



Dell OpenManage™ Remote Assistant
Card Version 2.x

SOFTWARE AND
INFORMATION UPDATE

Notes, Notices, Cautions, and Warnings

Throughout this guide, blocks of text may be accompanied by an icon and printed in bold type or in italic type. These blocks are notes, notices, cautions, and warnings, and they are used as follows:



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

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 potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



WARNING: A WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious bodily injury.

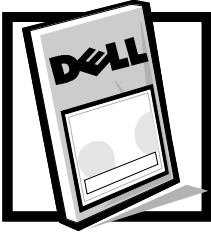
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Dell OpenManage™ Remote Assistant Card Version 2.x Software and Information Update

This document provides information on upgrading your Dell OpenManage Remote Assistant Card (DRAC) version 2.x software and provides updates to your DRAC version 2.x *User's Guide*.

Getting Started

Whether you are installing a DRAC for the first time or upgrading an existing configuration, review the following information:

- If you received a new Dell™ PowerEdge™ server with a Dell-installed DRAC, you should have received the following related items:
 - DRAC version 2.x *User's Guide*
 - DRAC firmware and software upgrade diskette set consisting of two diskettes labeled *DRAC Firmware Update v2.x Disk* and *DRAC v2.x PE1300 Support Disk*
 - *HP OpenView NNM Special Edition x.x With Dell OpenManage HIP x.x CD* and associated documentation for the HP OpenView Network Node Manager Special Edition (NNM SE) With Dell OpenManage Hardware Instrumentation Package (HIP) application program
- If you received a DRAC customer kit to add to an existing Dell PowerEdge server, you should have received all of the preceding items plus the following items:
 - A DRAC power adapter
 - Basic input/output system (BIOS) and firmware upgrade kits for the Dell PowerEdge 1300, 2300, 4300, 4350, 6300, 6350, and 8450 systems
 - *Dell OpenManage Server Assistant CD*



NOTE: If you have a Dell PowerEdge 2300 system, you may have a utility partition that does not support remote console redirection. If the

Dell OpenManage Server Assistant utility partition on your hard-disk drive is not version 3.1.0 or later, you can update it (using the Dell OpenManage Server Assistant CD included in your customer kit) to allow remote access to system utilities with the DRAC.

Upgrading the Firmware and Software



NOTE: If you are using HP OpenView NNM SE version 1.3x or earlier, you must perform this upgrade.

This section provides information on upgrading your DRAC firmware and your managed node and management station software to support the following features:

- Console redirection via a modem connection
- Novell® NetWare® 4.11 operating system managed nodes with the DRAC

Minimum Requirements

To perform the upgrade, your management stations and managed nodes must have the following application programs installed at the indicated version level:

- HP OpenView NNM SE version 1.3 or later on the management station or remote console
- Dell OpenManage HIP version 3.2.1 or later on the managed nodes

Your Dell PowerEdge system requires the following BIOS version and, where noted, embedded server management (ESM) or baseboard management controller (BMC) firmware version to run the Dell OpenManage HIP version 3.4:

- PowerEdge 1300: BIOS A02 or later; ESM is not supported
- PowerEdge 2300: BIOS A05 or later; ESM 3.14 or later
- PowerEdge 4300: BIOS A02 or later; ESM 3.18 or later
- PowerEdge 4350: BIOS A04 or later; ESM 3.18 or later
- PowerEdge 6300: BIOS A03 or later; ESM 3.17 or later
- PowerEdge 6350: BIOS A00 or later; ESM 3.17 or later
- PowerEdge 8450: BIOS A00 or later; BMC 0.16 or later

Check your system's BIOS or firmware version level during the boot routine. If the version is not at the required level, you must update it to the correct version. Flash BIOS and system management firmware revisions and update instructions are available for all Dell PowerEdge systems on the Dell World Wide Web site at <http://www.dell.com/support>.

Performing the Upgrade

To complete the upgrade, you must perform the following tasks:

- Upgrade the DRAC firmware to support the new features
- Upgrade the software for your managed node(s)
- Upgrade the software on your management station(s)

See the following subsections for instructions on performing these tasks.

Upgrading the DRAC Firmware



NOTE: Dell recommends that you upgrade the firmware on every DRAC, including those for which neither modem connection nor NetWare support are required. This ensures proper operation with updated remote console software.

To upgrade the firmware, perform the following steps:

1. On the system in which the DRAC is installed, insert the *DRAC Firmware Update v2.x Disk* diskette into drive A.
2. Reboot the system.

The firmware upgrade runs automatically.



NOTE: After you complete the firmware upgrade, you must reconfigure the DRAC using the Dell OpenManage Server Console. See your HP OpenView NNM SE With Dell OpenManage HIP documentation for more information.

Upgrading the Software for Microsoft® Windows NT® Operating System Managed Nodes

See the appropriate subsection in "Installation Procedures" for the procedure titled "Installing a Dell Managed Node for Windows NT" in the HP OpenView NNM SE x.x With Dell OpenManage HIP x.x *User's Guide*.

Upgrading the Software for a Novell NetWare Operating System Managed Node

See the appropriate subsection in "Installation Procedures" in the HP OpenView NNM SE x.x With Dell OpenManage HIP x.x *User's Guide*.

Upgrading the Software on the Management Station

See the appropriate subsection in "Installation Procedures" in the HP OpenView NNM SE x.x With Dell OpenManage HIP x.x *User's Guide*.

User's Guide Updates

The following subsections update information in your DRAC version 2.x *User's Guide*.

Booting a System With a DRAC

When you install a DRAC or replace the battery on a DRAC, it takes approximately 5 minutes after you boot the system for the DRAC to retrieve system information for the server.

Using a DRAC in a Dell PowerEdge 1300 or 8450 Server

When using the alphanumeric paging function of a DRAC on a Dell PowerEdge 1300 or 8450 server, you must enter a custom string in the user setup box of the DRAC configuration window in Dell OpenManage Server Console to identify the server. The DRAC will not send an alphanumeric page with the system name on either a Dell PowerEdge 1300 or 8450 server.

Using the DRAC With a Modem

This section provides information about the operational characteristics of the DRAC modem connection.

NOTICE: The modem on the DRAC is not hot-pluggable. Never remove the modem from a DRAC unless the DRAC is not in a system. Likewise, never insert the modem while the DRAC is in a system. Doing either could cause the modem to not function properly in the DRAC.

The modem on the DRAC provides a connection using dial-up networking with Transmission Control Protocol/Internet Protocol (TCP/IP) on systems running Microsoft Windows NT. The remote console must have Remote Access Service (RAS) installed. The DRAC uses point-to-point protocol (PPP) to communicate over the modem with RAS.



NOTE: If you want to use the same management station for remotely accessing both a DRAC and an earlier version of the DRAC (in PowerEdge 2200 systems) or the ESM (in PowerEdge 4100 and 4200 systems), you need two modems installed on the management station. You can, however, use the same modem for the DRAC and MobileCHOICE Paging for HP OpenView.

Dialing In to the DRAC

When you use the Dell OpenManage Remote Assistant application program to connect to the DRAC over a modem connection, the DRAC functions as a RAS server in that it provides an IP address to the remote console. The DRAC can obtain IP addresses using two methods:

- The network interface controller (NIC) in the DRAC functions as a Dynamic Host Configuration Protocol (DHCP) client. If a DHCP server exists on your network, the DRAC obtains the IP addresses from the DHCP server.



NOTE: When you use this method, the DRAC searches for a DHCP server only when the DRAC is first turned on.



- If no DHCP server exists on your network, the DRAC uses the default address range of 128.0.0.1 through 128.0.0.3.

NOTE: When you use this method, you are limited to one modem session at a time per console to avoid IP address conflicts.

Dialing Out From the DRAC (Alert Notification)

You can configure the DRAC to dial out to a management station when an event occurs. In this situation, RAS on the management station assigns the IP addresses. You can configure RAS on the management station to use DHCP or to use a static address pool.

Authentication

PPP authentication occurs at the time of negotiation with RAS. The DRAC uses Password Authentication Protocol (PAP) to authenticate with RAS. To allow the DRAC to dial out to a management station for alert notification, you must create an account on the management station with the username `drac` and password `drac`.

Changes in the Managed Server Address Book

To facilitate console redirection using a modem, the **Address Book** entry in the Dell OpenManage Remote Assistant application program must be configured to select between the DRAC and either an earlier version of the DRAC (in PowerEdge 2200 systems) or the ESM (in PowerEdge 4100 and 4200 systems). Whenever you add or edit a managed server, make sure that you select the appropriate choice for the DRAC (choose **DRAC** for the DRAC version 2.x).



*NOTES: For DRAC entries in the managed server address book, the **Connect Using** field is disabled because the DRAC is using the RAS modem. Configure **Connect Using** for earlier versions of the DRAC only.*

*For earlier versions of the DRAC, do **not** enable the RAS modem in the **Edit Connections** dialog box.*

Remote Access Service Setup for Windows NT

1. Click the **Start** button, point to **Settings**, and click **Control Panel**.
2. Double-click the **Network** icon and click the **Services** tab.
3. Highlight **Remote Access Service** (if **Remote Access Service** is not already listed, add it to the list) and click **Properties**.
4. At the **Remote Access Setup** dialog box, highlight a port entry in the list (if necessary, add an available modem), and click **Configure**.
5. At the **Configure Port Usage** dialog box, click **Dial out and Receive calls**; then click **OK**.
6. At the **Remote Access Setup** dialog box, click **Network**.

7. At the **Network Configuration** dialog box, perform the following steps:
 - a. Under **Dial out Protocols**, select the **TCP/IP** check box *only*.
 - b. Under **Allow remote clients running**, select the **TCP/IP** check box *only*.
 - c. Under **Encryption settings**, select the **Allow any authentication including clear text** check box.
 - d. Do *not* select the **Enable Multilink** check box.
8. Click **Configure** for **TCP/IP**.
9. At the **RAS Server TCP/IP Configuration** dialog box, perform the following steps:
 - a. Under **Allow remote TCP/IP clients to access**, select **Entire network** or **This computer only**, depending on the level of security desired.
 - b. Use DHCP to assign remote TCP/IP client addresses.
 - c. Do *not* select the **Allow remote clients to request a predetermined IP address** check box.
 - d. Click **OK**.
 - e. At the **Network Config** dialog box, click **OK**; then click **Continue** at the **Remote Access Setup** dialog box.

Dial-Up Networking Setup

To set up dial-up networking for the management station(s), perform the following steps:

1. Click the **Start** button, point to **Programs—> Accessories**, and click **Dial-up Networking**.
2. At the **Dial-Up Networking** dialog box, click **New** under **Phonebook entry to edit**.
 - If the **New Phonebook Entry** dialog box appears, go to step 3.
 - If the **New Phonebook Entry Wizard** dialog box appears, type `drac-ppp` in the **Name the new phonebook entry** field, check the **I know all about phonebook entries...** check box, and click **Finish**. Go to step 3b.
3. At the **New Phonebook Entry** dialog box, click the **Basic** tab and perform the following steps:
 - a. In the **Entry name** field, type `drac-ppp`. (You *must* type `drac-ppp` for the **Entry name**.)
 - b. Select the **Use Telephony dialing properties** check box.
 - c. In the **Dial using** field, select the same modem you specified in step 3 of the previous procedure, "Remote Access Service Setup for Windows NT."
 - d. Do *not* select the **Use another port if busy** check box.
 - e. Click **Configure....**

4. At the **Modem Configuration** dialog box, make sure that **Initial speed (bps)** is set correctly, select the **Enable hardware flow control** check box, enable or disable the modem speaker (optional), and click **OK**.
5. At the **New Phonebook Entry** dialog box, click the **Server** tab and perform the following steps:
 - a. In the **Dial-up server type** field, select **PPP: Windows NT, Windows 95 Plus, Internet**.
 - b. Under **Network protocols**, make sure that only the **TCP/IP** check box is selected.
 - c. Select the check boxes for **Enable software compression** and **Enable PPP LCP** extensions.
 - d. Click **TCP/IP Settings...**
6. At the **PPP TCP/IP Settings** dialog box, perform the following steps:
 - a. Click **Server assigned IP address**.
 - b. Click **Server assigned name server addresses**.
 - c. Select the check boxes for **Use IP header compression** and **Use default gateway on remote network**.
 - d. Click **OK**.
7. At the **New Phonebook Entry** dialog box, click the **Script** tab and confirm the default settings:
 - **None** selected for **After dialing (login)**
 - **None** displayed in the **Run this script:** field
8. Click the **Security** tab and click **Accept any authentication including clear text**.
9. Click the **X.25** tab, make sure that **Network** is set to **(none)**, and click **OK**.
10. At the **Dial-Up Networking** dialog box, click **Close**.

Configuring the Management Station to Receive Alerts From the DRAC



NOTE: If you are using a management station to manage earlier versions of the DRAC (in PowerEdge 2200 systems) or ESM (in PowerEdge 4100 and 4200 systems), you must have two modems. The earlier versions require the Dell OpenManage Remote Assistant Server service to answer calls, while the DRAC uses RAS to answer calls. In either case, the event is logged in the Windows NT Application Event Log with DRAC as the source of the alert.

To support the dial-out notification feature on the DRAC, the management station must allow for remote access (dial-in). To configure a user profile on the management station so that the DRAC can establish a connection and log an alert, perform the following steps:

1. At the management station, click the **Start** button, point to **Programs—> Administrative Tools**, and click **User Manager for Domains**.
2. From the **User** menu, select **New User**.
3. At the **New User** dialog box, type `drac` in the **Username**, **Password**, and **Confirm Password** fields, select the **Password Never Expires** check box, and then click **Dialin**.
4. At the **Dialin Information** dialog box, select the **Grant dialin permission to user** check box, and click **No Call Back**. Click **OK**.
5. At the **New User** dialog box, click **Groups**.
6. At the **Group Memberships** dialog box, select the appropriate group for the user from the window on the right side of the screen, and move the group to the left window.

You can control access permissions for each group. If necessary for security requirements, you can create a new group that includes the new user DRAC, and limit the user rights to **Log on Locally** only.

7. Click **OK** to exit the **Group Memberships** dialog box.
8. At the **New User** dialog box, click **Add**.
9. Exit the **User Manager** screen.