

Dell™ PowerEdge™ 350 Systems

Information Update



Notes, Notices, and Cautions



NOTE: A NOTE indicates important information that helps you make better use of your computer.



NOTICE: A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.

Information in this document is subject to change without notice.

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Dell™ PowerEdge™ 350 Systems — Information Update

This document includes the following information about your system:

- Information about the console redirection feature
- Running Dell Diagnostics
- Enabling the Preboot Execution Environment (PXE) feature

Information About the Console Redirection Feature

The PowerEdge 350 BIOS supports redirection of both video and keyboard through a serial port. When console redirection is enabled, local (host system) keyboard input and video output is passed both to the local keyboard and video connections, and to the remote console through the remote link. Keyboard inputs from both sources may be used and video is displayed through both outputs. Optionally, the host server can operate without a video or keyboard controller attached and run entirely through the remote console, thus allowing the host system to be completely headless. Setup and any other text-based utilities can be accessed through console redirection.

Minimum Hardware and Connection Requirements

To use console redirection, you must have the following minimum requirements:

- An available serial port (COM port) on a client system (this port must not conflict with any other ports on the system)
- An available serial port on the system
- A null-modem cable (a cable that connects two systems through their serial ports) to connect the server to the client

Software Requirements

Your remote terminal emulation software should meet the following specifications:

- American National Standards Institute (ANSI) terminal emulation with a window size of 80 x 26 characters
- 9600, 19.2 KB, 57.6 KB, or 115.2 KB per second through serial ports
- Recommended: the ability to create keyboard command macros

All versions of the Microsoft® Windows® operating systems come with HyperTerminal terminal emulation software. However, the version of HyperTerminal included with most Windows operating systems does not provide the correct screen size. Dell recommends that you upgrade your version of HyperTerminal or select new terminal emulation software. You may be eligible for a free upgrade from your current version of HyperTerminal from <http://www.hillgrave.com>.

Enabling Console Redirection

- 1 Turn on your system.

If your system is already on, shut it down and then turn it on again.

- 2 Press <F2> immediately after you see the following message:

Hit <F2> if you want to run setup

If you wait too long and your operating system begins to load into memory, let the system complete the load operation, and then shut down the system and try again.



NOTE: To ensure an orderly system shutdown, consult the documentation that came with your operating system.

When the System Setup program runs, the **BIOS Setup Utility** main program screen appears.



NOTE: Use the arrow keys to navigate through System Setup.

- 3 Select the **System Management** menu option in the upper part of the screen.
- 4 Select **Serial Features** and press <Enter>.
- 5 Select **Serial Console Redirection** and press <Enter>.
- 6 Select **Enabled** and press <Enter>.
- 7 Set the baud rate and flow control for your system.



NOTE: Match the baud rate and flow control with the terminal program you are using (for example, Windows HyperTerminal).

- 8 Select the serial port that you want to use for the serial redirecting.
- 9 Press <F10> to save your console redirection settings and exit System Setup.
- 10 Select **Yes** to confirm that you want to exit.

The system finishes booting.

Running Dell Diagnostics

To run the Dell Diagnostics, you must create diagnostics diskettes from the Dell *OpenManage Server Assistant* CD on a system running Microsoft Windows 95, Windows 98, or Windows NT®.



NOTE: The system hardware diagnostics are described in "Running the Dell Diagnostics" in your *Dell PowerEdge 350 Systems Installation and Troubleshooting Guide*.

Enabling the Preboot Execution Environment (PXE) Feature

The Preboot Execution Environment (PXE) feature allows your system to boot from a network drive. You can configure your system to boot from the network during every boot.



NOTE: The PowerEdge 350 PXE feature does not allow you to force a single boot.

To enable the PXE feature on the system, perform the following steps:

- 1 Turn on your system.

If your system is already on, shut it down and then turn it on again.

- 2 Press <F2> immediately after you see the following message:

Hit <F2> if you want to run setup

If you wait too long and your operating system begins to load into memory, let the system complete the load operation, and then shut down the system and try again.



NOTE: To ensure an orderly system shutdown, see the documentation that came with your operating system.

When the System Setup program runs, the **BIOS Setup Utility** main program screen appears.



NOTE: Use the arrow keys to navigate through the **BIOS Setup Utility**.

- 3 Select the **Boot** menu option in the upper part of the screen.
- 4 Next to **1st Boot Device**, select the name of the boot device and press <Enter>.



NOTE: Because **Intel Boot Agent** is not labeled with the corresponding network interface card (NIC), NIC1 or NIC2, you cannot determine which NIC the PXE will boot from. Dell recommends selecting the NIC that you want (NIC1 for example) as both **1st Boot Device** and as **2nd Boot Device**.

- 5 Select [**Intel (R) Boot Agent Ver**].
- 6 Press <F10> to save your PXE settings and exit System Setup.

- 7 Select **Yes** to confirm that you want to exit.

The system reboots.



NOTE: If the system does not reboot automatically, restart the system manually before proceeding to the next step.

- 8 When prompted to enter the setup menu, press <Ctrl> <s>.

The **Intel Boot Agent Setup** menu appears.

- 9 Next to **Network Boot Protocol**, use the <spacebar> to toggle to **PXE (Preboot Execution Environment)**.

- 10 Press <F4> to save your PXE settings and exit the **Intel Boot Agent Setup** menu.

The system finishes booting.