

Sprint Mobile Broadband USB Modem by Novatel Wireless Ovation™ U720

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Welcome to Sprint

We are committed to bringing you the best wireless technology available, and we built our network right from the start, so no matter where you are on the network, all your services will work the same.

When it comes to mobile connectivity, the Sprint Mobile Broadband USB modem offers more freedom than ever before. No wires, no cables, just access to your data when you need it. The power of the Internet and company data is truly at your fingertips.

This guide will familiarize you with our technology and with your new Sprint Mobile Broadband USB modem and Sprint Connection Manager software through simple, easy-to-follow instructions.

Welcome and thank you for choosing Sprint.

Introduction

This User Guide introduces you to Sprint service and all the features of your new Sprint Mobile Broadband USB modem. The guide is divided into five sections:

- Section 1: Sprint Mobile Broadband USB Modem Basics
- Section 2: Installing the Sprint Mobile Broadband USB Modem
- Section 3: Web Access
- Section 4: Technical Specifications and Regulatory Information
- Section 5: Safety and Terms & Conditions

Throughout this guide, you'll find tips that highlight special shortcuts and timely reminders to help you make the most of your USB modem and wireless network service. The Table of Contents and Index will also help you quickly locate specific information.

You'll get the most out of your new Sprint Mobile Broadband USB modem if you read each section. However, if you'd like to get right to a specific feature, you can go directly to that page. Follow the instructions in that section and you'll be ready to use your USB modem in no time.

Note:

You can print out this guide to keep on hand or view it online. If you're viewing it online, simply click on a topic in the Table of Contents or on any page reference within a section to go directly to that topic.

Section 1

Sprint Mobile Broadband USB Modem Basics



Introducing the Sprint Mobile Broadband **USB Modem**

In This Section

- Your Sprint Mobile Broadband USB Modem
- **CDMA Networks**
- **Package Contents**
- **About This Guide**

This section introduces the basic features and functions of your Sprint Mobile Broadband USB modem, the materials included with your device, and an overview of the sections in this User Guide.

Your Sprint Mobile Broadband USB Modem

Your Sprint Mobile Broadband USB modem connects to a USB port and functions as a wireless network EVDO device. This device allows you to:

- Access your company network.
- Send and receive email.
- Access the Internet.

CDMA Networks

The Sprint Mobile Broadband USB modem operates over a type of wireless network called CDMA (Code Division Multiple Access). This network technology has many features beyond providing a wireless link, such as Web Messaging, which allows you to receive short messages using the Sprint Mobile Broadband USB modem.

To use the Sprint Mobile Broadband USB modem, you need an account that gives you access to a CDMA network.

Every CDMA network operates on one of three radio frequency bands. Your Sprint Mobile Broadband USB modem takes advantage of the high-speed CDMA 1xEV-DO network and operates on the 1900 MHz band.

The Sprint Mobile Broadband USB modem uses CDMA 1xEV-DO Rev A technology and is backwardly compatible with currently deployed EV-DO Rev 0 and 1xRTT, enabling real-time high-speed wireless access to email, the Internet, or your company network. The device runs on most current Windows-compatible laptop or desktop computers, and it provides peak data transmission speeds of up to 3.1 megabits

per second (Mbps) on the downlink and up to 1.8 Mbps on the uplink on EV-DO Rev A networks.

Note:

The Sprint Mobile Broadband USB modem provides average download speeds in EV-DO Rev. A coverage areas of 600-1400 kilobits per second (kbps) and average upload speeds of 350-500 kbps. Average download speeds outside the EV-DO Rev. A coverage area are 400-700 Kbps with average upload speeds of 50-70 Kbps.

More information about CDMA networks is available on the CDMA Development Group Web site, www.cdg.org.

USB EVDO Modem

A USB modem (EVDO device) is a revolutionary new way to access the Internet, while delivering the most advanced multimedia streaming services and connectivity. Almost every laptop and desktop has a USB port, so this provides you with the ability to easily move your Sprint Mobile Broadband USB modem from platform to platform (laptop or desktop).

During Sprint connections, the Sprint Mobile Broadband USB modem is a true USB EVDO modem, functioning just like the modems familiar to most business computer users. It has an advanced dual band diversity antenna system design that incorporates an external flip antenna, maximizing data speed performance, and allows for stronger network signal reception. Once installed and configured for NDIS mode, the USB modem connects instantly to the CDMA network with just a few mouse clicks. To surf the Web, you simply connect the USB modem to a USB port, click a few buttons, and launch your Internet browser. To access your company network, you may need to launch an extranet client after you connect to the CDMA network.

Tip:

To optimize your settings for faster speeds and data conservation when accessing your company network, work in "Offline"mode and synchronize periodically to send and receive company email. Do not use the Preview Pane, and save or drag and drop attachments to a desktop folder before opening them (rather than double-clicking them in the email). For more detailed information, see the Microsoft white paper located at: www.microsoft.com/office/outlook/evaluation/perform.doc.

Package Contents

Your Sprint Mobile Broadband USB modem package contains the following components:

- Sprint Mobile Broadband USB Modem by Novatel Wireless Ovation™ U720
- Connection Cable
- A Guide to Using Your Sprint Mobile Broadband USB Modem
- Sprint Connection Managersm CD

About This Guide

This User Guide is designed to provide you with all the information you need to install and use your Sprint Mobile Broadband USB modem.

- Section 1 (which you are reading) gives you an overview of the USB modem and its basic features.
- Section 2 provides detailed, step-by-step instructions for installing and using the Sprint Mobile Broadband USB modem and Sprint Connection Manager software.
- Section 3 introduces Web access with your USB modem.
- Section 4 provides electrical, radio frequency, and other specifications for the Sprint Mobile Broadband USB modem, as well as regulatory notices concerning your Sprint Mobile Broadband USB modem.
- Section 5 provides important safety and liability information and includes the Terms and Conditions of use for the Sprint Mobile Broadband USB modem.

Section 2

Installing the Sprint Mobile Broadband USB Modem



Getting Started With Your Sprint Mobile Broadband USB Modem

In This Section

- Getting Started
- The Sprint Mobile Broadband USB Modem Software
- Activating and Using Sprint Service
- Care and Maintenance

This section outlines the basics of getting started with your Sprint Mobile Broadband USB modem, including installing the Sprint Connection Manager software and activating your account.

Getting Started

Before you can begin using your Sprint Mobile Broadband USB modem, you must first:

- Install the Sprint Connection Manager software, including the Sprint Mobile Broadband USB modem driver software.
- Activate your Sprint account (unless the USB modem has been preactivated).
- Configure the Sprint Mobile Broadband USB modem to use your account.

The Sprint Mobile Broadband USB Modem Software

The Sprint Mobile Broadband USB modem comes with the following software:

- Sprint Connection Manager software allows you to manage the device's actions and monitor your connections.
- The driver software establishes the interface between the USB modem and your Windows® operating system.
- With Novatel Wireless, Inc. Wireless Connections Network Adapter (NDIS) you can expand your high-speed broadband wireless connection from the Internet to your corporate email and network taking advantage of 1xEVDO speeds. This customizable feature enables an always-on connectivity experience like an Ethernet card.
- The Bytemobile Optimization Client allows you to enjoy increased speeds and enhanced graphics to further improve your experience with image and data optimization in an easy-to-use visual interface.

The software must be installed before you insert the Sprint Mobile Broadband USB modem for the first time. Detailed instructions are provided starting on page 18.

Activating and Using Sprint Service

Before using your Sprint Mobile Broadband USB modem, you must first set up your Sprint wireless network account.

Call Sprint Customer Service

- If you will be using your Sprint Mobile Broadband USB modem primarily for business purposes, call 1-888-788-4727.
- If your device is intended primarily for personal use, call 1-888-715-4588.

You should have the following information available:

- Your billing address
- Your Social Security number or Tax ID number
- Your driver's license number
- Your Sprint Mobile Broadband USB modem's ESN (electronic serial number) (The ESN is printed on the device's label and can also be displayed during the installation process.)
- A pen and paper to write down your account information

During this call, Sprint Customer Service will help you select your service plan and guide you through the activation process. They will also provide you with the following important account information:

- Your device's Activation Code
- Your device's phone number
- Your device's Lock Code

Tip:

You can use the Lock Code feature to prevent others from using your account should your Sprint Mobile Broadband USB modem be lost or stolen. See page 58 for instructions on using this feature.

Unless your device has been preactivated, the Sprint Connection Manager software application will automatically detect that no account has been configured when you run it for the first time. The Sprint Activation Wizard will then launch and guide you through the activation and configuration process.

Care and Maintenance

As with any electronic device, the Sprint Mobile Broadband USB modem must be handled with care to ensure reliable operation. Follow these guidelines while using and storing the USB modem:

- Do not apply adhesive labels to the USB modem. They may cause the device to become jammed inside the USB port.
- The USB connector should fit easily into your USB port.
 Forcing the device into a slot may damage the connector.
- Protect the USB modem from liquids, dust, and excessive heat.
- Store the USB modem in a safe place, when not in use.
- Never force the USB connector in or out of your computer's USB port.
- When using a laptop computer, always remove the USB modem from the USB port to avoid any damage. (See page 22 for instructions on proper removal.)

Installing the Sprint Mobile Broadband USB Modem

- Getting Started
- Installing the Sprint Connection Manager Software
- Inserting and Removing the Sprint Mobile Broadband USB Modem
- Activating Your Sprint Mobile Broadband USB Modem

This section guides you through the steps necessary to install your Sprint Mobile Broadband USB modem and make it operational on your computer.

Getting Started

Before you can use your Sprint Mobile Broadband USB modem, you must:

 Install the Sprint Connection Manager software, located on the installation CD, onto your computer.

Note:

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

Do not connect the device to your computer until you have installed the Sprint Connection Manager software onto your computer or until instructed to do so by the installation CD.

Connect the USB modem to your computer's USB port. Windows will detect the device and automatically install the necessary device drivers.

Note:

A driver is software that forms the interface between a device (such as the Sprint Mobile Broadband USB modem) and the operating system on your computer.

- Launch the Sprint Connection Manager software application.
- 4. Activate your Sprint Mobile Broadband USB modem and Sprint account, unless the device was preactivated. If your device has not previously been activated, the Activation Wizard will automatically launch and guide you through the process.

System Requirements

The Sprint Mobile Broadband USB modem is supported on the following operating systems:

- Windows® 2000
- Windows® XP

To install and run the Sprint Mobile Broadband USB modem and accompanying software, your system requires these minimum resources:

CPU	Pentium (166 MHz or higher)
Interface	USB port
Communications Ports	2 available; one modem and one serial
Optical Drive	CD-ROM
I/O Resources	1 IRQ, 4096 bytes I/O space
Memory	32 MB
Disk Space	14 MB

Installing the Sprint Connection Manager Software

Follow the instructions below to install the Sprint Connection Manager software from the installation CD. This process requires you to restart your computer at the end of the installation; therefore, we recommend that you quit all open applications before you begin installation. The Sprint Connection Manager software automatically determines your computer's operating system and installs all appropriate software.

Note:

You may be required to log in with administrative privileges depending on your operating system to install the Sprint Connection Manager software.

Installing the Sprint Connection Manager software and the Sprint Mobile Broadband USB modern driver:

- Insert the installation CD into your CD-ROM drive. The Setup program should start automatically. If the Setup program does not launch, select Start > Run and enter d:\Autorun.exe, where d is your CD-ROM drive letter.
- Select Install Sprint Mobile Broadband (Novatel Wireless). (The InstallShield® Wizard will start and guide you through the installation process.)
- Use the Next and Back buttons to navigate through the installation wizard, noting the following:
 - In order to continue with the installation, you must select "I accept the terms of the License Agreement."
 - Select the default option, Sprint Mobile Broadband USB Modem by Novatel Wireless, Inc., if prompted, and click Next.
 - Please wait a few minutes while the software installs.

Note:

You may also be given the option of selecting the Bytemobile™ Optimization Client feature at this time. This option provides increased speeds and enhanced graphics to further improve your experience with image and data optimization in an easy-to-use visual interface. If this option is available you may place a check mark in the check box to add Bytemobile Optimization.

- If you chose to install the Bytemobile Optimization Client, the Installshield Wizard and ByteMobile Optimization Welcome window appear. Click Next and wait a few moments for the software to install.
- 6. Now click Finish to complete installation of Bytemobile.
- 7. Click Restart or Finish to complete installation of the Sprint Connection Manager software. Once the installation procedure is complete and you have rebooted your computer (either automatically or manually), launch Sprint Connection Manager by clicking on the Sprint Mobile Broadband (Novatel Wireless) desktop icon.



Sprint Connection Manager starts and the Insert your device... dialog appears. (Do not connect the device until instructed to do so by Sprint Connection Manager software.) Insert the USB connector into your computer's USB port. (See page 22 for complete instructions on proper insertion and removal.)

Note:

Sprint Connection Manager will check to ensure you have the latest firmware installed. If there is a new firmware release for the software, the "Firmware Update" pop-up dialog will appear. See "Firmware Updates" in this section, beginning on page 21.

- 10. Please wait a few moments while Windows automatically installs the necessary drivers for this device. A series of Found New Hardware messages appear and the Found New Hardware Wizard launches.
- 11. If your USB modem has not been activated, the Activation Wizard automatically launches and guides you through the activation process. (For account activation information, see Section 1B, Getting Started With Your Sprint Mobile Broadband USB Modem beginning on page 11.)
- 12. Windows detects the new hardware (Sprint Mobile Broadband USB modem) and installs the necessary drivers. The Add New Hardware Wizard or Found New Hardware Wizard launches, depending on your operating system. (For additional information about driver installation, see "Reinstalling the Sprint Mobile Broadband USB Modem Driver" on page 64.)
- Follow the prompts to allow the wizard to install the drivers.
- Click OK when you are notified that the installation is complete.

On completion of this step, the Sprint Connection Manager software and the Sprint Mobile Broadband USB modem driver are installed and you can proceed to activate your USB modem

(if it has not already been activated). See "Activating Your Sprint Mobile Broadband USB Modem" on page 25.

Note:

During this time, the Sprint Connection Manager message area displays "Updating Hardware" and the Go button is disabled.

Firmware Updates

The first time you attempt to connect your USB modem to your computer, Sprint Connection Manager will check to ensure you have the latest firmware installed. If Sprint Connection Manager detects that your USB modem needs to be updated a "Firmware Update" pop-up dialog appears.

To update firmware

- If you are using a laptop, the AC power adapter must be plugged into your computer before proceeding.
- Click OK to launch the firmware update utility and update the firmware in your USB modem. The software installation begins. This process takes approximately five minutes. You may stop the installation at any time by clicking Cancel.

Caution:

Do not disconnect the device from your computer until the installation process is complete. Failure to complete the process may result in serious errors.

- Once the firmware has been successfully downloaded, a confirmation screen appears. Click OK to return to the Sprint Connection Manager main user interface.
- 4. When the firmware update is completed, it will reset the USB modem. Please wait a few minutes to initialize the USB modem from the Sprint network. If the USB modem has not been activated, it will automatically launch the Sprint Vision Activation Wizard.

Note:

During this time, the Sprint Connection Manager message area displays "Updating Hardware" and the Go button is disabled.

Once the USB modem is provisioned successfully, it will start IOTA (Internet Over-the-Air) Activation to update your user profile from the network settings. If the USB modem is not provisioned or out of the Sprint coverage area, the Sprint Connection Manager user interface will display "Mobile Broadband: Searching for service...".

Inserting and Removing the Sprint Mobile **Broadband USB Modem**

Inserting the Sprint Mobile Broadband USB Modem

Before you connect the device, you must first install the Sprint Connection Manager software (see page 18 in this section). Once you have completed the software installation procedure, you may insert your device into your computer's USB port.

Note:

An external USB extension cable is included for your convenience. This accessory (not required for use with the device) is ideal for using USB devices in hard-to-reach and overcrowded spaces, a common situation with many computers, relieving strain on your ports and allowing you to use additional USB devices with convenience

The USB extension cable, when used with your device, frees up space around the USB port area. See "Úsing the External USB Extension Cable" on page 23.

When you connect the device, the following should occur:

- The USB modem is powered as soon as you connect it to the computer's USB port.
- The LED indicator on the device lights up, blinks, and turns solid green.
- The Sprint Connection Manager software starts (unless the auto-launch feature has been disabled).

Note:

The Sprint Mobile Broadband USB modem also contains an antenna that can be used for better coverage; this is an integral part of the device. To use this feature, flip open the device's antenna by gently gripping the top right side of the external cover with your forefinger.

Using the External USB Extension Cable

To use the USB cable:

- 1. Plug one end of the cable into the Sprint Mobile Broadband USB modem.
- 2. Plug the other end into an available USB port on your computer.
- 3. The device is powered as soon as the USB extension cable is connected to the appropriate USB port. (The LED indicator on the device will turn green.)
- 4. Launch Sprint Connection Manager and click Connect.

Turning Off the Sprint Mobile Broadband USB Modem

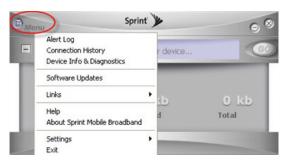
When the Sprint Mobile Broadband USB modem is connected to the computer, it has power and is trying to communicate with the network. To turn off the USB modem, Sprint Connection Manager must be closed.

Removing the Sprint Mobile Broadband USB Modem

- Close Sprint Connection Manager if it is running. There are three ways to close the program:
 - Click the close icon on the interface.
 - or -
 - Right-click the Sprint Connection Manager system tray icon and select Exit from the menu.



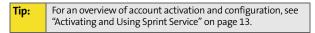
- or -
- Click Menu in the upper left-hand corner of the Sprint Connection Manager window and select Exit.



Remove the USB connector from your computer's USB port by gripping the USB modem on both sides and pulling straight out to avoid damaging the modem's antenna.

Activating Your Sprint Mobile Broadband USB Modem

The final step to making your USB modem operational is configuring it to use your account.



If you purchased a preactivated USB modem, this step is not necessary. Once the application software and driver are installed, the USB modem is ready for use.

Otherwise, you must use the Sprint Activation Wizard to activate and configure your account. Activation involves phoning Sprint Customer Service, exchanging information and entering your account information into the appropriate fields in the wizard.

To activate an account and configure your USB modem:

- Connect the device to your computer. The Activation Wizard will launch automatically.
- Click Next to begin the activation process. The wizard will guide you through the process.

Note:

Sprint Connection Manager checks to ensure you have the latest firmware installed. If there is a new firmware release for the software, the "Firmware Update" pop-up dialog appears.

- Please telephone Sprint Customer Service to set up your Sprint wireless network account.
 - If you will be using your Sprint Mobile Broadband USB modem primarily for business purposes, call 1-888-788-4727.
 - If your device is intended primarily for personal use, call 1-888-715-4588.

You should have the following information available:

- Your billing address
- Your Social Security or Tax ID number
- Your driver's license number
- Your device's ESN (electronic serial number) (The ESN is printed on the device's label and can also be displayed during the installation process.)
- A pen and paper to write down your account information

Inform your Sprint Customer Service Specialist that you are activating a Sprint Mobile Broadband USB modem by Novatel Wireless, Inc. (Ovation U720). During this call, Sprint Customer Service will help you choose a service plan and guide you through the activation process.

- Click Next when you are asked for your device's ESN (electronic serial number). A third window will appear, which displays your device's ESN in the top field.
- 5. Carefully repeat the ESN to the Sprint Customer Service representative. You will be given an activation code.
- Enter the activation code into the bottom field of the window and click Next to continue to the next window.
- Once the Sprint Customer Service representative has given you your device's phone number (also called MDN), and MSID (IMSI_S) numbers, enter them in the top and bottom fields and click Next to continue.
- A confirmation screen appears. Verify that your phone number (MDN) and MSID (IMSI_S) are correct. Be sure to write these numbers down for future reference. Click Yes to continue.
- You have now successfully completed the activation process. Click Finish to exit the Sprint Activation Wizard.

Note:

You may manually access the Activation Wizard from the Sprint Connection Manager submenu. See "Sprint Mobile Broadband - Novatel Wireless settings" on page 58.

On completion of this step, your USB modem is ready for use. Section 2B: Sprint Connection Manager Software, beginning on page 29, explains how to use the Sprint Connection Manager software to manage and monitor your connections.

Sprint Connection Manager Software

In This Section

- The Sprint Connection Manager Software
- The Sprint Connection Manager Software Window
- LED Overview
- System Tray Icons
- Establishing and Terminating Connections
- Sprint Connection Manager Software Menu Options and Settings

This chapter outlines the Sprint Connection Manager software interface for your computer, including the components of the main window, button usage, system tray icons, and more. Once you've mastered the basics here, you'll be ready to begin using your USB modem.

The Sprint Connection Manager Software

The Sprint Connection Manager software allows you to manage and monitor the connection between your Sprint Mobile Broadband USB modem and the CDMA network. Use the software to:

- Determine your signal strength, roaming status, Sprint connection availability, and other network parameters.
- Initiate data calls.
- View call statistics.
- Enable and disable features such as Always on Top (which allows you to set the device software to display in front of other application windows).
- Set options related to Web messages, sounds played, and the lock code security feature (which you can use to prevent others from using your USB modem).

You must run the Sprint Connection Manager software anytime you use the USB modem unless you have configured the device to run in NDIS mode with Novatel Wireless, Inc. Network Adapter. (See "Novatel Wireless Network Adapter (NDIS)" on page 53.)

Starting the Sprint Connection Manager Software

To launch the Sprint Connection Manager software:

Double-click the Sprint Mobile Broadband (Novatel Wireless) desktop icon, located on your desktop.



- or -

Select Start > Programs > Sprint > Novatel Wireless > Sprint Mobile Broadband (Novatel Wireless).

Depending on your settings in the Options window, the software starts automatically anytime you connect the Sprint Mobile Broadband USB modem.

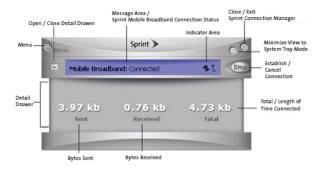
Once you make a connection in the device software, you can launch whichever application you want to use (such as your Web browser or email application).

Use the close button in the upper-right corner of the interface to exit the software.

The Sprint Connection Manager Software Window

The Sprint Connection Manager software features its own Custom Main Interface (CMI) window. It includes the following components:

- A Menu button in the upper-left corner
- Minimize and Close buttons in the upper-right corner
- A message area (the left portion of the display)
- An indicator area (to the immediate right of the message area)
- A button ("GO") used to establish/cancel a connection
- A Detail Drawer that displays the amount of data being transferred and received



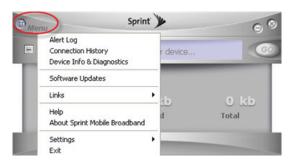
About the Interface

The following application functions are available within the main window of the Sprint Connection Manager software:

- Close: Closes the interface and exits the software.
- Go: Initiates a connection.
- Stop: Ends or cancels a connection.
- Minimize: Minimizes the interface to System Tray Mode.
- Menu: Provides access to tools and options settings.
- Message Area: Displays "Insert your device...," "Ready,"
 "Disconnect," "Connect," "Authenticating," "Connecting," or
 "Connected" states. Other connection messages may apply
 depending on your custom options. (See page 36.)
- Image Compression (if applicable): Indicates that data and image compression is enabled for enhanced speed performance.
- Transfer/Receive: Visual indicator of data activity.
- Signal Strength: Visual indicator of signal strength.
- Detail Drawer: Displays byte counter. Click "+" to expand and "-" to close.

The Menu Button

Clicking the Menu button, located in the upper-left corner of the interface, provides access to the Sprint Connection Manager software menu.



Some menu options will remain inactive or unavailable if a connection has not been established. Once a connection is made, the options will become active. The Links menu option and the Settings menu option both contain submenus. See Section 2C, Menu Options, beginning on page 43, for details on the Sprint Connection Manager options and settings.

The Minimize and Close Buttons



The Minimize button closes the window but leaves the program running. When the program is minimized, its icon in the system tray can be used to determine the device status. (See "System Tray Icons" on page 41.)

Once minimized, you can redisplay the program by double-clicking the desktop shortcut or launching the device software from the Start menu. (See page 42 in this section.) You can also click the icon in the system tray. (The icons are defined in "System Tray lcons" on page 41.)

The Close button is used to exit the device software.

Connection Status

The Sprint Connection Manager software interface provides information about your current connection status. Other messages may appear as a result of customized options.

Insert your Device...



If the Sprint Connection Manager software fails to detect a device, the message "Insert your Device..." is displayed. In this state, the GO button is unavailable to indicate it cannot be engaged. The signal strength and image compression icons also are not visible.

Disconnected



In this state, the **GO** button is available and the signal strength icon is visible. Click **GO** to make a connection.

Connecting

In this state, Sprint Connection Manager is attempting to make a connection. During this action, the display will progress from "Connecting" to "Authenticating," to "Authenticated." The signal strength icon is visible and the GO button changes to Stop.



If you attempt to establish a Sprint connection that requires a password, a dialog box appears. Enter the relevant information and click **OK** to continue the connection process.

To cancel the connection, click Stop.

Connected

Once the connection is established, the message area displays "Connected" and the transfer/receive icon is now visible.





For other messages, see "Settings" on page 49 and "Troubleshooting Tips" on page 61.

Indicator Area

The indicator area displays icons that help you keep track of your signal strength and roaming status, notify you when you receive messages, and indicate whether certain options or features are enabled.

The table below lists the indicator area icons and explains the significance of each icon.

Indicator Area Icons

lcon	Meaning
Tattl	The Signal Strength indicator uses bars to show the strength of the radio signal. The number of bars increases (up to a maximum of six) as the signal strength increases. Note: This icon is displayed only when data services are available.
*	 When no bars are shown, no connection is possible for one of the following reasons: You are outside of the Nationwide Sprint Network service area. The signal strength is too weak. A network problem is preventing the Sprint Mobile Broadband USB modem from obtaining service.
4	The Transmit/Receive icon lets you know that a Sprint data connection is active.
4	The Optimization image compression software is active.
	The CDMA 1xEVDO icon appears when CDMA 1xEVDO service is available and active.
R	The Roaming indicator lets you know that you have roamed from a Sprint Network to a roaming partner's system.

The GO Button



The GO button is used to establish and cancel a connection. The text on the button changes during different connection stages.

- **GO** Ready to establish a connection. Click the button to start a connection.
- Stop Once a connection is established, the Go button changes to read Stop. A connection is being established or is already established. Click the button to cancel or disconnect.

LED Overview

Your Sprint Mobile Broadband USB modem by Novatel Wireless, Ovation U720, has two LED lights located near the antenna of the device. The lights operate as follows:

LED Behavior	Indicates
Off (no light)	The device has no power. The device may not be completely inserted into the computer.
Green (solid)	The device is powered but is not transmitting or receiving data.
Green (blinking slowly)	The device is powered and is searching for the network.
Green (intermittent blinking)	The device is powered, connected, and is sending or receiving data.

System Tray Icons

The Sprint Connection Manager software displays an icon in the system tray (in the lower-right portion of the display screen on your computer). The system tray icon indicates your connection status.

System Tray Icons

lcon	Meaning
◆ >	Connecting - Sprint Mobile Broadband USB modem ready for connection or currently making a connection.
→>	Connected - Connection established to the network and data transfer in process.
◆ >	Dormant - Connection established but no data transfer taking place
\Rightarrow	Disconnected - Sprint Connection Manager running, but no connection in progress.
□ >	Error - Sprint Connection Manager has encountered a hardware failure in your computer's device or another error while attempting to connect.

Establishing and Terminating Connections

The Sprint Connection Manager software interface can be used to establish and terminate connections with the Sprint Mobile Broadband USB modern by simply clicking the **GO** or **Stop** buttons.

Sprint Connection Manager Software Menu Options and Settings

Click the **Menu** button, located at the upper left of the interface (see page 31), to launch the Sprint Connection Manager menu.

Menu options are descibed in Section 2C, Menu Options beginning on page 43.

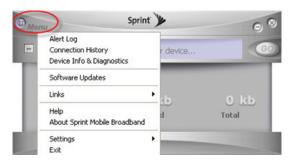
Menu Options

In This Section

- Overview of Menu Items
- Menu Item Details
- Settings

The Sprint Connection Manager's primary menu options allow you to manage your device's connections and settings. This chapter provides an overview and brief description of each of the options available under the Menu drop-down list.

Overview of Menu Items



To display the Sprint Connection Manager's primary menu, click the **Menu** button at the top left corner of the interface.

The table on the following page outlines various menu items and provides a brief description of the items and links to more detailed information.

Menu Items

Menu Item	Description	For more information, see:
Alert Log	View information on device errors or failures by date/time, alert, connection name, and type.	Page 46
Connection History	View information on data connections by date/time, type, and duration.	Page 46
Device Info & Diagnostics	View detailed information about the Sprint Mobile Broadband USB modem, software, and connections.	Page 47
Software Updates	Check for posted updates to the Sprint Connection Manager software or configure to automatically check for updates.	Page 48
Links	When connected to the Sprint National Network, provides a link to the Sprint Web site.	Page 48
Help	Open the Sprint Connection Manager Help file.	Page 48
About Sprint Mobile Broadband	View the opening Sprint Connection Manager software identification screen.	Page 49
Settings	Configure the Sprint Connection Manager software to best suit your needs and preferences.	Page 49
Exit	Close the Sprint Connection Manager software application.	Page 24

Menu Item Details

Alert Log

The Alert Log provides a record of all alerts that have been generated while establishing and maintaining your connections and settings. You can use the Alert Log to help isolate and resolve connection issues.

To display the Alert Log:

Select Menu > Alert Log.

To clear the Alert Log:

- 1. From the Alert Log window, click Clear.
- You will see a prompt: "Clear all entries from the Alert Log?" Click Yes to delete all records. Click No to cancel.

Connection History

The Connection History dialog maintains a record of your data connections. You can choose whether to keep a record of your connection history by enabling or disabling this feature to suit your preference.

To enable or disable Connection History:

Select Menu > Settings > General > Keep Connection History.

A check mark next to the option indicates that it is enabled.

To display the Connection History:

Select Menu > Connection History.

For each message, the Connection History displays:

- The date and time the connection was initiated.
- The phone number dialed for data connections.
- The type of connection.

The duration of the connection.

Deleting Records

To delete all records in the Connection History:

- 1. From the Connection History window, click Clear.
- You will see a prompt: "Cear all entries from the Connection History?" Click Yes to delete all records. Click No to cancel.

Device Info & Diagnostics

The Device Info & Diagnostics window displays detailed information about your Sprint Mobile Broadband USB modem, Sprint Connection Manager software, signal strength, port configuration, and more.

The information displayed in this window includes:

- The manufacturer.
- The Sprint Mobile Broadband USB modem.
- Your Sprint Mobile Broadband USB modem phone number.
- The hardware version.
- The version of firmware in use.
- The Sprint Connection Manager software version and build.
- The version of the PRL (Preferred Roaming List, which specifies the radio frequency channels that the USB modem is permitted to use).
- The device's designed capabilities and coverage.
- Various communication and device tests and results.

To access the Device Info & Diagnostics menu:

Select Menu > Device Info & Diagnostics.

To view information about your system, including installed files:

Click the System Information button.

Information obtained from the System Information sections can be used to create a report, which can be saved and then sent via email to a Sprint Customer Service representative to help them in troubleshooting your notebook.

Software Updates

From time to time, Sprint may release updates for your Sprint Connection Manager software. These updates may add new features or improve the network performance. This menu option allows you to check for any posted updates or to set up an automatic monthly check for updates.

To check for software updates:

Select Menu > Software Updates > Check Now.

To enable or disable automatic monthly checks:

Select Menu > Software Updates > Check for updates once a month.

A check mark next to the option indicates that it is enabled. Click **OK** to save changes and exit the Software Updates dialog box.

Links

During an active data connection, this menu option provides a hyperlink to the Sprint Web site. To access this link, select **Menu > Links > Sprint Web Site**.



The Sprint Connection Manager Links menu does not allow you to add or remove links. Continue to manage direct links to your favorite Web sites through your Web browser menu.

Help

This menu item provides direct access to Sprint Mobile Broadband's online help file. You can also access the help file from any window within Sprint Connection Manager by pressing the 'F1' key on your keyboard. To access Help, select **Menu** > **Help.**

About Sprint Mobile Broadband

The About Sprint Mobile Broadband menu option allows you to display the Sprint Connection Manager opening splash screen, which appears when you launch Sprint Connection Manager.

Select Menu > About Sprint Mobile Broadband.

Settings

The Settings window from the Menu allows you to configure Sprint Connection Manager to suit your preferences. In the Settings window you can:

 Enable and disable several features, including Window Always on Top and Connection History, set program launch and optimization options, and customize Sprint connection settings.

To access the Settings menu:

- 1. Click Menu on the Sprint Connection Manager interface.
- 2. Select Settings from the submenu.

Settings Window

The Settings window contains three options:

- General
- Optimization
- Sprint Mobile Broadband Novatel Wireless or Sprint Data Link (depending on the type of connection).

Note:

If you did not install the Bytemobile Optimization Client, the Optimization option will not be available. Once you install the Bytemobile Optimization Client this option will become available.

General

To display the General settings options, select **Menu > Settings** > **General**. Then you can customize Sprint Connection Manager by selecting the following options:

- Play Sound Effects Select this check box to hear a clicking sound whenever an action is taken in Sprint Connection Manager.
- Always on Top When checked, the Sprint Connection Manager window is displayed in front of all other open application windows, even if another window is placed over the Sprint Connection Manager software window.
- Start in System Tray Select this check box to have the Sprint Connection Manager interface visible on your screen regardless of which applications are open.
- Keep Connection History When selected, Sprint Connection Manager logs all connections in the connection history. (For details on Connection History, see page 46.)
- Launch when Windows Starts When selected, Sprint Connection Manager opens automatically upon startup of your computer.

When finished, click **Apply** and then **OK** to save changes and close the Settings dialog box.

Optimization

Bandwidth Optimization enhances the connection to your company's enterprise network; it is a combination of data compression, TCP/IP optimization, and caching. This can result in a two to five times improvement in your perceived system speed, depending on your applications.

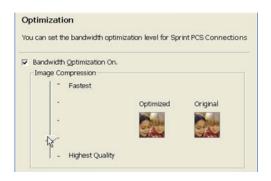
To display the Optimization settings menu, select **Menu > Settings > Optimization**. Then check or uncheck the available options to select your image compression setting:

Enable Optimization Client — To enable Bandwidth
 Optimization, place a check mark in the check box designated
 Bandwidth Optimization On. When selected, the image compression software is enabled.

Note:

The Bandwidth Optimization screen provides a visual display of the original image as well as an optimized version. You can choose from fastest (low quality) to highest quality by sliding the image compression bar up and down the scale (see image below.)

Bandwidth Optimization Screen



Protocol Compression

Select the Protocol Compression check boxes to enable compression for the following types for data:

- SSL Secure Socket Layer
- FTP File Transfer Protocol
- SMTP Simple Mail Transfer Protocol, a communications protocol used on the Internet to route email
- HTTP Hypertext Transfer Protocol
- POPv3 Post Office Protocol standard in common use on TCP/ IP networks
- IMAP Acronym for Internet Message Access Protocol, a method for an email program to gain access to email and bulletin board messages stored on a mail server.

Tip:

Limitation to Bandwidth Optimization include minimal improvements with email applications. Email performance can be improved by working offline as much as possible, dragging and dropping attachments to desktop folders rather than opening attachments directly from email.

Click Default if you want to return to the default settings.



When finished, click **Apply** and then **OK** to save changes and close the Settings dialog box, or click **Cancel** to undo any changes.

Sprint Connection Manager Settings

To customize your Sprint Mobile Broadband - Novatel Wireless settings, select **Menu > Settings > Sprint** (connection name), and then select from the following menu options:

- Always Show Welcome Screen Select this check box if you would like to have a welcome screen appear upon a successful connection to the network.
- Perform Pre-Connect Tests Select this check box if you would like to see what may have caused a failure if Sprint Connection Manager was unable to connect.
- Enable Network Adapter (NDIS) Allows you to establish a Novatel Wireless (1xEV-DO) connection to connect to the network automatically without launching Sprint Connection Manager. You can disable the Enable Network Adapter mode at any time by deselecting the Enable Network Adapter (NDIS) check box from this menu. (See below for more information about enabling NDIS.)

Novatel Wireless Network Adapter (NDIS)

Enabling the Novatel Wireless Network Adapter enables always-on connectivity like an Ethernet card and eliminates the need to use the Sprint Connection Manager software. As soon as the USB connector is inserted into your USB port, the device connects to the network automatically. The connection is also reestablished automatically coming out of hibernate and standby modes.

To enable the Novatel Wireless Network Adapter:

 Disconnect the Sprint Mobile Broadband USB modem from the Sprint network. (If you are connected to the network, the Enable Network Adapter [NDIS] check box will be disabled.)

- Access Menu > Settings > Sprint Mobile Broadband -Novatel Wireless.
- Place a check mark in the check box designated Enable Network Adapter (NDIS), click Apply, and then click OK.

Note:

The first time you enable the Network Adapter (NDIS) mode, Windows will automatically install the network drivers for the Sprint Mobile Broadband USB modem - Novatel Wireless EV-DO Network Adapter. Once Windows detects the new hardware, a "Found New Hardware" pop-up message will appear in your system tray followed by the "Ready to Use" message.

Your USB modem must be activated with Sprint and you must be within the Sprint coverage area for your device to work.

 You may now use your device in NDIS mode and experience automatic connectivity without launching Sprint Connection Manager.

Service Settings (Mode)

The Mode section is used to set your connection preferences or service settings. You can choose to connect to only 1xEV-DO (high speed) or 1xRTT (low speed) wireless networks, or you can let Sprint Connection Manager select your network connections.

The Mode section gives you the following options to choose from:

- Automatic: Select the Automatic option if you would like to have Sprint Connection Manager select your connections.
 By selecting this option, Sprint Connection Manager will automatically select one of the wireless networks available in your area when you launch a connection.
- EVDO Only: Select the EVDO Only option if you would like to have Sprint Connection Manager connect to only 1xEV-DO networks. You can disable EVDO Mode at any time if you are not connected to any network by selecting another option.

Note:

Sprint Connection Manager will always try to connect to a Sprint CDMA 1xEV-DO network first before attempting to connect to a 1xRTT network. 1xEV-DO networks always have priority! If a 1xEV-DO network is unavailable then Sprint Connection Manager will search for an available 1xRTT network.

 1xRTT Only: Select the 1xRTT Only option if you would like to have Sprint Connection Manager connect to only 1xRTT networks. When you apply this option, the next time you make a connection Sprint Connection Manager will search for only 1xRTT networks.

Tip:

If the signal strength is too weak and you are unable to connect using 1xRTT in the 1900 MHz frequency, or if your connection fails due to this selection, disable the setting.

Applying your Mode Preference

- Click OK or Apply on the Settings dialog box to reset your device. When you apply your service preference the following dialog will appear: "Service setting was changed successfully. Please wait while the modem is reset for the changes to take effect."
- Click OK to close the dialog box. When the modem is reset
 the Go button will be visible and the Sprint Connection
 Manager user interface will display "Disconnected." This may
 take a moment.

Roaming Preference

The Roaming section is used to change your roaming preference. Your coverage area and billing charges depend upon your service and the type of account you have. There may be surcharges for roaming service that vary based on whether you are in a preferred roaming area or a non-preferred roaming area. If there is no roaming agreement between Sprint and the local carrier, you may be unable to complete calls in a non-preferred zone.

The Roaming section gives you the following options to choose from:

- Sprint: Directs the Sprint Mobile Broadband USB modem not to roam. If this option is selected, you will not be able to roam if Sprint coverage is unavailable. This is the default setting.
- Automatic: Directs the Sprint Mobile Broadband USB modem to automatically search for any accessible network when Sprint coverage is unavailable.

Note:

When you select Automatic mode you will see a prompt: "The device is in Automatic mode and will will roam when Sprint coverage is unavailable. Roaming Rates may apply."



 Click OK to change your settings and close the dialog box or click Cancel to return to the previous screen. Roaming Only: Forces Sprint Mobile Broadband USB modem to select a network that has a roaming agreement with Sprint.

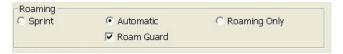
Note:

When you select this option you are roaming within a "preferred" roaming area. If there is no roaming agreement between Sprint and the local carrier, you may be unable to complete calls in a "non-preferred zone."

Once you select this option a confirmation message will appear. Click **OK** to change your settings and close the dialog box or click **Cancel** to return to the previous screen.

Enabling and Disabling Roam Guard

Check the Roam Guard box if you want Sprint Connection Manager to notify you each time you make a connection and roam outside the network



Each time you roam, the following message will appear: "Outgoing or Incoming Roaming Data detected, roaming rates may apply."

Press Roam to continue, or Cancel to close the data session.

Tip: If you do not wish to see this message when you are roaming deselect "Roam Guard" by unchecking it. Once you deselect the Roam Guard check box, a confirmation message will appear. Click OK to change your settings and close the dialog box. Data Roam Guard will not appear

when you data roam.

Applying your Roaming Preference

- Click OK or Apply on the Settings dialog box to reset your device. When you apply your roaming preference the following dialog will appear: "Roaming setting was changed successfully. Please wait while modem is reset for the changes to take effect."
- 2. Click **OK** to close the dialog box.
- Wait for the device to reset. This may take a moment.
 When the device is reset the Go button will be visible
 and the Sprint Connection Manager user interface will
 display: "Disconnected."

Tip:

When you change your roaming preference an informational message will appear in your system tray.

Sprint Connection Device Settings

- Activation Wizard This option is used only when activating a new Sprint device. To manually activate your Sprint account click Activation Wizard. (See "Activating Your Sprint Mobile Broadband USB Modem" on page 25.)
- Change User Lock This option enables you to change and customize your User Lock Code. (See below for more information on using your User Lock Code.)

User Lock Code

The Lock Code feature can be used to prevent others from using your USB modem and your account. When the lock code is enabled, the message area will display "Device Locked" and the lock icon will appear in the indicator area.

While the USB modem is in lock mode, you may not launch a data session without first entering your four-digit lock code. The default lock code is the last four digits of your Sprint

Mobile Broadband USB modem phone number. (See the "Tip" on page 60.)

To enable the lock feature:

 Click the Locked/Unlocked Icon located in the Detail Drawer of the Sprint Connection Manager interface.



2. The Enter User Lock Code window appears.



3. Enter your lock code and click OK.

Tip:

Your default lock code is the last four digits of your USB modem's phone number. If you can't recall your USB modem's phone number, go to **Menu > Device Info and Diagnostics** or call Sprint Customer Service at 1-888-211-4727.

To change your lock code:

- Select Menu > Settings > Sprint Mobile Broadband -Novatel Wireless
- Click the Change User Lock button. The Change User Lock Code window appears.

Note:

Running the Activation Wizard resets the lock code to the last four digits of the most recently activated phone number.

- 3. Enter your new four-digit lock code into the dialog box.
- 4. Re-enter your new lock code.
- Select a lock status: Unlock to leave the USB modem unlocked; Lock to enable the lock code feature immediately.

Troubleshooting Tips

In This Section

- Problem Causes and Suggestions
- Reinstalling the Sprint Mobile Broadband USB Modem Driver
- Resolving Resource Conflicts
- Additional Troubleshooting Tools

This section provides assistance in diagnosing and solving many common problems you may experience while using your Sprint Mobile Broadband USB modem and Sprint Connection Manager software with your computer.

Problem Causes and Suggestions

When properly installed, the Sprint Mobile Broadband USB 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 USB modem are being used by other devices.
- Network coverage is not available (either because you are outside the network or because of an account or network problem).

This section describes how to diagnose and solve these and other problems. If, after reading this section, you are unable to resolve a problem, please visit www.sprint.com or contact Sprint Customer Service at 1-888-211-4727.

Error: Searching for Sprint Mobile Broadband USB Modem...

The Sprint Connection Manager software interface displays this message: "Searching for Sprint Mobile Broadband USB Modem..."

Possible Causes	Suggestions
a. The USB modem is not properly connected to the computer. b. The wrong driver is installed for the USB modem.	a. Check the USB connection. b. See "Reinstalling the Sprint Mobile Broadband USB Modem Driver" on page 64. See "Booking Processing Control of the Control
c. There is a resource conflict.	c. See "Resolving Resource Conflicts" on page 69.

Error: Splash Screen is Frozen

The splash screen of the Sprint Connection Manager software is frozen.

Possible Causes	Suggestions
You may have a resource conflict.	Restart your computer. If you are unable to resolve this problem by restarting your computer, see "Resolving Resource Conflicts" on page 69.

Error: Not in Service

The Sprint Connection Manager software interface displays the message, "Not in Service."

Possible Causes	Suggestions
Inadequate signal strength may occur for either of these reasons: a. You are outside the network. b. You may be inside a building or near a structure that is causing radio interference.	a. Verify that you are within the network coverage area. Coverage maps are available at www.sprint.com. b. Change your location.

Error: Connection Gets Dropped (Windows® 2000 and XP)

When attempting a data connection with Sprint Connection Manager software, the connection gets dropped as soon as it is established. (The status goes from "Connecting" and "Connected" back to "Click 'GO' to Connect.")

Possible Causes	Suggestions
The connection properties are not optimal.	 Click Start > Connect To > Sprint Mobile Broadband Novatel Wireless (or Sprint Data Link) from the Windows start menu.
	2. Click the Properties button on the connection settings dialog.
	3. Click the Networking tab.
	4. Click the Settings button.
	 Ensure that Negotiate multi-link for single-link connections is not selected in the PPP Settings dialog.
	6. Click OK to save your settings.

Reinstalling the Sprint Mobile Broadband USB Modern Driver

There is a Sprint Mobile Broadband USB modem driver for each supported Windows operating system. Unless the appropriate driver for your version of Windows is installed, you will not be able to establish a network connection with the USB modem. This section provides instructions on verifying that you have the correct device driver installed.

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You must have the Sprint Mobile Broadband USB modem installation CD to complete this procedure.

Windows® 2000

To verify that the correct driver is installed:

- Locate the existing driver.
- 2. Update the driver.

To locate the driver:

- Close all Windows programs and open the Control Panel by selecting Start > Settings > Control Panel.
- 2. Double-click the System icon.
- 3. Click the Hardware tab.
- 4. Click the Device Manager tab.
- 5. Locate the Sprint Mobile Broadband USB modem entries by using the "+" signs to expand the listings. (For example, to see all the installed modems, click the "+" sign to the left of Modems.) The device should have these driver entries listed in Device Manager:
 - The device driver should appear under Modems as Novatel Wireless Expedite EV-DO Modem.
 - The device should appear under Network adapters as Novatel Wireless Expedite EV-DO Network Adapter (if Network Adapter (NDIS) is enabled).
 - The device should appear under Ports (COM & LPT) as Novatel Wireless Expedite EV-DO Status Port (COM#).

If the listings above do not appear, identify the listing for the Sprint Mobile Broadband USB modem by disconnecting the device. This causes the driver listing for the device to disappear from the list. Reconnect the device to cause the driver listing to reappear. You can identify the entries for the Sprint Mobile Broadband USB modem by observing which entries are affected when you disconnect and reconnect the device, or by disabling Network Adapter (NDIS). (See "Novatel Wireless Network Adapter [NDIS]" on page 53.)

Updating the Driver

- If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the exit option in the lower-left corner of the screen to exit the menu.
- 2. Right-click Novatel Wireless Expedite EV-DO Modem.
- 3. Click the Properties button.
- 4. Click the Driver tab.
- Click the Update Driver... button to launch the Update Device Driver Wizard.
- Click Next.
- Select Display a list of known drivers for this device so that I can choose a specific driver and click Next.
- Enter C:\Program Files\Novatel Wireless\Sprint\Sprint Mobile Broadband\Drivers.
- 9. Click OK
- If the "Digital Signature Not Found" window is displayed, click Yes.
- 11. Click Finish. Repeat steps 6-12 as prompted.

If you are prompted to restart your computer, click **Yes**. Otherwise, restart your computer from the Start menu. (You must restart your computer to complete the driver installation.)

The correct driver should then be installed.

Windows® XP

To verify that the correct driver is installed:

- 1. Uninstall the existing driver.
- Install the Windows XP driver from the Sprint Mobile Broadband USB modem installation CD.

To uninstall the existing driver:

- 1. Open the Control Panel by selecting **Start > Control Panel**.
- 2. If "Pick a Category" is displayed, select **Switch to Classic View**.
- 3. Double-click the System icon.
- 4. Click the Hardware tab.
- 5. Click the Device Manager button.
- 6. Locate the Sprint Mobile Broadband USB modem entries by using the "+" signs to expand the listings. (For example, to see all the installed modems, click the "+" sign to the left of Modems.) The device should have these driver entries listed in Device Manager:
 - The device driver should appear under Modems as Novatel Wireless Expedite EV-DO Modem.
 - The device should appear under Network adapters as Novatel Wireless Expedite EV-DO Network Adapter (if Network Adapter (NDIS) is enabled).
 - The device should appear under Ports (COM & LPT) as Novatel Wireless Expedite EV-DO Status Port (COM#).

If the listings above do not appear, identify the listing for the Sprint Mobile Broadband USB modem by unplugging the USB connector. This causes the driver listing for the USB modem to disappear from the list. Reinsert the USB modem again to cause the driver listing to reappear. You can identify the entries for the Sprint Mobile Broadband USB modem by observing which entries are affected when you remove and replace the USB connector, or by disabling Network Adapter (NDIS). (See "Novatel Wireless Network Adapter (NDIS)" on page 53.)

- 7. Right-click Novatel Wireless Expedite EV-DO Modem.
- 8. Select Uninstall from the pop-up menu.
- 9. Click OK to confirm the uninstall.

The Sprint Mobile Broadband USB modem listings should be removed.

Installing the Windows XP Sprint Mobile Broadband USB Modern Driver

- If the installation CD is not already in your CD-ROM drive, insert it. If the CD start-up menu appears, use the exit option in the lower-left corner of the screen to exit the menu.
- Remove and replace the Sprint Mobile Broadband USB modem to launch the Found New Hardware Wizard.
- Select Install from a list or specific location (Advanced) on the first window of the Found New Hardware Wizard and click Next to proceed.
- 4. Select the Search for the best driver in these locations radio button and the Include this location in the search check box, and then enter C:\Program Files\Novatel Wireless\Sprint\Sprint Mobile Broadband\Drivers.. Click Next to proceed to the next window.
- If a warning appears stating that the Sprint Mobile Broadband USB modem has not passed Windows Logo testing, click Continue Anyway.
- 6. Click Finish and repeat steps 1 to 5 as prompted.

The correct driver is then installed.

Resolving Resource Conflicts

Note:

You must have your Sprint Mobile Broadband USB Modem installation CD to complete this procedure.

The Sprint Mobile Broadband USB modem requires these system resources:

- 1 IRQ.
- 4096 bytes of I/O space.
- 2 available communications ports (one modem, one serial).

If these resources are not available to the USB modem, you have a resource conflict. If another PC device is installed, you may be able to free the necessary resources simply by ejecting the other device. Otherwise, you may need to disable another device (such as an internal modem, infrared device, or network device) to resolve the resource conflict. This section explains how to disable other devices.

Windows® 2000

To resolve a resource conflict in Windows 2000:

 Disable a device (internal modem, infrared device, or network card).

Disabling an Internal Modem, Infrared Device, or Network Card

- Close all Windows programs and open the Control Panel by selecting Start > Settings > Control Panel.
- 2. Double-click the **System** icon.
- 3. Click the Hardware tab.
- 4. Click the Device Manager button.

- 5. Locate the device that you want to disable:
 - If you want to disable an internal modem, expand the Modem tree by clicking the "+" sign to its left.
 - If you want to disable an infrared device, expand the Infrared Devices tree by clicking the "+" sign to its left.
 - If you want to disable a network card, expand the Network Adapters tree by clicking the "+" sign to its left.
- Right-click the device you want to disable, choose
 Disable from the pop-up menu that appears, and click
 OK.

Windows® XP

To resolve a resource conflict in Windows XP:

 Disable a device (internal modem, infrared device, or network card)

Disabling an Internal Modem, Infrared Device, or Network Card

- Close all Windows programs and open the Control Panel by selecting Start > Settings > Control Panel.
- 2. Double-click the System icon.
- 3. Click the Hardware tab.
- 4. Click the Device Manager button.
- 5. Locate the device that you want to disable:
 - If you want to disable an internal modem, expand the Modem tree by clicking the "+" sign to its left.
 - If you want to disable an infrared device, expand the Infrared Devices tree by clicking the "+" sign to its left.

- If you want to disable a network card, expand the Network Adapters tree by clicking the "+" sign to its left.
- Right click the device you want to disable, choose Disable from the pop-up menu that appears and click OK.

Additional Troubleshooting Tools

Connection History

Connection History provides you with a detailed record of the connections established using your Sprint Mobile Broadband USB modem. Since Connection History allows you to sort records by connection name, you can easily distinguish between personal and business usage. You can also save any of the messages on the Connection History screen to a log file that you can print out for your record.

Accessing Connection History

Select Menu > Connection History from the Sprint Connection Manager software interface.

About Connection History

The Connection History window displays a table with three columns: Date/Time, Type, and Duration.

You can select entries by using the arrow keys or your mouse. Selected entries are highlighted. By default, no entry is selected.

Click the **Clear** button to access the Clear Connection History dialog box. Click **Yes** to confirm the delete or **No** to cancel.

To generate a text file containing your Connection History:

 Select File > Export from the Sprint Connection Manager Connection History Window. A Save As dialog box appears. In the file name box type a name for the CSV log file and click Save. The file name is called "Connection Log.txt" by default, however, you can name the file any descriptive name you like.

Alert Log

The Alert Log provides a record of all alerts that have been received while establishing and maintaining your connections. You can use the Alert Log to help isolate and resolve connection issues.

Accessing the Alert Log

Select Menu > Alert Log from the Sprint Connection Manager software interface.

About the Alert Log

The Alert Log displays a table with four columns: Date/Time, Alert, Connection Name, and Type.

You can select entries by using the arrow keys on your keyboard or the mouse. Selected entries are highlighted. By default, no entry is selected.

Click the **Clear** button to access the Clear Alert Log dialog box. Click **Yes** to confirm the delete or **No** to cancel.

Device Info & Diagnostics

Device Info & Diagnostics can help identify problems associated with connecting to the network. Device Info & Diagnostics evaluates issues with your USB port, port configuration, Sprint Mobile Broadband USB modem signal strength, the network, and more. Once the program runs a diagnostics check it can recommend possible solutions.

Accessing Diagnostics

Select Menu > Device Info & Diagnostics from the Sprint Connection Manager software interface.

About Device Info & Diagnostics

The Device Info & Diagnostics dialog box allows you to select a number of ways to troubleshoot or obtain more information about your Sprint Mobile Broadband USB modem.

The tests automatically run when the window opens.

To view your system parameters, including installed files:

Click the System Information button.

Information obtained from the System Information sections can be used to create a report, which can be saved and then sent via email to a Sprint Customer Service representative to help them in troubleshooting your notebook.

Section 3

Web Access



Section 3A

Web Access

In This Section

- Web
- FAQs

This section provides information on accessing the Web with your USB modem, and how to personalize your Internet services. It also provides you with a list of frequently asked questions (FAQs).

Web

Accessing the Web

To access the Web:

- Start Sprint Connection Manager by double-clicking the icon on your desktop.
- 2. Click GO to launch your data connection.
- Once your data connection is established, you may start your browser application (for example, Internet Explorer or Netscape Navigator).

Your User Name

When you buy a Sprint Mobile Broadband USB modem and sign up for service, you're automatically assigned a user name. Your user name identifies you on the network and is also useful as an address for email and text messaging, as a way to personalize Internet services, and as an online virtual identity.

A user name is typically based on the customer's name and a number, followed by "@sprintpcs.com." For example, the third John Smith to sign up for Sprint service might have ismith003@sprintpcs.com as his user name. If you want a particular user name, you can visit www.sprint.com and get the name you want — as long as nobody else has it.

Your user name will be automatically programmed into your USB modem. You don't have to enter it.

FAQs

How will I know when my USB modem is ready for data service?

Your user name (for example, <u>bsmith001@sprintpcs.com</u>) will be displayed on the Sprint Connection Manager display screen.

How do I sign in for the first time?

You are automatically signed in to data services when you launch Sprint Connection Manager.

How do I know when my USB modem is connected to data services?

Your USB modem automatically connects when data service is used or an incoming message arrives.

When is my data connection active?

Your connection is active when data is being transferred and "Connected" appears on the Sprint Connection Manager display screen.

When is my data connection dormant?

If no data is transmitted or received for approximately 10 seconds, the connection goes dormant. (The connection can go active again quickly.) If no data is transmitted or received for an extended period of time, the connection will terminate.

Can I sign out of data services?

You can sign out without turning off your USB modem, however you will not be able to browse the Web or use other data services. You may sign in again at any time. To sign out, go to **Settings > Internet > Sign Out** in the Sprint Connection Manager menu.

How can I optimize my settings to achieve faster speeds and send and receive less data while dialing into my company network?

For optimized results, work in "Offline" mode and synchronize periodically to send and receive company email. Also, save attachments or drag them into desktop folders before opening them (rather than double-clicking them in the email).

For more detailed information, see the Microsoft white paper at http://www.microsoft.com/office/outlook/evaluation/perform.doc.

Section 4

Technical Specifications and Regulatory Information



Technical Specifications

In This Section

- Environmental Specifications
- Mechanical Specifications
- Software Specifications
- Transmitter Specifications
- Receiver Specifications
- Hardware Specifications
- Miscellaneous

This section outlines the environmental and technical specifications for your new Sprint Mobile Broadband USB modem.

Environmental Specifications

Operating temperature	0° C to +55° C
	(32°F to 131° F)
Storage temperature	-20° C to +65° C
	(-4° F to 149° F)
Humidity	5% to 90% over operating temperature
Vibration Stability	5 Hz to 500 Hz, 0.1 octave/second
Drop	1 meter drop, no damage – fully operational

Mechanical Specifications

Dimensions (W x D x H)	38 mm x 17 mm x 87 mm
Weight	52 grams
Battery Pack	N/A
LED	Yes
Antenna	External Flip-Up and Internal Mobile Receive Diversity Antenna

Software Specifications

CDMA specification	EVDO Rev A
Data service	Support
SMS (IS-637)	Currently not supported
IOTA	Support
OTAPA (IS-683A)	Support
PRL (preferred roaming list)	Support
Authentication	Support
NAM	1
Mobile IP	Support
WNP (wireless number portability)	Support

Transmitter Specifications

Type of multiplexing	EVDO and 1xRTT
Normal output power	7-10 dBm
TX Max power	23 dBm
Frequency range	1850 MHz to 1919 MHz
Frequency stability	Compliant with CDG1
Bandwidth	1.25 MHz
Occupied bandwidth	1.25 MHz
Modulation method	O-QPSK/HPSK
Waveform quality	.944
Conducted spurious emission	Complies with Title 47, Part 24 of the FCC Rules
Common RF impedance	50 ohms

Receiver Specifications

Type of receiving	EVDO and 1xRTT
Frequency range	1930 MHZ to 1990 MHz
Bandwidth	1.25 MHz
Occupied bandwidth	1.25 MHz
Modulation method	O-QPSK/HPSK
Receiver sensitivity	-104 dBm
Inter-modulation spurious response attenuation	Complies with CDG stage 1
Common RF impedance	50 ohms

Hardware Specifications

Interface type	USB Port
Common air interface	1xEVDO
Channel spacing	50 kHz
Chip set	QUALCOMM™ MSM6800
Transmitting (max. data rate)	Forward link: 3.1 Mbps Reverse link: 1.8 Mbps
Supply voltage	3.3 V
Battery	N/A
Charger (charging time)	N/A
Current consumption Sleep/idle Average in-use Max. (peak)	60 mA 400 mA 700 mA
Communication ports	USB
Voice capability	No support

Miscellaneous

Certification & Approval	FCC (parts 2, 22, & 24, SAR), UL, CDG, etc.
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Regulatory Information

In This Section

- WARNING (EMI) United States FCC Information
- WARNING (EMI) Canada

This section outlines important regulatory notices concerning your new Sprint Mobile Broadband USB modem.

Regulatory Notices

This device is compliant with Parts 2, 22, and 24 of the FCC Rules. Operation of this device is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesirable operations.

In order to comply with FCC RF Exposure requirements, this device must be installed so that a minimum separation distance of 4.6mm (0.18") is maintained between the antenna and all persons during normal operation.

FCC ID: PKRNVWMCD3000

CAUTION Unauthorized modifications or changes not expressly approved by Sprint Communications Company L.P. could void compliance with regulatory rules and thereby your authority to use this equipment.

WARNING (EMI) – United States FCC Information

This equipment has been tested and found to comply with the limits pursuant to Parts 2, 22, and 24 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in an appropriate installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

WARNING (EMI) - Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques," NMB-003 édictée par le ministre des Communications

If you have purchased this product under a United States Government contract, it shall be subject to restrictions as set forth in subparagraph (c)(1)(ii) of Defense Federal Acquisitions Regulations (DFARs) Section 252.227-7013 for Department of Defense contracts, and as set forth in Federal Acquisitions Regulations (FARs) Section 52.227-19 for civilian agency contracts or any successor regulations. If further government regulations apply, it is your responsibility to ensure compliance with such regulations.

Section 5

Safety and Terms & Conditions



Section 5A

Safety and Notices

In This Section

- Important Notice
- Safety and Hazards

This section outlines important liability and safety guidelines concerning your new Sprint Mobile Broadband USB modem.

Important Notice

Because of the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors), or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the Sprint Mobile Broadband USB modem are used in a normal manner with a well-constructed network, they should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. SPRINT SPECTRUM L.P. accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the Sprint Mobile Broadband USB modem, or for failure of the Sprint Mobile Broadband USB modem to transmit or receive such data.

Safety and Hazards

Do not operate the Sprint Mobile Broadband USB modem in areas where blasting is in progress, where explosive atmospheres may be present, near medical equipment, life support equipment, or any equipment which may be susceptible to any form of radio interference. In such areas, the Sprint Mobile Broadband USB modem MUST BE POWERED OFF. It can transmit signals that could interfere with this equipment.

Do not operate the Sprint Mobile Broadband USB modem in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the Sprint Mobile Broadband USB modem **MUST BE POWERED OFF.** When operating, it can transmit signals that could interfere with various onboard systems.

The driver or operator of any vehicle should not operate the Sprint Mobile Broadband USB modem while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some jurisdictions, operating such communications devices while in control of a vehicle is an offense.

Terms and Conditions

In This Section

- Subscriber Agreement: General Terms and Conditions of Service
- Novatel Wireless Limited Warranty and Liability

This section contains the terms and conditions of service for your new Sprint Mobile Broadband USB modem.

Subscriber Agreement General Terms and Conditions of Service

Para solicitar esta literatura en español, por favor contactar a 1-800-777-4681.

Please note these terms may not be the most current version. A current version of the terms is available at our Web site or upon request.

Basic Definitions

In this document: (1) "we," "us," "our" mean Sprint Solutions, Inc. and its affiliates doing business as Sprint or Sprint PCS; (2) "you," "your," "customer," and "user" mean an account holder or user with us; (3) "Device" means any phone, device, accessory or other product we sell to you or that is active on your account with us; and (4) "Service" means our offers, rate plans, options, wireless services or Devices on your account with us.

The Subscriber Agreement

The Subscriber Agreement ("Agreement") is a contract under which we provide and you accept our Services. In addition to these Terms and Conditions of Service ("Ts&Cs"), there are several parts to the Agreement, including, but not limited to, the detailed plan or other information on Services we provide or refer you to during the sales transaction, and any confirmation materials we may provide you. It is important that you carefully read all of the terms of the Agreement.

Services Covered By These Ts&Cs & Additional Terms

These Ts&Cs apply to our standard wireless Services and any other Service we offer you that references these Ts&Cs. Different terms will apply to most business accounts. Additional terms will apply when you use certain Services,

typically those you can access online (for example, picture/video Services, online forums, etc.). Additional terms will also apply if you activate Services as part of a bundle with another company's services (for example, cable services, home phone services, etc.). The additional terms for bundled Services may either modify or replace certain provisions in these Ts&Cs, including terms relating to activation, invoicing/payment, and disputing charges. Also, a different dispute resolution provision may apply to services provided by another company (the dispute resolution provisions in this Agreement still apply to our Services). You will be provided details on any additional terms with your selection of any bundled Service.

Our Policies

Services are subject to our business policies, practices and procedures ("Policies"), including, but not limited to, our Privacy Policy and Acceptable Use Policy and Visitor Agreement — both available at our Web site. You agree to all of our Policies when you use our Services. Our Policies are subject to change at anytime with or without notice.

When You Accept The Agreement

You must have the legal capacity to accept the Agreement. You accept the Agreement when you do any of the following: (a) sign a contract with us on paper or electronically; (b) accept Agreement through an oral or electronic statement; (c) attempt to or in any way use the Services; (d) pay for the Services; or (e) open any package or start any program that says you are accepting the Agreement when doing so. If you don't want to accept the Agreement, don't do any of these things.

Term Commitments & Early Termination Fees

Many of the Services (for example, rate plans and Device discounts) that we offer require you to maintain certain Services with us for a minimum term, usually 1 or 2 years ("Term Commitment"). You will be charged a fee ("Early Termination Fee") for

each line of Service that you terminate early (i.e., prior to satisfying the Term Commitment) or for each line of Service that we terminate early for good reason (for example, violating the payment or other terms of the Agreement). Early Termination Fees are a part of our rates. Your exact Term Commitment and Early Termination Fee may vary based on the Services you select and will be disclosed to you during the sales transaction. Carefully review any Term Commitment and Early Termination Fee requirements prior to selecting Services. After you have satisfied your Term Commitment, your Services continue on a month-to-month basis without any Early Termination Fee, unless you agree to extend your Term Commitment or agree to a new Term Commitment – for example, by accepting a new rate plan or upgrading your Device. As explained directly below, there are instances when you will not be responsible for an Early Termination Fee for terminating Services early.

When You Don't Have To Pay An Early Termination Fee

You aren't responsible for paying an Early Termination Fee when terminating Services: (a) provided on a month-to-month basis; (b) consistent with our published trial period return policy; or (c) in response to a materially adverse change we make to the Agreement as described directly below.

Our Right To Change The Agreement & Your Related Rights

We may change any part of the Agreement at any time, including, but not limited to, rates, charges, how we calculate charges, or your terms of Service. We will provide you notice of material changes, and may provide you notice of non-material changes, in a manner consistent with this Agreement (see "Providing Notice Under This Agreement" paragraph). Except as provided below, if a change we make to the Agreement is material and has a material adverse effect on you, you may terminate each line of Service

materially affected without incurring an Early Termination Fee only if you: (a) call us within 30 days after the effective date of the change; and (b) specifically advise us that you wish to cancel Services because of a material change to the Agreement that we have made. If you do not cancel Service within 30 days of the change, an Early Termination Fee will apply if you terminate Services before the end of any applicable Term Commitment.

Our Right To Suspend Or Terminate Services

We can, without notice, suspend or terminate any Service at any time for any reason, including, but not limited to: (a) late payment; (b) exceeding an Account Spending Limit ("ASL"); (c) harassing/threatening our employees or agents; (d) providing false information; (e) interfering with our operations; (f) using/suspicion of using Services in any manner restricted by or inconsistent with the Agreement; (g) breaching the Agreement, including our Policies; (h) providing false, inaccurate, dated or unverifiable identification or credit information, or becoming insolvent or bankrupt; (i) modifying a Device from its manufacturer specifications; or (j) if we believe the action protects our interests, any customer's interests or our network.

Your Ability To Change Services & When Changes Are Effective

You typically can change Services upon request. In some instances, changes may be conditioned on payment of an Early Termination Fee or certain other charges, or they may require you to accept a new Term Commitment. Changes to Services are usually effective at the start of your next full invoicing cycle. If the changes take place sooner, your invoice may reflect pro-rated charges for your old and new Services.

Your Right To Terminate Services

You can terminate Services at any time by calling us and requesting that we deactivate all Services. You're responsible for all charges billed or incurred prior to deactivation. If Services are terminated before the end of your invoicing cycle, we won't

prorate charges to the date of termination and you won't receive a credit or refund for any unused Services. Except as provided above, you must also pay us an Early Termination Fee for each line of Service that you terminate early.

Credit Checks & Credit Information

We agree to provide you Services on the condition you have and maintain satisfactory credit according to our standards and policies. You agree to provide information we may request or complete any applications we may provide you to facilitate our review. We rely on the credit information you furnish, credit bureau reports or other data available from commercial credit reference services, and other information (such as payment history with us) to determine whether to provide or continue to provide you Services. The Services we offer you can vary based on your credit history. We may at any time, based on your credit history, withdraw or change Services, or place limits or conditions on the use of our Services. You agree to provide us updated credit information upon request. We may provide your payment history and other account billing/charge information to any credit reporting agency or industry clearinghouse.

Account Spending Limits ("ASL")

An ASL is a temporary or permanent limit (typically based on credit history, payment history, or to prevent fraud) we place on the amount of unpaid charges you can accumulate on your account, regardless of when payment on those charges is due. We reserve the right to determine which charges count towards an ASL. If you have an ASL, we may suspend your Services without prior notice if your account balance reaches the ASL, even if your account is not past due. We may impose or increase an ASL at any time with notice. An ASL is for our benefit only and should not be relied on by you to manage usage.

Deposits & Returning Deposits

We may at any time require a deposit, as a guarantee of payment, for you to establish or maintain Service ("Deposit"). By providing us a Deposit, you grant us a security interest for all current or future amounts owed to us. We may change the Deposit at any time with notice. You can't use a Deposit to make or delay payments. The Deposit, the length of time we hold the Deposit, and changes to the Deposit are determined based on your credit history, payment history and other factors. Unless prohibited by law, we may mix Deposits with our other funds and it won't earn interest and we reserve the right to return the Deposit as a credit on your invoice at anytime. If your Services are terminated for any reason, we may keep and apply your Deposit to any outstanding charges. We'll send any remaining portion of Deposit to your last known address within 90 days after your final invoice - if it is returned to us, we will forward it on to the appropriate state authorities to the extent required by law.

Restrictions On Using Services

You can't use our Services: (a) to transmit content/messages that are, or in any manner that is, illegal, fraudulent, threatening, abusive, defamatory, or obscene; (b) in a way that could cause damage or adversely affect our customers, reputation, network, property or Services; (c) to communicate any unsolicited commercial voice, text, SMS, or other message; (d) to infringe on the copyright of another, or upload or transmit any "virus", "worm", or malicious code; or (e) in any way prohibited by the terms of our Services, the Agreement or our Policies.

Your Device, Number & E-mail Address; Caller ID

We don't manufacture any Device we might sell to you or that is associated with our Services, and we aren't responsible for any defects, acts or omissions of the manufacturer. The only warranties on your Device are the limited warranties given to you by the manufacturer directly or that we pass through. Your Device is

designed exclusively for use on our network and in other coverage areas we make available to you. It will not accept wireless service from another carrier. Except for any legal right you may have to port/transfer your phone number to another carrier, you have no and cannot gain any (for example, through publication, use, etc.) proprietary, ownership or other rights to any phone number, identification number, e-mail address or other identifier we assign to you, your Device or your account. We'll notify you if we decide to change or reassign them.

Porting/Transferring Phone Numbers

We don't guarantee that number transfers to or from us will be successful. If you authorize another carrier to transfer a number away from us, that is considered a request by you to us to terminate all of the Services associated with that number. You're responsible for all charges billed or incurred prior to deactivation and for any applicable Early Termination Fees.

Coverage; Where Your Device Will Work

Our coverage maps are available at our stores and at our Web site. The specific network coverage you get will depend on the radio transmissions your Device can pick up and Services you've chosen. Our coverage maps provide high level estimates of our coverage areas when using Services outdoors under optimal conditions. Coverage isn't available everywhere. Estimating wireless coverage and signal strength is not an exact science. There are gaps in coverage within our estimated coverage areas that, along with other factors both within and beyond our control (network problems, software, signal strength, your Device, structures, buildings, weather, geography, topography, etc.), may result in dropped and blocked connections, slower data speeds, or otherwise impact the quality of Service. Services that rely on location information, such as E911 and GPS navigation,

depend on your Device's ability to acquire satellite signals (typically not available indoors) and network coverage.

Roaming

"Roaming" typically refers to coverage on another carrier's network that we make available to you based on our agreements with other carriers. These agreements may change from time to time and roaming coverage is subject to change. Your ability to receive roaming coverage depends on the radio transmissions your Device can pick up. You can pick up roaming coverage both within and outside our network coverage areas. Your Device will generally indicate when you're roaming. Depending on your Services, separate charges or limits on the amount of minutes used while roaming may apply. Certain Services may not be available or work the same when roaming (including data Services, voicemail, call waiting, etc.).

About Data Services & Content

Our data Services and your Device may allow you to access the internet, text, pictures, video, games, graphics, music, email, sound and other materials ("Data Content") or send Data Content elsewhere. Some Data Content is available from us or our vendors, while other Data Content can be accessed from others (third party Web sites, games, ringers, etc.). We make absolutely no guarantees about the Data Content you access on your Device. Data Content may be: (1) unsuitable for children/minors; (2) unreliable or inaccurate; or (3) offensive, indecent or objectionable. You're solely responsible for evaluating the Data Content accessed by you or anyone on your account. We strongly recommend you monitor data usage by children/minors. Data Content from third parties may also harm your Device or its software. To protect our network, Services, or for other reasons, we may place restrictions on accessing certain Data Content (such as certain Web sites, applications, etc.), impose separate charges, limit throughput or the amount of data you can transfer, or otherwise limit or terminate Services. If we provide you

storage for Data Content you have purchased, we may delete the Data Content with notice or place restrictions/limits on the use of storage areas. You may not be able to make or receive voice calls while using data Services.

Specific Terms & Restrictions On Using Data Services

In addition to the rules for using all of our other Services, unless specifically authorized by us, you can't use our data Services: (1) to stream movies, music, videos or any other Data Content; (2) with server devices or host computer applications, or other systems that drive continuous heavy traffic or data sessions; (3) for voice over IP; (4) as a substitute or backup for private lines or frame relay connections; or (5) in any way that adversely impacts our network or Service levels. If your Services include unlimited Web or data access, you also can't use your Device as a modem for computers or other equipment, unless we identify the Service or Device you have selected as specifically intended for that purpose (for example, with "phone as modem" plans, connection cards, wireless routers, etc.).

Activation & Miscellaneous Charges

Based on our Policies, we may charge activation, prepayment, reactivation, program or other fees to establish or maintain Services. Certain transactions may also be subject to a charge (for example, convenience payment, changing phone numbers, handset upgrades, etc.). You will be provided notice of these types of fees before we complete the requested transaction.

Account & Service Charges; Pro-rating; Unused Minutes

You are responsible for all charges associated with your account and the Services on your account, no matter who uses the Services. Charges include, but are not limited to, the monthly recurring charges, usage charges, taxes, surcharges and fees associated with your Services. These charges are described or

referred to during the sales transaction, in our marketing materials, and in confirmation materials we may send to you.

How We Calculate Your Charges For Billing Purposes

Regular Voice Calls: We round up partial minutes of use to the next full minute. Time starts when you press "Talk" or your Device connects to the network and stops when you press "End" or the network connection otherwise breaks. You're charged for all calls that connect, even to answering machines. You won't be charged for unanswered calls or if you get a busy signal. For incoming calls answered, you're charged from the time shortly before the Device starts ringing until you press END or the network connection otherwise breaks. If charges vary depending on the time of day that you place or receive calls (e.g., Nights and Weekend plans), you're charged for the entire call based on the rate that applies to the time period in which the call starts.

iDEN Walkie-Talkie Charges: Charges for walkie-talkie calls are billed to the person who starts the call and calculated by multiplying the duration of the call by the applicable rate and number of participants. You're charged at least 6 seconds of airtime for each call you start; subsequent communications in the same call are rounded up to and billed to the next second. Time begins when you press any button to start a walkie-talkie call and ends approximately 6 seconds after completion of a communication to which no participant responds — subsequent walkie-talkie communications are considered new calls. Depending on your plan, nationwide, international or group walkie-talkie calls may use the local walkie-talkie minutes in your plan and result in additional charges. Responses to call alert transmissions are treated as new walkie-talkie transmissions even when responding within 6 seconds of receiving the alert.

Data Usage: Unless we specifically tell you otherwise, data usage is measured in bytes, kilobytes and megabytes – not in minutes/time. 1024 bytes equals 1 kilobyte ("KB"), and 1024 KB equals 1

megabyte. Bytes are rounded up to kilobytes, so you will be charged at least 1 KB for each data usage session ("data session"). Rounding occurs at the end of each data session, and sometimes during a data session. Depending on your data Services, usage may be charged against an allowance or on a fixed price per KB. If you are charged on a fixed price per KB, any fractional cents will be rounded up to the next cent. You are charged for all data directed to your Device's internet address, including data sessions you did not initiate and for incomplete transfers. As long as your Device is connected to our data network, you may incur data charges. Examples of data you will be charged for includes the size of a requested file or Data Content (game, ringer, etc.), Web page graphics (logos, pictures, banners, advertisement, etc.), additional data used in accessing, transporting and routing the file on our network, data from partial or interrupted downloads, re-sent data. and data associated with unsuccessful attempts to reach Web sites or use applications. These data charges are in addition to any charges for the Data Content itself (game, ringer, etc.). Data used and charged to you will vary widely, even between identical actions or data sessions. Estimates of data usage – for example, the size of downloadable files – are not reliable predictors of actual usage. Your bill won't separately list the number of KB attributed to a specific action/data session.

Your Bill

Your bill provides you notice of your charges. It reflects monthly recurring charges (usually billed one bill cycle in advance) and usage/transaction specific charges (usually billed in the bill cycle in which they're incurred). Some usage charges, such as those that depend on usage information from a third party, may be billed in subsequent bill cycles and result in higher than expected charges for that month. Bill cycles and dates may change from time to time. Your bill may

also include other important notices (for example, changes to this Agreement, to your Service, legal notices, etc.). Your paper bill may not include individual call detail. Your call detail is available online. Paper bills with call detail may be subject to an additional charge. If you choose internet billing, you will not receive paper bills.

Your Payments; Late Fees

Payment is due in full as stated on your bill. If we do not receive payment in full by the date specified on your bill, a late payment charge, which may be charged at the highest rate permissible by law, may be applied to the total unpaid balance. We may also charge you any costs we pay to a collection agency to collect unpaid balances from you. If we bill you for amounts on behalf of a third party, payments received are first applied to our charges. You may be charged additional fees for certain methods of payment. We may charge you, up to the highest amount permitted by law, for returned checks or other payments paid by you and denied for any reason by a financial institution. Acceptance of payments (even if marked "paid in full") does not waive our right to collect all amounts that you owe us. We may restrict your payment methods to cashier's check, money order, or other similar secure form of payment at any time for good reason.

Taxes & Government Fees

You agree to pay all federal, state and local taxes, fees and other assessments that we're required by law to collect on the Services we provide you and remit to the government. These charges may change from time to time without advance notice. If you're claiming any tax exemption, you must provide us with a valid exemption certificate. Tax exemptions generally won't be applied retroactively.

Surcharges

You agree to pay the surcharges, fees and other charges that we assess to recoup our government costs or costs of complying with certain government programs ("Surcharges"). Surcharges aren't

taxes or government mandated charges; they're charges we choose to collect from you. Surcharges are subject to change, sometimes on a monthly or quarterly basis. Examples of Surcharges include, but are not limited to: Universal Service Fund, E911, Federal Programs Cost Recovery, Federal Wireless Number Pooling and Portability, and gross receipts charges. We will make efforts to provide you notice of any changes to Surcharges in a manner consistent with this Agreement (see "Providing Notice Under This Agreement" paragraph). However, since most Surcharges are based on amounts set by the government or based on government formulas, it will not always be possible to provide advance notice of new Surcharges or changes in the amount of existing Surcharges. Information on Surcharges is provided during the sales transaction and is available at our Web site.

Disputing Charges - You Must Still Pay Undisputed Charges

Any dispute to a charge on your bill must be made within 60 days of the date of the bill that initially contained the charge. Disputes can only be made by calling or writing us as directed on your invoice or elsewhere. You accept all charges not properly disputed within the above time period — undisputed charges must still be paid as stated on your bill.

Protecting Our Network & Services

We can take any action to: (1) protect our network, our rights and interests, or the rights of others; or (2) optimize or improve the overall use of our network and Services. Some of these actions may interrupt or prevent legitimate communications and usage — for example, message filtering/blocking software to prevent SPAM or viruses, limiting throughput, limiting access to certain Web sites, applications or other Data Content, etc. For additional information on what we do to protect our customers, network, Services and

equipment, see our Acceptable Use Policy and Visitor Agreement at our Web site.

Your Privacy

You agree to the terms of our Privacy Policy, available at our Web site, when you use our Services. This policy may change from time to time, so review this policy with regularity and care. Among other things, the policy includes important information on what information we collect about you, how we use that information, and with whom we share that information (for example, to provide you certain Services, to protect our rights and interests, to respond to legal process, to facilitate a merger, etc.). Also, to ensure the quality of our Services and for other lawful purposes, we may also monitor or record calls between us (for example, your conversations with our customer service or sales departments). If you do not agree with the terms of our Privacy Policy, do not purchase or use our Services.

Location Based Services

Our network generally knows the location of your Device when it is outdoors and turned on. By using various technologies to locate your Device, we can provide enhanced emergency 911 services, and optional location-sensitive services provided by us or a third party. Environmental factors (such as structures, buildings, weather, geography, landscape, and topography) can significantly impact the ability to access your Device's location information and use of location-sensitive services. The terms and conditions of any location-sensitive service that you purchase from us may provide more information about how location information is used and disclosed. Use of some of location-sensitive services may require network coverage. If any Device on your account uses a locationsensitive service, you (the account holder) must clearly and regularly notify the actual user of your Device that their location may be tracked or discovered. For additional information on location-sensitive services, see our Privacy Policy at our Web site.

911 Or Other Emergency Calls

Public Safety Officials advise that when making 911 or other emergency calls, you should always be prepared to provide your location information. Unlike traditional whirling phones, depending on a number of factors (e.g., whether your Device is GPS enabled, where you are, whether local emergency service providers have upgraded their equipment, etc.), 911 operators may not know your phone number, your location or the location of your Device. In certain circumstances, an emergency call may be routed to a state patrol dispatcher or alternative location set by local emergency service providers. Enhanced 911 service ("E911"), where enabled by local emergency authorities, uses GPS technology to provide location information. Even when available, however, E911 does not always provide accurate location information. If your Device is indoors or for some other reason cannot acquire a satellite signal, you may not be located. Some Devices have a safety feature that prevents use of the keypad after dialing 911 – you should follow voice prompts when interacting with emergency service providers employing IVR systems to screen calls.

If Your Device Is Lost or Stolen

Call us immediately if your Device is lost or stolen because you may be responsible for usage charges before you notify us of the alleged loss or theft. You agree to cooperate if we choose to investigate the matter (provide facts, sworn statements, etc.). We may not waive any Early Termination Fees if you choose to terminate Services as a result of loss or theft of your Device.

Disclaimer of Warranties

WE MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING (TO THE EXTENT ALLOWED BY LAW) ANY IMPLIED WARRANTY OF MERCHANTABILITY, NON-

INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE CONCERNING YOUR SERVICES (INCLUDING YOUR DEVICE). WE DON'T PROMISE UNINTERRUPTED OR ERROR-FREE SERVICES AND DON'T AUTHORIZE ANYONE TO MAKE WARRANTIES ON OUR BEHALF.

You Agree We Are Not Responsible For Certain Problems

You agree that neither we nor our vendors, suppliers or licensors are responsible for any damages resulting from: (a) anything done or not done by someone else; (b) providing or failing to provide Services, including, but not limited to, deficiencies or problems with a Device or network coverage (for example, dropped, blocked, interrupted calls/messages, etc.); (c) traffic or other accidents, or any health-related claims relating to our Services; (d) Data Content or information accessed while using our Services; (e) an interruption or failure in accessing or attempting to access emergency services from a Device, including through 911, Enhanced 911 or otherwise; (f) interrupted, failed, or inaccurate location information services, (g) information or communication that is blocked by a spam filter, or (h) things beyond our control, including acts of God (for example, weather-related phenomena, fire, earthquake, hurricane, etc.), riot, strike, war, terrorism or government orders or acts.

You Agree Our Liability Is Limited - No Consequential Damages.

TO THE EXTENT ALLOWED BY LAW, OUR LIABILITY FOR MONETARY DAMAGES FOR ANY CLAIMS YOU MAY HAVE AGAINST US IS LIMITED TO NO MORE THAN THE PROPORTIONATE AMOUNT OF THE SERVICE CHARGES ATTRIBUTABLE TO THE AFFECTED PERIOD. UNDER NO CIRCUMSTANCES ARE WE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR SPECIAL DAMAGES OF ANY NATURE WHATSOEVER ARISING OUT OF OR RELATED TO PROVIDING OR FAILING TO PROVIDE SERVICES IN CONNECTION WITH A DEVICE, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS,

LOSS OF BUSINESS, OR COST OF REPLACEMENT PRODUCTS AND SERVICES.

DISPUTE RESOLUTION

We Agree To First Contact Each Other With Any Disputes

We each agree to first contact each other with any disputes and provide a written description of the problem, all relevant documents/information and the proposed resolution. You agree to contact us with disputes by calling or writing us as instructed on your invoice. We will contact you by letter to your billing address or on your Device.

Instead Of Suing In Court, We Each Agree To Arbitrate Disputes

We each agree to finally settle all disputes (as defined and subject to any specific exceptions below) only by arbitration. In arbitration, there's no judge or jury and review is limited. However, just as a court would, the arbitrator must honor the terms and limitations in the Agreement and can award the same damages and relief, including any attorney's fees authorized by law. The arbitrator's decision and award is final and binding, with some exceptions under the Federal Arbitration Act ("FAA"), and judgment on the award may be entered in any court with jurisdiction. We each also agree as follows:

- (1) "Disputes" are any claims or controversies against each other related in any way to our Services or the Agreement, INCLUDING, but not limited to, coverage, Devices, privacy, or advertising, even if it arises after Services have terminated this includes claims you bring against our employees, agents, affiliates or other representatives, or that we bring against you.
- (2) If either of us wants to arbitrate a dispute, we agree to send written notice to the other providing a description of the dispute, previous efforts to resolve the dispute, all supporting documents/information, and the proposed

resolution. Notice to you will be sent to your billing address and notice to us will be sent to: General Counsel; Arbitration Office; 2001 Edmund Halley Drive VARESP0513-502; Reston, Virginia 20191. We agree to make attempts to resolve the dispute. If we cannot resolve the dispute within forty-five (45) days of receipt of the notice to arbitrate, then we may submit the dispute to formal arbitration.

- (3) The FAA applies to this Agreement and arbitration provision. We each agree the FAA's provisions, not state law, govern all questions of whether a dispute is subject to arbitration.
- (4) The arbitration will be administered by the International Institute for Conflict Prevention and Resolution ("CPR") under its arbitration rules. If any of the CPR's rules conflict with the terms of the Agreement, the terms of the Agreement apply. You can obtain procedures, rules, and fee information from the CPR at 1-212-949-6490 or www.cpradr.org.
- 1-212-949-6490 or <u>www.cpradr.org</u>.
- (5) Unless we each agree otherwise, the Arbitration will be conducted by a single neutral arbitrator and will take place in the county of your last billing address. The federal or state law that applies to the Agreement will also apply during the arbitration.
- (6) We each agree not to pursue arbitration on a classwide basis. We each agree that any arbitration will be solely between you and us (not brought on behalf of or together with another individual's claim). If for any reason this restriction is found unenforceable, then our agreement to arbitrate doesn't apply.
- (7) We each are responsible for our respective costs relating to counsel, experts, and witnesses, as well as any other costs relating to the arbitration. However, we will cover any arbitration administrative or filing fees above: (a) \$25 if you are seeking less than \$1,000 from us; or (b) the equivalent court filing fees for a court action in the appropriate jurisdiction if you are seeking \$1,000 or more from us.

Exceptions To Our Agreement To Arbitrate Disputes

Either of us may bring qualifying claims in small claims court. In addition, this arbitration provision does not prevent you from filing your dispute with any federal, state or local government agency that can, if the law allows, seek relief against us on your behalf.

No Class Actions

TO THE EXTENT ALLOWED BY LAW, WE EACH WAIVE ANY RIGHT TO PURSUE DISPUTES ON A CLASSWIDE BASIS; THAT IS, TO EITHER JOIN A CLAIM WITH THE CLAIM OF ANY OTHER PERSON OR ENTITY, OR ASSERT A CLAIM IN A REPRESENTATIVE CAPACITY ON BEHALF OF ANYONE ELSE IN ANY LAWSUIT, ARBITRATION OR OTHER PROCEEDING.

No Trial By Jury

TO THE EXTENT ALLOWED BY LAW, WE EACH WAIVE ANY RIGHT TO TRIAL BY JURY IN ANY LAWSUIT, ARBITRATION OR OTHER PROCEEDING.

Indemnification

You agree to indemnify, defend and hold us harmless from any claims arising out of your actions, including, but not limited to, failing to provide appropriate notices regarding location-sensitive services (see "Location Based Services" paragraph), or violating this Agreement, any applicable law or regulation or the rights of any third party.

Providing Notice To Each Other Under The Agreement

Except as the Agreement specifically provides otherwise, you must provide us notice by calling or writing us as instructed on your invoice. We will provide you notice in your bill, correspondence to your last known billing address, to any fax number or e-mail address you've provided us, by calling you

on your home phone or Device, by voice message on your Device or home phone, or by text message on your Device.

Other Important Terms

Subject to federal law or unless the Agreement specifically provides otherwise, this Agreement is governed solely by the laws of the state encompassing the area code assigned to your Device, without regard to the conflicts of law rules of that state. If either of us waives or doesn't enforce a requirement under this Agreement in an instance, we don't waive our right to later enforce that requirement. Except as the Agreement specifically provides otherwise, if any part of the Agreement is held invalid or unenforceable, the rest of this Agreement remains in full force and effect. This Agreement isn't for the benefit of any 3rd party except our corporate parents, affiliates, subsidiaries, agents, and predecessors and successors in interest. You can't assign the Agreement or any of your rights or duties under it. We can assign the Agreement. The Agreement and the documents it incorporates make up the entire agreement between us and replaces all prior written or spoken agreements – you can't rely on any contradictory documents or statements by sales or service representatives. The rights, obligations and commitments in the Agreement that, by their nature, would logically continue beyond the termination of Services (including, but not limited to, those relating to billing, payment, 911, dispute resolution, no class action, no jury trial), survive termination of Services.

Novatel Wireless Limited Warranty and Liability

Novatel Wireless 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.

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