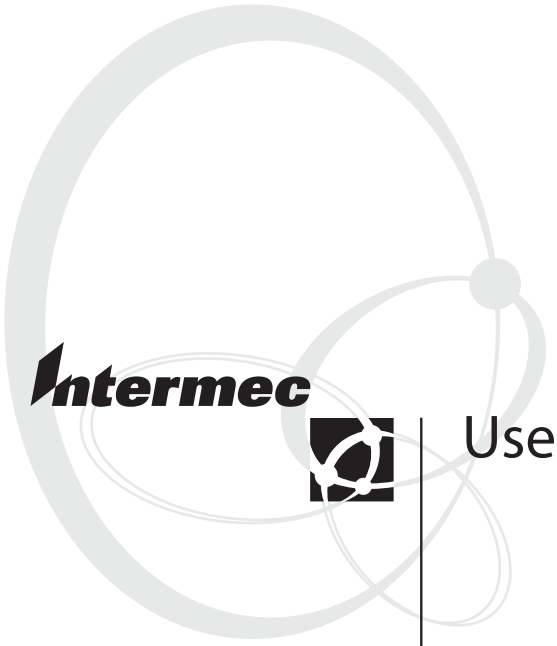


Intermec

User's Guide

Intermec Gateway

Intermec Technologies Corporation
6001 36th Avenue West
Everett, WA 98203
U.S.A.

U.S. service and technical support: 1-800-755-5505
U.S. media supplies ordering information: 1-800-227-9947

Canadian service and technical support: 1-800-668-7043
Canadian media supplies ordering information: 1-800-268-6936

Outside U.S.A. and Canada: Contact your local Intermec service supplier.

Contents

Before You Begin

This section introduces you to standard warranty provisions, safety precautions, cautions and notes, document formatting conventions, and sources of additional product information. A documentation roadmap is also provided to guide you in finding the appropriate information.

Warranty Information

To receive a copy of the standard warranty provision for this product, contact your local Intermec support services organization. In the U.S.A. call 1-800-755-5505, and in Canada call 1-800-668-7043. If you live outside of the U.S.A. or Canada, you can find your local Intermec support services organization on the Intermec Web site at www.intermec.com.

Cautions and Notes

The cautions and notes in this manual use the following format.

A caution alerts you to an operating procedure, practice, condition, or statement that must be strictly observed to prevent equipment damage or destruction, or corruption or loss of data.

Attention: Une précaution vous avertit d'une procédure de fonctionnement, d'une méthode, d'un état ou d'un rapport qui doit être strictement respecté pour empêcher l'endommagement ou la destruction de l'équipement, ou l'altération ou la perte de données.

Note: Notes are statements that either provide extra information about a topic or contain special instructions for handling a particular condition or set of circumstances.

About This Manual

This manual contains all of the information necessary to install, configure, operate, maintain, and troubleshoot the Intermec Gateway.

This manual was written for users who want to know more about the Intermec Gateway. It was also written for applications analysts, systems engineers, and programmers who will operate, program, and troubleshoot the Intermec Gateway in a network. A basic understanding of data communications and networks is necessary.

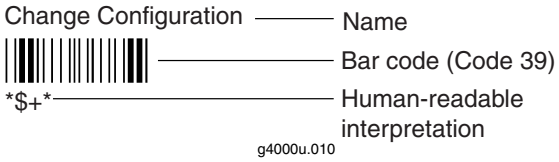
Terminology

You should be aware of how these terms are being used in this manual:

Term	Description
G4000 Server Appliance	The G4000 Server Appliance is the Windows 2000 hardware platform that the Intermec Gateway comes loaded on. For more information, see the *G4000 Server Appliance User's Guide* (P/N 072242).
Intermec Gateway	Intermec Gateway that provides local area network communications.
UDP Plus device	Any data collection device that communicates using UDP Plus, such as the 2415.
WTP device	Any data collection device that communicates using WTP, such as the 6400.
502X	Both the 5020 and 5023 Data Collection PCs that are communicating using any protocol.
Trakker Antares terminal	Any terminal in the Trakker Antares family of terminals that is communicating using any protocol.
JANUS device	Any device in the JANUS family of devices that is communicating using any protocol.
TE	Terminal emulation application.
IP host	A host on the Ethernet network that communicates using the IP protocol.

Format Conventions for Bar Codes

You can scan the bar codes listed in this manual to enter data or perform a command. The bar code labels in this manual are printed in the Code 39 symbology. Each bar code includes the name and human-readable interpretation. For example:



The asterisks (*) at the beginning and end of the human-readable interpretation are the start and stop codes for a Code 39 bar code label. If you are creating bar code labels with a bar code utility, it may automatically supply the asterisks as the start and stop code, so that you only need to type the actual text of the command. You can also create and print configuration labels and reader command labels in Code 93, which has its own start and stop codes.

Format Conventions for Input From a Keyboard or Keypad

This table describes the formatting conventions for input from PC or host computer keyboards and device keypads:

Convention	Description
`Special` text	Shows the command as you should enter it into the device.
Italic text	Indicates that you must replace the parameter with a value.
Bold text	Indicates the keys you must press on a PC or host computer keyboard. For example, "press **Enter**" means you press the key labeled "Enter."
enter ↵	Shows the key you must press on the device. For example, "press enter ↵" directs you to press the key labeled "Enter" on the device keypad.
Ctrl Alt ≡f .	Shows a series of device keys that you must press and release in the order shown. For example, "Press Ctrl Alt ≡f . to boot the device."
Ctrl-P	Shows a series of device keys that you must press and hold in the order shown. For example, "Press Ctrl-P to start communications with the dcBrowser gateway."

Format Conventions for Commands

This manual includes sample commands that are shown exactly as you should type them on your device. The manual also describes the syntax for many commands, defining each parameter in the command. The next example illustrates the format conventions used for commands.

From the command line, type:

`http://g4000ip`

where *g4000ip* is the IP address for the G4000 Server Appliance.

This table defines the conventions used in this manual:

Convention	Description
`Special font`	Commands appear in this font. You enter the command exactly as it is shown.
Italic text	Italics indicate a variable, which you must replace with a real value, such as a number, filename, or keyword.
[ ]	Brackets enclose a parameter that you may omit from the command. Do not include the brackets in the command.
Required parameters	If a parameter is not enclosed in brackets [ ], the parameter is required. You **must** include the parameter in the command; otherwise, the command will not execute correctly.
where	This word introduces a list of the command's parameters and explains the values you can specify for them.

Getting Help

If you need help configuring, managing, or troubleshooting the Intermec Gateway, you can use this user's guide and the online help from the Intermec Gateway home page.

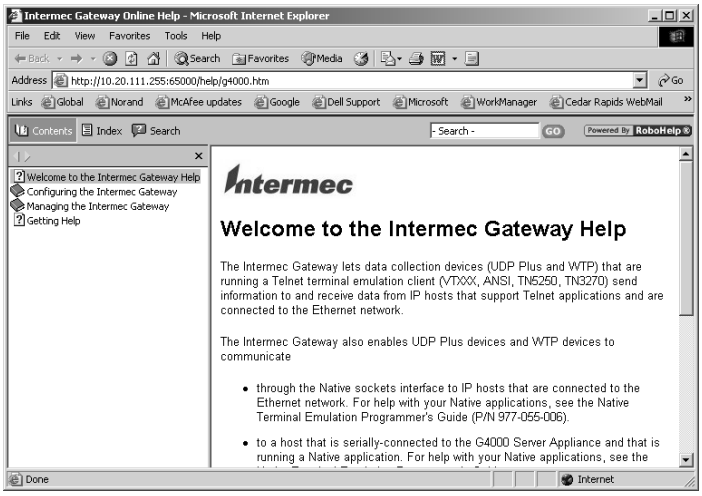
User's Guide

This user's guide provides some introductory information about the Intermec Gateway and explains how to configure it for your network. This guide also provides an overview of how to configure the Intermec Gateway, manage it, and troubleshoot it.

Procedural Help

To learn how to configure the Intermec Gateway, click Help from the Intermec Gateway home page. The Welcome page appears with Contents, Index, and Search tabs. Choose the Contents tab to display the "books" that are available. Double-click the books to display pages that contain procedures for configuring and managing the Intermec Gateway.

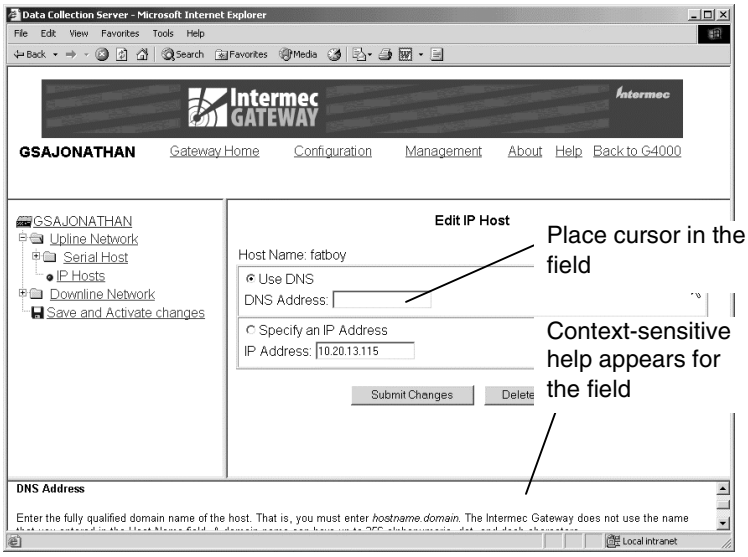
Note: Choose the Index tab or the Search tab to look for information on a specific topic or keyword.



Procedural Help Example – Intermec Gateway Welcome Page

Context-Sensitive Help

If you need to know what to enter into a field, place your cursor on the field. At the bottom of the page, a short definition, the values for the field, and the default value appear.



Context-Sensitive Help Example

Other Intermec Manuals

You may need additional information when working with the Intermec Gateway in a data collection system. Please visit our Web site at www.intermec.com to download many of our current manuals in PDF format. To order printed versions of the Intermec manuals, contact your local Intermec representative or distributor.

1 Using the Intermec Gateway in the Telnet Environment

Use this chapter to get your Intermec Gateway ready to work in a Telnet environment. To use the Intermec Gateway in the Telnet environment, you need to

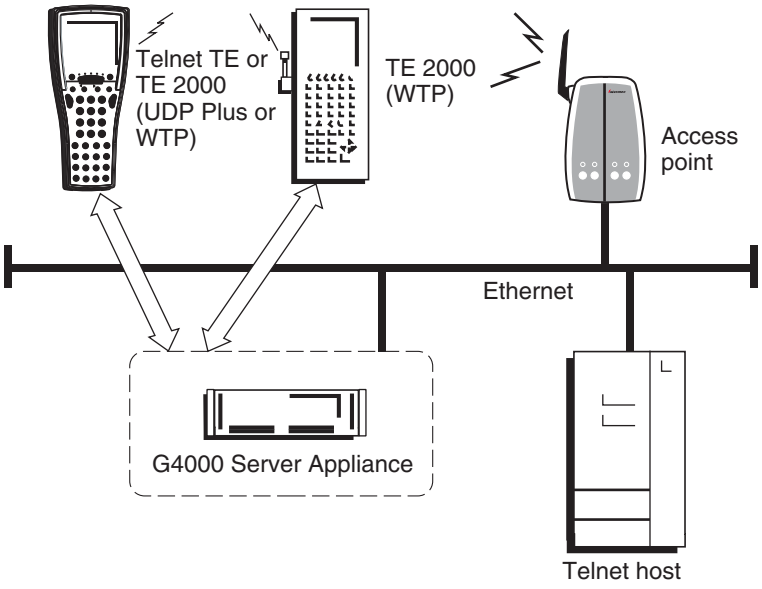
- define the Telnet host.
- define the downline network.
- (optional) configure the Gateway to automatically start.
- save and activate changes.
- configure the data collection devices for Telnet TE.

The Intermec Gateway in the Telnet Environment

The Intermec Gateway lets data collection devices (UDP Plus, WTP) that are running Telnet terminal emulation (TE) clients (VTXXX/ANSI, TN5250, TN3270) send information to and receive data from the Ethernet network. The Intermec Gateway comes loaded on the G4000 Server Appliance.

Note: The Intermec Gateway does not support Intermec 900 MHz clients, 900 MHz SST clients, 400 MHz S-UHF clients, and CrossBar™ clients.

The Intermec Gateway supports most Intermec Telnet clients, Norand terminal emulation clients (in Telnet mode), and the TE 2000™ terminal emulation application clients (in Telnet mode). These devices can connect to IP hosts that support Telnet applications and are connected to the Ethernet network.



GWU005.eps

Defining the Telnet Host

Defining the Telnet host for your Intermec Gateway consists of these steps:

- Installing the Intermec Gateway license.
- Opening the Intermec Gateway home page.
- Defining an IP host and Telnet port.

Installing the Intermec Gateway License

Before you can use your Gateway in the Telnet environment, you need to install the Intermec Gateway licenses. For help, see the *Intermec Gateway License Instructions* (P/N 072960) that shipped with the Intermec Gateway license disk.

Opening the Intermec Gateway Home Page

Before you can open the Intermec Gateway home page, you need to install the G4000 Server Appliance and assign the IP address. For help, see the *G4000 Server Appliance User's Guide* (P/N 072242).

To open the Intermec Gateway home page

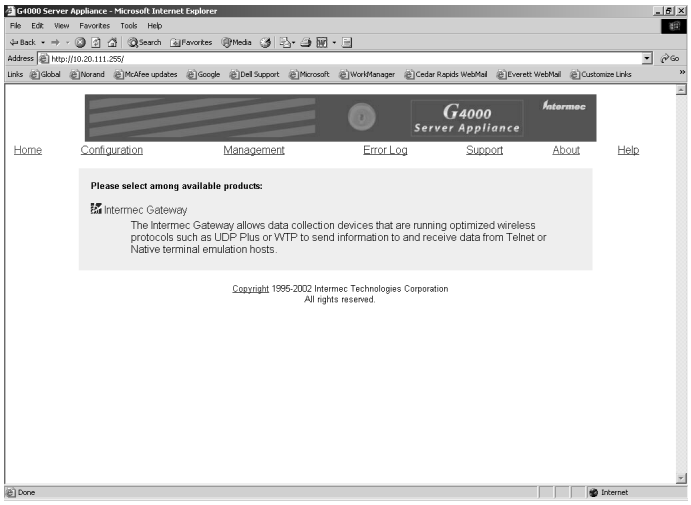
Note: If you access the Internet by using a proxy server, you MUST add the IP address of the G4000 Server Appliance to your Exceptions list. The Exceptions list contains the addresses that you do not want to use with a proxy server.

1. Start Internet Explorer on your PC.
2. In the Address field, type:

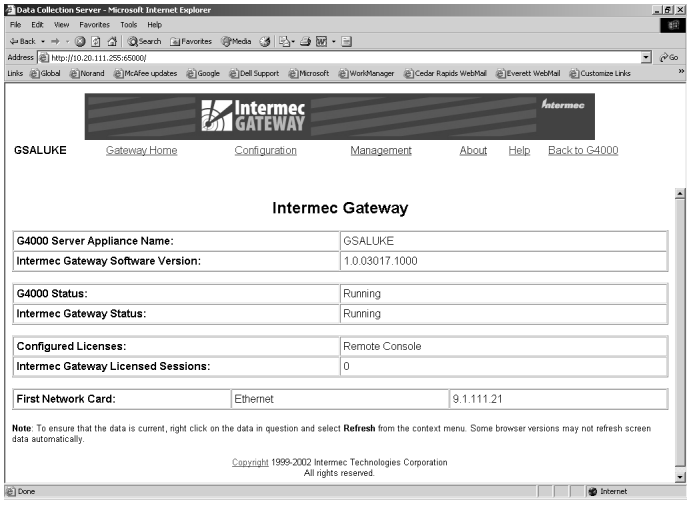
   `http://g4000ip`

   where *g4000ip* is the IP address for the G4000 Server Appliance.

3 Press **Enter**. The G4000 Server Appliance home page appears.



4 From the list of installed applications, select Intermec Gateway. The Intermec Gateway home page appears.



From the Intermec Gateway home page, you can configure and manage your Gateway. A navigation menu runs across the top of all Gateway web pages. The menu links are described in the following table. Click Gateway Home to return to the home page at any time.

Navigation Menu Description

Menu Link	Description
Gateway Home	Choose this link to return to the Intermec Gateway home page.
Configuration	Choose this link to configure the Intermec Gateway.
Management	Choose this link to start or stop the Intermec Gateway.
About	Choose this link to see the Intermec Gateway version and copyright information.
Help	Choose this link to access the procedural online help. For help, see "Getting Help" in the Before You Begin section.
Back to G4000	Choose this link to return to the G4000 home page.

Defining an IP Host and Telnet Port

The Intermec Gateway communicates to the IP hosts through the Ethernet network. To connect the Intermec Gateway to the IP host, you must first connect the G4000 Server Appliance to the Ethernet network. For help, see the *G4000 Server Appliance User's Guide*. This section provides an overview for configuring the IP host and Telnet port. For detailed instructions, see the online help.

To connect to the IP host

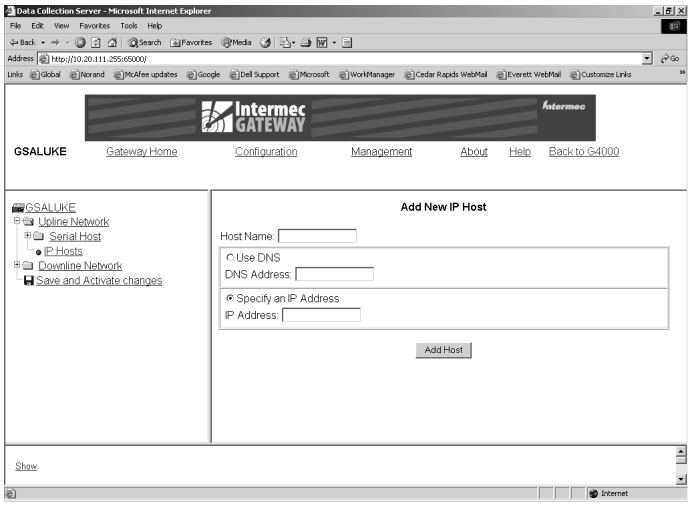
1. From the Intermec Gateway home page, click Configuration.

   If a security screen appears, type `INTERMEC` in the User Name and Password fields, and click OK. You must type Intermec in uppercase letters.

2. In the Configuration menu tree, expand the Upline Network submenu.

3 Click IP Hosts to configure the parameters for the IP hosts and their ports.

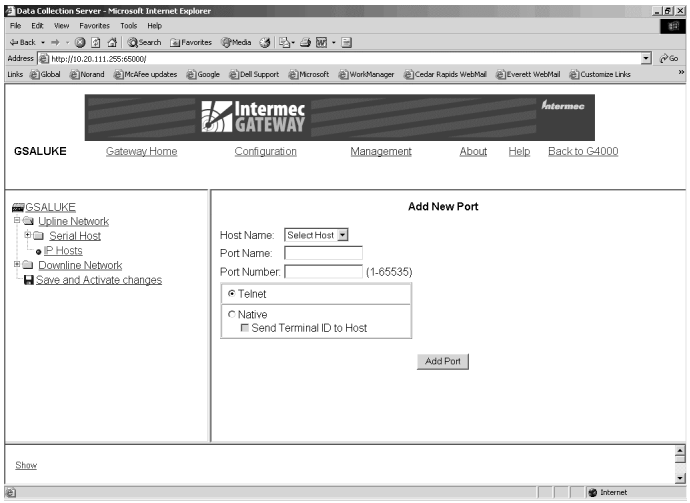
4 From the IP Hosts page, click Add New Host. The Add New IP Host page appears.



5 Complete the fields and click Add Host. A success message appears.

Note: The number that appears in the success message indicates the row in the SQL database.

6 From the IP Hosts page, click Add New Port. The Add New Port page appears.



7 Select the Host Name from the list, complete the fields for port name and number, click the Telnet option, and click Add Port.

Note: Most Telnet servers use port number 23.

8 Repeat Steps 4 through 7 for each host you want to add.

Defining the Downline Network

The Intermec Gateway communicates to the downline network (data collection devices) through the Ethernet network. Before you configure the Intermec Gateway, verify that the access points are correctly installed and configured and that your devices are communicating with the access points.

To connect the Intermec Gateway to the downline network, you must connect the G4000 Server Appliance to the Ethernet network, define the downline network, and configure the UDP Plus devices or the WTP devices. Then, you must start the Intermec Gateway and its related processes. For help connecting the G4000 Server Appliance, see the *G4000 Server Appliance User's Guide*.

Configuring UDP Plus

This section provides an overview for configuring the UDP Plus network. For detailed instructions, see the online help.

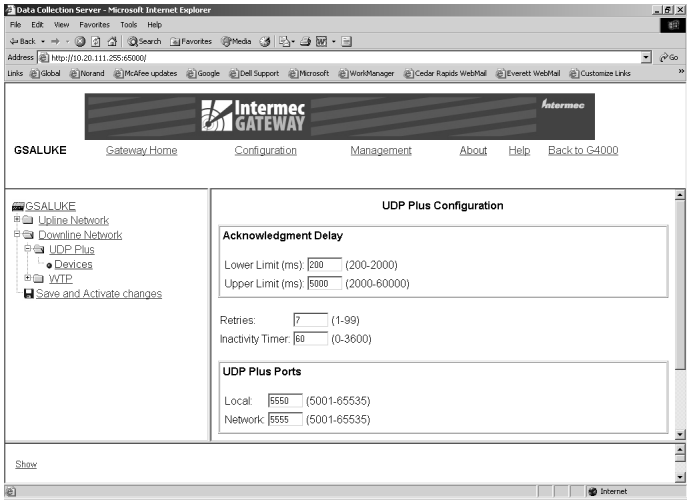
To configure UDP Plus

1 From the Intermec Gateway home page, click Configuration.

If a security screen appears, type `INTERMEC` in the User Name and Password fields, and click OK. You must type Intermec in uppercase letters.

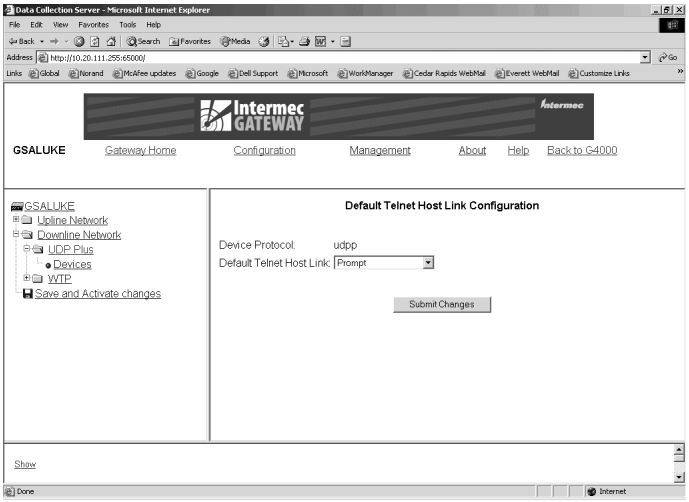
2 In the Configuration menu tree, expand the Downline Network submenu.

3 Click UDP Plus to configure the UDP Plus parameters. The UDP Plus Configuration page appears.



4 From the UDP Plus Configuration page, click Prompt after Default Telnet Host Link at the bottom of the page.

The Default Telnet Host Link Configuration page appears.



5 Select the Default Telnet Host Link from the list and then click Submit Changes.

Note: If you want certain devices to connect to a specific host, you need to set it in your device list. See the online help for more information.

Configuring WTP

This section provides an overview for configuring the WTP network. For detailed instructions, see the online help.

To configure WTP

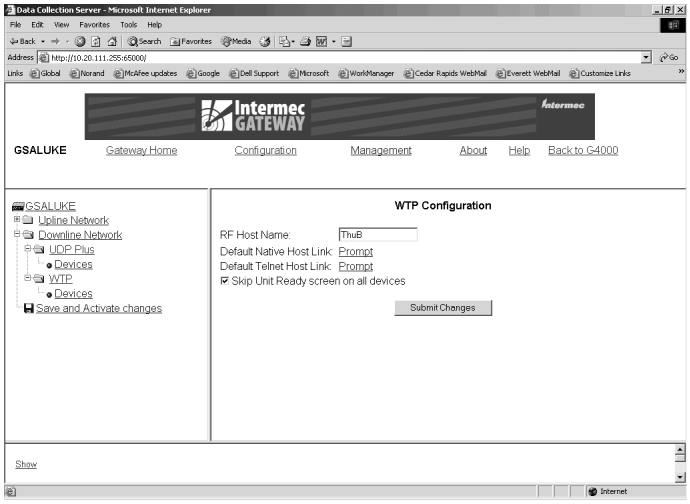
1 From the Intermec Gateway home page, click Configuration.

If a security screen appears, type `INTERMEC` in the User Name and Password fields, and click OK. You must type Intermec in uppercase letters.

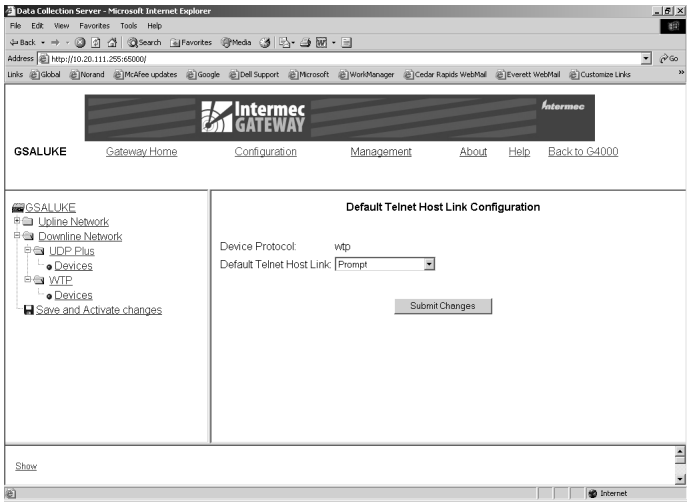
2 In the Configuration menu tree, expand the Downline Network submenu.

3 Click WTP to configure the WTP parameters.

The WTP Configuration page appears.



4 Enter an RF Host Name. If you are connecting a 6400 to this host, the RF Host Name must be in all uppercase letters. Click Prompt after the Default Telnet Host Link. The Default Telnet Host Link Configuration page appears.



5 Select the Default Telnet Host Link from the list and then click Submit Changes.

Note: If you want certain devices to connect to a specific host, you need to set it in your device list. See the online help for more information.

Configuring the Gateway to Automatically Start

You can configure the G4000 Server Appliance to automatically start the Intermec Gateway and its related processes each time the G4000 is rebooted. You must start the Intermec Gateway before you can communicate with your UDP Plus and WTP devices.

To automatically start the Intermec Gateway

1 From the G4000 Server Appliance home page, click Management.

If a security screen appears, type in the user name and password, and click OK. The default user name is `administrator`, and the default password is `intermec`. You must type Intermec in lowercase letters.

The G4000 Server Appliance Management page appears:

2 In the Intermec Gateway row, check Autostart. A message box appears confirming that you want to automatically start the Intermec Gateway each time the G4000 Server Appliance starts.

3 Click OK.

Note: You can turn this feature off at anytime by clearing the Autostart checkbox. You can also use this page to start or stop the Intermec Gateway at any time.

Saving and Activating Changes

Before any of the changes you have made will take effect on the Intermec Gateway, you need to save and activate your changes. Saving and activating your changes involves rebooting the G4000 Server Appliance.

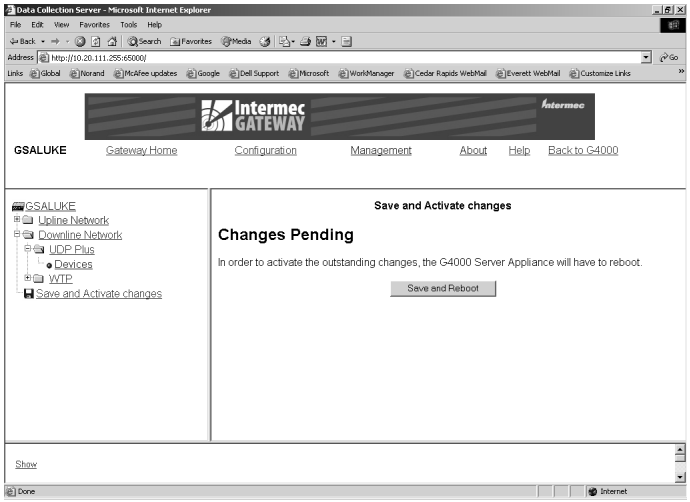
To save and activate your changes

1 From the Intermec Gateway home page, click Configuration.

If a security screen appears, type `INTERMEC` in the User Name and Password fields, and click OK. You must type Intermec in uppercase letters.

2 In the Configuration menu tree, click Save and Activate Changes.

The Save and Activate changes page appears.



3 Click Save and Reboot. A message box appears confirming that you want to reboot the G4000 Server Appliance.

4 Click OK.

Configuring the Data Collection Devices for Telnet TE

The data collection devices can communicate to IP hosts through the Intermec Gateway if they have a supported Telnet TE client loaded on them. This table identifies the files that must be loaded on each device before the device can run Telnet TE.

Files Required for Telnet TE

Device	Protocol	Application	Files
Trakker Antares terminal (2415, 2425, 2435, 2455, 2475, 248X)	UDP Plus	TE 2000	Pre-loaded
		VTXX, ANSI	VTXXX_D.BIN
		TN5250	POLX5250.MAP, PLX5250.BIN
		TN3270	POLX3270.MAP, PLX3270.BIN

Files Required for Telnet TE (continued)

Device	Protocol	Application	Files
Trakker Antares terminal (2415, 2425, 2435, 2455, 2475, 248X)	WTP	TE 2000	Pre-loaded
5020	UDP Plus	TE 2000	Pre-loaded
1100, 1700, 5055, 5900, 6400	WTP	TE 2000 VT220 TN5250 TN3270	Pre-loaded

Setting Up the Trakker Antares and 502X UDP Plus Devices

Trakker Antares UDP Plus terminals and 502X UDP Plus devices can communicate to the Telnet host through the Intermec Gateway if they have a Telnet terminal emulation (TE) client loaded on them. The Trakker Antares terminals and 502X devices may already have TE 2000 loaded on them.

If you do not have TE 2000 loaded, you must load it. Contact your local Intermec sales representative to order TE 2000.

You may still need to configure your terminals to communicate with the UDP Plus network and access points. For help, see your device user's manual and your access point user's manual.

Setting Up the WTP Devices

WTP devices can communicate with the Telnet host through the Intermec Gateway by running TE 2000 or another Telnet TE client. For each device, you must use the menus to configure the appropriate TE communications, a terminal number, and the RF host name. Each terminal session must have a unique terminal number/RF host name combination.

To configure the RF Host name

1. From the Intermec Gateway home page, click Configuration.
2. In the Configuration menu tree, expand the Downline Network submenu.

3 Click WTP to configure the WTP parameters.

For help configuring Telnet TE, terminal numbers, and the RF host name, see the online help.

To set up each WTP device

1 In the TE 2000 Main Menu, press 1. The Enter Password prompt appears.

2 Type C R 5 2 4 0 1 and press ↵. The Set-up Parms menu appears.

3 Use the host/server setup screens to configure the terminal session for the appropriate TE communications, the unit (terminal) number, and the host name (RF host name configured in the Intermec Gateway configuration screens). Configure Host/Server A, Host/Server B, and Host/Server C independently.

4 Press ↵ until the Set-up Parms menu appears.

5 Press 7 to access more menus.

6 Press 2 to save your changes. The Enter Password prompt appears.

7 Type C R 5 2 4 0 1 and press ↵. The Set-up Parms menu appears.

8 Press 6 to exit the menus.

This example walks you through the terminal screens to show you how to configure one of the terminal sessions for Host/Server A, 3270 communications, terminal number 42, and RF host name MYHOST.

```
1)Host A
2)Host B
3)Host C
```

```
Native
1)3270
2)5250
3)VT220
```

```
Enter Unit
Number:
42
```

```
Native
Unit # 42
Enter Host Name
MYHOST
```

You may still need to configure your devices to communicate with the WTP network and access points. For help, see your device user's manual and your access point user's manual.

Starting the Telnet TE Applications

To run the Telnet TE application, you need to start the Intermec Gateway and the Telnet TE clients (Trakker Antares UDP Plus terminals, JANUS UDP Plus devices, 5020 UDP Plus devices, and WTP devices).

To run the Telnet application

1. Make sure that you have configured the data collection devices.
2. Open the Intermec Gateway home page. For help, see "Opening the Intermec Gateway Home Page" earlier in this chapter.
3. Start the Intermec Gateway. For help, see "Configuring the Gateway to Automatically Start" earlier in this chapter.
4. Turn on your devices and start your application.

Trakker Antares UDP Plus Terminals

To run the TE 2000 terminal emulation application, simply press I/O to turn on the Trakker Antares terminal.

To run the legacy Intermec Telnet TE clients on your Trakker Antares terminals, you can either scan one of the bar codes below or you can use the TRAKKER Antares 2400 Menu System.

To run VT/ANSI TE

- Scan this bar code:

Run Program C:VTXXX_D.BIN

//C:VTXXX_D.BIN

To run TN5250 TE

- Scan this bar code:

Run Program C:PLX5250.BIN

//C:PLX5250.BIN

To run TN3270 TE

- Scan this bar code:

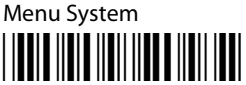
Run Program C:PLX3270.BIN

//C:PLX3270.BIN

To use the TRAKKER Antares 2400 Menu System to run TE

1. On your terminal, access the TRAKKER Antares 2400 Menu System by pressing f 2 4 8 or by scanning this bar code:

   Menu System

   ..-.

Note: If your terminal has a Left Enter key, you must use that key when entering the key sequence in Step 1. Otherwise, just use the ↵ key.

2 From the Main Menu, choose System Menu and then choose File Manager. The File Manager screen appears.

3 Select drive C and press ↵. A list of applications that are loaded on your terminal appears.

4 Select the TE client and press ↵. For help, see this table:

To Run This TE	Choose This Client
VT/ANSI	VTXXX_D.BIN
TN5250	PLX5250.BIN
TN3270	PLX3270.BIN

5020 Data Collection PCs

After you install the TE 2000 terminal emulation application, the application automatically runs. To learn how to exit and restart TE 2000 on your 5020, see *Using TE 2000 On Your 5020 Data Collection PC* (P/N 072506).

WTP Devices

The TE 2000 terminal emulation application starts when you turn on the device.

2 Using the Intermec Gateway in the Native Environment

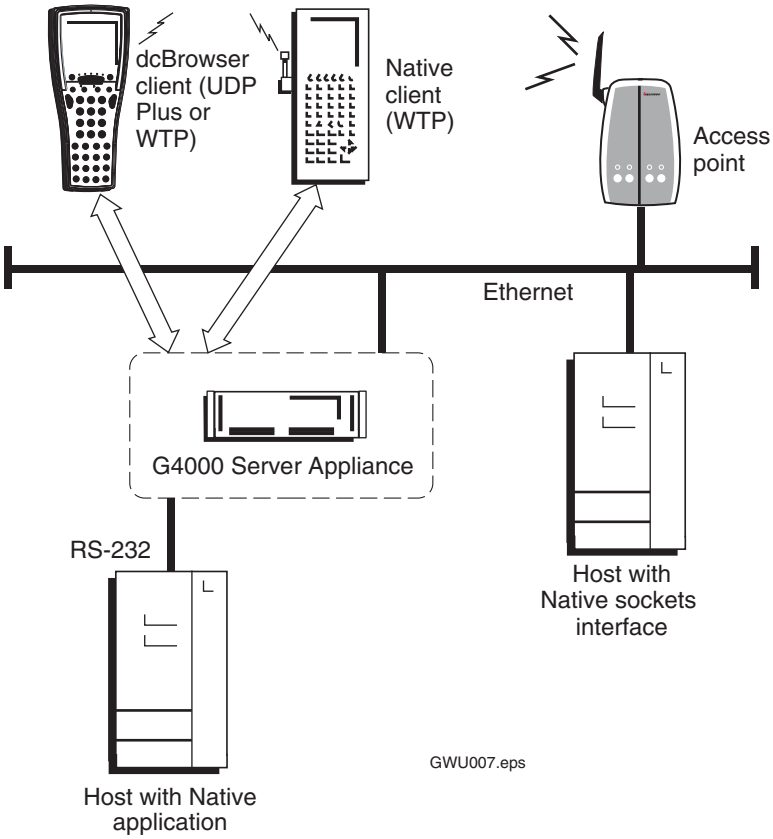
Use this chapter to get your Intermec Gateway ready to work in a Native async serial or socket environment. To use the Intermec Gateway in the Native environment, you need to

- define the Native host.
- define the downline network.
- (optional) configure the Intermec Gateway to automatically start.
- save and activate changes.
- configure the data collection devices for Native TE.

The Intermec Gateway in the Native Environment

The Intermec Gateway supports UDP Plus devices and WTP devices running Native TE applications. These devices can connect to a Native async serial host or to IP hosts through the Native sockets interface. Refer to the following illustration and explanation.

Note: Currently, only UDP Plus devices and WTP devices can communicate with the Native async serial host or with IP hosts through the Native sockets interface. UDP Plus devices must have the dcBrowser client loaded on them. WTP devices can continue running their Native client.



How the Native environment works:

1. A Native client sends data to the Intermec Gateway on the G4000 Server Appliance.
2. The Intermec Gateway forwards this data to the Native host (serial or socket).
3. Information from the Native host is sent back to the device via the Intermec Gateway.

Native applications are proprietary TE applications. The Intermec Gateway can communicate with a Native async serial host and with other IP hosts through the Native sockets interface.

Currently, only UDP Plus devices and WTP devices can run in the Native environment. The UDP Plus devices must have the dcBrowser client loaded on them, but WTP devices can continue running TE 2000.

About the Native Async Serial Host

If your host application was written to work with WNAS or legacy serially-connected controllers (RD(B)4030, RC3250, 6910 IGAP), it should also work with the Intermec Gateway. That is, you do not need to make any changes to your existing Native TE host applications. For help updating your Native applications, see the *Native Terminal Emulation Programmer's Guide* (P/N 977-055-006).

Note: If you are replacing a legacy serially-connected controller with the Intermec Gateway on a G4000 Server Appliance, you must have a 9F-25M RS-232 adapter (P/N 589182), since the G4000 Server Appliance has a 9-pin serial port.

About the Native Sockets Interface

Native sockets are a subset of the Native async serial syntax. If your host application was written to work with the Native sockets interface, it should also work with the Intermec Gateway.

Converting Native Serial Applications to Native Sockets

If your host application was written to work with WNAS or legacy serially-connected controllers and are not communicating with hosts through the Native sockets interface, you may need to make some changes to your Native TE host applications to connect them using Native sockets.

For help updating your Native applications, see the *Native Terminal Emulation Programmer's Guide* (P/N 977-055-006).

Note: If your devices are communicating through Native sockets, you must use a line feed (LF) as the delimiter. You cannot use a carriage return (CR).

For example, if your host application was written to work with the 6950 EGS, it should also work with the Intermec Gateway as long as the host application separates packets using an LF character. If you did not write your host application for the 6950 EGS using delimiters, you must add an LF after each command. After you add the LFs, your host application will work with both the 6950 EGS and the Intermec Gateway using Native sockets.

Sending Device IDs to the Host

You can send the terminal session name and the terminal address to the host. In the Add New Port page, check the Send Terminal ID to Host check box. For more information on this feature, see "Devices Send Different Start-Up Packets" later in this chapter.

Unsupported Native Sockets Command

The DTE Terminal Echo-back Diagnostic command is not supported when a device is communicating to a host through the Native sockets interface.

Defining the Native Host

The Intermec Gateway can connect to Native async serial hosts or to IP hosts through the Native sockets interface. The Intermec Gateway uses the serial port to connect to a Native async serial host. To connect the Intermec Gateway to this host, you must physically attach the G4000 Server Appliance to the host and then configure the Intermec Gateway serial port parameters to match the host serial port parameters.

To connect the Intermec Gateway to IP hosts, you must connect the G4000 Server Appliance to the Ethernet network and configure the IP hosts.

For help connecting the G4000 Server Appliance, see the *G4000 Server Appliance User's Guide* (P/N 072242).

Defining the Native host for your Intermec Gateway consists of these steps:

- Installing the Intermec Gateway license.
- Opening the Intermec Gateway home page.
- Defining a Native async serial host or a Native socket host.

Installing the Intermec Gateway License

Before you can use your Gateway in the Native environment, you need to install the Intermec Gateway licenses. For help, see the *Intermec Gateway License Instructions* (P/N 072960) that shipped with the Intermec Gateway license disk.

Opening the Intermec Gateway Home Page

Before you can open the Intermec Gateway home page, you need to install the G4000 Server Appliance and assign the IP address. For help, see the *G4000 Server Appliance User's Guide*.

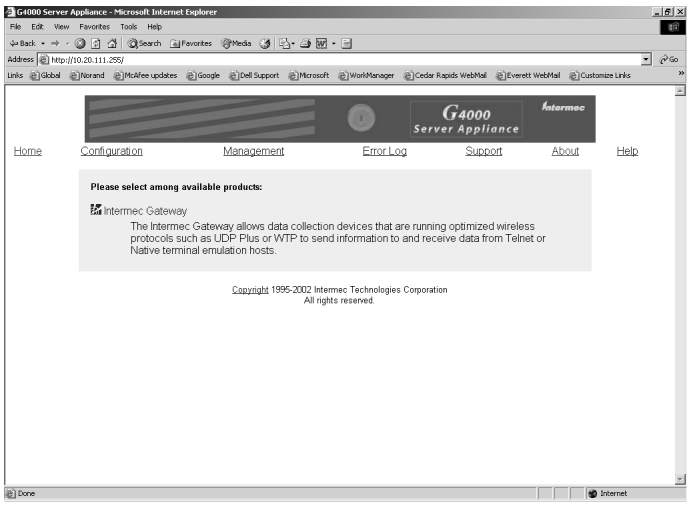
To open the Intermec Gateway home page

Note: If you access the Internet by using a proxy server, you MUST add the IP address of the G4000 Server Appliance to your Exceptions list. The Exceptions list contains the addresses that you do not want to use with a proxy server.

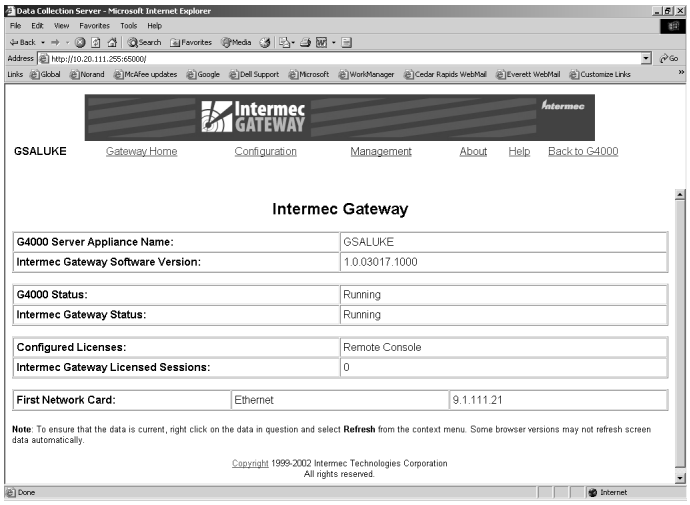
1. Start Internet Explorer on your PC.
2. In the Address field, type:

   `http://g4000ip`

   where *g4000ip* is the IP address for the G4000 Server Appliance.
3. Press **Enter**. The G4000 Server Appliance home page appears.



4 From the list of installed applications, select Intermec Gateway. The Intermec Gateway home page appears.



From the Intermec Gateway home page, you can configure and manage your Gateway. A navigation menu runs across the top of all Gateway web pages. The menu links are described in the following table. Click Gateway Home to return to the home page at any time.

Navigation Menu Description

Menu Link	Description
Gateway Home	Choose this link to return to the Intermec Gateway home page.
Configuration	Choose this link to configure the Intermec Gateway.
Management	Choose this link to start or stop the Intermec Gateway.
About	Choose this link to see the Intermec Gateway version and copyright information.
Help	Choose this link to access the procedural online help. For help, see “Getting Help” in the Before You Begin section.
Back to G4000	Choose this link to return to the G4000 home page.

Defining the Native Async Serial Host

This section provides an overview for configuring the serial host. For detailed instructions, see the online help.

To configure Native communications for a serial host

1. From the Intermec Gateway home page, click Configuration.

   If a security screen appears, type `INTERMEC` in the User Name and Password fields, and click OK. You must type Intermec in uppercase letters.
2. In the configuration menu tree, expand the Upline Network submenu.
3. Click Serial Host to configure the parameters for the serial host and port.

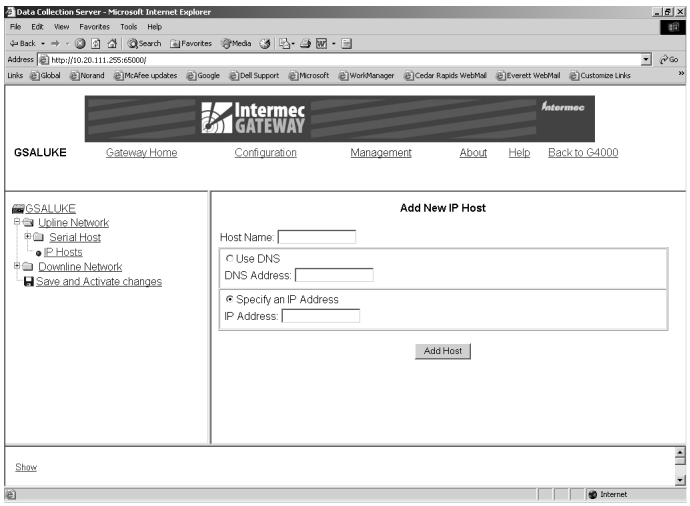
Defining the Native Socket Host

This section provides an overview for configuring the IP hosts for a Native sockets interface. For detailed instructions, see the online help.

To connect to the IP Host

1. From the Intermec Gateway home page, click Configuration.

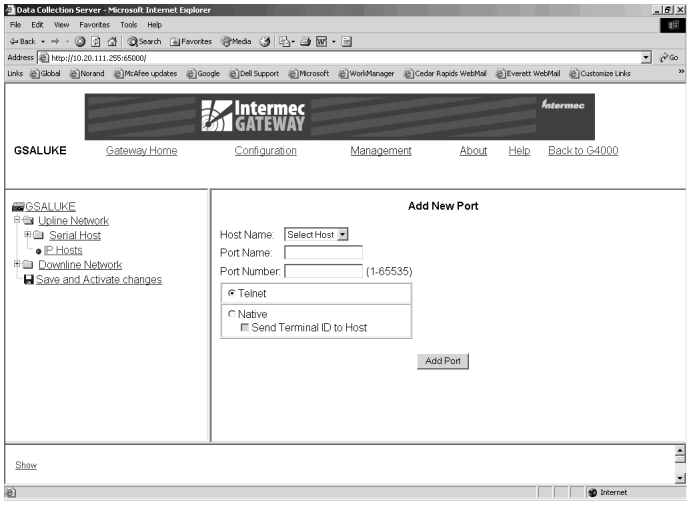
   If a security screen appears, type `INTERMEC` in the User Name and Password fields, and click OK. You must type Intermec in uppercase letters.
2. In the configuration menu tree, expand the Upline Network submenu.
3. Click IP Hosts to configure the parameters for the IP hosts and their ports.
4. From the IP Hosts page, click Add New Host. The Add New Host page appears.



5 Complete the fields and click Add Host. A success message appears.

Note: The number that appears in the success message indicates the row in the SQL database.

6 From the IP Hosts page, click Add New Port. The Add New Port page appears.



7 Select the Host Name from the list, complete the fields for the port name and number, click the Native option, click Send Terminal ID to Host, and click Add Port.

8 Repeat Steps 4 through 7 for each host you want to add.

Defining the Downline Network

The Intermec Gateway communicates to the downline network (data collection devices) through the Ethernet network. Before you configure the Intermec Gateway, verify that the access points are correctly installed and configured and that your devices are communicating with the access points.

To connect the Intermec Gateway to the downline network, you must connect the G4000 Server Appliance to the Ethernet network, define the downline network, and configure the UDP Plus devices or the WTP devices. Then, you must start the Intermec Gateway and its related processes. For help connecting the G4000 Server Appliance, see the *G4000 Server Appliance User's Guide*.

Configuring UDP Plus

This section provides an overview for configuring the UDP Plus network. For detailed instructions, see the online help.

To configure UDP Plus

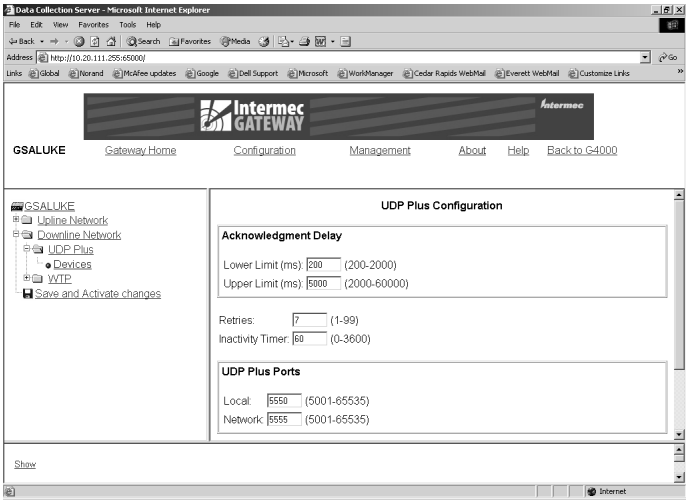
1 From the Intermec Gateway home page, click Configuration.

If a security screen appears, type `INTERMEC` in the User Name and Password fields, and click OK. You must type Intermec in uppercase letters.

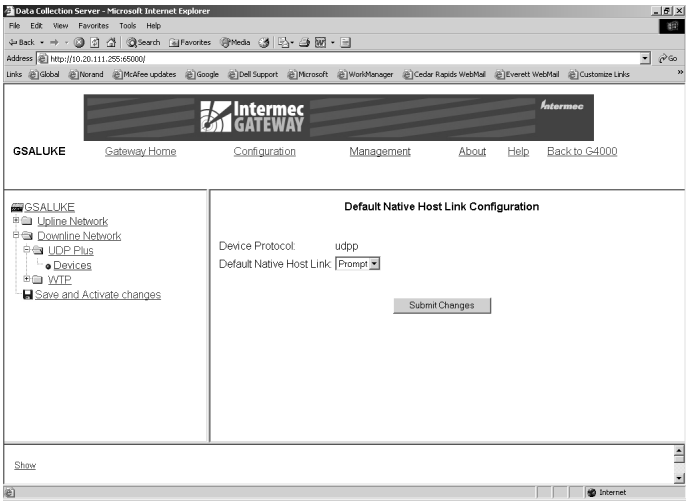
2 In the Configuration menu tree, expand the Downline Network submenu.

3 Click UDP Plus to configure the UDP Plus parameters.

The UDP Plus Configuration page appears.



4 From the UDP Plus Configuration page, click Prompt after Default Native Host Link at the bottom of the page. The Default Native Host Link Configuration page appears.



5 Select the Default Native Host Link from the list and then click Submit Changes.

Note: If you want certain devices to connect to a specific host, you need to set it in your device list. See the online help for more information.

Configuring WTP

This section provides an overview for configuring the WTP network. For detailed instructions, see the online help.

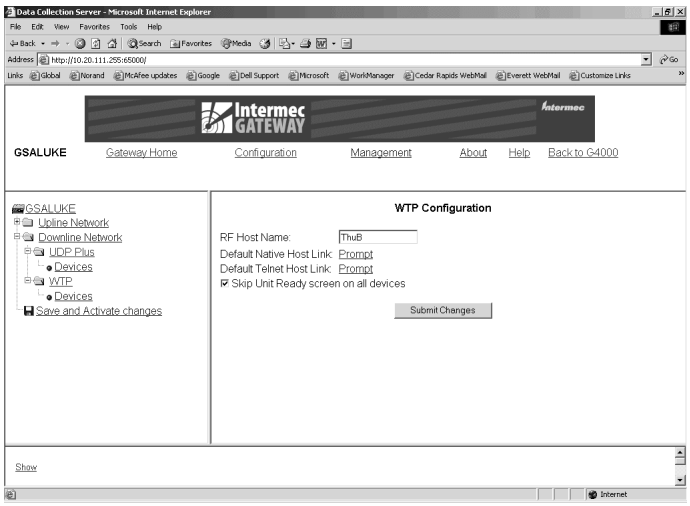
To configure WTP

1 From the Intermec Gateway home page, click Configuration.

If a security screen appears, type `INTERMEC` in the User Name and Password fields, and click OK. You must type Intermec in uppercase letters.

2 In the Configuration menu tree, expand the Downline Network submenu.

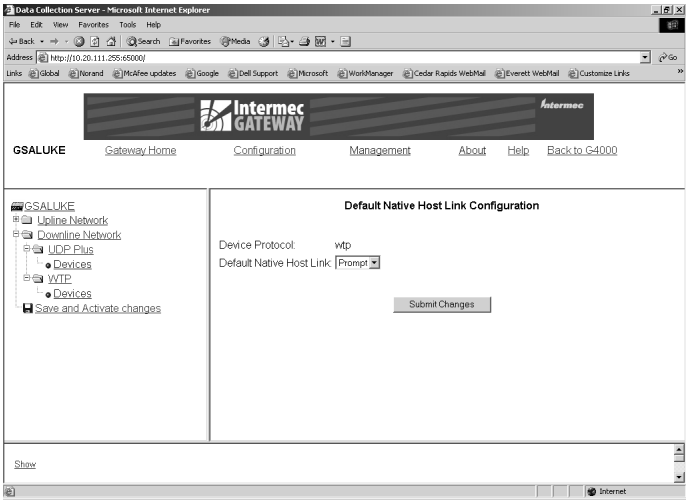
3 Click WTP to configure the WTP parameters. The WTP Configuration page appears.



4 Enter an RF Host Name. If you are connecting a 6400 to this host, the RF Host Name must be in all uppercase letters.

5 Click Prompt after the Default Native Host Link.

The Default Native Host Link Configuration page appears.



6 Select the Default Native Host Link from the list and then click Submit Changes.

Note: If you want certain devices to connect to a specific host, you need to set it in your device list. See the online help for more information.

Configuring the Gateway to Automatically Start

You can configure the G4000 Server Appliance to automatically start the Intermec Gateway and its related processes each time the G4000 is rebooted. You must start the Intermec Gateway before you can communicate with your UDP Plus and WTP devices.

To automatically start the Intermec Gateway

1 From the G4000 Server Appliance home page, click Management.

If a security screen appears, type the user name and password, and click OK. The default user name is `administrator`, and the default password is `intermec`. You must type Intermec in lowercase letters. The G4000 Server Appliance Management page appears.

2 In the Intermec Gateway row, check Autostart. A message box appears confirming that you want to automatically start the Intermec Gateway each time the G4000 Server Appliance starts.

3 Click OK.

Note: You can turn this feature off at anytime by clearing the Autostart checkbox. You can also use this page to start or stop the Intermec Gateway at any time.

Saving and Activating Changes

Before any of the changes you have made will take effect on the Intermec Gateway, you need to save and activate your changes. Saving and activating your changes involves rebooting the G4000 Server Appliance.

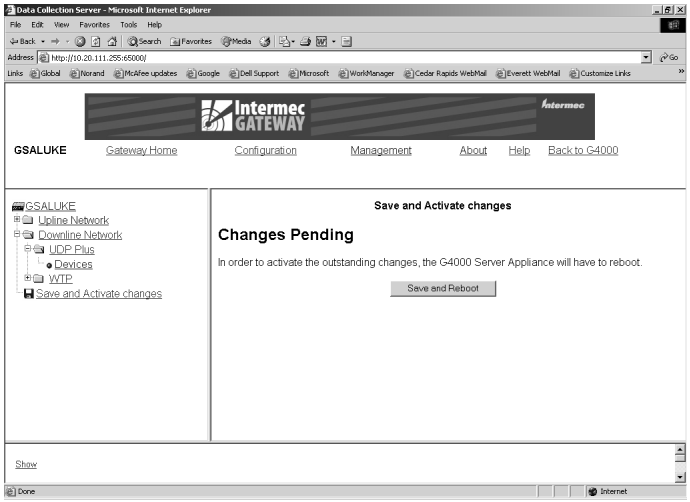
To save and activate your changes

1 From the Intermec Gateway home page, click Configuration.

If a security screen appears, type `INTERMEC` in the User Name and Password fields, and click OK. You must type Intermec in uppercase letters.

2 In the Configuration menu tree, click Save and Activate Changes.

The Save and Activate changes page appears.



3 Click Save and Reboot. A message box appears confirming that you want to reboot the G4000 Server Appliance.

4 Click OK.

Configuring the Data Collection Devices for Native TE

UDP Plus data collection devices can communicate to IP hosts through the Intermec Gateway if they have a supported TE client loaded on them. This table identifies the files that must be loaded on each device before the device can run Native TE.

Files Required for Native TE

Device	Protocol	Application
Trakker Antares terminal (2415, 2425, 2435, 2455, 2475, 248X)	UDP Plus	dcBrowser Client
Trakker Antares terminal (2415, 2425, 2435, 2455, 2475, 248X)	WTP	dcBrowser Client

Files Required for Native TE (continued)

Device	Protocol	Application
5020	UDP Plus	dcBrowser Client
1100, 1700, 5055, 5900, 6400	WTP	TE 2000

Setting Up the Trakker Antares and 502X UDP Plus Devices

Trakker Antares UDP Plus terminals and 502X UDP Plus devices can communicate to the Native async serial host through the Intermec Gateway if they have the dcBrowser client loaded on them. The Trakker Antares terminals and 502X devices may already have the dcBrowser client (DCBT24.BIN or DCB5020.EXE) loaded on them.

If you do not have the dcBrowser client loaded, you must load it. For help, see the *Data Collection Browser Client User's Guide* (P/N 070011).

You may still need to configure your terminals to communicate with the UDP Plus network and access points. For help, see your device user's manual and your access point user's manual.

Setting Up the WTP Devices

WTP devices can communicate with the Native async serial host through the Intermec Gateway by continuing to run TE 2000. For each device, you must use the menus to configure Native communications, a terminal number, and the RF host name. Each terminal session must have a unique terminal number/RF host name combination.

To configure the RF Host name

1. From the Intermec Gateway home page, click Configuration.
2. In the Configuration menu tree, expand the Downline Network submenu.
3. Click WTP to configure the WTP parameters.

For help configuring Native communications, terminal numbers, and the RF host name, see the online help.

To set up each WTP device

1. In the TE 2000 Main Menu, press 1. The Enter Password prompt appears.
2. Type C R 5 2 4 0 1 and press ↵. The Set-up Parms menu appears.
3. Use the host/server setup screens to configure the terminal session for Native communications, the unit (terminal) number, and the host name (RF host name configured in the Intermec Gateway configuration screens). Configure Host/Server A, Host/Server B, and Host/Server C independently.
4. Press ↵ until the Set-up Parms menu appears.
5. Press 7 to access more menus.
6. Press 2 to save your changes. The Enter Password prompt appears.
7. Type C R 5 2 4 0 1 and press ↵. The Set-up Parms menu appears.
8. Press 6 to exit the menus.

This example walks you through the terminal screens to show you how to configure one of the terminal sessions for Host/Server A, Native communications, terminal number 42, and RF host name MYHOST.

```
1) Host A
2) Host B
3) Host C
```

```
Native
1) 3270
2) 5250
3) VT220
```

```
Enter Unit
Number:
42
```

```
Native
Unit # 42
Enter Host Name
MYHOST
```

You may still need to configure your devices to communicate with the WTP network and access points. For help, see your device user's manual and your access point user's manual.

Starting the Native Applications

After you have loaded the dcBrowser client, configured your devices, and started your Intermec Gateway, you can run the Native application on a UDP Plus or WTP device.

Trakker Antares UDP Plus Terminals

You can start the native application on your Trakker Antares UDP Plus terminals by scanning a bar code or by using the menu system.

To start Native applications on Trakker Antares UDP Plus terminals

- Scan this bar code:

Run Program C:DCBT24.BIN

//C:DCBT24.BIN

Or,

1. On your terminal, access the TRAKKER Antares 2400 Menu System by pressing f 2 4 8 or by scanning this bar code:

   Enter Test and Service Mode

   ..-.

Note: If your terminal has a Left Enter key, you must use that key when entering the key sequence in Step 1; otherwise, just use the [↵] key.

2 From the Main Menu, choose System Menu and then choose File Manager. The File Manager screen appears.

3 Select drive C and press [↵]. A list of applications that are loaded on your terminal appear.

4 Select DCBT24.BIN and press [↵].

The dcBrowser client starts. If you checked Send Terminal ID to Host, the terminal sends a power-up packet that contains an "I" followed by a 4-byte hex representation of the IP address followed by the terminal type. The terminal type is 1 byte and indicates the Native terminal display type.

If communications between the client and the Intermec Gateway are disconnected, press **Ctrl -** [P] to restart communications.

WTP Devices

The Native client starts when you turn on the device. If you checked Send Terminal ID to Host, the WTP devices send a power-up packet that contains a 2-byte device number followed by the device type.

Writing Native Host Applications

Use these guidelines when writing Native host applications for your devices. There are two major differences between the WTP devices and the UDP Plus devices:

- WTP devices and UDP Plus devices send different start-up packets.
- The displays of the 1100, 1700, and 6400 work differently than the displays of the 2415 and 2425.

Devices Send Different Start-Up Packets

There are some differences between the packet that the WTP devices send and the packet that UDP Plus devices send when you have Send Terminal ID to Host checked in the Add New Port dialog. WTP devices send a power-up packet that contains a 2-byte device number followed by the device type. The UDP Plus device sends a power-up packet that contains an "I" followed by a 4-byte hex representation of the IP address followed by the terminal type. The power-up packet contains the device ID in a space padded string with a comma delimiter before the "I," for example, "`UDP001 ,I`*xxxx*" where *xxxx* is the 4-byte hex information mentioned earlier.

Displays Work Differently

When the 1100, 1700, and 6400 turns on, the display can show from 12 to 27 characters. The data wraps independently from the display width. It wraps according to the Host View Size setting on the device, which can be from 1 to 80 characters wide. The host application can send a Set Screen command that sets the Host View Size setting on the device to 16 or 21 characters wide.

When the 2415 or 2425 turns on, the display is either 10 or 20 characters wide, depending on the font selection. When the data exceeds the display width, the data wraps to the next line. These devices have partially implemented the Set Screen command. If the host application sends this command to set the data to wrap at 16 characters and the device's display is set to 20 characters wide, all characters are visible. If the host sends the command to set the data to wrap at 21 characters, however, the screen will truncate the last character.

Chapter 2 — Using the Intermec Gateway in the Native Environment

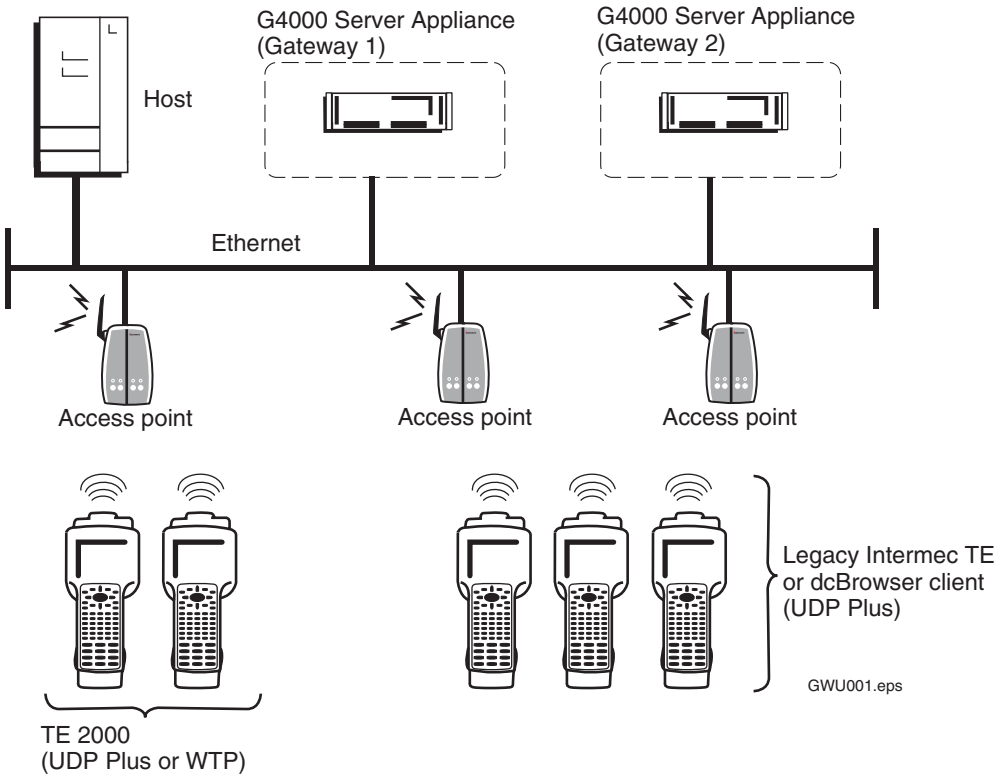
3 Using Multiple Gateways for Maximum Up-Time

This chapter provides guidelines about using your Intermec Gateways to ensure maximum up-time on your data collection network. You can use UDP Plus devices or TE 2000 devices to communicate with the Intermec Gateways. This chapter contains the following topics:

- Understanding Auto Fallback and the Intermec Gateway.
- Using Auto Fallback in UDP Plus terminals.
- Using Auto Fallback in the TE Client.

Understanding Auto Fallback and the Intermec Gateway

The Auto Fallback feature lets Trakker Antares UDP Plus terminals and WTP devices switch from an Intermec Gateway that goes offline to another Intermec Gateway that is online with minimal system disruption. For example, in the next illustration if Gateway 1 were to go offline, your devices could switch to Gateway 2 without any loss of data or disruption to your system.



Using Auto Fallback in UDP Plus Terminals

When Trakker Antares UDP Plus terminals are communicating with access points and the Intermec Gateway, the Connect icon is on. If the Connect icon blinks, the terminal is no longer communicating with the Intermec Gateway.

Note: If your Connect icon blinks or turns off, you may be out of range of an access point, you may be about to go out of range of an access point, or the access point may have recently been turned off. Verify that you do not have an access point problem before you try to obtain a new G4000 Server Appliance IP address.

If you have implemented the Auto Fallback feature in your data collection network, simply press I/O twice on your terminal to obtain the IP address of the other G4000 Server Appliance. When the Connect icon turns back on, you can continue data collection.

Configuring the Intermec Gateways

You must configure each Intermec Gateway that you want to be available to use with the Auto Fallback feature. Except for the Ethernet and WTP parameters, each Intermec Gateway should be configured the same. Also, each Intermec Gateway must accept connections from the device(s) you want to use with this feature.

Configuring the Trakker Antares UDP Plus Terminals

The Trakker Antares UDP Plus terminals must be running firmware version 7.12 or later.

To configure the terminals to use the Auto Fallback feature

1 Configure the network parameters for the terminal, including the terminal IP address and the controller IP address. The controller IP address can be any valid IP address. For help, see your terminal user's manual.

2 Scan this bar code:

Enable Auto Fallback

$+NI1

3 To save the configuration in flash memory, scan this bar code:

Save Configuration in Flash Memory

.+1

The terminal looks for an Intermec Gateway on the network. When it locates an Intermec Gateway, it resets its controller IP address parameter to the IP address of the G4000 Server Appliance running the Intermec Gateway that it found.

Note: If the terminals are in a different subnetwork than the G4000 Server Appliance, you must configure and enable the DHCP relay agent on the routers. For help, see your router user's manual.

Using Auto Fallback in the TE Client

When WTP devices are no longer communicating with the Intermec Gateway, you can no longer perform data collection. If you have implemented the Auto Fallback feature in your data collection network, reboot the device. The terminal session will try to connect to Host A. If it cannot connect to Host A, it tries to connect to Host B and then to Host C. When it makes a connection, you can continue data collection.

Configuring the Intermec Gateways

You must configure each Intermec Gateway that you want to be available to use with the Auto Fallback feature. Except for the Ethernet and WTP parameters, each Intermec Gateway should be configured the same. Also, each Intermec Gateway must accept connections from the device(s) you want to use with this feature.

Configuring the TE Client

The 1100, 1700, 5055, 5900, and 6400 devices must be running firmware version 5.33 or later. Trakker Antares terminals must be running firmware version 7.1X or later. You must configure the network parameters for the device, including Host/Server A, Host/Server B, and Host/Server C. For each of these hosts, you define the communications mode, the terminal number, and the host stack.

The host is the Intermec Gateway to which you want the device to connect. When a device is booted, the terminal session tries to connect with Host/Server A. If it cannot connect to Host/Server A, it tries to connect to Host/Server B and then to Host/Server C.

Chapter 3 — Using Multiple Gateways for Maximum Up-Time

4 Troubleshooting the Intermec Gateway

Use this chapter to troubleshoot any problems you may experience with your Intermec Gateway.

Troubleshooting

If you have problems running the Intermec Gateway in your data collection network, look for your symptom in the table below and then try the solutions in the order that they are listed. If your problem is not listed in the table, you can look at the error log or the Product Support page on the G4000 Server Appliance web page. For help, see the *G4000 Server Appliance User's Guide*.

Symptoms and Solutions

Symptom	Solution
From your PC, you cannot connect to the Intermec Gateway. Or, the Intermec Gateway pages do not display properly.	The Intermec Gateway works best with Internet Explorer 5.01 or higher on Windows 95/98/ME/NT/2000/XP. You may access the Internet by using a proxy server. Make sure that you have added the IP address for the G4000 Server Appliance to your Exceptions list. Make sure the G4000 Server Appliance is connected to and configured for the Ethernet network. Use a PC that is connected to the Ethernet network to ping the IP address for the G4000 Server Appliance.
From your device, you cannot connect to the Telnet host.	Make sure the G4000 Server Appliance is connected to and configured for the Ethernet network. Use a PC that is connected to the Ethernet network to ping the device IP address and the IP address for the G4000 Server Appliance. Make sure that the terminal emulation client is running on the device and that the device is communicating with the Intermec Gateway. Make sure that the device is communicating with the access point. On the device, make sure that it is configured for Telnet. Also, make sure that you have set the controller IP address parameter to the IP address for the G4000 Server Appliance.

Symptoms and Solutions (continued)

Symptom	Solution
The IP address displayed on the Intermec Gateway home page is incorrect.	If you manually change the IP address, it may not show up on the Intermec Gateway home page until you reboot the G4000.
You click Help from the Intermec Gateway home page and the Contents menu does not display on the left side of the help page.	You may have more than one help page open. Close all help pages and click Help again. The online help works best in Internet Explorer 5.01 or above.
You try to access the online help and nothing appears.	The Java 1.3.1_06 plug-in may not be installed. It should automatically download from http://java.sun.com/products/plugin/. If you move or rename the Java plug-in directory on your PC, the Java plug-in installation may be corrupted. Reinstall the Java plug-in. You may need to configure the Java 1.3.1_06 plug-in. Choose Java Plug-in Control Panel from the Start menu on your PC. Choose Proxies to change the proxy configuration options. You may need to clear the Use Browser Settings check box. For help, see the documentation at http://java.sun.com/products/plugin/.
Unsolicited messages from the host flash across the device's screens.	Native applications were originally intended to be transaction-based. That is, when a host sent a command to the device, the host expected a response from the device before it sent the next command; therefore, some legacy controllers can only buffer one message per device. If the host sends an unsolicited message to the device, there is no guarantee that the controller can deliver the first message to the device before the second message overwrites its buffer. Since the Intermec Gateway buffers multiple commands, if the Native application sends unsolicited messages, you may see these messages flash across the device's screen. Fix the native application to stop sending messages or ignore them.

Symptoms and Solutions (continued)

Symptom	Solution
The Intermec Gateway loses its connection to the serial host.	The serial application tried to reset to factory defaults (DMP command) on the terminals after they started streaming data. Stop and then start the Intermec Gateway.
The Intermec Gateway is running slowly and dropping connections.	Reboot the G4000 Server Appliance.
After you start or stop the Intermec Gateway, a message appears telling you to wait and the message never leaves.	Click a link to go to a different page and continue working. The Intermec Gateway has been started or stopped.

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