



Intel WWAN Manager

Wireless WAN Configuration Utility

User's Guide

Version 1.0
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Introduction

This guide will help you install and configure Trellia's Intel WWAN Manager software on your laptop or tablet PC. It introduces each of Intel WWAN Manager's features, and shows you how to get up and running in minutes.

What is Intel WWAN Manager?

Trellia's Intel WWAN Manager is a software application that runs on your wireless-enabled laptop. Working with the Intel Connection Manager and a wireless adapter, Trellia's Intel WWAN Manager, enables high speed access to the internet using a variety of wireless wide area networks (WWANs).

Intel WWAN Manager allows you to:

- configure settings for a selected WWAN adapter card (also referred to as "radio" or "PC modem")
- connect to or disconnect from a wireless network
- view network and connection status
- view diagnostics
- send, receive and manage SMS messages

System Requirements

- Pentium II, 266 MHz (Pentium III, 350 MHz recommended)
- Supported Operating Systems:
 - Windows™ XP Professional (SP1 & SP2)
 - Windows™ XP Home (SP1 & SP2)
 - Windows™ XP Media Center
 - Windows™ XP Tablet PC
 - Windows™ Vista (February 2006 Release)
 - Windows™ Server 2003
- 100 MB of available hard disk space
- Internet Explorer 5.01 (or higher)
- A video display capable of 256 colors (or more)
- 32 MB of RAM (64 MB recommended)

Installing Trellia's Intel WWAN Manager

The Intel WWAN Manager software comes with the installation package you received from your wireless network service provider. Please refer to their hardware installation documentation for instructions.

Overview of Intel WWAN Manager

Starting the Intel WWAN Manager Configuration Utility

Trellia's Intel WWAN Manager, by default, launches automatically each time that you restart your computer. If you do NOT want Trellia's Intel WWAN Manager to start automatically, refer to General Preferences on page 14.

You can also launch Trellia's Intel WWAN Manager in one of three ways:

- from the Start menu, select:
Programs > Intel > WWAN Manager > WWAN Manager
- double click the WWAN Manager shortcut on your desktop.
- click on the WWAN Manager icon in the system tray. If you don't see the WWAN icon in the system tray, Intel WWAN Manager is not installed.

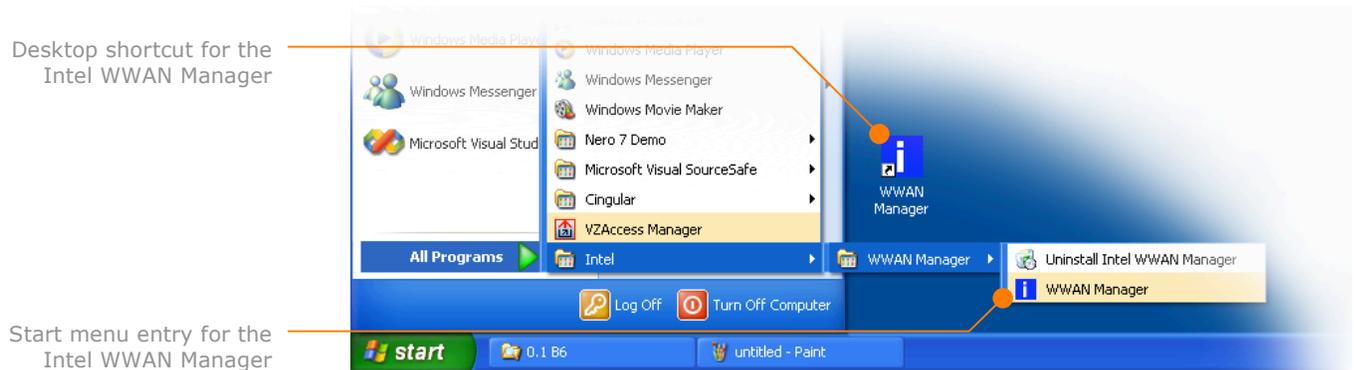


Figure 1 — Starting Intel WWAN Manager

The Dashboard

When you launch the Intel WWAN Manager application, you are presented with a small, one-window GUI called the “**dashboard**”. From the dashboard, you can detect available networks, establish or close a connection, and see at a glance the status and important details about your wireless session.

The Intel WWAN Manager "dashboard"

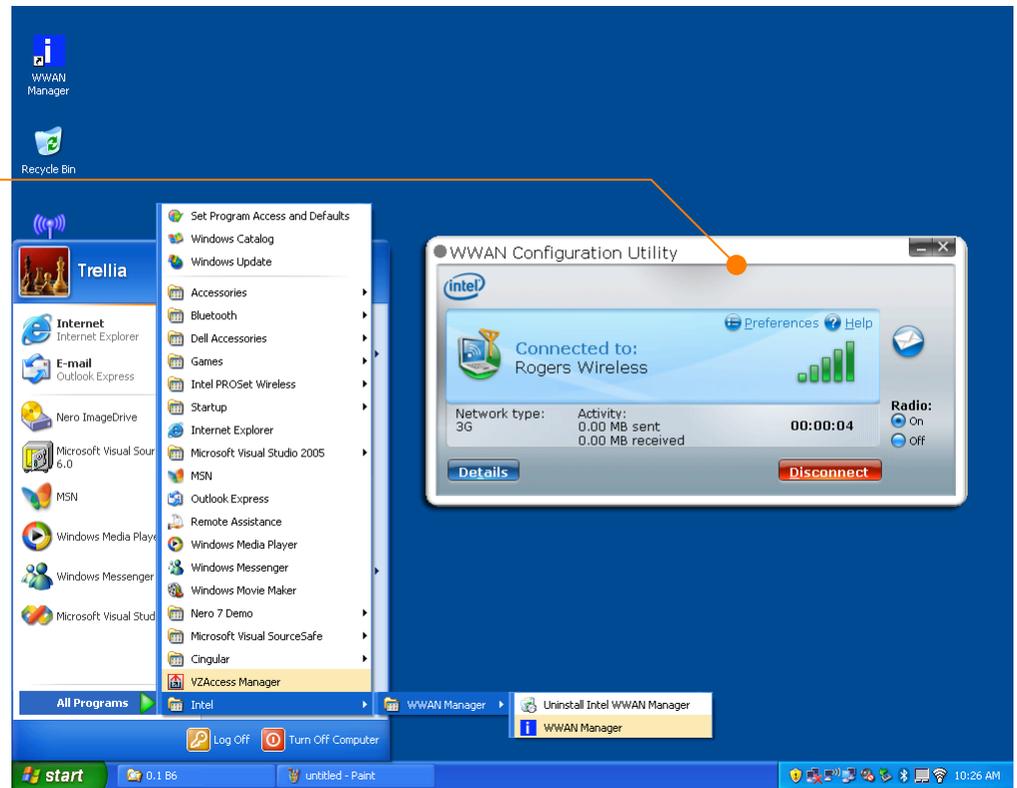


Figure 2 — The Intel WWAN Manager "dashboard"

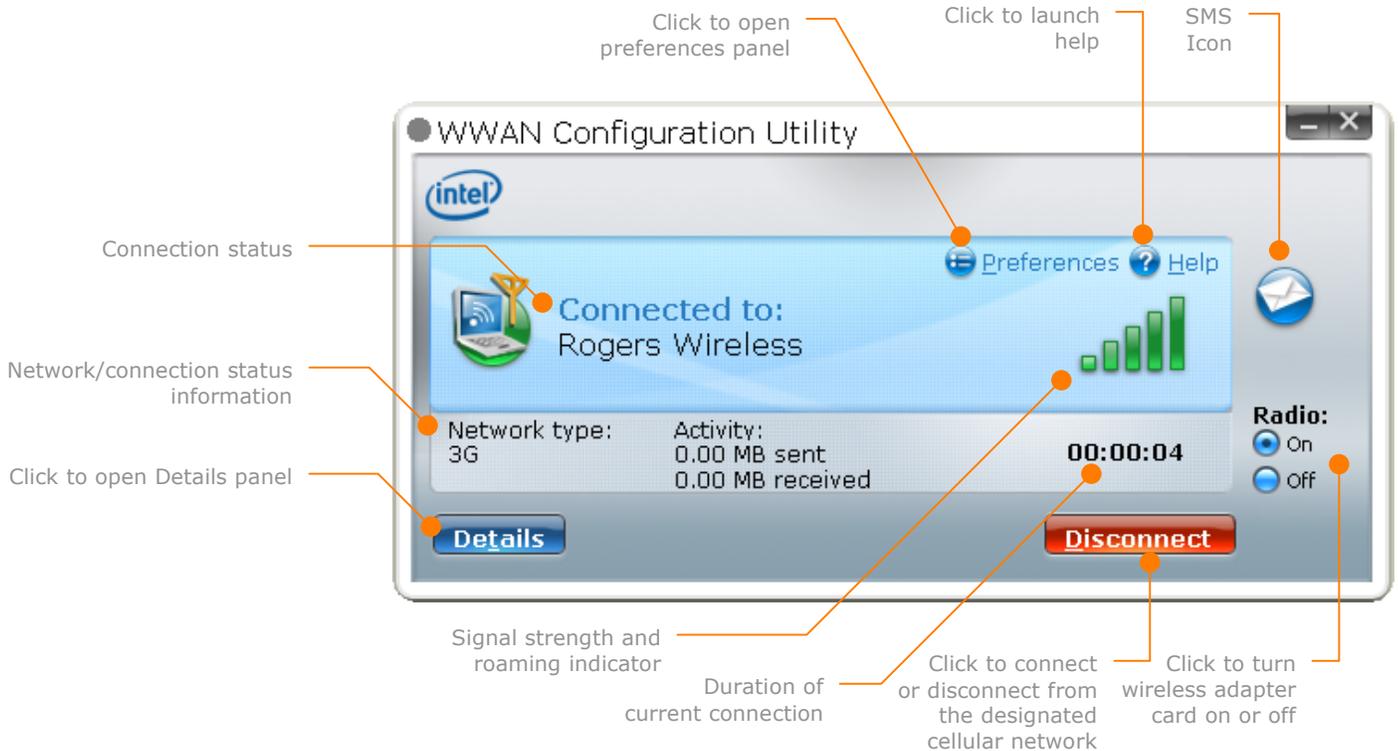


Figure 3 — Overview of the Intel WWAN Manager dashboard

The dashboard gives you an at-a-glance view of the availability of wireless service in your area, and the state of your connection:

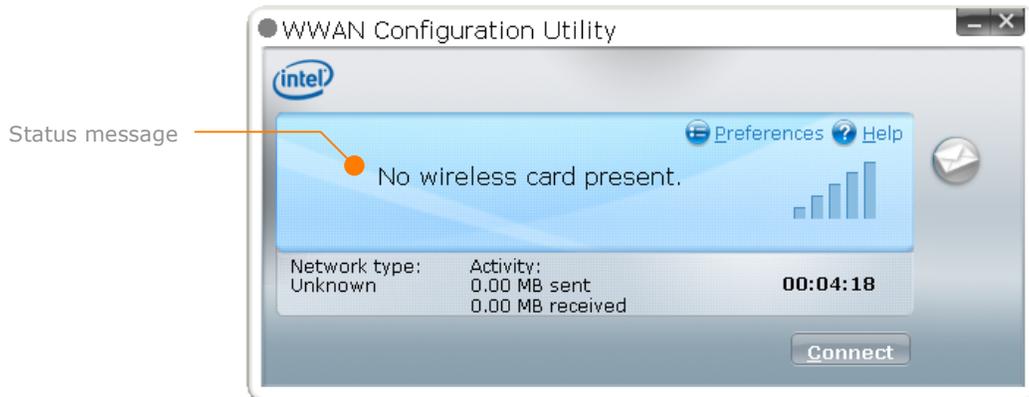


Figure 4 – Dashboard indicates no wireless adapter installed

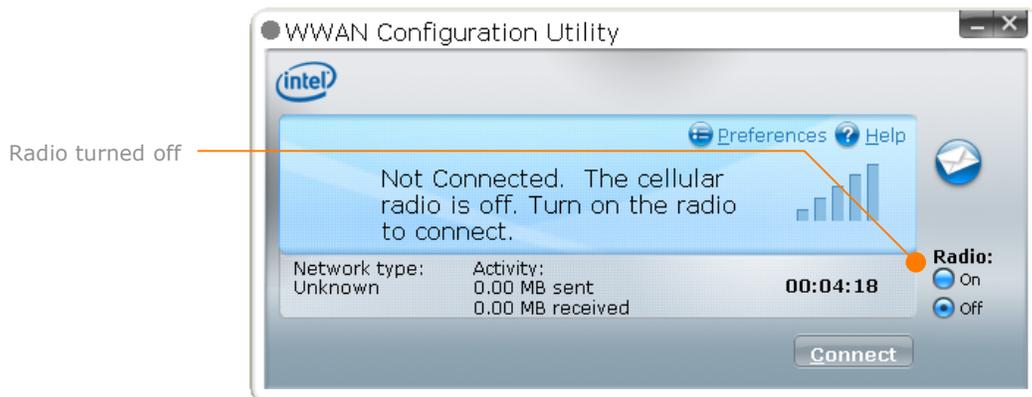


Figure 5 – Dashboard indicates wireless adapter (radio) turned off

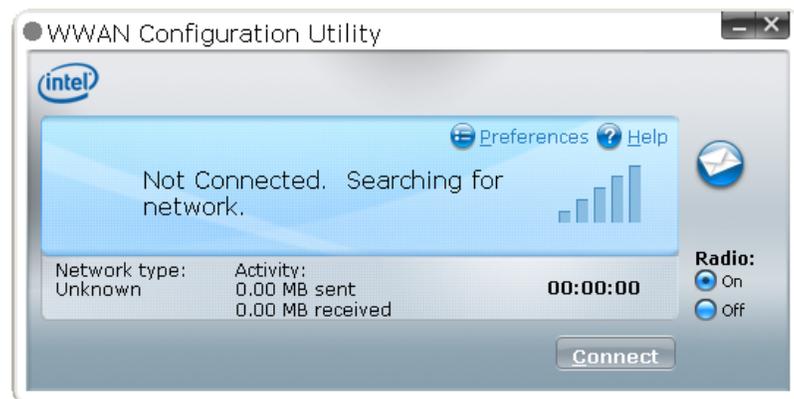


Figure 6 – Dashboard indicates search for network is in progress

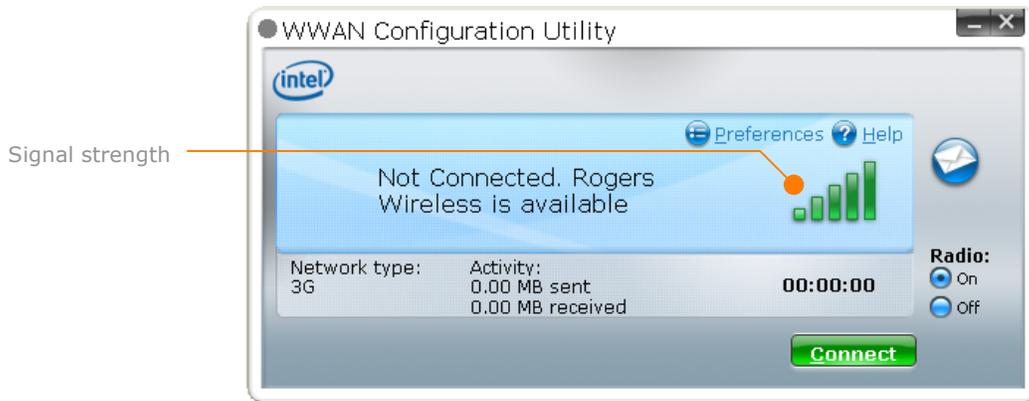


Figure 7 – Dashboard showing wireless service available

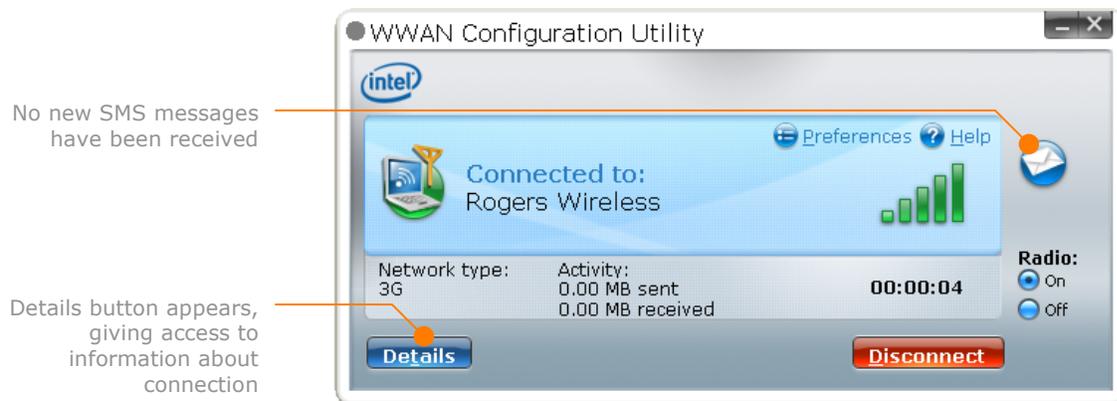


Figure 8 – Dashboard showing active connection

WWAN Network Details

The dashboard gives only a summary of the active connection status. You can obtain more information by clicking on the **Details** button in the dashboard to bring up the **Network Details** screen.

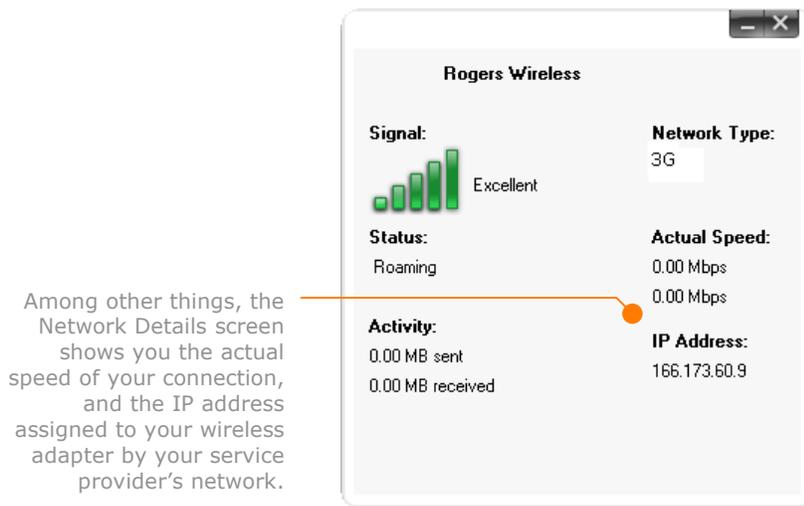


Figure 9 – WWAN Network Details

Tray Icon Menu and Status Indicators

The Intel WWAN Manager utility displays a tray icon when run independently of the Intel Connection Manager. The tray icon is hidden when Intel WWAN Manager is launched from within the Connection Manager application.



Figure 10 – Right-click context menu

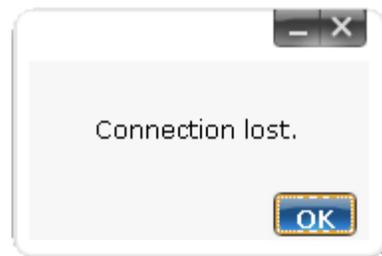


Figure 11 – Alert balloon

An alert/confirmation balloon appears only when you connect via the tray icon menu. This balloon disappears after a brief time.



Figure 12 – Rollover status

When you move the mouse cursor over the Intel WWAN Manager tray icon, a status message is displayed. The "Roaming" indicator only appears if roaming is enabled.

Other rollover messages that may be displayed include:

- Not connected. <Alternative service> is available.
- No service available.
- Not connected. Cellular radio is off.
- Connecting...

In addition to these rollover messages, the icon itself may change to indicate one of the following states:

Searching	Connecting	Signal/Connection	Available
			

Not Available	Problem	OFF
		

SMS Messaging

Intel WWAN Manager also features the ability to send and receive SMS messages. See page 23 for more information.

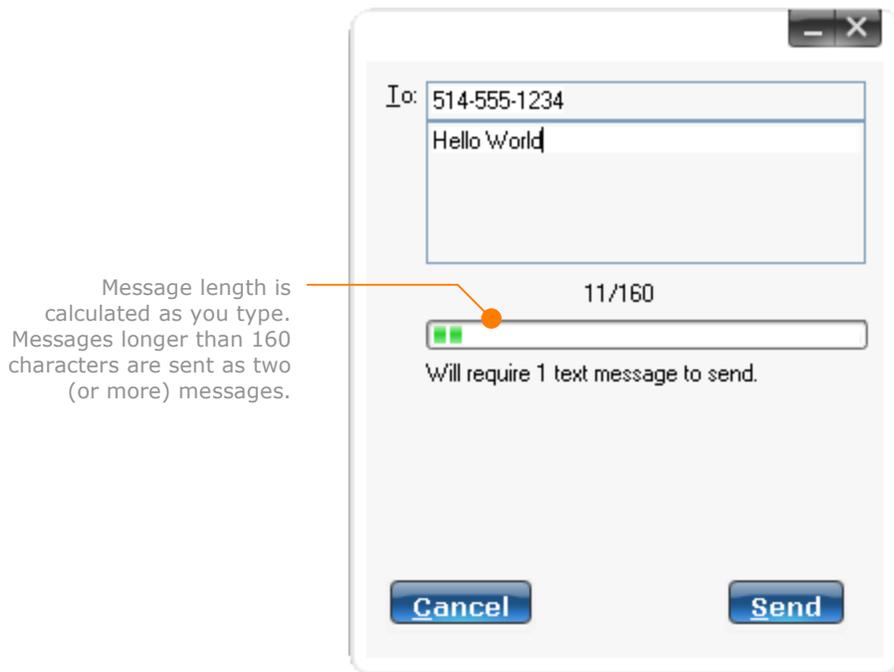


Figure 13 — Sending a new SMS message

Other Considerations

Personal Identification Numbers (PINs)

The use of a Personal Identification Number (PIN) is a standard security measure employed by Intel WWAN Manager to:

- identify you to a wireless service provider as a registered user
- prevent someone from using your wireless connection without permission

There are four different scenarios where you may have to enter a PIN to begin using a service:

1. You may choose to lock the SIM card yourself, requiring the entry of a PIN at the beginning of each session. The option to turn this on and off is in the Intel WWAN Manager General Preferences panel (see page 14).

2. If you are accessing the service for the first time, you will be asked to enter the PIN given to you by your service provider. The following message will be displayed in the dashboard:

"Congratulations! Your service has been activated. Your operator should have provided you a PIN to get started. Contact your operator if you do not have this PIN."

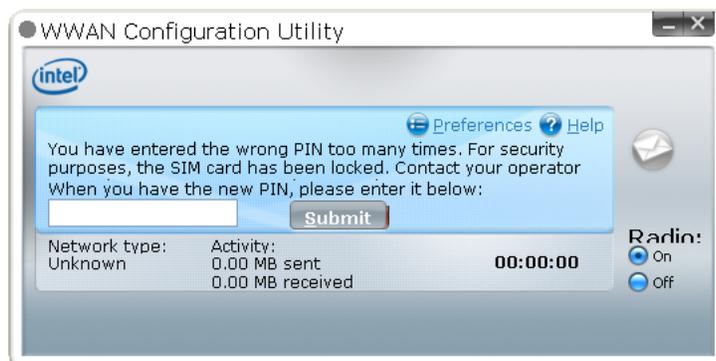
3. You may need to reactivate a service after it has been suspended. The following message will be displayed in the dashboard:

"Your service has been temporarily suspended due to non-payment. Contact your operator to arrange payment and receive a PIN to resume service."

4. The SIM has been locked due to the wrong PIN being entered repeatedly. The following message will be displayed in the dashboard:

"You have entered the wrong PIN too many times. For security purposes, the SIM card has been locked."

If you see this message, you must contact your wireless network operator to receive a new PIN to reactivate service. Enter it in the field provided, then click on the **Submit** button:



Wireless Adapter

Wireless adapter manufacturers occasionally release new firmware that improves the overall performance of their devices. However, it is up to your service provider to ensure that such upgrades are compatible with the Intel WWAN Manager. Please contact your service provider before performing any firmware upgrades.

SIM card

Every GSM (Global System for Mobile Communications) wireless adapter must have a SIM (Subscriber Identity Module) card so that a network operator can verify that a user attempting to make a connection has an active account. If you have a GSM wireless adapter, make sure that it has a SIM card, and that it is fully inserted. Note that this does not apply to wireless adapters that use CDMA (Code-Division Multiple Access).

Setting Intel WWAN Manager Preferences

Before you use your wireless WAN capability for the first time, we recommend that you review the settings in the Intel WWAN Manager Preferences panel. To view the panel, do the following:

1. Click on the **Preferences** button at the top right of the Intel WWAN Manager dashboard.

The Preferences panel appears, with the General preferences tab displayed:

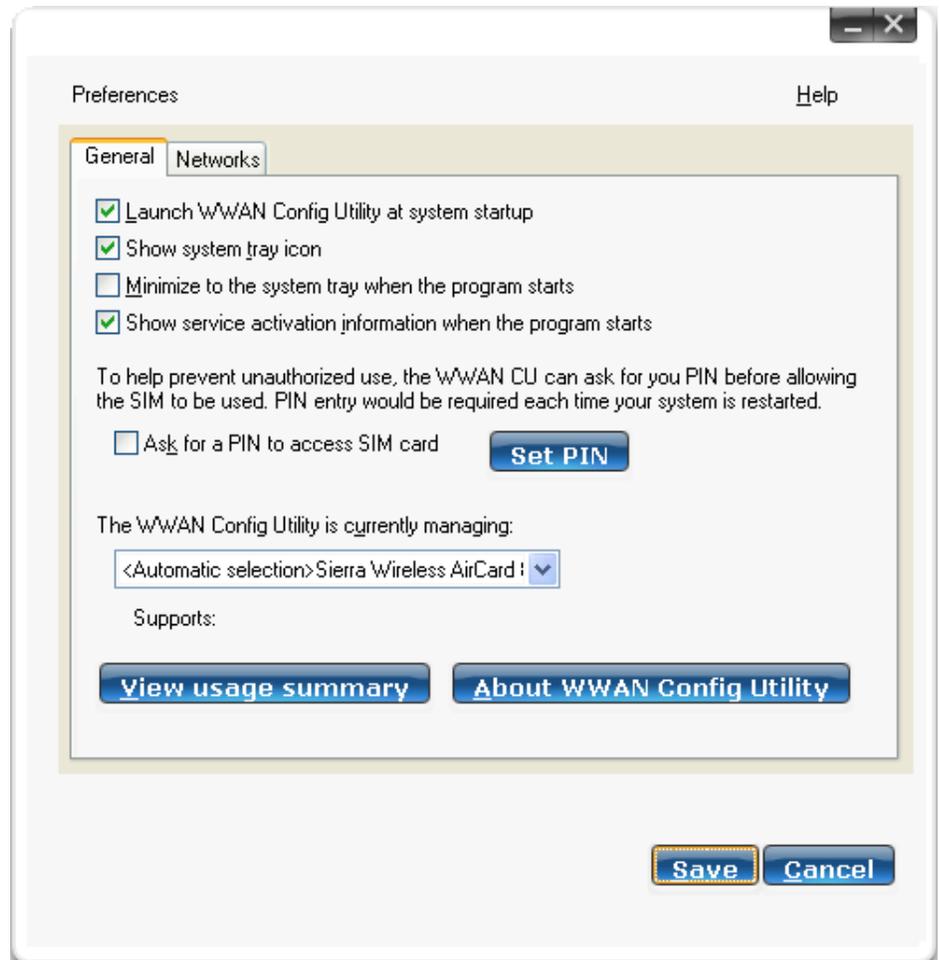
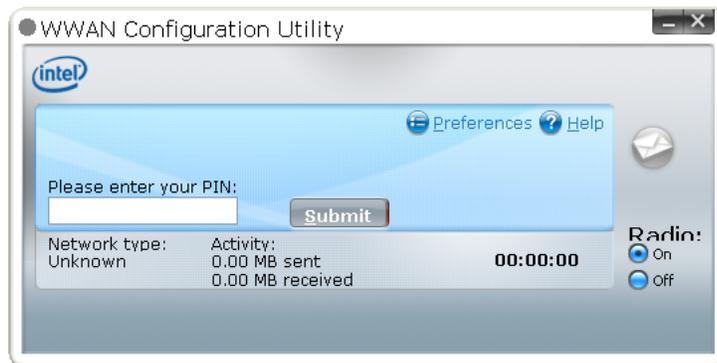


Figure 14 – General preferences

General Preferences

The General preference tab contains a number of options for controlling the way in which Intel WWAN Manager behaves:

- **Launch WWAN Config Utility at system startup** — Click on this checkbox in order to have Intel WWAN Manager run automatically each time you start your computer.
- **Show system tray icon** — Click on this checkbox to have the Intel WWAN Manager icon appear in the Windows system tray.
- **Minimize to the system tray when the program starts** — Click on this checkbox to have the Intel WWAN Manager dashboard minimize to the system tray on startup.
- **Show service activation information when the program starts** — Click on this checkbox to have the dashboard display information about service activation. The activation window is only displayed the first time you use the card. Once your card is activated, this message will not appear again. Note that not all service providers require activation.
- **Ask for a PIN to access SIM card** — To help prevent unauthorized use, Intel WWAN Manager can ask for a PIN number before allowing the wireless adapter to be used. Click on this checkbox to require PIN entry each time the WWAN Manager launches, as shown in the screen below:



- **Set PIN** — click on this button to enter a PIN number.
- **The WWAN Config Utility is currently managing:** — Choose a wireless adapter from this menu. If <Auto-detection> is selected, Intel WWAN Manager will attempt to identify any installed adapter(s).
- **Supports:** <protocol supported> — Once the adapter is specified, the wireless network protocol(s) supported by that adapter will be displayed just below.
- **View usage summary** — Click on this button to display the Usage Summary screen.
- **About WWAN Config Utility** — Click on this button to display the About Intel WWAN Manager screen.
- **Save** — Click on this button to apply and save your preferences settings.
- **Cancel** — Click on this button to cancel any changes to the preferences settings.

Setting a PIN Number

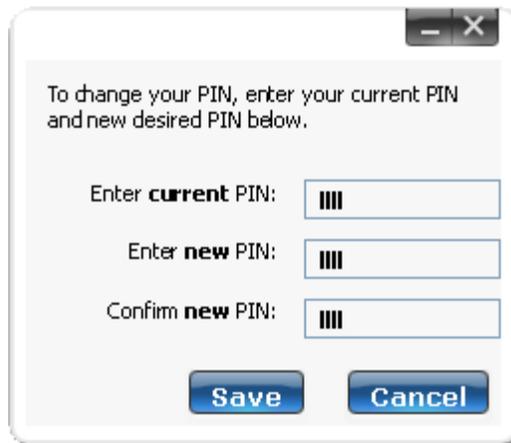
To set a PIN number, do the following:

1. Click on the **Set PIN** button. If this is the first time, the following dialogue box appears:



Enter a PIN number in the first field, then confirm your entry in the second.

If there is already a PIN number associated with your version of Intel WWAN Manager, the following screen appears:



Enter the existing PIN number in the first field, a new PIN number in the second field, then confirm your new entry in the third field.

2. Click on **Save** to apply the new PIN number.

If you forget your PIN number, you must contact your wireless network operator to receive a new PIN to reactivate service.

About the Intel WWAN Manager

Click on the **About Intel WWAN Manager** button (see General Preferences on page 14) to display the screen, which shows the version number of your Intel WWAN Manager software and what extra components and plugins have been installed.

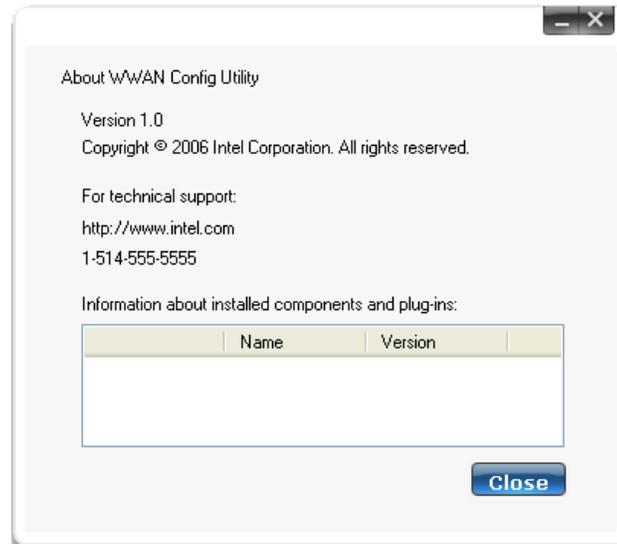


Figure 15 — About the Intel WWAN Manager application

Usage Summary

This screen displays a history (a log of all calls made) of previous wireless WAN sessions initiated using the Intel WWAN Manager, including:

- the session date and starting time
- the duration of each session (not intended for billing purposes)
- the amount of data transmitted and received per session, and their total
- cumulative usage details since the last time the wireless adapter was inserted, or your computer was restarted.

Click on the **Clear session list** button to erase the entries in the Usage summary list.

Click on the **Reset now** button to clear the values under "Use since last reset". Note that doing so will have no effect on the information reported under "Cumulative use".

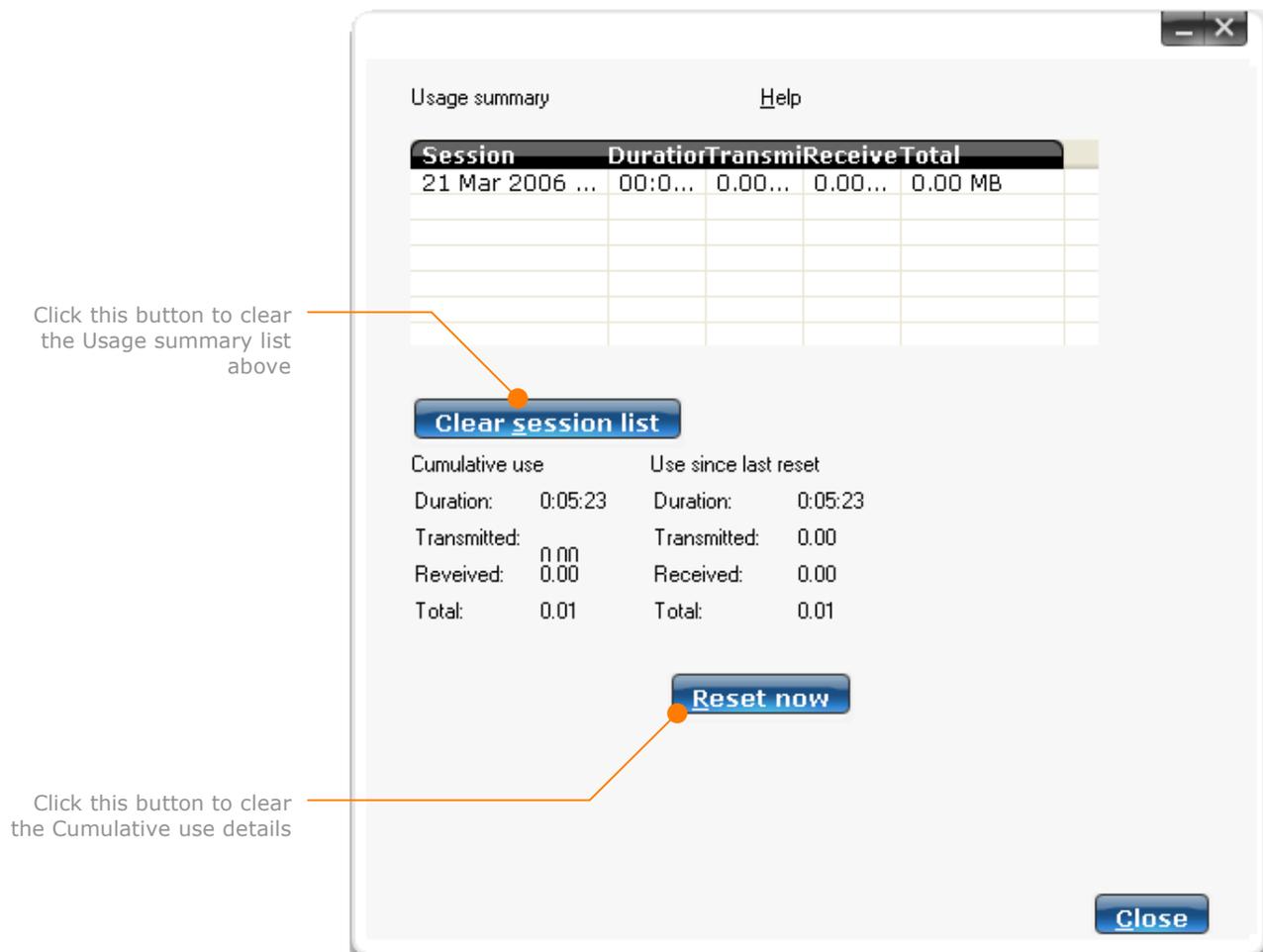


Figure 16 – Usage details

Network Preferences

The Network preference tab contains a number of options for controlling the way in which Intel WWAN Manager behaves:

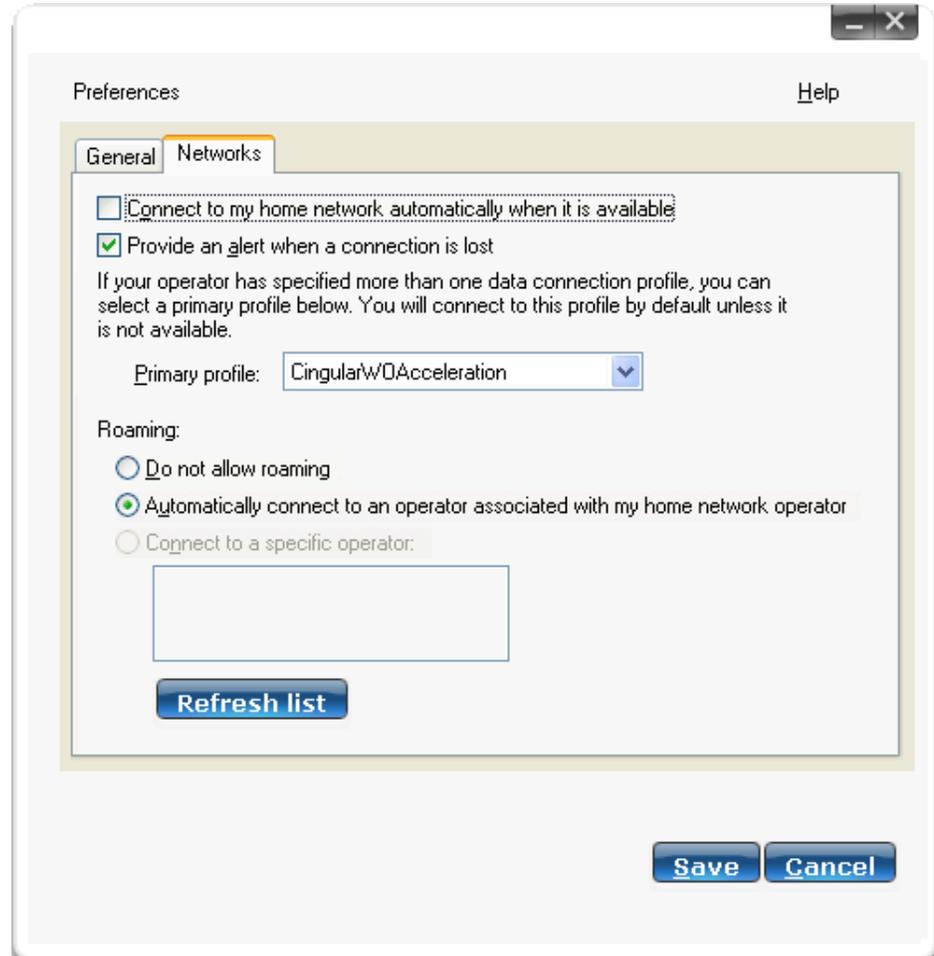


Figure 17 — Network preferences

- **Connect to my home network automatically when it is available** — Click on this checkbox to have Intel WWAN Manager automatically connect to your home network when it is available, either directly or when roaming. Your home network is the network that belongs to your service provider. The profile (see **Primary profile** below) for your service provider contains the information necessary to connect to your home network either directly or when roaming.
- **Provide an alert when a connection is lost** — Click on this checkbox to have Intel WWAN Manager display an alert message when the active connection is interrupted (see **Losing a Connection** on page 21).
- **Primary profile:** Intel WWAN Manager uses “profiles” to keep track of various parameters required to make a specific type of connection to a specific provider. Profiles are pre-loaded when Intel WWAN Manager is installed. If your operator has specified more than one data connection profile, you can

select a primary profile from this menu. You will connect to this profile by default, unless it is not available.

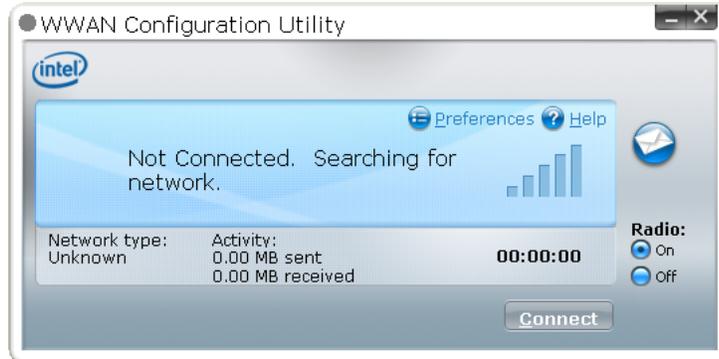
- **Do not allow roaming** — Select this option if you do not wish to enable Intel WWAN Manager's roaming feature. Note that roaming may incur additional charges, depending on your wireless plan.
- **Automatically connect to an operator associated with my home network operator** — Select this option if you wish to use the roaming feature to detect and connect to your home network.
- **Connect to a specific operator:** — Select this option if you wish to use the roaming feature to detect and connect to a specific service provider network (i.e. a partner of your primary network operator that has an agreement to enable roaming connections), then choose that provider from the list below.
- **Refresh list** — Click on this button to update the list of available service provider networks.
- **Save** — Click on this button to apply and save your preferences settings.
- **Cancel** — Click on this button to cancel any changes to the preferences settings.

Using Intel WWAN Manager

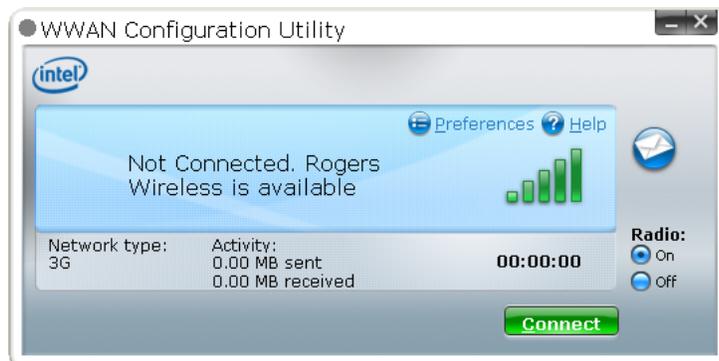
Connecting to a Wireless Network

To connect to a wireless network, do the following.

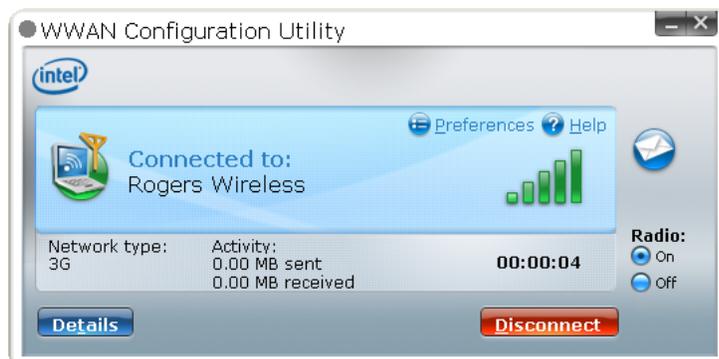
1. Launch the Intel WWAN Manager utility. The dashboard appears:



2. Make sure your wireless adapter (radio) is turned on. Wait for the adapter to detect an available network (10 to 15 seconds), then click on the **Connect** button:



3. Enter your PIN number, if prompted (see PIN Entry on page 11).
4. Once you have connected to the network, the dashboard display should look similar to this:



Disconnecting from a Wireless Network

Click on the **Disconnect** button at any time to end your active connection to the wireless network.

Losing a Connection

It may happen that your wireless adapter loses contact with the wireless network (e.g. when you move out of range). In such cases, the Intel WWAN Manager will notify you of the end your active connection to the wireless network:

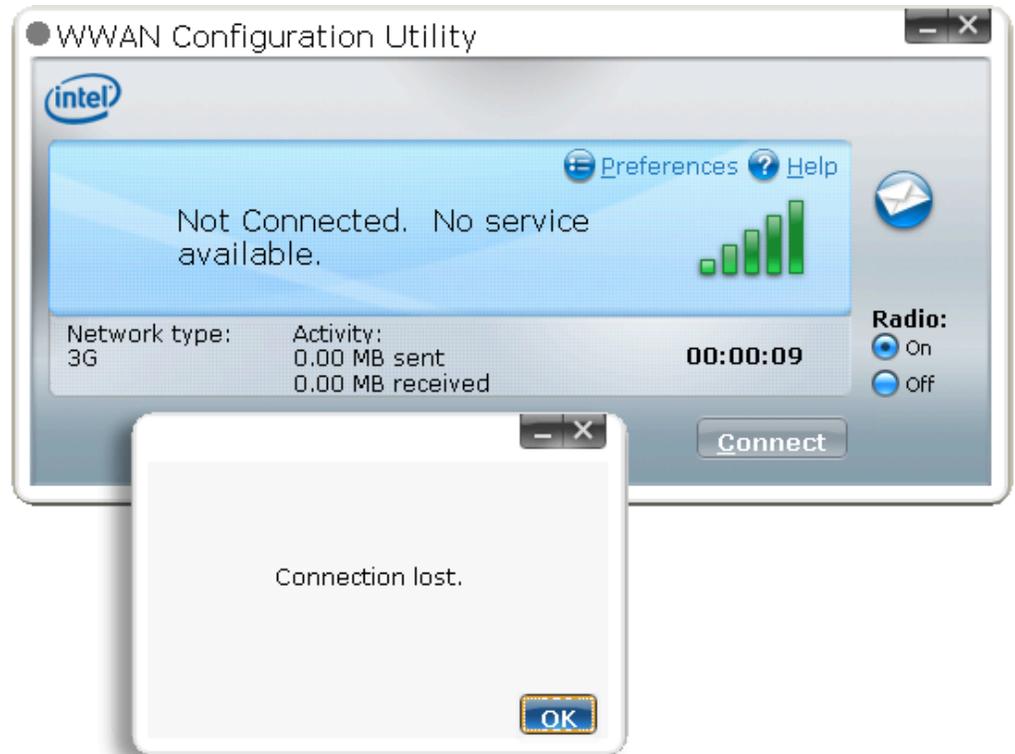
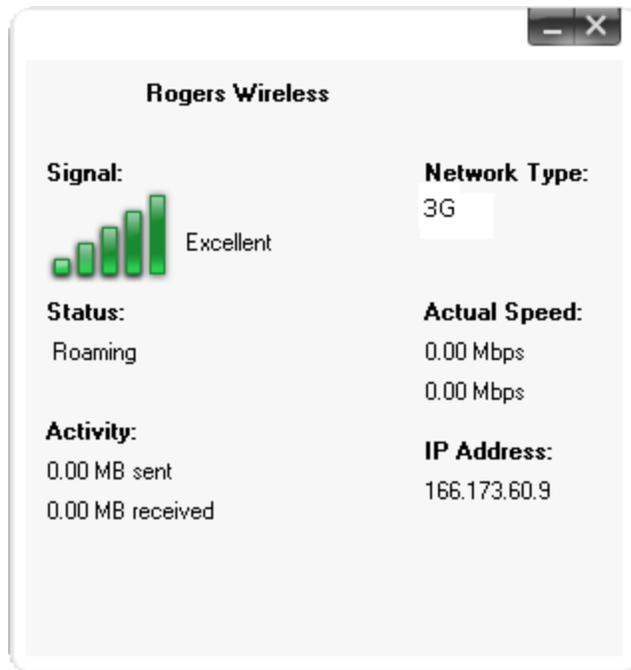


Figure 18 – Alert message (Connection lost)

Viewing Connection Details

The Intel WWAN Manager dashboard, as well as the system tray icon, provide summary information about your active connection. To view more detailed information, do the following. Note that none of this information is used for billing purposes.

1. Click on the **Details** button in the dashboard. The connection details screen appears:



- **Signal** — a graphical representation of signal strength. The signal strength can be Excellent, Good, Fair, Poor, Very Poor or No Signal. A Fair signal should be sufficient to maintain a good connection.
- **Status** — indicates whether the wireless adapter is in roaming mode
- **Network Type** — indicates the type of wireless network to which you are currently connected
- **IP Address** — the IP address assigned to your wireless adapter by the network's DHCP server
- **Actual Speed** — the actual maximum upload and download speeds you have achieved during the current session
- **Activity** — the amount of data you have uploaded and downloaded during the current session

SMS Messaging

SMS, or "Short Message Service", is a feature available with most digital phones that lets users send and receive short text messages¹ (up to 160 characters). Intel WWAN Manager has a built in SMS capability that allows you to send messages to and receive messages from other SMS users.

Sending an SMS message

To send an SMS message, do the following:

1. Click on the dashboard's **SMS icon** (see page 5). The SMS screen appears:



2. Click on the **New message** button, then type the message you wish to send. Intel WWAN Manager displays a running total of the message length. If your message runs longer than 160 characters, Intel WWAN Manager will indicate that it has to be sent as two or more separate messages (this is done automatically).



¹ A monthly fee is usually charged by wireless service providers for the ability to use SMS, and there is often an additional per message charge. Check your rate plan for details.

- When you are ready, click on the **Send** button. You should shortly see a confirmation message indicating that your message has been sent.

Viewing SMS messages

When a new SMS message is received, the SMS icon in the dashboard changes appearance.

The table below shows the various states of the SMS icon:

Normal	With cursor positioned over	With mouse button pressed down	Disabled
New Message(s) Received			
			
No New Messages			
			

To view SMS messages you have received, do the following:

- Click on the **SMS icon** in the dashboard. The SMS screen appears, displaying a list of messages received in chronological order (most recent at the bottom):



- Click on a message to view it.
- Click on the **Reply** button to compose and send a response.
- Click on the **Delete** button to erase the selected message.

For more information about the Intel WWAN Manager, please contact your wireless network service provider.