

DIAL-UP DATA

User's Guide

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1 Dial-Up Data Overview

Dial-Up Data Service provides dial-up connectivity through your Iridium phone to another computer, a remote LAN (e.g., a corporate network), or an Internet Service Provider (ISP). This service offers a typical data rate of 2.4 Kbps.

You will be able to use Dial-Up Data service just as you would use the modem on your computer to dial a call through the public switched telephone network (PSTN). The only differences are that the dialed telephone number must conform to the international dialing pattern used by Iridium, and that you will use your Iridium phone as the data modem. In essence, your Iridium phone appears as an external modem to your computer. Before using Dial-Up Data, you will need to install the Motorola Satellite Series Data Modem driver (provided on the Iridium World Data Services CD) on your computer. You will then be able to use standard software applications (e.g., Microsoft Dial-Up Networking) to initiate data calls with Dial-Up Data Service.

How it works

Dial-Up Data Service functions in much the same way. From the perspective of your computer, the Iridium handset is an external modem. On your computer, you will configure a dial-up networking connection. As part of that connection, you will identify the modem associated with the Iridium handset and the phone number to dial. Then, in dial-up networking you will enter your user name and password to access your ISP, and you will initiate the connection. Your handset will dial and initiate a connection with the Iridium gateway through the Iridium satellite constellation. Since your Iridium handset is requesting to establish a data connection, the switch at the gateway will route the call through a modem. The modem at the Iridium gateway will then dial into and connect to another modem at your ISP. Once connected and a session has been established, you can check your email and browse the Internet just like you would across the PSTN. Figure 1 illustrates how a Dial-Up data call is routed.

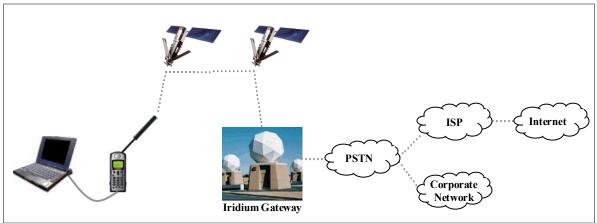


Figure 1. Iridium Dial-Up Data Connectivity

2 Hardware/Software Requirements

To use Iridium Dial-Up Data Service, you will need the following:

- ✓ A Windows®-based PC, with:
 - Windows® 95, 98, Me, NT4.0 (Service Pack 4 or later), 2000 or XP ٠
 - CD-ROM drive
 - Serial port
- ✓ A SIM Card that is provisioned for data (note that this SIM can also be used for voice calls).
- ✓ An Iridium Phone with a data-capable internal software version and additional hardware/software:

Iridium Phone Type	Software Version Required	Hardware/Software Required
Motorola 9500 Portable Phone	INC0620 or later ¹	Data Kit
Motorola 9505 Portable Phone	LAC109G or later ¹	Data Kit
Motorola 9520 Mobile Phone	RAC0620 or later ¹	Data CD
Motorola 9521 LBT-based products (e.g. the Iridium 9500 Data Module)	RAC0620 or later	Custom Cable, Power Supply ² and Data CD
Motorola 9522 LBT-based products	All software versions for the 9522 are data capable	Custom Cable, Power supply ² and Data CD
EuroCom Fixed Mount Unit	Transceiver software version 3.xx.xx or later ³	Serial Cable ⁴ and Data CD

¹ To check the software version: Turn the phone on and press *#91#.

² Consult product documentation for details.

³ Consult the user's guide that came with the phone for instructions on how to check the transceiver software version.

⁴ Included with the phone. Note that this is a "straight through" and **not** a null modem cable.

3 Modem Driver Installation and Configuration

Prior to using your Iridium phone as a modem for Dial-Up Data, you must do the following:

- Install the Motorola Satellite Series™ modem driver on your PC, and
- Set up and configure a dial-up networking connection.

This section contains instructions for installing the modem driver and configuring Dial-Up Networking in selected Microsoft Windows environments. These instructions are identical to those that you would use to install and configure any new modem in Microsoft Windows. If you cannot find your operating system below, please refer to the user manual provided with your computer and follow the instructions for installing a new modem.

- Note: In order to proceed, Dial-Up Networking must be installed on your computer. Dial-Up Networking is a standard Windows feature that is typically installed by default when a computer is initially set up. If Dial-Up Networking is not installed on your computer, please refer to the user manual provided with your operating system and follow the instructions for installing Dial-Up Networking.
- \Rightarrow For Windows 95, 98 or Me, complete the steps in section 3.1
- \Rightarrow For **Windows NT4.0**, complete the steps in section **3.2**
- \Rightarrow For Windows 2000, complete the steps in section 3.3
- \Rightarrow For Windows XP, complete the steps in section 3.4

3.1 Windows 95/98/Me Setup

In order to install the modem driver and configure dial-up networking, you will need the following:

- ✓ The Iridium World Data Services CD
- ✓ An available communications port on your computer (e.g., COM1)

Note: The following instructions are for Windows Me. Windows 95 and 98 are very similar in appearance, but the individual screens you see may differ slightly.

3.1.1 Install the Modem Driver – Windows 95/98/Me

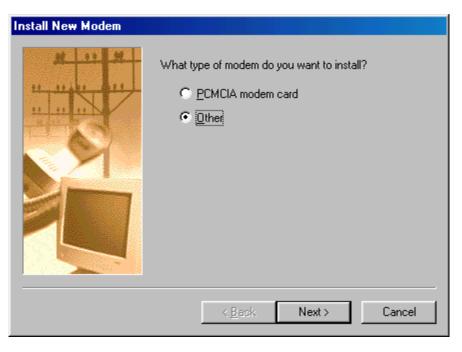
- 1. Close all applications.
- 2. Choose Start > Settings > Control Panel to open the Control Panel window.
- 3. Double-click on *Modems* to open the Modem Properties window.

Note: If no modems are currently installed on your computer, you will not see the Modem Properties window. In this case, skip to step 5.

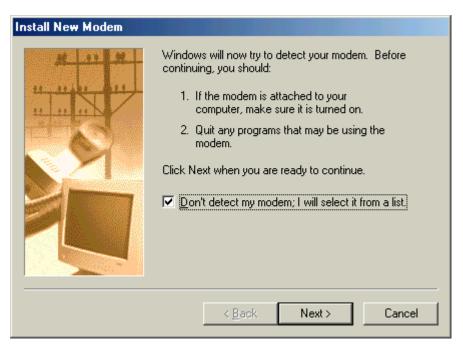
4. Click the *General* tab, and you will see all the modems installed on your computer. Click on <u>A</u>dd... to open the Install New Modem window. This will begin the modem installation procedure. Henceforth, you can cancel at any time without affecting your system by clicking *Cancel*.

Modems Properties	
General Diagnostics	
The following modems are set up on this computer:	
SS ES56CVM-PI Data Fax Voice Modem	
Add Remove Properties	
Dialing preferences Dialing from: Home	
Click Dialing Properties to modify how your calls are dialed.	
Close Cancel	

5. If you are using a laptop, you may be presented with the following screen. Select the *Other* radio button and click *Next* >.



6. Choose the checkbox marked "Don't detect my modem; I will select it from a list." Then, click *Next* >.



7. Click on <u>Have Disk...</u>

nstall New Modem		
Click the manufacturer and model of your modern. If your modern is not listed, or if you have an installation disk, click Have Disk.		
Manufacturers: Models Standard Modem Types) Standard 1200 bps Modem SCOM Standard 2400 bps Modem AlWA Standard 9600 bps Modem British T elecom Standard 14400 bps Modem Dynalink Standard 19200 bps Modem ESS T echnolgy, Inc. Standard 28800 bps Modem Motorola Standard 33600 bns Modem		
< <u>B</u> ack Next≻ Cancel		

8. The default drive setting is A:\, which is the default floppy drive on most computers. Insert the Iridium World Data Services CD into your CD drive, and click Browse...

Install From Disk		×
_	Insert the manufacturer's installation disk into the drive selected, and then click OK.	ОК
		Cancel
	Copy manufacturer's files from:	Browse

9. Browse to the *Dial-Up Data* directory on the CD, and then click *OK*.

Open		? ×
File <u>n</u> ame: satellite.inf	Eolders: D:\Dial-Up Data Modem	OK Cancel N <u>e</u> twork
	Drives:	

10. In the Install New Modem window, select the *Motorola Satellite Series Data Modem* and click *Next* >.

nstall New Modem	
	Click the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Mode <u>l</u> s Motoro	la Satellite Series Data Modem
	Have Disk
	< <u>B</u> ack Next > Cancel

11. Select an available Communications Port (or COM Port) on which to install the modem (e.g., COM1), and click *Next* >. This is the port to which you will connect your Iridium phone.

Install New Modem	
	You have selected the following modem: Motorola Satellite Series Data Modem Select the port to use with this modem: Communications Port (COM1) ECP Printer Port (LPT1)
	< <u>B</u> ack Next > Cancel

12. Click Finish.

Install New Modem	
	Your modem has been set up successfully. If you want to change these settings, double-click the Modems icon in Control Panel, select this modem, and click Properties.
	< Back Finish Cancel

13. Click either *Close* or *OK* to close the Modem Properties window.

Modems Properties	
General Diagnostics	
The following modems are set up on this computer:	
SS ES56CVM-PI Data Fax Voice Modem	
Notorola Satellite Series Data Modem	
Add Remove Properties	
Dialing preferences	
Dialing from: Home	
Click Dialing Properties to modify how your calls are dialed.	
Dialing Properties	
Close Cancel	

14. You have now completed the installation of the Motorola Satellite Series Data Modem. Continue with section 3.1.2.

3.1.2 Configure Dial-Up Networking – Windows 95/98/Me

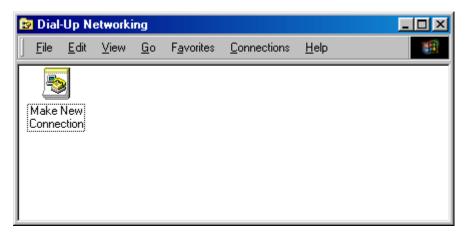
In order to use your Iridium handset for dial-up networking, you need to create a new dial-up networking connection.

In Windows 95: Choose Start > Programs > Accessories > Dial-Up Networking In Windows 98/Me: Choose Start > Programs > Accessories > Communications > Dial-Up Networking

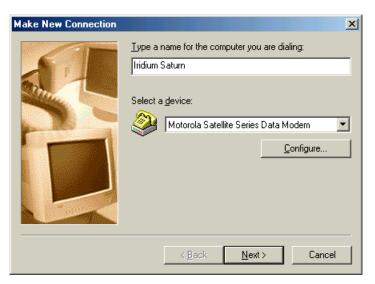
In the Dial-Up Networking window, you can modify an existing connection type or create a new connection type. Unless you are comfortable using the dial-up networking options, we recommend that you create a new connection type for Dial-Up Data.

To Create a New Connection Type:

1. In the Dial-Up Networking window, double-click *Make New Connection*. Henceforth, you can cancel at any time without affecting your system by clicking *Cancel*.



 In the Make New Connection window, enter a connection name and select *Motorola Satellite* Series Data Modem from the device list. For example, if you are creating a connection to your ISP and your ISP is called Saturn Internet, you might name your connection "Iridium Saturn." Click Next >.



- 3. In the Make a New Connection window, you must do the following:
 - In the *Telephone number* box, enter the telephone number you wish to use for your connection. **Enter the number in international dialing format:**

00 + Country Code + Area Code/Phone Number.

For example, if you are dialing an ISP in Tempe, Arizona, USA, you would enter 00 1 480 555 5555, where 1 is the country code and 480.555.5555 is the ISP's telephone number. *Please note that this is not a valid telephone number!*

Note: This is the same dialing pattern used for voice calls. In fact, you can verify that you are dialing the correct number for your ISP by dialing the number as a voice call on your satellite phone. You should hear your ISP's modem tones if dialed properly.

Leave the Area Code box blank

Click Next >.

Make New Connection	×
	Type the phone number for the computer you want to call: Area code: Ielephone number:
	< Back Next > Cancel

4. Click Finish to save your new Dial-Up Networking connection.



5. In the Dial-Up *Networking* window, right click on your new dial-up connection and select *Properties*.



6. Upon selecting *Properties*, you will see a window similar to the one shown below. Select the *General* tab, and then de-select the check box for "*Use area code and Dialing Properties*." Also, verify that you have entered the correct phone number. Set up the parameters for the rest of the menus (for example, Networking) as required by your ISP.

Iridium Saturn ? 🗙		
General Networking Security Scripting Multilink Dialing		
드라 Iridium Saturn		
Phone number:		
Area code: Telephone number:		
- 001 480 555 5555		
Country code:		
United States of America (1)		
Use area code and Dialing Properties		
Connect using:		
🔊 Motorola Satellite Series Data Modem 🖃		
<u>C</u> onfigure		
OK Cancel		

- 7. Click OK to return to the Dial-up Networking window. Close the Dial-up Networking window.
- 8. You have now completed the configuration of Dial-Up Networking. To connect your hardware and initiate a dial-up data call, continue with section **4**.

3.2 Windows NT4.0 Setup

In order to install the modem driver and configure dial-up networking, you will need the following:

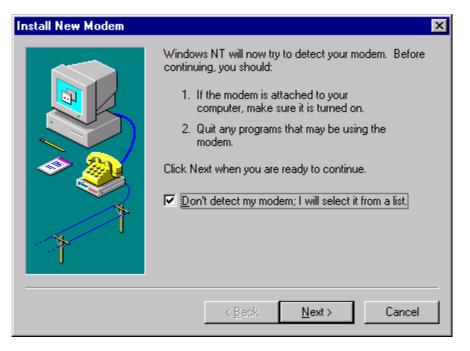
- ✓ The Iridium World Data Services CD
- ✓ An available communications port on your computer (e.g., COM1)
- ✓ Administrator privileges for Windows NT4.0

3.2.1 Install the Modem Driver – Windows NT4.0

- 1. Close all applications.
- 2. Choose *Start* > *Settings* > *Control Panel* to open the Control Panel window.
- 3. Double click on *Modems* to open the Modems Properties window.
- 4. Click the *General* tab, and you will see all the modems installed on your computer. Click on *Add…* to open the Install New Modem window. This will begin the modem installation procedure. Henceforth, you can cancel at any time without affecting your system by clicking *Cancel*.

Modems Properties ? 🗙
General
The following modems are set up on this computer:
Modem Attached To
SCom 56K V.90 Mini PCI Modem COM4
Add <u>R</u> emove <u>Properties</u>
Dialing from:
Use Dialing Properties to modify how your calls are dialed. <u>D</u> ialing Properties
Close Cancel

5. Choose the checkbox marked "Don't detect my modem; I will select it from a list." Then, click *Next* > to open the Install New Modem window.



6. Click on Have Disk... to open the Install From Disk window.

Install New Modem 🛛 🗙
Click the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Manufacturers: Models Standard Modem Types Iai-Up Networking Serial Cable between 2 PCs Standard 300 bps Modem Standard 300 bps Modem Standard 1200 bps Modem Standard 1200 bps Modem Acer Standard 9600 bps Modem Alltron Standard 14400 bps Modem Standard 19200 bns Modem Tailore
< <u>B</u> ack <u>N</u> ext > Cancel

7. The default drive setting is A:\, which is the default floppy drive on most computers. Insert the Iridium World Data Services CD into your CD drive, and browse to the *Dial-Up Data* directory on the CD. Click *OK*.

Install Fro	om Disk	×
-	Insert the manufacturer's installation disk into the drive selected, and then click OK.	OK Cancel
	Copy manufacturer's files from:	Browse

8. In the Install New Modem window, select the Motorola Satellite Series Data Modem and click *Next* >.

Install N	ew Modem			X
٩	Click the manufacturer and mo or if you have an installation di			modem is not listed,
Mode <u>l</u> s	la Satellite Series Data Modern			
Motoro	la Satellite Series Data Modem			
				Have Disk
]	< <u>B</u> ack	<u>N</u> ext >	Cancel

9. Click the "Selected ports" radio button, and select an available Communications Port (or COM Port) on which to install the modem (e.g., COM1) and click *Next* >. This is the port to which you will connect your Iridium phone.

Install New Modem		×
Install New Modem	You have selected the following modern: Motorola Satellite Series Data Modern On which ports do you want to install it? All ports Selected ports COM1	
	COM2 COM3 COM4 < <u>Back N</u> ext > (Cancel

10. Click Finish to close the Install New Modem window.



11. Click *Close* to close the Modems Properties window.

Modems Properties	? ×
General	
The following modems are :	set up on this computer:
Modem	Attached To
🔷 🕪 3Com 56K V.90 Mini PCI Modem	COM4
😂 Motorola Satellite Series Data	COM1
<u>Add</u> <u>R</u> emove	Properties
Dialing Preferences	
Dialing from:	
Use Dialing Properties to modify h dialed.	ow your calls are
Dialing Prope	rties
	Close Cancel

12. The Modem Setup window appears and asks if you would like to configure Dial-Up Networking. Click Yes.

Modem S	etup 🔀
?	Dial-up Networking needs to be configured because the list of installed modems has changed. Would you like to do this now?
	<u>Y</u> es <u>N</u> o

13. The Remote Access Setup window appears. Click Add to continue. Note: If a modem is already installed on the COM port that you would like to use for the Motorola Satellite Series Data Modem, select the modem in the list and click Remove.

Remote Acc	ess Setup		X
<u>P</u> ort	Device	Туре	
COM4	3Com 56K V.90 Mini PCI Mo	Modem (unimodem)	Continue
			Cancel
			<u>N</u> etwork
			<u>H</u> elp
<u>A</u> dd	<u>R</u> emove <u>C</u> onfigure	Cjone	

14. Select the Motorola Satellite Series Data Modem from the list of RAS capable devices. Click OK to add the entry to the Remote Access Setup list.

Add RAS Device	×
RAS Capable <u>D</u> evices:	OK
COM1 - Motorola Satellite Series Data N 💌	Cancel
	<u>H</u> elp
	Install <u>M</u> odem
	Install X25 <u>P</u> ad

15. The new entry is added to the list of modems. Click *Continue*.

Remote Access	: Setup		×
<u>P</u> ort	Device	Туре	
COM1	Motorola Satellite Series Dat		Continue
COM4	3Com 56K V.90 Mini PCI Mo	. Modem (unimodem)	Cancel
			<u>N</u> etwork
			<u>H</u> elp
	<u>R</u> emove <u>C</u> onfigure	Clone	

- 16. When the computer asks if you would like to restart the computer, click Yes.
- 17. You have now completed the installation of the Motorola Satellite Series Data Modem. Continue with section **3.2.2**.

3.2.2 Configure Dial-Up Networking – Windows NT4.0

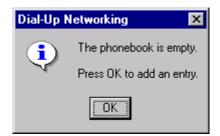
In order to use your Iridium handset for dial-up networking, you need to create a new dial-up networking connection.

In the Dial-Up Networking window, you can modify an existing connection type or create a new connection type. Unless you are comfortable using the dial-up networking options, we recommend that you create a new connection type for Dial-Up Data.

To Create a New Connection Type:

There are two possible sequences of windows that could arise depending on whether or not the New Phonebook Entry Wizard has previously been disabled. The following instructions assume that the wizard is *not* used. If you are using the Wizard, use the information from the following instructions to populate the Wizard screens.

 Choose Start > Programs > Accessories > Dial-Up Networking to open the Dial-Up Networking window. If Dial-Up Networking has no "phonebook entries", the following window will appear. Click OK if this window appears.



2. If a phonebook entry already exists, a window similar to the following will appear. Click New.

🥾 Dial-Up Networking	? 🗙
	Phonebook entry to dial: MyDialUpServer New More ▼ Phone number preview: 555 5555 Dialing from: New Location Location
	<u>D</u> ial <u>C</u> lose

- 3. The New Phonebook Entry window appears. You must do the following:
 - In the *Entry name* box, enter a connection name. For example, if you are creating a connection to your Internet Service Provider, and your ISP is called "Saturn Internet", you might name your connection "Iridium Saturn."
 - In the *Phone number* box, enter the telephone number you wish to use for your connection. Enter the number in international dialing format:

00 + Country Code + Area Code/Phone Number.

For example, if you are dialing an ISP in Tempe, Arizona, USA, you would enter 00 1 480 555 5555, where 1 is the country code and 480.555.5555 is the ISP's telephone number. *Please note that this is not a valid telephone number!*

Note: This is the same dialing pattern used for voice calls. In fact, you can verify that you are dialing the correct number for your ISP by dialing the number as a voice call on your satellite phone. You should hear your ISP's modem tones if dialed properly.

- De-select the "Use Telephony dialing properties" check-box.
- In the Dial using list, select "Motorola Satellite Series Data Modem".

Click Configure...

New Phoneboo	ok Entry			? ×
Basic	Server	Script	Security	X.25
<u>E</u> ntry name: Co <u>m</u> ment:	Iridium Sa	turn		
Phone <u>n</u> umbe		i55 5555 elephony dialing	properties	<u>A</u> lternates
<u>D</u> ial using:		Satellite Series I nother port if bu:		Configure
			OK	Cancel

4. Verify the proper settings according to the window below. Click *OK* to save any changes. Upon returning to the New Phonebook Entry window, click *OK*.

Modem Configuration	? X
Motorola Satellite Series Data Modem	(CO
Initial speed (bps): 19200	•
Hardware Features	
Enable hardware <u>f</u> low control	
Enable modem error control	
Enable modern <u>c</u> ompression	
1]
Disable modem <u>s</u> peaker	
OK Cano	el

- 5. Close the Dial-Up Networking window.
- 6. You have now completed the configuration of Dial-Up Networking. To connect your hardware and initiate a dial-up data call, continue with section **4**.

3.3 Windows 2000 Setup

In order to install the modem driver and configure dial-up networking, you will need the following:

- ✓ The Iridium World Data Services CD
- ✓ An available communications port on your computer (e.g., COM1)
- ✓ Administrator privileges for Windows 2000

3.3.1 Install the Modem Driver – Windows 2000

- 1. Close all applications
- 2. Choose *Start* > *Settings* > *Control Panel* to open the Control Panel window.
- 3. Double click on *Phone and Modem Options* to open the Phone and Modem Options window.
- 4. Click the Modems tab, and you will see all the modems installed on your computer. Click on *Add…* to open the Add/Remove Hardware Wizard for installing a new modem. This will begin the modem installation procedure. Henceforth, you can cancel at any time without affecting your system by clicking *Cancel*.

Phone And Modem Options	<u>? ×</u>
Dialing Rules Modems Advanced	
The following <u>m</u> odems are installed:	
Modem Attached To	
I.S. Robotics 56K Voice PCI COM3	
Add <u>R</u> emove <u>Properti</u>	es
OK Cancel Ap	ply

5. Choose the checkbox marked "Don't detect my modem; I will select it from a list." Then, click *Next* > to open the Install New Modem window of the Add/Remove Hardware Wizard.

Add/Remove Hardware Wizard				
Install New Modem Do you want Windows I	to detect your modem?			
	 Windows will now try to detect your modem. Before continuing, you should: 1. If the modem is attached to your computer, make sure it is turned on. 2. Quit any programs that may be using the modem. Click Next when you are ready to continue. Image: Don't detect my modem; I will select it from a list. 			
	< <u>B</u> ack <u>N</u> ext > Cancel			

6. Click on *Have Disk…* to open the Install From Disk window.

Add/Remove Hardware Wizard
Install New Modem
Select the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Manufacturers: Models: Standard Modem Types) Communications cable between two computers Standard 300 bps Modem Standard 300 bps Modem Standard 1200 bps Modem Standard 2400 bps Modem Acer Standard 9600 bps Modem Ation Tool Standard 1900 bps Modem Standard 1900 bps Modem Standard 19200 bps Modem Manufacturers Models:
< <u>B</u> ack <u>N</u> ext > Cancel

7. The default drive setting is A:\, which is the default floppy drive on most computers. Insert the Iridium World Data Services CD into your CD drive, and click *Browse…*

Install Fro	om Disk	×
_	Insert the manufacturer's installation disk into the drive selected, and then click OK.	OK Cancel
	Copy manufacturer's files from:	<u>B</u> rowse

8. Browse to the *Dial-Up Data* directory on the CD, and then click OK.

Open		<u>?</u> ×
File <u>n</u> ame: satellite.inf	Eolders: D:\Dial-Up Data Modem	OK Cancel N <u>e</u> twork
	Drives:	

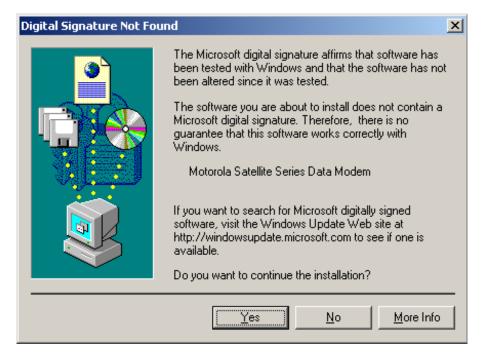
9. In the Install New Modem window, select the Motorola Satellite Series Data Modem and click *Next* >.

Add/Rer	nove Hardware Wizard			
Insta	ll New Modem			
	Select the manufacturer and model of yo have an installation disk, click Have Disk	ur modem. If your 	modem is not	listed, or if you
Mode <u>l</u> s:	ila Satellite Series Data Modem			
				<u>H</u> ave Disk
		< <u>B</u> ack	<u>N</u> ext >	Cancel

10. Click the "Selected ports" radio button, and select an available Communications Port (or COM Port) on which to install the modem (e.g., COM1). This is the port to which you will connect your Iridium phone. Click *Next* >.

Add/Remove Hardware Wi	izard	
Install New Modem Select the port(s) you v	want to install the modem on.	
	You have selected the following modem: Motorola Satellite Series Data Modem On which ports do you want to install it? All ports Selected ports COM1	
	< <u>B</u> ack <u>N</u> ext > Ca	incel

11. The following window will appear. Click Yes.



12. Click Finish to close the Install New Modem window.



13. Click *OK* to close the Phone and Modem Options window.

Phone And	Modem Options		? X
Dialing Ru	es Modems Advanced		
	The following modems are instal	led:	
Modem		Attached To	
🤔 Moto	orola Satellite Series Data Modem	COM1	
🧇 U.S.	Robotics 56K Voice PCI	COM3	
<u> </u>			
	A <u>d</u> d	<u>R</u> emove	<u>P</u> roperties
	ОК	Cancel	Apply

14. You have now completed the installation of the Motorola Satellite Series Data Modem. Continue with section **3.3.2**.

3.3.2 Configure Dial-Up Networking – Windows 2000

In order to use your Iridium handset for dial-up networking, you need to create a new dial-up networking connection.

In the Network and Dial-Up Connections window, you can modify an existing connection type or create a new connection type. Unless you are comfortable using the dial-up networking options, we recommend that you create a new connection type for Dial-Up Data.

To Create a New Connection Type:

- 1. Choose *Start > Programs > Accessories > Communications > Network and Dial-up Connections* to open the Network and Dial-Up Connections window.
- In the Network and Dial-Up Connections window, double-click *Make New Connection* to open the Network Connection Wizard. Henceforth, you can cancel at any time without affecting your system by clicking *Cancel*. To continue, click *Next* >.



3. In the Network Connection Type window of the Network Connection Wizard, select the appropriate Dial-up connection type (either "Dial-up to private network" or "Dial-up to the Internet"). This example assumes you are creating a connection to your Internet Service Provider. Click *Next* >.

Network Connection Wizard
Network Connection Type You can choose the type of network connection you want to create, based on your network configuration and your networking needs.
 Dial-up to private network Connect using my phone line (modem or ISDN). Dial-up to the Internet Connect to the Internet using my phone line (modem or ISDN).
Connect to a private network through the Internet Create a Virtual Private Network (VPN) connection or 'tunnel' through the Internet.
C Accept incoming connections Let other computers connect to mine by phone line, the Internet, or direct cable.
Connect directly to another computer Connect using my serial, parallel, or infrared port.
< <u>B</u> ack <u>N</u> ext > Cancel

4. In the Internet Connection Wizard, select "I want to set up my Internet connection manually...". Click *Next* >.

Internet Connection Wizard		×
	Welcome to the Internet Connection Wizard	
	The Internet Connection wizard helps you connect your computer to the Internet. You can use this wizard to set up a new or existing Internet account.	
	$\mathbf C$ I want to sign up for a new Internet account. (My telephone line is connected to my modern.)	
	C I want to transfer my existing Internet account to this computer. (My telephone line is connected to my modem.)	
	I want to set up my Internet connection <u>manually</u> , or I want to connect through a local area network [LAN].	
	To leave your Internet settings unchanged, click Cancel.	
	To learn more about the Internet, click Tutorial.	
	< <u>B</u> ack <u>N</u> ext > Cancel	

5. In the Internet Connection Wizard, select "I connect through a phone line and a modem." Click *Next* >.

Internet Connection Wizard	×
Setting up your Internet connection	×
If you have an Internet service provider account, you can use your phone line and a modem to connect to it. If your computer is connected to a local area network (LAN), you can gain access to the Internet over the LAN.	
How do you connect to the Internet?	
< <u>B</u> ack <u>N</u> ext≻ Ca	ancel

6. The following Internet Connection Wizard window appears only if you have more than one modem installed. If this window appears, choose the Motorola Satellite Series Data Modem from the drop down list. Then, click *Next* >.

Internet Connection Wizard	×
Choose Modem	×
Select a <u>m</u> odem to use to connect to the Internet:	
< <u>B</u> ack <u>N</u> ext >	Cancel

- 7. In the Internet Connection Wizard window, you must do the following:
 - In the *Telephone number* box, enter the telephone number you wish to use for your connection. **Enter the number in international dialing format:**

00 + Country Code + Area Code/Phone Number.

For example, if you are dialing an ISP in Tempe, Arizona, USA, you would enter 00 1 480 555 5555, where 1 is the country code and 480.555.5555 is the ISP's telephone number. *Please note that this is not a valid telephone number!*

Note: This is the same dialing pattern used for voice calls. In fact, you can verify that you are dialing the correct number for your ISP by dialing the number as a voice call on your satellite phone. You should hear your ISP's modem tones if dialed properly.

• De-select the checkbox for "Use area codes and dialing rules." (Note: This will "gray-out" the *Area code* and *Country/Region name and code* boxes. Because they are grayed-out, it does not matter what these boxes contain)

Click Next >.

Tour de staar oorden oorden statu			
Type the phone number you dial to c	connect to your 15P.		
Area code: <u>I</u> elephone number:			
- 001 480 555 5555			
Country/region name and code:			
United States of America (1)	-		
☐ Use area code and dialing rules To configure connection properties, (Most ISPs do not require advanced	click Advanced. settings.)	Ad <u>v</u> anced	

8. In the Internet Connection Wizard, enter your user name and password to access your ISP. Click *Next* >.

Internet Connection Wizard	×
Step 2 of 3: Internet account logon information	×
Type the user name and password you use to log on to your ISP. Your user name may also be referred to as your Member ID or User ID. If you do not know this information, contact your ISP.	
User name: user name Password: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
<u> < B</u> ack <u>N</u> ext >	Cancel

9. In the Internet Connection Wizard, enter a connection name. For example, if you are creating a connection to your ISP and your ISP is called Saturn Internet, you might name your connection "Iridium Saturn." Click *Next* >.

Internet Connection Wizard	×
Step 3 of 3: Configuring your computer	×
Information about your Internet account is grouped together as a dial-up connection and labeled with a name you provide.	
Type a name for the dial-up connection. This can be the name of your ISP or any name you want to use.	
Connection name: Iridium Saturn	
< <u>B</u> ack <u>N</u> ext >	ancel

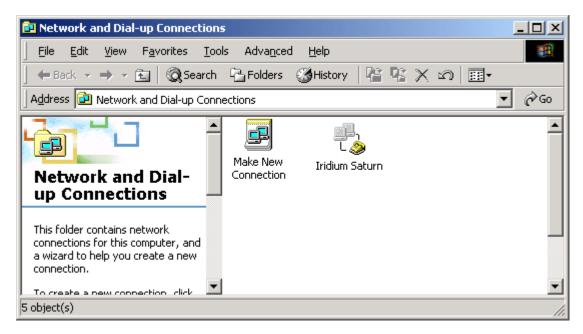
10. In the Internet Connection Wizard, if you have already configured your email (or you are not using Microsoft Outlook), select "No." Click *Next* >.

Internet Connection Wizard	×
Set Up Your Internet Mail Account	ž
An Internet mail program is installed on your computer. Internet mail allows you to receive and send e-mail messages.	
To successfully set up your Internet mail account, you must have already signed up for an e-mail account with an Internet service provider and obtained important connection information. If you are missing any information the wizard asks you to provide, contact your Internet service provider.	
Do you want to set up an Internet mail account now?	
O <u>Y</u> es	
© Ng	
< <u>B</u> ack <u>N</u> ext>	Cancel

11. In the Internet Connection Wizard, de-select "To connect to the Internet immediately...". Click Finish to save your new connection.

Internet Connection Wizard		×
Internet Connection Wizard	Completing the Internet Connection wizard. You have successfully completed the Internet Connection wizard. Your computer is now configured to connect to your Internet account. After you close this wizard, you can connect to the Internet at any time by double-clicking the Internet Explorer icon on your desktop. Image: The connect to the Internet immediately, select this box and then click Finish. To close the wizard, click Finish	×
	< <u>B</u> ack Finish Cancel	

12. In the Dial-Up Networking window, right click on your new dial-up connection and select *Properties*.



13. Upon selecting *Properties*, you will see the window below. Select the *General* tab, and verify the settings with the figure below. Also, verify that you have entered the correct telephone number. (Note that your telephone number should be seen in place of 001 480 555 5555).

Iridium Saturn Properties
General Options Security Networking Sharing
Connec <u>t</u> using:
✓ Addem - Motorola Satellite Series Data Modem (COM
All devices call the same numbers
Phone number for Motorola Satellite Series Data Modem
Area code: Phone number: Image: O01480 555 5555 Alternates
Country/region code:
Use dialing rules
Sho <u>w</u> icon in taskbar when connected
OK Cancel

14. From the General menu, click *Configure…* to verify the proper settings. The settings should match the figure below. Click *OK* to return to the Properties window, and then click *OK* again to close the Properties window.

Modem Configuration	<u>?</u> ×
Motorola Satellite	Series Data Modem (COM1)
<u>M</u> aximum speed (bps):	19200 💌
Modem protocol	_
Hardware features	
Enable hardware flow	v control
En <u>a</u> ble modem error o	control
Enable modem comp	ression
- Initialization	
Show terminal window	w
🗖 <u>B</u> un script:	Y
	Edit
🔲 Enable mo <u>d</u> em speaker	
	OK Cancel

15. You have now completed the configuration of Dial-Up Networking. To connect your hardware and initiate a dial-up data call, continue with section **4**.

3.4 Windows XP Setup

In order to install the modem driver and configure dial-up networking, you will need the following:

- ✓ The Iridium World Data Services CD
- ✓ An available communications port on your computer (e.g., COM1)
- ✓ Administrator privileges (if using Windows XP Professional Edition)

3.4.1 Install the Modem Driver – Windows XP

- 1. Close all applications
- 2. Choose *Start > Control Panel* to open the Control Panel window.
- 3. Double click on *Phone and Modem Options* to open the Phone and Modem Options window.
- 4. Click the Modems tab, and you will see all the modems installed on your computer. Click on *Add…* to open the Add Hardware Wizard for installing a new modem. This will begin the modem installation procedure. Henceforth, you can cancel at any time without affecting your system by clicking *Cancel*.

Phone and Modem Options	? 🛛
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem	Attached To
Standard 56000 bps Modem	COM1
Add	nove <u>P</u> roperties
ОК	Cancel Apply

5. Choose the checkbox marked "Don't detect my modem; I will select it from a list." Then, click *Next* >.



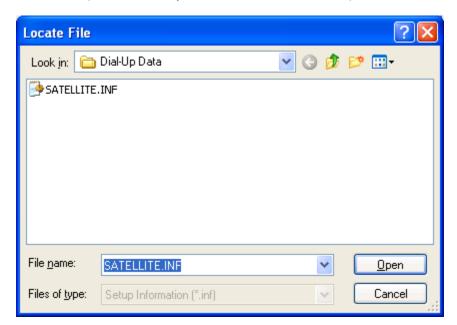
6. Click on *Have Disk…* to open the Install From Disk window.



7. The default drive setting is A:\, which is the default floppy drive on most computers. Insert the Iridium World Data Services CD into your CD drive, and click *Browse*...



8. Browse to the Dial-Up Data directory on the CD, and then click Open.



9. Click OK.

Install F	rom Disk	
3	Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK Cancel
	Copy manufacturer's files from: D:\Dial-Up Data	Browse

10. In the Install New Modem window, select the Motorola Satellite Series Data Modem and click Next >.

Add Hardware Wizard	
Install New Modem	
Select the manufacturer and model of you have an installation disk, click Have Disk	ır modem. If your modem is not listed, or if you
Models Motorola Satellite Series Data Modem	
This driver is not digitally signed! <u>Tell me why driver signing is important</u>	<u>H</u> ave Disk
	< <u>B</u> ack <u>N</u> ext > Cancel

11. Click the "Selected ports" radio button, and select an available Communications Port (or COM Port) on which to install the modem (e.g., COM1). This is the port to which you will connect your Iridium phone. Click Next >.

Add Hardware Wizard		
Install New Modem Select the port(s) you w	vant to install the modem on.	₹ E
	You have selected the following modem: Motorola Satellite Series Data Modem On which ports do you want to install it? All ports Selected ports COM1	
	< <u>B</u> ack <u>N</u> ext > C	Cancel

12. The following window will appear. Click Continue Anyway.

Hardware Installation	
1	The software you are installing for this hardware: Motorola Satellite Series Data Modem has not passed Windows Logo testing to verify its compatibility with Windows XP. (<u>Tell me why this testing is important</u> .) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway

13. Click Finish to close the Install New Modem window.



14. Click OK to close the Phone and Modem Options window.

Phone and Modem Options		?×
Dialing Rules Modems Advanced		
The following modems are installed:		
Modem	Attached To	
ite Series Data Modem 🎯	COM1	
Standard 56000 bps Modem	COM1	
A <u>d</u> d <u>R</u> ei	nove <u>P</u> rope	rties
ОК [Cancel). Abbilio

15. You have now completed the installation of the Motorola Satellite Series Data Modem. Continue with section **3.4.2**.

3.4.2 Configure Dial-Up Networking – Windows XP

In order to use your Iridium handset for dial-up networking, you need to create a new dial-up networking connection.

In the Network and Dial-Up Connections window, you can modify an existing connection type or create a new connection type. Unless you are comfortable using the dial-up networking options, we recommend that you create a new connection type for Dial-Up Data.

To Create a New Connection Type:

- 1. Choose Start > All Programs > Accessories > Communications > New Connection Wizard.
- 2. The New Connection Wizard opens. Henceforth, you can cancel at any time without affecting your system by clicking *Cancel*. To continue, click *Next* >.



3. Select the appropriate Dial-up connection type (either "Connect to the Internet" or "Connect to the network at my workplace"). This example assumes you are creating a connection to the Internet. Click *Next* >.



4. Select "Set up my connection manually". Click Next >.

New Connection Wizard
Getting Ready The wizard is preparing to set up your Internet connection.
How do you want to connect to the Internet? Choose from a list of Internet service providers (ISPs)
Set up my connection manually
For a dial-up connection, you will need your account name, password, and a phone number for your ISP. For a broadband account, you won't need a phone number.
○ Use the <u>C</u> D I got from an ISP
< <u>B</u> ack <u>N</u> ext > Cancel

5. Select "Connect using a dial-up modem". Click Next >.

New Connection Wizard
Internet Connection How do you want to connect to the Internet?
 Connect using a dial-up modem This type of connection uses a modem and a regular or ISDN phone line. Connect using a broadband connection that requires a user name and password This is a high-speed connection using either a DSL or cable modem. Your ISP may refer to this type of connection as PPPoE. Connect using a broadband connection that is always on This is a high-speed connection using either a cable modem, DSL or LAN connection. It is always active, and doesn't require you to sign in.
< <u>B</u> ack <u>N</u> ext > Cancel

6. The following Internet Connection Wizard window appears only if you have more than one modem installed. If this window appears, choose the *Motorola Satellite Series Data Modem*. Then, click Next >.

New Connection Wizard
Select a Device This is the device that will be used to make the connection.
You have more than one dial-up device on your computer. <u>S</u> elect the devices to use in this connection:
Modem - Motorola Satellite Series Data Modem (COM1) Modem - Standard 56000 bps Modem (COM1)
< <u>B</u> ack <u>N</u> ext > Cancel

7. In the *ISP Name* box, enter a name for your connection. For example, if you are creating a connection to your ISP and your ISP is called Saturn Internet, you might name your connection "Iridium Saturn." Click *Next* >.

New Connection Wizard
Connection Name What is the name of the service that provides your Internet connection?
Type the name of your ISP in the following box. ISP N <u>a</u> me
Iridium Saturn
The name you type here will be the name of the connection you are creating.
< <u>B</u> ack <u>N</u> ext > Cancel

8. In the *Phone Number* box, enter the telephone number you wish to use for your connection. **Enter the number in international dialing format:**

00 + Country Code + Area Code/Phone Number.

For example, if you are dialing an ISP in Tempe, Arizona, USA, you would enter 00 1 480 555 5555, where 1 is the country code and 480.555.5555 is the ISP's telephone number. *Please note that this is not a valid telephone number!*

Note: This is the same dialing pattern used for voice calls. In fact, you can verify that you are dialing the correct number for your ISP by dialing the number as a voice call on your satellite phone. You should hear your ISP's modem tones if dialed properly.

Click Next >.

New Connection Wizard	
Phone Number to Dial What is your ISP's phone number?	Ś
Type the phone number below. Phone number: 001 480 555 5555 You might need to include a "1" or the area code, or both. If you are not su you need the extra numbers, dial the phone number on your telephone. If yo hear a modem sound, the number dialed is correct.	
< <u>₿</u> ack <u>N</u> ext >	Cancel

9. If using Windows XP Professional Edition, the following window may appear. If so, select either "Anyone's use" or "My use only". Click *Next* >.

New Connection Wizard
Connection Availability You can make the new connection available to any user or only to yourself.
A connection that is created for your use only is saved in your user account and is not available unless you are logged on. Create this connection for:
⊙Anyone's use
O <u>M</u> y use only
< <u>B</u> ack <u>N</u> ext > Cancel

10. Enter your user name and password to access your ISP. Click Next >.

New Connection Wizard					
Internet Account Information You will need an account name and password to sign in to your Internet account.					
Type an ISP account name and password, then write down this information and store it in a safe place. (If you have forgotten an existing account name or password, contact your ISP.)					
<u>U</u> ser name:	user name				
Password:	•••••				
<u>C</u> onfirm password:	••••••				
Use this account in this computer	ame and password when anyone connects to the Internet from				
✓ Make this the defau	It Internet connection				
✓ <u>I</u> urn on Internet Connection Firewall for this connection					
	< <u>B</u> ack <u>N</u> ext > Cancel				

11. Click *Finish* to save your new connection.



- 12. Choose Start > All Programs > Accessories > Communications > Network Connections.
- 13. Right-click on your new dial-up connection (*Iridium Saturn* in this example) and select *Properties.*



14. Verify the settings with the figure below. Also, verify that you have entered the correct telephone number. (Note that your telephone number should be seen in place of 001 480 555 5555). Make sure "Use dialing rules" is *unchecked*.

🕨 Iridium Saturn Properties 🛛 🚺	?×			
General Options Security Networking Advanced				
Connect using:				
Modem - Motorola Satellite Series Data Modem (COM1)				
Configure				
Phone number				
Area code: Phone number:				
001 480 555 5555 Alternates				
Country/region code:				
·				
Use dialing rules Dialing <u>Rules</u>				
Show icon in notification area when connected				
OK Cano	:el			

15. From the General menu, click *Configure*.... The settings should match the figure below. Click *OK* to return to the Properties window, and then click *OK* again to close the Properties window.

Modem Configuration		? 🗙
Motorola Satellite Seri	es Data Modem (COM1)	
<u>M</u> aximum speed (bps):	19200	*
Modem <u>p</u> rotocol		~
Hardware features Enable hardware flow cor Enable modem error contr Enable modem compression	ol	
Show terminal window ✓ Enable modem speaker	OK Ca	ncel

16. You have now completed the configuration of Dial-Up Networking. To connect your hardware and initiate a dial-up data call, continue with section **4**.

4 Hardware Connections

4.1 Setting up the 9500 or 9505 Portable Phone

- 1. Insert your data-provisioned SIM card into the phone. See the user guide for your phone if you need further instructions on how to insert the SIM card.
- 2. Connect the Data Adapter to the bottom of the phone.



3. (Optionally) connect a charging device to the Data Adapter.



4. Plug the Serial Cable into the Data Adapter.



- 5. Plug the Serial Cable into the serial port on your computer.
- 6. Rotate and extend the phone's antenna. Place the phone into the stand, or otherwise position the phone so that the antenna is vertical and has a clear view of the sky.



7. Continue with section 5.

4.2 Setting up the 9570 Portable Dock



- 1. Insert your data-provisioned SIM card into the phone or the dock. See the user guide for your Portable Phone or Portable Dock if you need further instructions on how to insert the SIM card.
- 2. Insert the 9500 Portable Phone into the Portable Dock (or insert a 9505 Portable Phone, with optional dock adapter).
- 3. Plug the Serial Cable into the back of the Portable Dock.
- 4. Plug the Serial Cable into the serial port on your computer.
- 5. Connect an external antenna to the Portable Dock, and orient the antenna so that it has a clear view of the sky.
- 6. Continue with section **5**.

4.3 Setting up the 9520 Mobile Phone



- 1. Insert your data-provisioned SIM card into the Mobile Phone. See the user guide for your phone if you need further instructions on how to insert the SIM card.
- 2. The wiring harness for the 9520 Mobile Phone contains a built-in Serial Cable. Plug the Serial Cable into the serial port on your computer.
- 3. Verify that an external antenna is connected to the Mobile Phone, and orient the antenna so that it has a clear view of the sky.
- 4. Continue with section **5**.

4.4 Setting up the EuroCom Iridium Fixed Mount Unit



- 1. Open the small lid on the top of the transceiver unit and insert your data-provisioned SIM card. See the user guide for your phone if you need further instructions on how to insert the SIM card.
- 2. The EuroCom Iridium Fixed Mount Unit comes with a 9-Pin Serial Cable. Plug the Serial Cable into the port labeled "Data" on the transceiver unit.
- 3. Plug the Serial Cable into the serial port on your computer.
- 4. Verify that an external antenna is connected to the phone, and orient the antenna so that it has a clear view of the sky.
- 5. Continue with section **5**.

5 Dialing a Call

To place a Dial-Up Data call, you must open the Dial-Up Networking window and select the dialup connection you created for your Motorola phone.

- 1. Connect the computer and phone as described in Section 4.
- 2. Orient the phone's antenna with a clear view of the sky.
- 3. If your computer is turned off, turn it on and wait for it to boot up.
- 4. Turn on your Iridium phone and wait for it to register with the satellite network.
- 5. Depending on your Windows operating system, choose one of the following to open the Dial-Up Networking window:
 - Start > Programs > Accessories > Dial-Up Networking
 - Start > Programs > Accessories > Communications > Dial-Up Networking
 - Start > Programs > Accessories > Communications > Network and Dial-up Connections
 - Start > Programs > Accessories > Communications > Network Connections
 - Start > All Programs > Accessories > Communications > Network Connections
- 6. A window similar to the following will appear. Double-click the dial-up connection you created for your Motorola Satellite Series phone. In this example, you would double click "Iridium Saturn".

😰 Dial-Up Networking					- D ×			
<u> </u>	<u>E</u> dit	⊻iew	<u>G</u> o	F <u>a</u> vorites	<u>C</u> onnections	<u>H</u> elp		1
Make Conne	New	lridium :	Saturn					

7. Find your operating system below and follow the appropriate instructions.

Windows 95/98/Me:

In the Connect To window, enter the user name and password that you use to access your ISP or corporate network, and if desired, click the "Save password" checkbox so that you do not have to re-enter the password every time a connection is made. Click Connect and your Iridium handset will begin to dial. Go to Step 8.

🐴 Connect To	<u>?</u> ×
₽ L <u>></u> >	Iridium Saturn
<u>U</u> ser name:	user name
<u>P</u> assword:	******
	Save password
	Connect automatically
Phone <u>n</u> umber:	001 480 555 5555
Dialing from:	Home Dial Properties
	Connect Properties Cancel

Windows NT:

The Dial-Up Networking window appears. Select your connection from the drop down list (for example, Iridium Saturn). Verify that the phone number is correct. Click Dial to continue.

🥾 Dial-Up Networking			? ×
	Phonebook entry to dial: Tridium Saturn	<u>N</u> ew	▼ More ▼
	Phone number pre <u>v</u> iew: 001 480 555 5555 Dialing fr <u>o</u> m: New Location		▼ Location
		<u>D</u> ial	

A window similar to the following will appear. Enter the user name and password that you use to access your ISP or corporate network. If desired, click the "Save password" checkbox so that you do not have to re-enter the password every time a connection is made. Press *OK* and your Iridium handset will begin to dial. Go to Step 8.

Connect to I	ridium Saturn 🛛 📍 🗙			
Enter a user name and password with access to the remote network domain.				
<u>U</u> ser name:	user name			
Password:	*****			
<u>D</u> omain:				
	Save password			
	OK Cancel			

Windows 2000:

The Connect window appears. Click *Dial* and your Iridium handset will begin to dial. Go to Step 8.

Connect Iridiun	n Saturn	? ×
		P P
<u>U</u> ser name:	user name	
<u>P</u> assword:	**********	
	Save Password	
<u>D</u> ial	Cancel Properties <u>I</u>	<u>t</u> elp

Windows XP:

The Connect window appears. Click *Dial* and your Iridium handset will begin to dial. Go to Step 8.

Connect Iridium Saturn 🛛 💽 🔀
User name: Username Password: [To change the saved password, click here]
 Save this user name and password for the following users: Me only Anyone who uses this computer
Djal: 001 480 555 5555
Dial Cancel Properties <u>H</u> elp

8. As the Iridium phone is dialing, it will blink "Data Call In Progress" and a Dial-Up Networking window will appear on your computer showing the current status of the connection (just as it does when connecting through the landline network to your ISP or corporate network).

🐴 Conne	ecting to Iridium Saturn			×
	Status: Dialing]	Cancel	

9. Once connected, the handset will continue to display "Data Call In Progress," but it will no longer blink, and the following window will appear on your computer indicating that your user name and password are being verified.



- 10. Once authenticated, a dial-up networking session is established, and the dial-up networking icon will appear in your task bar.
- 11. You can now launch your Web browser, email program or other program you normally use when connected to your corporate network or Internet Service Provider.

Note: See the "Application Notes" document for instructions on how to optimize some common software applications for use with Iridium World Data Services.

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