

Dell™ PowerEdge™ 7250 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.

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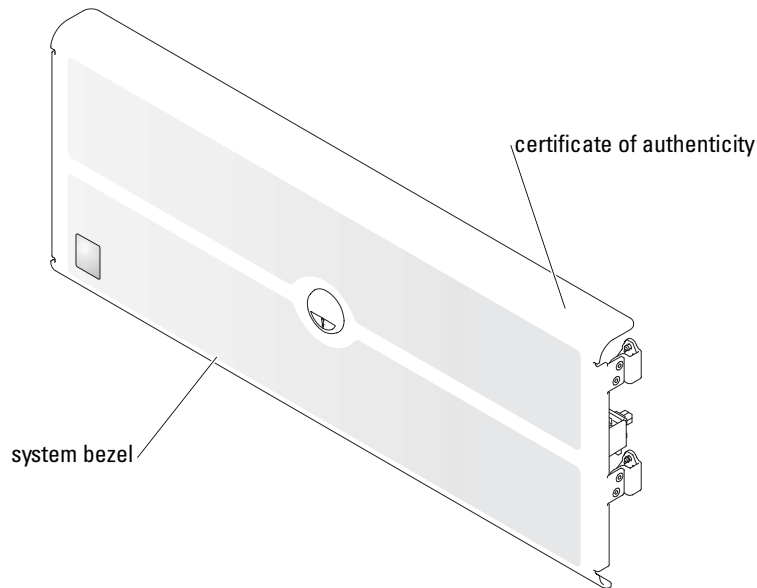
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This document provides updated information about the following topics for your system:

- Microsoft® certificate of authenticity
- PERC4/DC information
 - Important partition installation guidelines
 - PERC4/DC hot-plug operation not supported
 - Array Manager not supported
- Essential software update: install updated NIC drivers
- SDLT tape drive — updated driver
- BIOS update information
 - CMOS reset not required after BIOS update
 - Recovering boot options in system setup
- BMC IP address error messages
- System status indicator codes
- Hard-drive indicator codes
- Platform diagnostics
- Factors affecting system performance
 - Disabling console redirection
 - CMOS battery
- Asset tag utility
- BMC management utility
- Setting up clusters using Windows® Server 2003, Enterprise Edition
- Red Hat® Enterprise Linux AS 3 information
 - File-roller utility
 - DKMS RPM
 - NET-SNMP utility
- Obtaining technical assistance

Microsoft Certificate of Authenticity

If you purchased a system with a Microsoft operating system, the operating system Certificate of Authenticity (COA) is located on the system bezel (see Figure 1-1). You should retain the bezel, even if it is not used, in the event you need to refer to the COA for support purposes.

Figure 1-1. Location of Certificate of Authenticity

PERC 4/DC Information

Important Partition Installation Guidelines

For systems with a PERC 4/DC card installed and no operating system installed, do not set up any drive partitions before installing the operating system partition or service partition. If any partitions are already set up, use **dskpartx clean** to remove them (this EFI utility is located on the resource CD supplied with your system).

Although the **dskpartx** utility will remove the partitions more quickly, you can also use the controller's BIOS Configuration Utility to remove the partitions:

- 1 To run the BIOS Configuration Utility, press <Ctrl><m> during system startup.
- 2 From the **Management** menu, select **Configure**, and then click **Clear Configuration** → **Yes** to remove the configuration.
- 3 To clear the drives, select **Clear**, select all drives, and then press <F10>.
The process may take one hour or more to complete.

After removing the partitions, follow these guidelines to install the operating system and set up new partitions:

- For systems that will use the Windows Server 2003, Enterprise Edition operating system, install the service partition **before** installing the operating system

- For systems that will use the Red Hat Enterprise Linux AS 3 operating system, install the service partition **after** installing the operating system.
- The EFI partition should be at least 200 MB in size to install the service partition.

Hot-Plug Operation Not Supported for PERC 4/DC

Your system supports hot-plug expansion card removal and installation only if *both* the operating system and the particular expansion card support this feature. The PERC 4/DC RAID controller does not support hot-plug installation or removal, although the Windows operating system may indicate that this card supports hot-plug removal.

Array Manager Not Supported

The Array Manager configuration software for PERC 4/DC is not supported on this system.

Essential Software Update: Install Latest NIC Drivers

To avoid potential system instability issues, install the latest NIC drivers from the resource CD supplied with your system. Updated drivers are included for the integrated NIC and the Intel[®] Pro 1000 MT and Pro 1000 MF NIC cards.

Systems Using Windows Server 2003, Enterprise Edition

Use Device Manager to replace the default driver for each NIC with the updated drivers.

Systems Using Red Hat Enterprise Linux AS 3

The Linux folder on the resource CD contains the following 3 packages:

- Intel_LAN_70_RHLinux3_DKMS_RHEL3_IA64_A00.tar.gz. This package provides the e1000 and ians drivers in a DKMS-compliant RPM format.
- Intel_LAN_70_RHLinux3_src_A00.tar.gz. This file contains the Linux Source Code for the e1000 and ians modules.
- Intel_LAN_70_RHLinux3_DKMS_BIN_IA64_A00.tar.gz: This file contains the Dell binary-only DKMS RPMs for e1000 and ians modules. This file supports a very limited set of kernels (2.4.21-4, 2.4.21-9, and 2.4.21-9.0.2 as supplied by Red Hat) and is only intended for organizations that follow a "no source" policy.

To install the drivers:

- 1** Copy the binary DKMS RPM from the resource CD to a directory on your hard drive.
- 2** Change to that directory and extract the file using the following command:

```
tar -xzvf <filename>
```
- 3** If DKMS is not already installed on your system, download DKMS from the Dell Support website at support.dell.com.

4 Change to the directory created by extracting the downloaded file.

5 Install the drivers using the following commands:

```
rpm -ivh e1000/e1000-5.2.17.5-3DKMS.binary_only.ia64.rpm
```

```
rpm -ivh ians-3.0.1-3dkms.binary_only.ia64.rpm
```

For more information on the base and intermediate teaming drivers, download the *NIC User's Guide (Intel_LAN_70_Manual_IA64_A00.exe)* from the Dell Support website at support.dell.com.

SDLT Tape Drive — Updated Driver

You may see the following error message when using an external PowerVault™ 110T SDLT320 tape drive to back up your system with `ntbackup.exe`, running Windows Server 2003, Enterprise Edition:

```
"The device reported an error on a request to write data to media.  
Error reported: invalid command."
```

To correct this problem, install the new SDLT driver located in the `\Patches\Windows\Hotfix817688` directory on the *Dell OpenManage Resource* CD. This fix can be installed by executing the `Windows Server 2003-KB817688-ia64-ENU.exe` application.

BIOS Update Information

CMOS Reset Not Required


If you update the system BIOS using the iFlash64 BIOS update procedure, you do not need to clear the system CMOS afterward, as stated in your *Software Guide* in "Upgrading the BIOS by Using iFlash64."

To complete the iFlash64 BIOS update, perform the following steps:

- 1 When prompted to reboot the system after the BIOS update, remove the media device from the drive and restart the system.
- 2 Press <F2> to run the BIOS setup program.
- 3 From the **Exit** menu, select **Load Setup Defaults**.
- 4 Click **Yes**, then save the changes and exit the setup program.

Recovering Boot Options in System Setup

If the BIOS is recovered or updated, the system setup options are reset to the default options. Before performing a BIOS recovery, write down the current configuration settings so that you can restore the settings. The EFI Boot Manager includes an **EFI Boot** option maintenance menu.

 **NOTE:** Ensure that the CD drive is connected before restarting the system. If the drive is not connected following a BIOS recovery, it will be removed from the list of **EFI Menu** options.

Using the EFI Boot Manager

- 1 Turn on your system by pressing the power button on the system's front panel.
If your system is already on, reboot it.
- 2 Wait until the system tests are completed.
The **EFI Boot Manager** screen appears.


From the **EFI Boot Manager** screen, you can select the following options:

- Operating systems installed on your system.
- **Boot option maintenance menu** — Use this option to select boot devices and their relative order.

Use the up- and down-arrow keys to navigate through the list. Press <Enter> to make a selection.

Windows Server 2003, Enterprise Edition, 64-Bit Version Operating System

Perform the following steps to recover the boot options:

- 1 From the **EFI Boot** menu, select **EFI Shell [Built In]** and press <Enter>.
A list of devices is displayed.
- 2 At the **Shell>** prompt, type `FS0:` and press <Enter>.
- 3 Change the directory by typing `cd efi\microsoft\winnt50` and pressing <Enter>.
 **NOTE:** If you have more than one drive and the files are not located in the directory above, you may need to type `FS1:` and re-enter the command `cd efi\microsoft\winnt50`.
- 4 Make note of the name of the boot file located in this directory.
- 5 Type `\cd msutil`.
- 6 Run the `nvrboot.efi` utility.
- 7 At the **OS Boot Options Maintenance Tool**, type **I** for **Import**.
- 8 At the **Enter IMPORT file path** prompt, type `\efi\microsoft\winnt50\boot000x`, where *x* is the number in the filename that you noted in step 4.
- 9 Press <Enter> to continue.
- 10 Reboot the system for the changes to take effect.
The **EFI Boot** menu now contains an option to launch Windows.

Red Hat Enterprise Linux AS 3 Operating System

Perform the following steps to recover the boot options:

- 1 From the EFI Boot Manager, select **Boot option maintenance menu**.
- 2 Select **Add a Boot Option**.
- 3 Select a volume.
- 4 Select the directory for the EFI partition.
- 5 Select the Red Hat directory.
- 6 Select **elilo.efi**.
- 7 Select **N** from **Edit Existing Boot Option or make a new entry**.
- 8 At the **Enter New Description** prompt, type **RHEL 3 AS** (or the name of the operating system).
- 9 Under **New BootOption Data**, select the **BootOption Data Type**. Selections include **ASCII**, **Unicode**, or **No Boot Option**.
Type the first character for the option you want to select or press <Enter> to select the default. The default is **Unicode**.
- 10 At the **Enter BootOption Data** prompt, type **RHEL 3 AS** (or the name of the operating system).
- 11 Type **Y** to save the changes.
- 12 Reboot the system for the changes to take effect.

BMC IP Address Error Messages

The Baseboard Management Controller (BMC) may issue error messages similar to the following message if the DHCP server IP address is not assigned.

```
Invoking PXEDhcp4 to obtain IP address
Performing PXEbc sequence to obtain IP address
Error in PXEBaseCodeInterface --> Arp status return
8000000000000012
BMC IP Address configuration failed
```

To prevent these error messages, configure the DHCP server to assign a router IP address to the PXE client, as in the following examples:

- For systems using *Windows Server 2003, Enterprise Edition*, use the DHCP Manager to add a scope option that assigns the router TCP/IP address for the PXE client automatically.
- For systems using *Red Hat Enterprise Linux AS 3*, add the following line to the **dhcpd.conf** file:

```
options routers <IP address of PXE server>-
```

System Status Indicator Codes

The system bezel incorporates a system status indicator. The system status indicator lights blue when the system is operating correctly and lights amber when the system needs attention due to a problem with power supplies, fans, system temperature, or hard drives.

Table 1-1 lists the system's indicator patterns. Different patterns are displayed as events occur in the system.

Table 1-1. System Status Indicator Patterns

Blue Indicator	Amber Indicator	Description
Off	Off	Power is not available to the system.
Off	Blinking	The system has detected an error and requires attention.
On	Off	Power is on, and the system is operational.
Blinking	Off	The indicator has been activated to identify the system in a rack.

NOTE: While the system is being identified, the blue indicator blinks even though an error has been detected. After the system is identified, the blue indicator stops blinking and the amber indicator resumes blinking.

Hard-Drive Indicator Codes

Each SCSI hard-drive carrier has two indicators: a busy indicator on the bottom and a status indicator on the top. The indicators provide information on the status of the respective hard drive.

Table 1-2 lists the drive status indicator codes. Different codes display as drive events occur in the system. For example, in the event of a hard-drive failure, the "drive failed" code appears. After the drive is selected for removal, the "drive being prepared for removal" code appears. After the replacement drive is installed, the "drive being prepared for operation, drive online" code appears.

Table 1-2. SCSI Hard-Drive Status Indicator Codes

Indicator	Indicator Code
Off	Drive bay empty, ready for insertion or removal
Steady green	Drive being prepared for operation, drive online
Blinks green four times per second	Identify drive
Blinks green twice per second at equal intervals	Drive being prepared for removal
Blinks green twice per second at unequal intervals	Drive rebuilding

Table 1-2. SCSI Hard-Drive Status Indicator Codes (continued)

Indicator	Indicator Code
Blinks amber four times per second	Drive failed
Blinks green, then amber, and then off, repeating this sequence every two seconds	Predicted failure for the drive
Steady green	Drive online

Platform Diagnostics

The Platform Diagnostics may lock up if more than 1000 iterations of a test are run.

Factors Affecting System Performance

Disabling Console Redirection

System video performance may be decreased if console redirection is enabled in system setup and you are running the EFI partition. You should disable console redirection in system setup if console redirection is not required.

Faulty CMOS Battery

If the system CMOS battery is faulty, discharged, or missing, the BMC cannot accurately monitor the system status. In this case, as a precaution, the system processor(s) will operate at a slower speed (800 MHz) until the CMOS battery is replaced.

Asset Tag Utility

The Asset Tag utility files are located in the **Utilities\AssetTag** directory on the resource CD. These files must be copied to a location on your hard drive or removable media in order to run the Asset Tag utility. Alternately, you can run the Asset Tag utility from the EFI Service Partition, if a Service Partition is installed on your system. When run from the EFI Service Partition, the files are located in the **EFI\Service\AssetTag** directory.

See the *Asset Tag Tool Release Notes* on the resource CD for more information about using the Asset Tag Utility.

BMC Management Utility

To use the SOL Proxy service after installing the BMC management utility using the BMC Install program, you must either reboot the system or manually start the SOL Proxy service. See the *Baseboard Management Controller User's Guide* for more information about manually starting the

SOL Proxy service. The *Baseboard Management Controller User's Guide* is available on the Dell Support website at support.dell.com or on the *Systems Management and Documentation* CD provided with your system.

Setting Up Clusters Using Windows Server 2003, Enterprise Edition

When running the Windows 2003 Server, Enterprise Edition Cluster Setup Wizard, the Microsoft Cluster Service (MSCS) may not detect some of the shared disks.

If this occurs, follow these steps to correct the problem:

- 1 Click the **Start** button, point to **All Programs**→ **Administrative Tools**→ **Cluster Administrator**.
- 2 Add all missing shared disks to MSCS as physical disk resources. See the operating system documentation for information on creating a new cluster resource in an existing cluster.
- 3 If necessary, reassign the quorum resource to another shared disk.

For more information, see the operating system documentation. For the latest host bus adapter drivers, see www.qlogic.com or www.emulex.com.

Red Hat Enterprise Linux AS 3 Information

file-roller Utility

file-roller version 2.2.3-4 may generate a segmentation violation when extracting **tar** files. The 2.2.4-4 version of Nautilus also uses this program to uncompress files. To avoid this problem, use the **tar**, **bzip**, or **cpio** utilities to extract compressed files.

DKMS RPM

The DKMS RPM is available on the Dell Support website at linux.dell.com/dkms.

NET-SNMP Utility


When walking the HOST-INFORMATION MIB using the **snmpd** daemon included in **net-snmp** package 5.0.9-2.30E.1, the daemon may generate a segmentation violation. Check the Red Hat website at <http://rhn.redhat.com> for updates that will fix this problem.


Obtaining Technical Assistance

If you need assistance with a technical problem, perform the following steps:

- 1 Complete the procedures in "Troubleshooting Your System" in your *Product Guide*.
- 2 Run the system diagnostics and record any information provided.


- 3 Make a copy of the Diagnostics Checklist, and fill it out.
- 4 Use Dell's extensive suite of online services available at Dell Support at support.dell.com for help with installation and troubleshooting procedures.
For more information, see "Online Services."
- 5 If the preceding steps have not resolved the problem, call Dell for technical assistance.

 **NOTE:** Call technical support from a phone near or at the system so that technical support can assist you with any necessary procedures.

 **NOTE:** Dell's Express Service Code system may not be available in all countries.

When prompted by Dell's automated telephone system, enter your Express Service Code to route the call directly to the proper support personnel. If you do not have an Express Service Code, open the **Dell Accessories** folder, double-click the **Express Service Code** icon, and follow the directions.

For instructions on using the technical support service, see "Technical Support Service" and "Before You Call."

 **NOTE:** Some of the following services are not always available in all locations outside the continental U.S. Call your local Dell representative for information on availability.

Online Services

You can access Dell Support at support.dell.com. Select your region on the **WELCOME TO DELL SUPPORT** page, and fill in the requested details to access help tools and information.

You can contact Dell electronically using the following addresses:

- World Wide Web
www.dell.com/
www.dell.com/ap/ (Asian/Pacific countries only)
www.dell.com/jp (Japan only)
www.euro.dell.com (Europe only)
www.dell.com/la (Latin American countries)
www.dell.ca (Canada only)
- Anonymous file transfer protocol (FTP)
[ftp.dell.com/](ftp://ftp.dell.com/)
Log in as user : anonymous, and use your e-mail address as your password.
- Electronic Support Service
support@us.dell.com
apsupport@dell.com (Asian/Pacific countries only)

support.jp.dell.com (Japan only)

support.euro.dell.com (Europe only)

- Electronic Quote Service
sales@dell.com
apmarketing@dell.com (Asian/Pacific countries only)
sales_canada@dell.com (Canada only)
- Electronic Information Service
info@dell.com

AutoTech Service

Dell's automated technical support service—AutoTech—provides recorded answers to the questions most frequently asked by Dell customers about their portable and desktop computer systems.

When you call AutoTech, use your touch-tone telephone to select the subjects that correspond to your questions.

The AutoTech service is available 24 hours a day, 7 days a week. You can also access this service through the technical support service. See the contact information for your region.

Automated Order-Status Service

To check on the status of any Dell™ products that you have ordered, you can go to support.dell.com, or you can call the automated order-status service. A recording prompts you for the information needed to locate and report on your order. See the contact information for your region.

Technical Support Service

Dell's technical support service is available 24 hours a day, 7 days a week, to answer your questions about Dell hardware. Our technical support staff use computer-based diagnostics to provide fast, accurate answers.

To contact Dell's technical support service, see "Before You Call" and then see the contact information for your region.

Dell Enterprise Training and Certification

Dell Enterprise Training and Certification is available; see www.dell.com/training for more information. This service may not be offered in all locations.

Problems With Your Order

If you have a problem with your order, such as missing parts, wrong parts, or incorrect billing, contact Dell for customer assistance. Have your invoice or packing slip available when you call. See the contact information for your region.

Product Information

If you need information about additional products available from Dell, or if you would like to place an order, visit the Dell website at www.dell.com. For the telephone number to call to speak to a sales specialist, see the contact information for your region.

Returning Items for Warranty Repair or Credit


Prepare all items being returned, whether for repair or credit, as follows:

- 1 Call Dell to obtain a Return Material Authorization Number, and write it clearly and prominently on the outside of the box.
For the telephone number to call, see the contact information for your region.
- 2 Include a copy of the invoice and a letter describing the reason for the return.
- 3 Include a copy of any diagnostic information (including the Diagnostics Checklist) indicating the tests you have run and any error messages reported by the system diagnostics.
- 4 Include any accessories that belong with the item(s) being returned (such as power cables, media such as CDs and diskettes, and guides) if the return is for credit.
- 5 Pack the equipment to be returned in the original (or equivalent) packing materials.

You are responsible for paying shipping expenses. You are also responsible for insuring any product returned, and you assume the risk of loss during shipment to Dell. Collect-on-delivery (C.O.D.) packages are not accepted.

Returns that are missing any of the preceding requirements will be refused at our receiving dock and returned to you.

Before You Call

 **NOTE:** Have your Express Service Code ready when you call. The code helps Dell's automated-support telephone system direct your call more efficiently.

Remember to fill out the Diagnostics Checklist. If possible, turn on your system before you call Dell for technical assistance and call from a telephone at or near the computer. You may be asked to type some commands at the keyboard, relay detailed information during operations, or try other troubleshooting steps possible only at the computer system itself. Ensure that the system documentation is available.



CAUTION: Before servicing any components inside your computer, see your *Product Information Guide* for important safety information.

Diagnostics Checklist

Name:

Date:

Address:

Phone number:

Service Tag (bar code on the back of the computer):

Express Service Code:

Return Material Authorization Number (if provided by Dell support technician):

Operating system and version:

Peripherals:

Expansion cards:

Are you connected to a network? Yes No

Network, version, and network card:

Programs and versions:

See your operating system documentation to determine the contents of the system's start-up files. If possible, print each file. Otherwise, record the contents of each file before calling Dell.

Error message, beep code, or diagnostic code:


Description of problem and troubleshooting procedures you performed:

Contacting Dell

To contact Dell electronically, you can access the following websites:

- www.dell.com
- support.dell.com (technical support)
- premiersupport.dell.com (technical support for educational, government, healthcare, and medium/large business customers, including Premier, Platinum, and Gold customers)

For specific web addresses for your country, find the appropriate country section in the table below.

 **NOTE:** Toll-free numbers are for use within the country for which they are listed.

When you need to contact Dell, use the electronic addresses, telephone numbers, and codes provided in the following table. If you need assistance in determining which codes to use, contact a local or an international operator.

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Anguilla	General Support	toll-free: 800-335-0031
Antigua and Barbuda	General Support	1-800-805-5924
Argentina (Buenos Aires)	Website: www.dell.com.ar	
International Access Code: 00	Tech Support and Customer Care	toll-free: 0-800-444-0733
Country Code: 54	Sales	0-810-444-3355
City Code: 11	Tech Support Fax	11 4515 7139
	Customer Care Fax	11 4515 7138
Aruba	General Support	toll-free: 800-1578
Australia (Sydney)	E-mail (Australia): au_tech_support@dell.com	
International Access Code: 0011	E-mail (New Zealand): nz_tech_support@dell.com	
Country Code: 61	Home and Small Business	1-300-65-55-33
City Code: 2	Government and Business	toll-free: 1-800-633-559
	Preferred Accounts Division (PAD)	toll-free: 1-800-060-889
	Customer Care	toll-free: 1-800-819-339
	Corporate Sales	toll-free: 1-800-808-385
	Transaction Sales	toll-free: 1-800-808-312
	Fax	toll-free: 1-800-818-341

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Austria (Vienna) International Access Code: 900 Country Code: 43 City Code: 1	Website: support.euro.dell.com E-mail: tech_support_central_europe@dell.com Home/Small Business Sales Home/Small Business Fax Home/Small Business Customer Care Preferred Accounts/Corporate Customer Care Home/Small Business Technical Support Preferred Accounts/Corporate Technical Support Switchboard	0820 240 530 00 0820 240 530 49 0820 240 530 14 0820 240 530 16 0820 240 530 14 0660 8779 0820 240 530 00
Bahamas	General Support	toll-free: 1-866-278-6818
Barbados	General Support	1-800-534-3066
Belgium (Brussels) International Access Code: 00 Country Code: 32 City Code: 2	Website: support.euro.dell.com E-mail: tech_be@dell.com E-mail for French Speaking Customers: support.euro.dell.com/be/fr/emaildell/ Technical Support Customer Care Corporate Sales Fax Switchboard	02 481 92 88 02 481 91 19 02 481 91 00 02 481 92 99 02 481 91 00
Bermuda	General Support	1-800-342-0671
Bolivia	General Support	toll-free: 800-10-0238
Brazil International Access Code: 00 Country Code: 55 City Code: 51	Website: www.dell.com/br Customer Support, Technical Support Tech Support Fax Customer Care Fax Sales	0800 90 3355 51 481 5470 51 481 5480 0800 90 3390
British Virgin Islands	General Support	toll-free: 1-866-278-6820
Brunei Country Code: 673	Customer Technical Support (Penang, Malaysia) Customer Service (Penang, Malaysia) Transaction Sales (Penang, Malaysia)	604 633 4966 604 633 4949 604 633 4955

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Canada (North York, Ontario) International Access Code: 011	Online Order Status: www.dell.ca/ostatus AutoTech (automated technical support) TechFax Customer Care (Home Sales/Small Business) Customer Care (med./large business, government) Technical Support (Home Sales/Small Business) Technical Support (med./large bus., government) Sales (Home Sales/Small Business) Sales (med./large bus., government) Spare Parts Sales & Extended Service Sales	toll-free: 1-800-247-9362 toll-free: 1-800-950-1329 toll-free: 1-800-847-4096 toll-free: 1-800-326-9463 toll-free: 1-800-847-4096 toll-free: 1-800-387-5757 toll-free: 1-800-387-5752 toll-free: 1-800-387-5755 1 866 440 3355
Cayman Islands	General Support	1-800-805-7541
Chile (Santiago) Country Code: 56 City Code: 2	Sales, Customer Support, and Technical Support	toll-free: 1230-020-4823

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
China (Xiamen) Country Code: 86 City Code: 592	Tech Support website: support.dell.com.cn Tech Support E-mail: cn_support@dell.com Tech Support Fax Technical Support (Dimension™ and Inspiron™) Technical Support (OptiPlex™, Latitude™, and Dell Precision™) Technical Support (servers and storage) Technical Support (projectors, PDAs, printers, switches, routers, and so on) Customer Experience Home and Small Business Preferred Accounts Division Large Corporate Accounts GCP Large Corporate Accounts Key Accounts Large Corporate Accounts North Large Corporate Accounts North Government and Education Large Corporate Accounts East Large Corporate Accounts East Government and Education Large Corporate Accounts Queue Team Large Corporate Accounts South Large Corporate Accounts West Large Corporate Accounts Spare Parts	818 1350 toll-free: 800 858 2969 toll-free: 800 858 0950 toll-free: 800 858 0960 toll-free: 800 858 2920 toll-free: 800 858 2060 toll-free: 800 858 2222 toll-free: 800 858 2557 toll-free: 800 858 2055 toll-free: 800 858 2628 toll-free: 800 858 2999 toll-free: 800 858 2955 toll-free: 800 858 2020 toll-free: 800 858 2669 toll-free: 800 858 2222 toll-free: 800 858 2355 toll-free: 800 858 2811 toll-free: 800 858 2621
Colombia	General Support	980-9-15-3978
Costa Rica	General Support	0800-012-0435

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Czech Republic (Prague)	Website: support.euro.dell.com	
International Access Code: 00	E-mail: czech_dell@dell.com	
Country Code: 420	Technical Support	02 2186 27 27
City Code: 2	Customer Care	02 2186 27 11
	Fax	02 2186 27 14
	TechFax	02 2186 27 28
	Switchboard	02 2186 27 11
Denmark (Copenhagen)	Website: support.euro.dell.com	
International Access Code: 00	E-mail Support (portable computers): den_nbk_support@dell.com	
Country Code: 45	E-mail Support (desktop computers): den_support@dell.com	
	E-mail Support (servers): Nordic_server_support@dell.com	
	Technical Support	7023 0182
	Customer Care (Relational)	7023 0184
	Home/Small Business Customer Care	3287 5505
	Switchboard (Relational)	3287 1200
	Fax Switchboard (Relational)	3287 1201
	Switchboard (Home/Small Business)	3287 5000
	Fax Switchboard (Home/Small Business)	3287 5001
Dominica	General Support	toll-free: 1-866-278-6821
Dominican Republic	General Support	1-800-148-0530
Ecuador	General Support	toll-free: 999-119
El Salvador	General Support	01-899-753-0777

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Finland (Helsinki) International Access Code: 990 Country Code: 358 City Code: 9	Website: support.euro.dell.com E-mail: fin_support@dell.com E-mail Support (servers): Nordic_support@dell.com	
	Technical Support	09 253 313 60
	Technical Support Fax	09 253 313 81
	Relational Customer Care	09 253 313 38
	Home/Small Business Customer Care	09 693 791 94
	Fax	09 253 313 99
	Switchboard	09 253 313 00
France (Paris) (Montpellier) International Access Code: 00 Country Code: 33 City Codes: (1) (4)	Website: support.euro.dell.com E-mail: support.euro.dell.com/fr/fr/emaildell/ Home and Small Business	
	Technical Support	0825 387 270
	Customer Care	0825 823 833
	Switchboard	0825 004 700
	Switchboard (calls from outside of France)	04 99 75 40 00
	Sales	0825 004 700
	Fax	0825 004 701
	Fax (calls from outside of France)	04 99 75 40 01
	Corporate	
	Technical Support	0825 004 719
	Customer Care	0825 338 339
	Switchboard	01 55 94 71 00
	Sales	01 55 94 71 00
	Fax	01 55 94 71 01

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Germany (Langen)	Website: support.euro.dell.com	
International Access Code: 00	E-mail: tech_support_central_europe@dell.com	
Country Code: 49	Technical Support	06103 766-7200
City Code: 6103	Home/Small Business Customer Care	0180-5-224400
	Global Segment Customer Care	06103 766-9570
	Preferred Accounts Customer Care	06103 766-9420
	Large Accounts Customer Care	06103 766-9560
	Public Accounts Customer Care	06103 766-9555
	Switchboard	06103 766-7000
Greece	Website: support.euro.dell.com	
International Access Code: 00	E-mail: support.euro.dell.com/gr/en/emailldell/	
Country Code: 30	Technical Support	080044149518
	Gold Technical Support	08844140083
	Switchboard	2108129800
	Sales	2108129800
	Fax	2108129812
Grenada	General Support	toll-free: 1-866-540-3355
Guatemala	General Support	1-800-999-0136
Guyana	General Support	toll-free: 1-877-270-4609
Hong Kong	Website: support.ap.dell.com	
International Access Code: 001	E-mail: ap_support@dell.com	
Country Code: 852	Technical Support (Dimension™ and Inspiron™)	2969 3189
	Technical Support (OptiPlex™, Latitude™, and Dell Precision™)	2969 3191
	Technical Support (PowerApp™, PowerEdge™, PowerConnect™, and PowerVault™)	2969 3196
	Gold Queue EEC Hotline	2969 3187
	Customer Advocacy	3416 0910
	Large Corporate Accounts	3416 0907
	Global Customer Programs	3416 0908
	Medium Business Division	3416 0912
	Home and Small Business Division	2969 3105

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
India	Technical Support	1600 33 8045
	Sales	1600 33 8044
Ireland (Cherrywood)	Website: support.euro.dell.com	
International Access Code: 16	E-mail: dell_direct_support@dell.com	
Country Code: 353	Technical Support	1850 543 543
City Code: 1	U.K. Technical Support (dial within U.K. only)	0870 908 0800
	Home User Customer Care	01 204 4014
	Small Business Customer Care	01 204 4014
	U.K. Customer Care (dial within U.K. only)	0870 906 0010
	Corporate Customer Care	1850 200 982
	Corporate Customer Care (dial within U.K. only)	0870 907 4499
	Ireland Sales	01 204 4444
	U.K. Sales (dial within U.K. only)	0870 907 4000
	Fax/SalesFax	01 204 0103
	Switchboard	01 204 4444
Italy (Milan)	Website: support.euro.dell.com	
International Access Code: 00	E-mail: support.euro.dell.com/it/it/emaildell/	
Country Code: 39	Home and Small Business	
City Code: 02	Technical Support	02 577 826 90
	Customer Care	02 696 821 14
	Fax	02 696 821 13
	Switchboard	02 696 821 12
	Corporate	
	Technical Support	02 577 826 90
	Customer Care	02 577 825 55
	Fax	02 575 035 30
	Switchboard	02 577 821
Jamaica	General Support (dial from within Jamaica only)	1-800-682-3639

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Japan (Kawasaki)	Website: support.jp.dell.com	
International Access Code: 001	Technical Support (servers)	toll-free: 0120-198-498
Country Code: 81	Technical Support outside of Japan (servers)	81-44-556-4162
City Code: 44	Technical Support (Dimension™ and Inspiron™)	toll-free: 0120-198-226
	Technical Support outside of Japan (Dimension and Inspiron)	81-44-520-1435
	Technical Support (Dell Precision™, OptiPlex™, and Latitude™)	toll-free: 0120-198-433
	Technical Support outside of Japan (Dell Precision, OptiPlex, and Latitude)	81-44-556-3894
	Technical Support (Axim™)	toll-free: 0120-981-690
	Technical Support outside of Japan (Axim)	81-44-556-3468
	Faxbox Service	044-556-3490
	24-Hour Automated Order Service	044-556-3801
	Customer Care	044-556-4240
	Business Sales Division (up to 400 employees)	044-556-1465
	Preferred Accounts Division Sales (over 400 employees)	044-556-3433
	Large Corporate Accounts Sales (over 3500 employees)	044-556-3430
	Public Sales (government agencies, educational institutions, and medical institutions)	044-556-1469
	Global Segment Japan	044-556-3469
	Individual User	044-556-1760
	Switchboard	044-556-4300
Korea (Seoul)	Technical Support	toll-free: 080-200-3800
International Access Code: 001	Sales	toll-free: 080-200-3600
Country Code: 82	Customer Service (Seoul, Korea)	toll-free: 080-200-3800
City Code: 2	Customer Service (Penang, Malaysia)	604 633 4949
	Fax	2194-6202
	Switchboard	2194-6000

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Latin America	Customer Technical Support (Austin, Texas, U.S.A.)	512 728-4093
	Customer Service (Austin, Texas, U.S.A.)	512 728-3619
	Fax (Technical Support and Customer Service) (Austin, Texas, U.S.A.)	512 728-3883
	Sales (Austin, Texas, U.S.A.)	512 728-4397
	SalesFax (Austin, Texas, U.S.A.)	512 728-4600 or 512 728-3772
Luxembourg	Website: support.euro.dell.com	
International Access Code: 00	E-mail: tech_be@dell.com	
Country Code: 352	Technical Support (Brussels, Belgium)	3420808075
	Home/Small Business Sales (Brussels, Belgium)	toll-free: 080016884
	Corporate Sales (Brussels, Belgium)	02 481 91 00
	Customer Care (Brussels, Belgium)	02 481 91 19
	Fax (Brussels, Belgium)	02 481 92 99
	Switchboard (Brussels, Belgium)	02 481 91 00
Macao	Technical Support	toll-free: 0800 582
Country Code: 853	Customer Service (Penang, Malaysia)	604 633 4949
	Transaction Sales	toll-free: 0800 581
Malaysia (Penang)	Technical Support (Dell Precision, OptiPlex, and Latitude)	toll-free: 1 800 88 0193
International Access Code: 00		
Country Code: 60	Technical Support (Dimension and Inspiron)	toll-free: 1 800 88 1306
City Code: 4	Customer Service	04 633 4949
	Transaction Sales	toll-free: 1 800 888 202
	Corporate Sales	toll-free: 1 800 888 213

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Mexico International Access Code: 00 Country Code: 52	Customer Technical Support Sales Customer Service Main	001-877-384-8979 or 001-877-269-3383 50-81-8800 or 01-800-888-3355 001-877-384-8979 or 001-877-269-3383 50-81-8800 or 01-800-888-3355
Montserrat	General Support	toll-free: 1-866-278-6822
Netherlands Antilles	General Support	001-800-882-1519
Netherlands (Amsterdam) International Access Code: 00 Country Code: 31 City Code: 20	Website: support.euro.dell.com E-mail (Technical Support): (Enterprise): nl_server_support@dell.com (Latitude): nl_latitude_support@dell.com (Inspiron): nl_inspiron_support@dell.com (Dimension): nl_dimension_support@dell.com (OptiPlex): nl_optiplex_support@dell.com (Dell Precision): nl_workstation_support@dell.com	
	Technical Support	020 674 45 00
	Technical Support Fax	020 674 47 66
	Home/Small Business Customer Care	020 674 42 00
	Relational Customer Care	020 674 4325
	Home/Small Business Sales	020 674 55 00
	Relational Sales	020 674 50 00
	Home/Small Business Sales Fax	020 674 47 75
	Relational Sales Fax	020 674 47 50
	Switchboard	020 674 50 00
	Switchboard Fax	020 674 47 50

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
New Zealand	E-mail (New Zealand): nz_tech_support@dell.com	
International Access Code: 00	E-mail (Australia): au_tech_support@dell.com	
Country Code: 64	Home and Small Business	0800 446 255
	Government and Business	0800 444 617
	Sales	0800 441 567
	Fax	0800 441 566
Nicaragua	General Support	001-800-220-1006
Norway (Lysaker)	Website: support.euro.dell.com	
International Access Code: 00	E-mail Support (portable computers):	
Country Code: 47	nor_nbk_support@dell.com	
	E-mail Support (desktop computers):	
	nor_support@dell.com	
	E-mail Support (servers):	
	nordic_server_support@dell.com	
	Technical Support	671 16882
	Relational Customer Care	671 17514
	Home/Small Business Customer Care	23162298
	Switchboard	671 16800
	Fax Switchboard	671 16865
Panama	General Support	001-800-507-0962
Peru	General Support	0800-50-669
Poland (Warsaw)	Website: support.euro.dell.com	
International Access Code: 011	E-mail: pl_support_tech@dell.com	
Country Code: 48	Customer Service Phone	57 95 700
City Code: 22	Customer Care	57 95 999
	Sales	57 95 999
	Customer Service Fax	57 95 806
	Reception Desk Fax	57 95 998
	Switchboard	57 95 999

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Portugal	Website: support.euro.dell.com	
International Access Code: 00	E-mail: support.euro.dell.com/pt/en/emailldell/	
Country Code: 351	Technical Support	707200149
	Customer Care	800 300 413
	Sales	800 300 410 or 800 300 411 or 800 300 412 or 21 422 07 10
	Fax	21 424 01 12
Puerto Rico	General Support	1-800-805-7545
St. Kitts and Nevis	General Support	toll-free: 1-877-441-4731
St. Lucia	General Support	1-800-882-1521
St. Vincent and the Grenadines	General Support	toll-free: 1-877-270-4609
Singapore (Singapore)	Technical Support	toll-free: 800 6011 051
International Access Code: 005	Customer Service (Penang, Malaysia)	604 633 4949
Country Code: 65	Transaction Sales	toll-free: 800 6011 054
	Corporate Sales	toll-free: 800 6011 053
South Africa (Johannesburg)	Website: support.euro.dell.com	
International Access Code:	E-mail: dell_za_support@dell.com	
09/091	Technical Support	011 709 7710
Country Code: 27	Customer Care	011 709 7707
City Code: 11	Sales	011 709 7700
	Fax	011 706 0495
	Switchboard	011 709 7700
Southeast Asian and Pacific Countries	Customer Technical Support, Customer Service, and Sales (Penang, Malaysia)	604 633 4810

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Spain (Madrid)	Website: support.euro.dell.com	
International Access Code: 00	E-mail: support.euro.dell.com/es/es/emaildell/	
Country Code: 34	Home and Small Business	
City Code: 91	Technical Support	902 100 130
	Customer Care	902 118 540
	Sales	902 118 541
	Switchboard	902 118 541
	Fax	902 118 539
	Corporate	
	Technical Support	902 100 130
	Customer Care	902 118 546
	Switchboard	91 722 92 00
	Fax	91 722 95 83
Sweden (Upplands Vasby)	Website: support.euro.dell.com	
International Access Code: 00	E-mail: swe_support@dell.com	
Country Code: 46	E-mail Support for Latitude and Inspiron: Swe-nbk_kats@dell.com	
City Code: 8	E-mail Support for OptiPlex: Swe_kats@dell.com	
	E-mail Support for Servers: Nordic_server_support@dell.com	
	Technical Support	08 590 05 199
	Relational Customer Care	08 590 05 642
	Home/Small Business Customer Care	08 587 70 527
	Employee Purchase Program (EPP) Support	20 140 14 44
	Fax Technical Support	08 590 05 594
	Sales	08 590 05 185

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
Switzerland (Geneva) International Access Code: 00 Country Code: 41 City Code: 22	Website: support.euro.dell.com E-mail: Tech_support_central_Europe@dell.com E-mail for French-speaking HSB and Corporate Customers: support.euro.dell.com/ch/fr/emaildell/ Technical Support (Home and Small Business) Technical Support (Corporate) Customer Care (Home and Small Business) Customer Care (Corporate) Fax Switchboard	0844 811 411 0844 822 844 0848 802 202 0848 821 721 022 799 01 90 022 799 01 01
Taiwan International Access Code: 002 Country Code: 886	Technical Support (portable and desktop computers) Technical Support (servers) Transaction Sales Corporate Sales	toll-free: 00801 86 1011 toll-free: 0080 60 1256 toll-free: 0080 651 228 toll-free: 0080 651 227
Thailand International Access Code: 001 Country Code: 66	Technical Support Customer Service (Penang, Malaysia) Sales	toll-free: 0880 060 07 604 633 4949 toll-free: 0880 060 09
Trinidad/Tobago	General Support	1-800-805-8035
Turks and Caicos Islands	General Support	toll-free: 1-866-540-3355

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
U.K. (Bracknell)	Website: support.euro.dell.com	
International Access Code: 00	Customer Care website: support.euro.dell.com/uk/en/ECare/Form/Home.asp	
Country Code: 44		
City Code: 1344	E-mail: dell_direct_support@dell.com	
	Technical Support (Corporate/Preferred Accounts/PAD [1000+ employees])	0870 908 0500
	Technical Support (direct/PAD and general)	0870 908 0800
	Global Accounts Customer Care	01344 373 186
	Home and Small Business Customer Care	0870 906 0010
	Corporate Customer Care	01344 373 185
	Preferred Accounts (500–5000 employees) Customer Care	0870 906 0010
	Central Government Customer Care	01344 373 193
	Local Government & Education Customer Care	01344 373 199
	Health Customer Care	01344 373 194
	Home and Small Business Sales	0870 907 4000
	Corporate/Public Sector Sales	01344 860 456
	Home and Small Business Fax	0870 907 4006
Uruguay	General Support	toll-free: 000-413-598-2521

Country (City) International Access Code Country Code City Code	Department Name or Service Area, Website and E-Mail Address	Area Codes, Local Numbers, and Toll-Free Numbers
U.S.A. (Austin, Texas)	Automated Order-Status Service	toll-free: 1-800-433-9014
International Access Code: 011 Country Code: 1	AutoTech (portable and desktop computers)	toll-free: 1-800-247-9362
	Consumer (Home and Home Office)	
	Technical Support	toll-free: 1-800-624-9896
	Customer Service	toll-free: 1-800-624-9897
	DellNet™ Service and Support	toll-free: 1-877-Dellnet (1-877-335-5638)
	Employee Purchase Program (EPP) Customers	toll-free: 1-800-695-8133
	Financial Services website: www.dellfinancialservices.com	
	Financial Services (lease/loans)	toll-free: 1-877-577-3355
	Financial Services (Dell Preferred Accounts [DPA])	toll-free: 1-800-283-2210
	Business	
	Customer Service and Technical Support	toll-free: 1-800-822-8965
	Employee Purchase Program (EPP) Customers	toll-free: 1-800-695-8133
	Printers and Projectors Technical Support	toll-free: 1-877-459-7298
	Public (government, education, and healthcare)	
	Customer Service and Technical Support	toll-free: 1-800-456-3355
	Employee Purchase Program (EPP) Customers	toll-free: 1-800-234-1490
	Dell Sales	toll-free: 1-800-289-3355 or toll-free: 1-800-879-3355
	Dell Outlet Store (Dell refurbished computers)	toll-free: 1-888-798-7561
	Software and Peripherals Sales	toll-free: 1-800-671-3355
	Spare Parts Sales	toll-free: 1-800-357-3355
	Extended Service and Warranty Sales	toll-free: 1-800-247-4618
	Fax	toll-free: 1-800-727-8320
	Dell Services for the Deaf, Hard-of-Hearing, or Speech-Impaired	toll-free: 1-877-DELLTY (1-877-335-5889)
U.S. Virgin Islands	General Support	1-877-673-3355
Venezuela	General Support	8001-3605