


Dell™ Systems


Dell Remote Access Card VT-100 Cable — Information Update



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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.**

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 **NOTE:** The Dell OpenManage™ Remote Service Card has been renamed Dell™ Remote Access Card III. With this name change, remote management solutions for 64-bit and 32-bit platforms have been combined into one solution.


This document provides information about installing the Dell Remote Access Card III (DRAC III) VT-100 serial cable and installing the software to run VT-100 terminal emulation.


Installing the DRAC III Serial Cable for VT-100 Terminal Emulation

- 1 Power down the system and turn off all attached peripheral devices.
- 2 Disconnect the system and peripheral devices from their electrical outlets.
- 3 Disconnect any telecommunication lines from the system.

 **CAUTION:** The power supplies in your system or storage system may produce high voltages and energy hazards, which can cause bodily harm. Only trained service technicians are authorized to remove the system covers and access any of the components inside the system. This warning applies to PowerEdge™ 2xxx or higher systems and PowerVault™ storage systems.

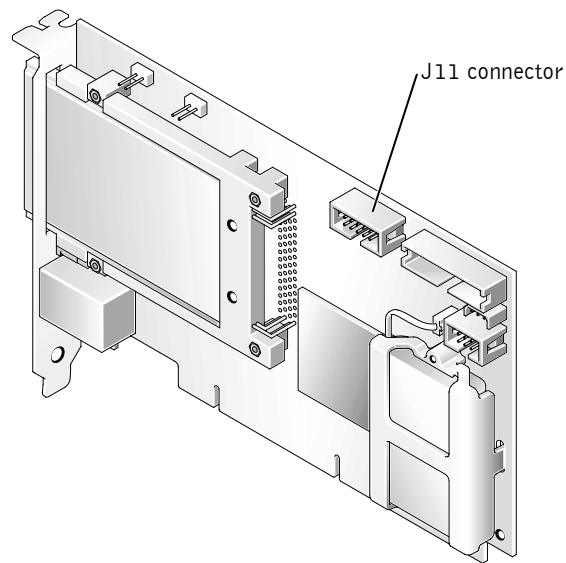
- 4 Remove the system cover according to the instructions in your system *Installation and Troubleshooting Guide*.

 **NOTICE:** You must use the serial cable for VT-100 terminal emulation because it has a specific pin-out. Using the wrong cable results in VT-100 terminal emulation failure.

 **NOTE:** The interface uses standard RS-232 serial communications through a DB-9 connector.

- 5 Connect the DRAC III serial cable to the J11 serial connector on your DRAC III. See Figure 1-1.

Figure 1-1. DRAC III J11 Connector





- 6 Locate an empty PCI slot and remove the metal filler bracket for that slot.
- 7 Install the DRAC III serial cable's metal filler bracket in place of the bracket you just removed.

The end of the DRAC III serial cable is attached to a metal filler bracket identical to the one you just removed, except that it offers a serial connection to the outside of the system chassis.

- 8 Replace and secure the system cover.
- 9 Reconnect the system and peripheral devices to their electrical outlets and turn them on.

Installing the Software to Run VT-100 Terminal Emulation

 **NOTE:** The following steps describe installing the software with Microsoft® Windows NT® 4.0. The steps for other Windows® operating systems are similar.

 **NOTE:** For information about running terminal emulation on systems with Red Hat Linux 7.x, see "Using Terminal Emulation With Red Hat Linux 7.x."

Software that supports VT-100 terminal emulation, such as Windows HyperTerminal, must be installed on the system that you want to connect to the DRAC III. If this software is already installed, go to step 8. Otherwise, perform the following steps:

- 1 Click the **Start** button, point to **Settings**, and click **Control Panel**.
- 2 Double-click the **Add/Remove Programs** icon.
- 3 Click the **Windows Setup** tab.
- 4 In the **Components** area, click **Communications**.
- 5 Click **Details**.
- 6 If the box to the left of **HyperTerminal** is not selected, click the box.
- 7 Click **OK** twice.

You are prompted to insert the *Microsoft Windows* CD.

- 8 Click the **Start** button, point to **Programs**—> **Accessories**—> **HyperTerminal**, and click **HyperTerminal**.
- 9 In the **Connection Description** window, type a name for your DRAC III connection (for example, DRAC III VT-100 connection) and click **OK**.
- 10 In the **Connect To** window, set **Connect using** to the communications (COM) port that you will be using.

Ensure that you have a null modem cable connecting the COM port you chose to the DRAC III serial connection.

When using a VT-100 (or equivalent) terminal rather than terminal emulation software, use a standard serial cable.

- 11 Click **OK**.

- 12** In the **COM1 Properties** window (or **COM2 Properties** window, depending on your selection in step 10), set **Bits per second** to **9600**.

The default communication port settings should read as follows:

- Eight data bits
- No parity
- One-stop bit
- Hardware flow control

- 13** Click **OK**.

The program is now configured.

- 14** To start terminal emulation, click **Call** and then click **Connect**.

Using VT-100 Terminal Emulation With DRAC III


- 1** Start terminal emulation and then complete the instructions as they appear on the screen.


- 2** When prompted, type the user name and password.

A menu appears with all of the commands that can be used with the DRAC III under VT-100 terminal emulation.

- 3** Select the command number you want and press <Enter>.

As a security measure, if the VT-100 interface senses no activity for 300 seconds (this value is user-selectable; its default value is 300 seconds), a log out warning message appears and asks if you if you want to stay connected. If you do not choose to stay connected before 15 seconds elapse (this value is not user-selectable), the current session is terminated and the user is logged out.

 **NOTE:** Because the console redirection feature is designed only for use with text consoles, your management console must be in text mode for console redirection to work properly.

 **NOTE:** Select **3** to start console redirection. To end console redirection, the DRAC III provides a configurable PF key. This key is displayed when you start the VT-100 console redirection session. The default value for this key is PF3.


DRAC III VT-100 Communication Port Settings

If you want to use the VT-100 terminal emulation feature on a system not running a Windows operating system, you need to know the default communication port settings to configure your native terminal emulation software. The default communication port settings are:

- 9600 baud
- Eight data bits
- No parity
- One-stop bit
- Hardware flow control

Using Terminal Emulation With Red Hat Linux 7.x

For Red Hat Linux 7.x systems, you can use the minicom emulator program to connect to the DRAC III using the VT-100 cable. To use minicom, you must first create a minicom configuration file.


 **NOTE:** The root user must create the minicom configuration file. After the file has been created, all users of the Linux systems are able to use the minicom program to connect to the DRAC III using the VT-100 cable.

To create the minicom configuration file, perform the following steps:

- 1 As the root user, open a command shell.
- 2 At the command prompt, type the following command:

```
minicom -s config_name
```

where *config_name* is the configuration name, such as dracIII.
- 3 Press the down-arrow key to select **Serial port setup** and press <Enter>.
- 4 Press <a> to set the appropriate serial device, such as /dev/ttyS1.

 **NOTE:** If the racadm command has been used to change the serial port baud rate (see your *Dell Remote Access Card III (DRAC III) User's Guide* for more information about terminal and communication port settings), specify the new baud rate in place of **9600** in the next step.

- 5 Press <e> to set the **Bps/Par/Bits** option to **9600 8N1** (unless the baud rate has been changed using the **racadm** command).
- 6 Press <f> to set **Hardware flow control** to **Yes**.

- 7 Press <Enter> to exit the **Serial port setup** menu.
- 8 Press the down-arrow key to select **Modem and dialing** and press <Enter>.
- 9 Use the following procedure to clear the **Init string**, **Reset string**, **Hangup string**, and **Dial cancel string** fields, and all **prefix** and **suffix** fields, such as **Dialing prefix #1**:
 - a Press the key that matches the field letter index.
 - b Press and hold <Backspace> until the field is empty.
 - c Press <Enter> to save the blank value.
 - d Repeat until all specified fields are clear.

When all specified fields are clear, press <Enter> to exit the **Modem and dialing** menu.

- 10 Press the down-arrow key to select **Save setup as config_name** and press <Enter>.
- 11 Press the down-arrow key to select **Exit from minicom** and press <Enter>.
- 12 After you create the configuration file, use the following command to start a VT-100 connection to the DRAC III:

```
minicom config_name
```

The DRAC III responds with a login prompt.
- 13 Enter your DRAC III user name and password.
- 14 When you want to leave the terminal emulator and return to the command shell, press <Ctrl><a>, then press <z>, and then press <x>.



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