Connectware Manager®
Getting Started Guide

Seamless migration to total integration.

Making
DEVICE NETWORKING
easy ™

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Contents

About Connectware Manager

This Getting Started Guide provides system requirements for running Connectware Manager, configuration scenarios, setup information, installation instructions, and troubleshooting tips.

Connectware Manager is intended for network managers responsible for managing Digi Connect devices and their associated connections. It is designed to make the network manager's job easy, whether the network involves a few devices or hundreds or thousands of Digi wireless devices.

Functions provided by Connectware Manager include:

- Automated provisioning

- Device and connection monitoring

- Troubleshooting

- Device diagnostics

- Device and network performance analysis

- Automated firmware upgrades

- Connectivity services

Connectware Manager
Platform Architecture

Core Platform

Device Management
•Administration
•Monitoring

Connection Management
•Administration
•Monitoring

Connectivity Services
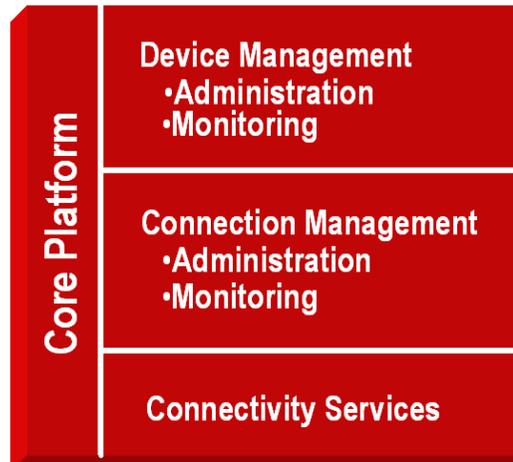
Connectware Manager can be used to manage Digi wireless devices, including Digi Connect® WAN GSM and Digi Connect® Remote Gateway. The Digi wireless devices connect to the Connectware Manager system through a secure data path (using MD5 authentication and up to 256-bit AES encryption) through the wireless network.

The network manager uses the Connectware Manager system through the Connectware Manager Console. This console provides tools to easily deploy, manage, monitor, and maintain the network. It includes features for provisioning, configuring, and managing devices, as well as monitoring performance, report generation, event logging, and security management.

New devices can be added, or provisioned, to the server automatically the first time they connect to the server. Once provisioned, devices can be managed from the Connectware Manager Console, using a standard web browser. For example, network managers can perform such tasks as configuring, rebooting, disconnecting, and redirecting devices, backing up and restoring device configuration properties, and importing or exporting device configuration properties.

New devices can be configured to connect to the Connectware Manager server using one of several interfaces, including the Digi Device Setup Wizard, the default web interface, or the command line.

The Connectware Manager server itself can also be managed from the Connectware Manager Console. Server management tasks include shutting down, stopping, and restarting the server, reconfiguring the server as needed, and displaying reports and logs on server activity.

System Requirements

Hardware Requirements

Please ensure that your host hardware meets the following minimum requirements:

- Pentium III or above

- 500 MHz CPU (1 GHz recommended)

- 256 Mb RAM (1 GB recommended)

- 300 MB disk space

Software Requirements

- Connectware Manager runs on a the following host systems:

    - Microsoft Windows 2000 Professional

    - Microsoft Windows 2000 Server

    - Microsoft Windows XP

    - Microsoft Windows Server 2003

- Connectware Manager requires a SQL Server database. A copy of Microsoft Database Engine (MSDE) database manager is provided on the Connectware Manager installation CD for your convenience. See "SQL Server Database Requirements" on page 11 for more details.

- The Connectware Manager software needs a license key for any deployments beyond five devices. Contact your Digi sales representative for information on obtaining license keys.

Configuration Scenarios

Before installing Connectware Manager, consider how devices will be configured in your network, and the types of network connections involved.

An advantage of using Connectware Manager to manage Digi Connect devices is that each Connect device locates the Connectware Manager Server by the Server's IP address. This allows the network manager at the Connectware Management Server's Management Console to always be able to locate devices, regardless of *their* IP addresses. To illustrate, the following network configuration example shows several Digi Connect WAN devices, labeled as "Connect Wireless Gateways." These Connect WAN devices are all connected to the Connectware Manager Server. Each Connect WAN device locates the Connectware Manager Server by the Server's IP address.

Connectware Manager Illustrated
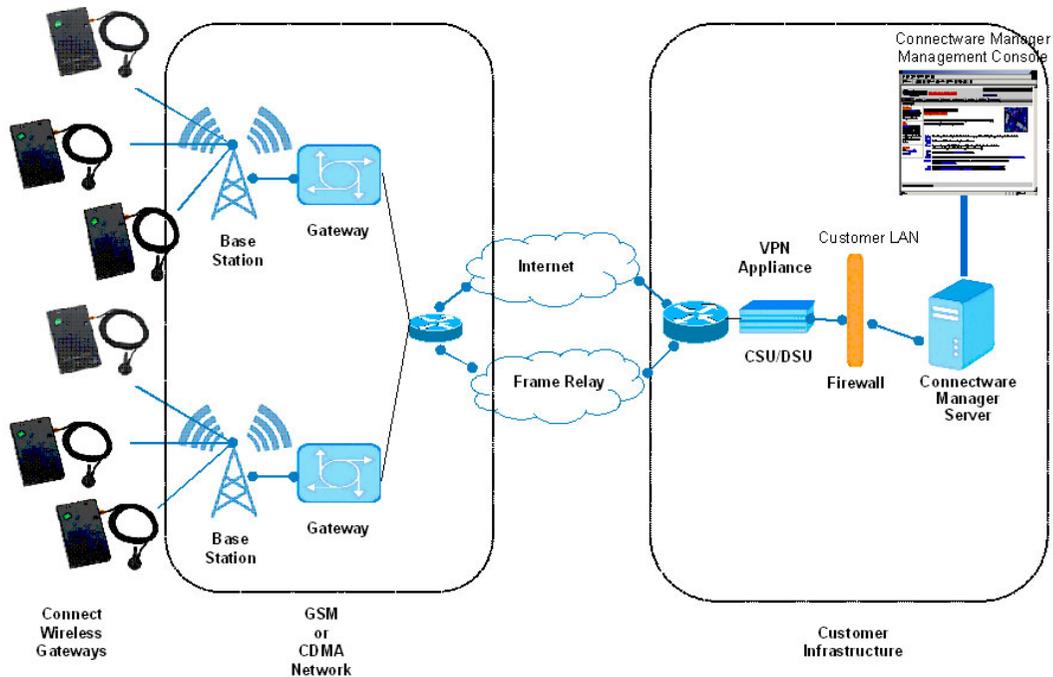
Installation

▪ ▪

Installing Connectware Manager software involves two main elements:

- As needed, installing a SQL Server database.

- Installing the Connectware Manager software.

SQL Server Database Requirements

Connectware Manager requires a SQL Server database. This database is used to maintain information about the configuration of the Connectware Manager system, the services and applications supported by the system, and information about the devices that can use the system.

You can either install the Microsoft Database Engine (MSDE) database software supplied on Connectware Manager installation CD or use an existing SQL server database.

Using Microsoft Database Engine (MSDE)

For evaluation purposes, or if you have a smaller production environment, you can use the Microsoft Database Engine (MSDE) database manager. A copy of MSDE is provided on the Connectware Manager installation CD for your convenience. If you do not have an SQL Server installed, the Connectware Manager installation program prompts you to install MSDE.

Using an Existing SQL Server

In a large production environment involving 250 or more devices, you will want to use a SQL Server, which can be an existing installation of SQL Server or a new, dedicated installation. The SQL Server database can reside on the same server as Connectware Manager, or on a different server.

If you already have an existing SQL Server, you do not need to install and use the MSDE database manager. You can use an SQL Server on the same machine on which Connectware Manager is installed, or on a different machine. In both cases, the authentication method used for accessing the SQL Server is username/password, rather than Windows domain authentication. The user account used by Connectware Manager for authentication to the SQL Server must have sufficient administrative privileges to create a database. You will need to supply the following information on the Database Setup screen during the Connectware Manager installation process:

- Server name, if different from the server on which Connectware Manager is installed.

- The user name and password for logging in to the SQL Server.

- The TCP port number for communicating with the SQL Server.

Install the Connectware Manager Software

To install the Connectware Manager software, follow these steps. This procedure requires that you have administrative privileges.

1 Insert the Digi CD into the host machine.

2 The Hardware and Software Setup page is displayed. If this menu does not appear shortly after the CD has been inserted, double-click your CD drive icon to start the installation program, start.exe.
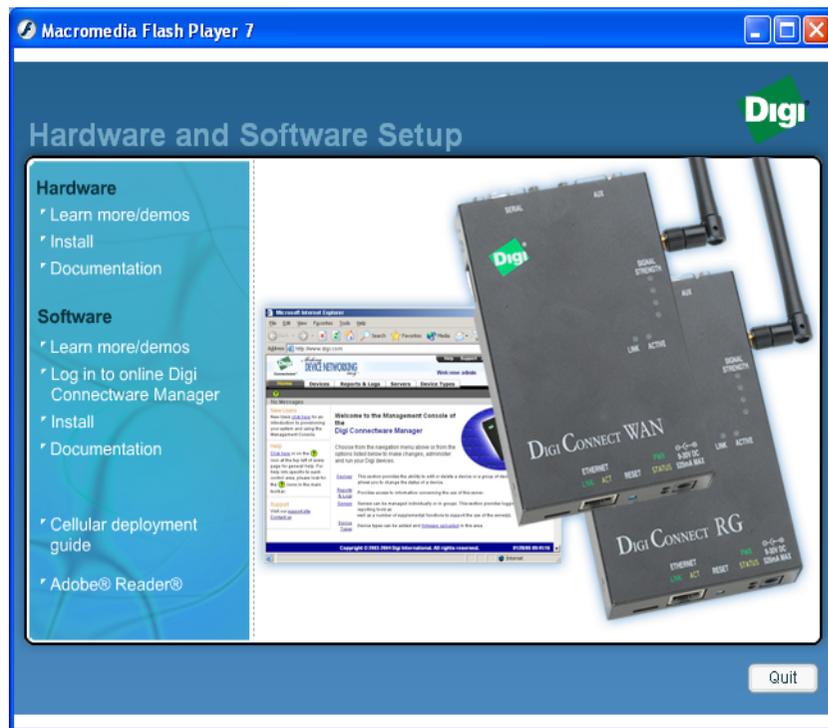
3 Under the Software heading, click **Install**.

4 Under **Install Digi Connectware Manager on your server,** click the Install button.

5   If an SQL Server database is not detected on your machine, a prompt is displayed asking whether you want to install MSDE.

Click **Yes** to install MSDE. Click **No** to bypass MSDE installation and proceed with Connectware Manger installation. Continue to step 6.

During MSDE installation, an error may be generated indicating that "Setup failed to configure the server."This may be due to a number of reasons. Typical causes are leftover files from a prior MSDE or SQL installation, or one or more invalid Windows registry entries. Although it appears to be a serious error, the installation usually completes normally. If you encounter this error, restart your host machine. After startup, note whether the SQL Server Service Manager is active (this is indicated by a new SQL icon added to the desktop task bar by the MSDE installer). If the SQL icon is present, then the MSDE installation completed. If the SQL icon is missing, the source of the database installation problem will need to be found and resolved.

6   The Connectware Manager Setup Introduction screen is displayed. The subsequent screens will prompt you for various inputs. Use the given default inputs or leave the input fields untouched in all cases (just click **Next**).

On the Database Setup: Connectware Manager Server screen, shown below, the values entered depend on how you will use a SQL Server database with Connectware Manager.
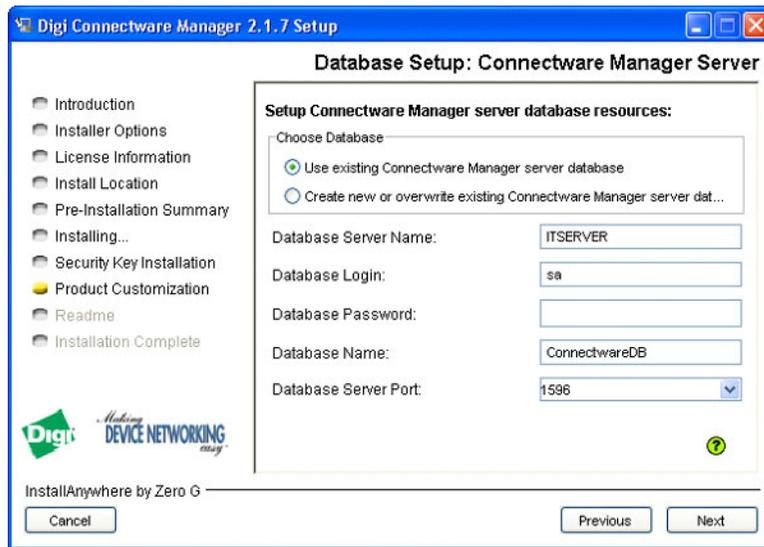
On the Database Setup: Connectware Manager Server screen, enter the following information:

– **Choose Database:** Specifies whether an existing or new SQL Server database will be used for Connectware Manager.

Choose the first option (**Use existing Connectware Manager server database**) if you already have a SQL Server database running.

The second option (**Create new or overwrite existing Connectware Manager server database**) is chosen by default if you have just installed MSDE, or if you are using an existing SQL Server database and are creating a Connectware Manager database in it for the first time.

– **Database Server Name:** The network name for the server on which the SQL Server database is installed. The name of your PC is automatically entered in this field. If the SQL Server is installed on a different machine, you need to enter that machine's network name in this field.

– **Database Login / Database Password:** The username and password used for logging in to the SQL Server. If you are using MSDE, the user name is **sa** and the password is the one that was specified during the MSDE installation process.

– **Database Name:** The name of the SQL Server database. The name ConnectwareDB is recommended.

– **Database Server Port:** The TCP port number for communicating with the SQL Server. If you are using the MSDE database supplied on the installation CD, the default value automatically entered in this field should be left as is.

This concludes the Connectware Manager installation.

If you chose the default inputs during installation, the Connectware Manager server will be started automatically as a Windows service.

Log in to Connectware Manager

The Connectware Management Console is a Web-based facility provided for use by the system administrator in provisioning devices and applications.

To log in to the Management Console, from the Start menu, choose
Start > Digi > Connectware Manager > Login to Connectware Manager

The Connectware Manager home page is displayed:

There are two choices:

- **Server Management**: For managing Connectware Manager server-specific configuration parameters, such as users, device types, and other server-specific configuration parameters. Choose Server Management if you need to add licenses, set up users to use certain devices, and generate reports and logs on server performance. See "Server Management Login" on page 17.

- **Device Management**: For or managing and monitoring device only. This choice launches the Device Management application and displays a separate window for managing devices. See "Device Management Login" on page 20.

Server Management Login

To log into the Server Management for Connectware Manager, click the **Server Management** button on the Connectware Manager Home page.

The Connectware Manager login screen is displayed:

Use the default Sign-in ID and Password of **admin** and **changeme**, respectively.

After you log in for the first time, it is recommended that you go to the MyPrefs page to change the password for the admin user name. To access the MyPrefs page, click the MyPrefs link in the upper right corner of the Connectware Manager Console Home page.

The Connectware Manager Console Home Page

After logging on to Server Management, the Home page of the Connectware Manager Console is displayed.
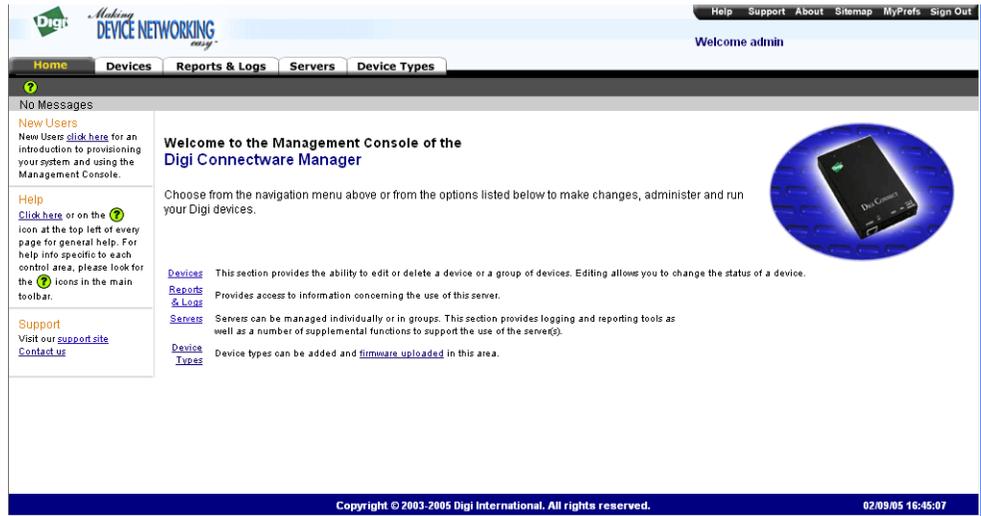
Management Console Pages

The functions of the Management Console are organized on several pages. Browse through these pages to familiarize yourself with the features and operations. Online help is available for each page by clicking the ⊙ icon.

- **Home:** The Home page for the Management Console, displayed above.

- **Devices:** Used for working with devices or groups of devices. Choosing this item launches the Device Management application. In a separate window, the Device Management application lists all of the devices provisioned on the server to which you have access, and indicates the status of each device (see "Device Management Application Main Window" on page 21). You can perform device operations by first selecting one, a few, or all of the devices listed. Device operations include editing configuration properties, deleting devices from the network, disconnecting, redirecting, and rebooting devices, backing up, restoring, importing, and exporting configuration properties.

- **Reports & Logs:** Provides access to logs and reports about server and device activity, error reports, and the server's real-time event log.

- **Servers:** Used for monitoring the operational status of the server, performing remote administration on the server, collecting event logs and activity reports from the server, and configuring administrative functions for the server, for example, license management, security configurations, and server properties.

- **Device Types:** Provides information about the device types configured in the network. This page contains helpful information for managing firmware updates for devices.

Additional Links and Resources

In addition, the upper right corner of each page provides links to the following resources:

- **Help:** Displays the online help for the Connectware Manager Management Console.

- **Support:** Accesses the Digi International Technical Support site.

- **About:** Displays version and product information for the Connectware Manager Server.

- **Sitemap:** Displays the sitemap for the Connectware Manager Management Console.

- **MyPrefs:** Displays the My Preferences page. This page is used for changing the password used for logging on to the Connectware Manager Management Console, and for setting user preferences.

- **Sign Out:** Used for signing out of the Connectware Manager Server.

User Names, Passwords, and Server Security Settings

Consider who will be using the Connectware Manager system and how they will access it. These considerations will influence user name and password management, access privileges, and security settings for the server. For details on user name and password management, refer to the help for the MyPrefs page. For details on server security settings, refer to the online help for the Security page, which is accessed from the Security link on the Servers page.

Device Management Login

To log into the Device Management application, click the **Device Management** button on the Connectware Manager Home page.

The Device Management application requires that Java Web Start be installed on your system. If it is not, you are directed to a page containing the Java Run-Time Environment containing Java Web Start, which you can then load.

A splash screen for the Device Management application is displayed, then a login prompt:

If you are an administrator, use the same login used for the Server Management login (username **admin,** password **changeme**). If an administrator has already set up a username and password for you through Connectware Manager's server management, enter that username and password instead.

Device Management Application Main Window

In a separate window, the Device Management application lists all of the devices provisioned on the server to which you have access, and indicates the status of each device. (This window is also displayed by selecting Devices on the Connectware Manager Console home page.)
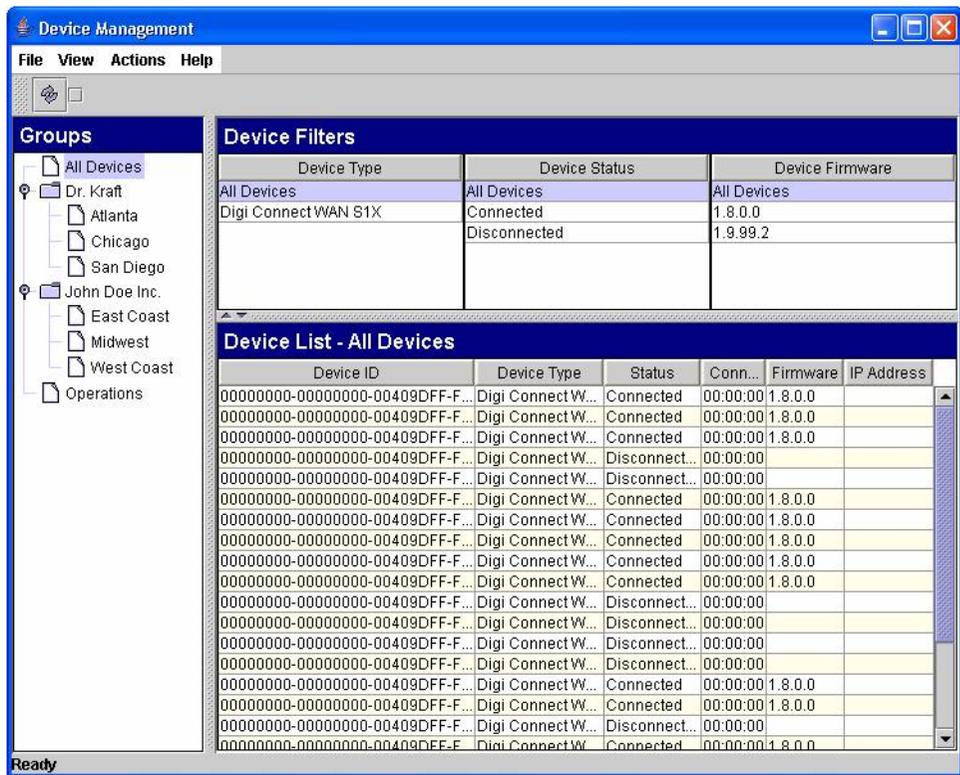
You can perform device operations by first selecting one, a few, or all of the devices listed. Device operations include editing configuration properties, deleting devices from the network, disconnecting, redirecting, and rebooting devices, backing up, restoring, importing, and exporting configuration properties.

Troubleshooting

If you encounter problems during installation and startup of the Connectware Manager system, review these troubleshooting tips.

■ In a default configuration, the following ports must be available for use by the Digi Connectware Manager. Make sure that your firewall configuration allows access to these ports from the public Internet.

– 3197: Digi Device Protocol (DDP) Message over TCP (MT)

– 3198: Server-initiated DDP MT connections

– 80: Digi Device Protocol (DDP) Messages over HTTP (MDH)

– 8005: Shutdown

– 8080 - Management Console

– 8443: Secure Management Console

– 9443: Remote Protocol

Some of these ports can be changed during installation or from the Connectware Manger console.

■ If you uninstall the Microsoft SQL Server Desktop Engine (MSDE) and reinstall it, the Connectware Manager installation may fail because database files are not removed by the MSDE uninstall. You must manually delete the database files (*.mdf, *.ldf) from the MSDE directories before reinstalling the Connectware Manager. The database files, by default,are stored in the following directory:

C:\Program Files\Microsoft SQL Server\Mssql$CONNECTWARE\DataMSSQL$CONNECTWARE\Data.

■ You must be logged in as an administrator to install this product.

■ If your Connectware Server is behind a NAT server, you will need to change the IP address in the URL for theConnectware Manager service.

– Go to https://localhost:8443/listService.do?action=view in your browser (replace "localhost" with your server name or IP address).

– Edit the management-console service and change the IP address in URL.

■ Internet Explorer Users: Using the Back or Forward buttons on your browser may cause unexpected results. Please use the navigation links provided on the toolbars to avoid this situation.

- When adding restricted devices to the system, they must be added in blocks no larger than the available license count.

Where to Find More Information

For more detailed information on Connectware Manager features and performing administrative tasks, see the Connectware Manager online help.

Digi International

www.digi.com