental**

Operating Temperature:  $0^{\circ}$  C to  $+45^{\circ}$  C (32° F to 113° F) Storage Temperature:  $-20^{\circ}$  C to  $+65^{\circ}$  C ( $-4^{\circ}$  F to 149° F)

Relative Humidity: 5% to 90% over operating temperature

Drop: 1 meter drop, no damage – fully operational

Vibration Stability: 5 Hz to 500 Hz, 0.1 octave/second

# **Regulatory Statements**

#### Federal Communications Commission Notice (FCC – United States)

Electronic devices, including computers and wireless modems, generate RF energy incidental to their intended function and are therefore subject to FCC rules and regulations.

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: CAN ICES-3(B)/NMB-3(B). 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 U620L IS FACTORY TUNED. NO CUSTOMER CALIBRATION OR TUNING IS REQUIRED. CONTACT VERIZON WIRELESS TECHNICAL SUPPORT FOR INFORMATION ABOUT SERVICING YOUR WIRELESS COMMUNICATION DEVICE.

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

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

Avis de la commission fédérale des communications (FCC – États-Unis)

Les appareils électroniques, y compris les ordinateurs et les modems sans fi l, génèrent de l'énergie RF en lien avec leur fonction prévue et sont donc soumis aux règlements de la FCC.

L'équipement a été testé et s'est qualifi é à l'intérieur des limites acceptables d'un appareil digital de Classe B conformément à l'article 15 du règlement de la FCC et la NMB-003 d'Industrie Canada: CAN ICES-3(B)/NMB-3(B). Ces limites sont conçues pour fournir une protection raisonnable contre le brouillage préjudiciable lorsque l'équipement est utilisé dans un environnement résidentiel.

L'équipement génère de l'énergie des fréquences radio et est conçu pour être utilisé conformément au guide de l'utilisateur du fabricant. Toutefois, rien ne garantie qu'il n'y aura aucune interférence dans un endroit donné. Si l'équipement est la cause de brouillage préjudiciable de la réception d'une radio ou d'une

télévision, ce qui peut être déterminé en allumant et en éteignant l'appareil, essayez de corriger le brouillage à l'aide de l'une des mesures suivantes :

- Changer l'orientation ou la position de l'antenne de réception.
- Augmenter la distance entre l'équipement et le récepteur.
- Contacter le détaillant ou un technicien radio ou de télévision.

Cet appareil est conforme à l'article 15 du règlement de la commission fédérale des communications (FCC). L'utilisation est soumise aux deux conditions suivantes :

Cet appareil ne doit pas causer de brouillage préjudiciable.

• Cet appareil doit accepter l'interférence reçue, y compris l'interférence qui pourrait causer une opération indésirée.

MISE EN GARDE: NE PAS TENTER D'EFFECTUER L'ENTRETIEN DU DISPOSITIF DE COMMUNICATION SANS FIL VOUS-MÊME. UNE TELLE ACTION POURRAIT ANNULER LA GARANTIE. LE OVATION EST RÉGLÉ À L'USINE. LE CLIENT N'A PAS À LE CALIBRER OU LE RÉGLER. CONTACTER LE SOUTIEN TECHNIQUE DE NOVATEL WIRELESS TECHNICAL SUPPORT POUR DES RENSEIGNEMENTS SUR L'ENTRETIEN DU DISPOSITIF DE COMMUNICATION SANS FIL.

MISE EN GARDE DE LA FCC: Les modifi cations qui ne sont pas approuvées expressément par la partie responsable de la conformité pourraient annuler le droit que l'utilisateur a d'exploiter cet équipement. MODIFICATIONS: La FCC exige que l'utilisateur soit averti que toute modifi cation faite à cet appareil, sans l'approbation expresse de Novatel Wireless, Inc., pourrait annuler son droit d'utiliser cet équipement. Renseignements sur l'exposition aux fréquences radio et le débit d'absorption spécifi que (DAS) Le DAS de ce produit a été évalué et il respecte les directives de la FCC concernant l'exposition aux ondes radioélectriques.

#### RF Exposure/Specific Absorption Rate (SAR) Information

This product has been evaluated for SAR and meets the FCC Guidelines for exposure to radio waves.

#### FCC Equipment Authorization ID: PKRNVWMC620 I CID: 3229A-U620 PN: U620

Your wireless modem is a radio transmitter and receiver. It is designed and manufactured not to exceed the exposure limits for radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless devices including mobile USB Modems and wireless modems uses a unit of measurement known as the Specific Absorption Rate, or SAR. Tests for SAR are conducted using standard operating positions reviewed by the FCC with the device under test transmitting at its highest certified power level in all frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the USB modem while operating can be well below the maximum value. This is because the USB modem is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before this device is made available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations as required by the FCC for each model.

#### **CAUTION**

This USB modem is approved for use in normal-size laptop computers only. To comply with FCC RF exposure requirements, this modem should not be used in configurations that cannot maintain at least 5 mm from

users and bystanders. For example, this modem should not be used in certain laptop and tablet computers and configurations where the USB connectors are unable to provide or ensure the necessary separation is available between the modem and its users to satisfy compliance.



Please ensure that the modem is positioned as indicated in the illustrations to maintain SAR compliance and for proper performance. This modem has been designed and tested to meet SAR compliance as outlined by the FCC. If the modem is connected to USB ports other than those shown above please ensure the device maintains a separation distance of at least 5 mm.

#### D d'autorisation du matériel de la FCC: PKRNVWMC679 IC ID: 3229A-U620 PN: U620

Le modem sans fi l'est un émetteur et receveur radio. Il est conçu et fabriqué pour ne pas dépasser les limites d'expositions à l'énergie des fréquences radio (RF) émises par la commission fédérale des communications (FCC) du gouvernement des États-Unis. Ces limites font partie de directives complètes et constituent les niveaux d'énergie RF permis pour l'ensemble de la population. Les directives sont fondées sur des normes mises au point par des organisations scientifi ques indépendantes à l'aide de périodiques et de l'évaluation rigoureuse d'études scientifi ques. Les normes comprennent une marge de sécurité substantielle conçue pour assurer la sécurité de la population, peu importe l'âge et l'état de santé.

Les normes sur l'exposition des appareils sans fi l, comprenant les modems USB mobiles et les modems sans fi l, utilisent une unité de mesure appelée « débit d'absorption spécifi que » ou « DAS ». Les tests pour le DAS sont faits à l'aide de positions d'utilisation habituelles étudiées par la FCC quand l'appareil testé émet à sa puissance certifi ée maximale sur toutes les bandes de fréquence. Même si le DAS est déterminé à la puissance certifi ée maximale, le niveau du DAS du modem USB en marche peut être largement inférieur à la valeur maximale. Une telle chose se produit parce que le modem USB est conçu pour fonctionner à différentes puissances afi n de n'utiliser que la puissance nécessaire pour rejoindre le réseau. En général, plus l'utilisateur est près de la station de base sans fi l, moins la puissance est grande.

Avant que l'appareil soit rendu disponible pour le grand public, il doit être testé et la FCC doit recevoir une certifi cation attestant qu'il ne dépasse pas la limite établie par la prescription sur l'exposition sans danger adoptée par le gouvernement. Les tests sont conduits aux positions et aux endroits requis par la FCC pour chaque modèle.

MISE EN GARDE: Ce modem USB est approuvé pour une utilisation avec un ordinateur portable de taille normale seulement. Pour être conforme aux exigences sur l'exposition aux fréquences radio de la FCC, ce modem ne devrait pas être utilisé si sa position ne lui permet pas de le maintenir à au moins 5 mm des utilisateurs ou des passants. Par exemple, ce modem ne devrait pas être utilisé avec certains ordinateurs portables et tablettes électroniques dont les connecteurs USB ne peuvent fournir la distance nécessaire entre le modem et son utilisateur pour assurer la conformité.

Bien vouloir s'assurer que le modem est positionné comme indiqué dans les photos pour maintenir la conformité au DAS et pour jouir de l'effi cacité maximale. Ce modem a été conçu et testé conformément au DAS indiqué dans les directives de la FCC. Si le modem est connecté à un port USB différent de ceux décrits ci-dessus, bien vouloir s'assurer que l'appareil demeure à une distance d'au moins 5 mm.

# Wireless Communications

**IMPORTANT** Due to the transmission and reception properties of wireless communications, data occasionally can 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 modem might 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 U620L, or failure of the U620L to transmit or receive such data.

# **Limited Warranty and Liability**

Novatel Wireless, Inc. warrants for the 12-month period immediately following receipt of the Product by Purchaser that the Product will be free from defects in material and workmanship under normal use. THESE WARRANTIES ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The exclusive remedy for a claim under this warranty shall be limited to the repair or replacement, at Novatel Wireless' option, of defective or non-conforming materials, parts or components. The foregoing warranties do not extend to (I) non conformities, defects or errors in the Products due to accident, abuse, misuse or negligent use of the Products or use in other than a normal and customary manner, environmental conditions not conforming to Novatel Wireless' specification, of failure to follow prescribed installation, operating and maintenance procedures, (II) defects, errors or nonconformity's in the Product due to modifications, alterations, additions or changes not made in accordance with Novatel Wireless' specifications or authorized by Novatel Wireless, (III) normal wear and tear, (IV) damage caused by force of nature or act of any third person, (V) shipping damage, (VI) service or repair of Product by the purchaser without prior written consent from Novatel Wireless, (VII) products designated by Novatel Wireless as beta site test samples, experimental, developmental, reproduction, sample, incomplete or out of specification Products, or (VIII) returned products if the original identification marks have been removed or altered.

# Safety Hazards

Do not operate the MiFi U620L in an environment that might 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 might cause interference or danger.

#### Where explosive atmospheres might be present

Do not operate your modem in any area where a potentially explosive atmosphere might 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 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

Do not operate your modem in any area where medical equipment, life support equipment, or near any equipment that might be susceptible to any form of radio interference. In such areas, the host communications device must be turned off. The modem can 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 modem is removed from the USB port prior to boarding aircraft in order to comply with these regulations. The 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.

# Electrostatic Discharge (ESD)

Electrical and electronic devices are sensitive to electrostatic discharge (ESD). Macintosh native connection software might attempt to reinitialize the device should a substantial electrostatic discharge reset the device. If the software is not operational after an ESD occurrence, then restart your computer.

Glossary

# Glossary

- 3G Third Generation. 3G refers to the third generation of mobile telephony technology.
- **4G LTE** One of several competing 4G standards. LTE (Long-Term Evolution) is a standard of wireless communication of high-speed data for mobil phones and data terminals:
- **802.11 (b, g, n)** A set of WLAN communication standards in the 2.4, 3.6 and 5 GHz frequency bands.
- **APN** Access Point Name. The APN is an alphanumeric string that identifies the particular network service that is being accessed. These are used by GPRS and UMTS networks.
- **bps** bits per second. The 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.
- CDMA Code Division Multiple Access. It is the underlying channel access method used by some mobile phone standards.
- **DHCP** Dynamic Host Configuration Protocol. Software found in servers and routers that automatically assigns temporary IP addresses to clients logging into an IP network.
- **DHCP Server** A server or service with a server that assigns IP addresses.
- **DNS** Domain Name System. A system for converting host names and domain names into IP addresses on the Internet or on local networks that use the TCP/IP protocol.
- **ESN** Electronic Serial Number. A unique 32-bit number embedded in a wireless device that identifies the device.
- **FID** Factory IDentification. Unique tracking number for factory builds.
- **Firewall** A hardware or software boundary that protects a network or single computer from unwanted outside traffic.
- **Firmware** A computer program embedded in an electronic device. Firmware usually contains operating code for the device.
- **FTP** File Transfer Protocol. A network protocol for exchanging files over a TCP network.
- **Gateway** A network point that acts as an entrance to another network that uses a different protocol.
- **GPRS** General Packet Radio Services. A system used by GSM mobile phones for transmitting IP packets. It also provides support for WCDMA based 3G networks.
- **GPS** Global Positioning System. A radio-based navigation system that allows users to determine their location. The device uses satellite data to calculate its position. Commonly used in mapping and navigation systems.
- Host Name The unique name by which a network-attached device is known on a network.
- **Hot-Swappable** The ability to safely remove and replace a component (for example, a memory card or USB device) from a device or computer while it is powered on.

- HTTP Hypertext Transfer Protocol. An application-level protocol for accessing the World Wide Web over the Internet.
- ICCID Integrated Circuit Card IDentification. A serial number stored in and engraved or printed on a SIM card that internationally identifies the card.
- **IEEE** Institute of Electrical and Electronics Engineers. An international technical/professional society that promotes standardization in technical disciplines.
- IMAP Internet Message Access Protocol. An Internet standard protocol for email retrieval.
- **IP** Internet Protocol. The mechanism by which packets are routed between computers on a network.
- **IP Type** The type of service provided over a network.
- **IP address** Internet Protocol address. The address of a device attached to an IP network (TCP/IP network).
- **ISP** Internet Service Provider. Also referred to as the service carrier, an ISP provides Internet connection service. (See Network Operator)
- **Kbps** Kilobits per second. The rate of data flow.
- LAN Local Area Network. A type of network that lets a group of computers, all in close proximity (such as inside an office building), communicate with one another. It does not use common carrier circuits though it can have gateways or bridges to other public or private networks.
- LTE Long Term Evolution. A set of enhancements to UMTS (moving toward 4G) that will provide high throughput, low latency, plug and play and seamless connection to existing networks such as GSM, cdmaOne, etc.
- MAC Address Media Access Control. A number that uniquely identifies each network hardware device. MAC addresses are 12-digit hexadecimal numbers.
- **MEID** Mobile Equipment IDentifier. A globally unique number for a physical piece of mobile station equipment.
- Mbps Megabits per second.
- **MSID** Mobile Station IDentifier. A number for a mobile phone that identifies that phone to the network. These numbers are carrier specific.
- **MSL** Master Subsidy Lock. A numeric code for accessing certain phone settings.
- **NAI** Network Access Identifier. A standard way of identifying users who request access to a network.
- **NDIS** Network Driver Interface Specification. NDIS is a Windows specification for how communication protocol programs (such as TCP/IP) and network device drivers should communicate with each other.
- **Network Mask** A number that allows IP networks to be subdivided for security and performance.
- **Network Operator** The vendor who provides your wireless access. Known by different names in different regions, some examples are: wireless provider, network provider, and service provider.
- Network Technology The technology on which a particular network provider's system is built; such as GSM, HSPA, CDMA, EDGE, and EVDO.

- NNTP Network News Transfer Protocol. An Internet application protocol for reading and posting Usenet (newsgroup) articles.
- **POP** Post Office Protocol. An Internet protocol for retrieving email from a remote server over a TCP/IP connection.
- **Port** A virtual data connection used by programs to exchange data. It is the endpoint in a logical connection. The port is specified by the port number.
- **Port Number** A 16-bit number used by the TCP and UDP protocols to direct traffic on a TCP/IP host. Certain port numbers are standard for common applications.
- **PPP** Point-to-Point Protocol. A method of connecting a computer to the Internet.
- **PPTP** Point-to-Point Tunneling Protocol. A method for implementing virtual private networks that does not provide confidentiality or encryption but relies on the tunneling process for security.
- **Protocol** A standard that enables connection, communication, and data transfer between computing endpoints.
- **Proxy** A firewall mechanism that replaces the IP address of a host on the internal (protected) network with its own IP address for all traffic passing through it.
- **PUK code** (Pin Unlock Key) A PUK is required when you enter an incorrect PIN 3 times. After entering the wrong PIN 3 times, the SIM card is disabled.
- **RAS** Remote Access Service. A Windows NT/2000 Server feature that allows remote users access to the network from their Windows laptops or desktops via modem.
- 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 <a href="www.cdg.org">www.cdg.org</a>.
- **RFB** Remote Frame Buffer. A protocol for remote access to graphical user interfaces.
- **Router** A device that directs traffic from one network to another.
- RTP Real-time Transport Protocol. A packet format for streaming multimedia over the Internet.
- SIM Subscriber Identification Module. A SIM is a card containing identification information for the subscriber and their account. The SIM card can be moved to different devices.
- SMS Short Message Service. A service for sending short messages of up to 160 (224 in 5-bit mode) characters to mobile devices. SMS is also known as text messaging.
- **SMTP** Simple Mail Transfer Protocol. An Internet standard for email transmission across IP networks.
- **SSID** Service Set IDentifier. The name assigned to a Wi-Fi network.
- **TCP** Transmission Control Protocol. A core protocol for transmitting and receiving information over the Internet.
- **TCP/IP** Transmission Control Protocol/Internet Protocol. The set of communications protocols used for the Internet and other similar networks.
- **Telnet** Telecommunication Network. A network protocol used on the Internet or on local area networks.

- **TFTP** Trivial File Transfer Protocol. A file transfer protocol with a subset of FTP functionality.
- **UA** User Agent. Any device or software used to access a web page. A user agent might be a web browser, a smart phone, or a screen reader.
- **UDP** User Datagram Protocol. A simple transport protocol used to transfer information on the Internet.
- UI User Interface. The part of a software application or hardware device that a user sees and interacts with.
- USB Universal Serial Bus. A connection type for computing device peripherals such as a printer, mobile modem, etc. USB connectors may be used for data transfer or charging.
- **USB Port Types** 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. Ports and connectors are available in different sizes (for example, standard, mini, and micro).
- **VNC** Virtual Network Computing. A graphical desktop sharing system that uses the RFB protocol to remotely control another computer.
- **VPN** Virtual Private Network. A secure private network that runs over the public Internet. Commonly used to connect to an office network from elsewhere.
- **VPN Passthrough** A feature that allows a client to connect to a VPN server.
- **WAN** Wide Area Network. A public network that extends beyond architectural, geographical, or political boundaries (unlike a LAN, which is usually a private network located within a room, building, or other limited area).
- **WCDMA** Wideband Code-Division Multiple Access. A 3G mobile wireless technology that promises much higher data speeds to mobile and portable wireless devices. Another name for UMTS.
- **WEP** Wired Equivalent Privacy. An IEEE standard security protocol for 802.11 networks. Superseded by WPA and WPA2.
- **Wi-Fi** Wireless Fidelity. Any system that uses the 802.11 standard developed and released in 1997 by the IEEE.
- Wi-Fi Client A wireless device that connects to the Internet via Wi-Fi.
- **WLAN** Wireless Local Area Network. A typically low-power network that transmits a wireless signal over a span of a few hundred feet and usually only to stationary devices.
- **WPA/WPA2** Wi-Fi Protected Access. A security protocol for wireless 802.11 networks from the Wi-Fi Alliance.
- **WWAN** Wireless Wide Area Network. Wireless network technologies deployed over a large geographical area to a large number of users (see WLAN). This service is usually provided through cellular providers. WWAN connectivity allows a user with a laptop and a WWAN device to surf the Internet, check email, or connect to a virtual private network (VPN) from anywhere within the coverage area of the network operator.