

Dell OpenManage
Version 6.3

Port Information Guide



Notes and Cautions



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



CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

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Server Administrator includes software developed by the Apache Software Foundation (www.apache.org). Server Administrator utilizes the OverLIB JavaScript library. This library can be obtained from www.bosrup.com.

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Introduction

Overview

The Dell OpenManage Port Information document helps system administrators and technicians to identify the ports used by the Dell OpenManage systems management software, standard operating system services, and other agent applications.

Other Documents You May Need

In addition to this guide, you can access the following guides available on the Dell Support website at support.dell.com/manuals. On the **Manuals** page, click **Software** → **Systems Management**. Click on the appropriate product link on the right-side to access the documents.

- The *Dell Systems Software Support Matrix* provides information about the various Dell systems, the operating systems supported by these systems, and the Dell OpenManage components that can be installed on these systems.
- The *Dell OpenManage Server Administrator Installation Guide* contains instructions to help you install Dell OpenManage Server Administrator.
- The *Dell OpenManage Management Station Software Installation Guide* contains instructions to help you install Dell OpenManage management station software that includes Baseboard Management Utility, DRAC Tools, and Active Directory Snap-In.
- The *Dell OpenManage Server Administrator SNMP Reference Guide* documents the Simple Network Management Protocol (SNMP) management information base (MIB). The SNMP MIB defines variables that extend the standard MIB to cover the capabilities of systems management agents.
- The *Dell OpenManage Server Administrator CIM Reference Guide* documents the Common Information Model (CIM) provider, an extension of the standard management object format (MOF) file. The CIM provider MOF documents supported classes of management objects.

- The *Dell OpenManage Server Administrator Messages Reference Guide* lists the messages that are displayed in your **Server Administrator** home page Alert log or on your operating system's event viewer. This guide explains the text, severity, and cause of each Instrumentation Service Alert message that Server Administrator issues.
- The *Dell OpenManage Server Administrator Command Line Interface User's Guide* documents the complete command line interface for Server Administrator, including an explanation of CLI commands to view system status, access logs, create reports, configure various component parameters, and set critical thresholds.
- The *Integrated Dell Remote Access Controller User's Guide* provides detailed information on configuring and using the iDRAC.
- The *Dell Chassis Management Controller User's Guide* provides detailed information on installing, configuring and using CMC.
- The *Dell Online Diagnostics User's Guide* provides complete information on installing and using Online Diagnostics on your system.
- The *Dell OpenManage Baseboard Management Controller Utilities User Guide* provides additional information about using Server Administrator to configure and manage your system's BMC.
- The *Dell OpenManage Server Administrator Storage Management User's Guide* is a comprehensive reference guide for configuring and managing local and remote storage attached to a system.
- The *Dell Remote Access Controller Racadm User's Guide* provides information about using the racadm command-line utility.
- The *Dell Remote Access Controller 5 User's Guide* provides complete information about installing and configuring a DRAC 5 controller and using DRAC 5 to remotely access an inoperable system.
- The *Dell Update Packages User's Guide* provides information about obtaining and using Dell Update Packages as part of your system update strategy.
- The *Dell OpenManage Server Update Utility User's Guide* provides information about obtaining and using the Server Update Utility (SUU) to update your Dell systems or to view the updates available for any systems listed in the Repository.

- The *Dell Management Console User's Guide* has information about installing, configuring, and using Dell Management Console. Dell Management Console is a Web-based systems management software that enables you to discover and inventory devices on your network. It also provides advanced functions, such as health and performance monitoring of networked devices and patch management capabilities for Dell systems.
- The *Dell Lifecycle Controller User Guide* provides information on setting up and using the Unified Server Configurator to perform systems and storage management tasks throughout your system's lifecycle. You can use the Unified Server Configurator to deploy an operating system, configure a Redundant Array of Independent Disks (RAID), and run diagnostics to validate the system and attached hardware. Remote Services capabilities enable automated system platform discovery by management consoles and enhance remote operating system deployment capabilities. These capabilities are exposed through the web services based hardware management interface provided by the Lifecycle Controller firmware.
- The *Glossary* for information on terms used in this document.

Obtaining Technical Assistance

If at any time your product does not perform as expected, help tools are available to assist you. For more information about these help tools, see “Getting Help” in your system's *Hardware Owner's Manual*.

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

Ports

Table 2-1 lists the ports used by the Dell OpenManage systems management software, standard operating system services, and other agent applications.



NOTE: Ports that are configured correctly are necessary to allow Dell OpenManage systems management software to connect to a remote device through firewalls.



NOTE: The version of the systems management software mentioned in Table 2-1 indicates the minimum version of the product required to use that port.

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---|----------|-----------|---------|--------------------------|-----------|---|--------------|
| Dell OpenManage Storage Management | | | | | | | |
| 5554 | TCP | TCP | 4.x | None | In/Out | Personal agent to transfer data between LSI IDE solution server and client | No |
| Dell Management Console | | | | | | | |
| 22 | SSH | TCP | 1.x | 128-bit | None | SSH client Remote software updates to Server Administrator—for systems supporting Linux operating systems Performance monitoring in Linux systems | Yes |
| 23 | Telnet | TCP | 1.x | None | In/Out | Telnet to Linux device | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|--|----------|-------------|---------|--------------------------|-----------|--|--------------|
| 25 | SMTP | TCP | 1.x | None | In/Out | Optional e-mail alert action from Dell Management Console | No |
| 67,68, 69, 4011 | PXE | UDP | | | | PXE and DHCP | |
| 68 | UDP | UDP | 1.x | None | In/Out | Wake-on-LAN | Yes |
| 53, 80, 135, 137, 139, 150, 1433, 2500 | | TCP | | | | Symantec Console — Console using a remote computer | |
| 80 | HTTP | TCP | 1.x | None | In/Out | Application launch—PowerConnect Console | No |
| | ICMP | | | | | Ping | |
| 135, 137, 139, 445 | | TCP/ UDP | | | | Non-HTTP communications (for example, client package download using UNC) | |
| 135 | RPC/DCOM | TCP/ UDP | 1.x | None | In/Out | WMI/CIM management queries | No |
| 138 | | UDP | | | | NS client installation | |
| 161 | SNMP | UDP | 1.x | None | In/Out | SNMP query management | No |
| 162 | SNMP | UDP | 1.x | None | In/Out | SNMP Event Reception and Trap Forwarding | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|-----------------------------|--|------------------|----------------|---------------------------------|------------------|---|---------------------|
| 389 | LDAP | TCP | 1.x | 128-bit | In/Out | Domain authentication for IT Assistant log on | No |
| 401-402 | | TCP/ UDP | | | In/Out | Deployment Solution: is used to tickle the Aclient | |
| 443 | Proprietary/ Symantec Agent, WSMAN | TCP | 1.x | None | In/Out | EMC storage discovery and inventory, Symantec Agent after installation | No |
| 445 | | UDP | | | | Non-HTTP communications (for example, client package download using UNC) | |
| 623 | RMCP | UDP | 1.x | None | In/Out | IPMI, WS-MAN, and ASF management | No |
| 664 | RMCP | UDP | | | In/Out | Secure ASF management | Yes |
| 1010 | PXE | TCP | | | | Deployment Solution: PXE configuration to talk with PXE configuration Service | |
| 1011 | | TCP | | | | Monitor Solution | |
| 2070-2073, 1758, 1759 | PXE | UDP | | | | Deployment Solution: PXE for TFTP and MFTFTP transfer of PXE image | |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|------------------------|-------------|-----------|---------|--------------------------|-----------|---|--------------|
| 3389 | RDP | TCP | 1.x | 128-bit SSL | In/Out | Application launch—Remote desktop to Windows terminal services | Yes |
| 3829, 4949, 4950, 4951 | | TCP | | | | Used by Symantec Deployment Solutions and PCT Real Time to communicate between PCTWiz and RTDestAgent and to search for RTDestAgent | |
| 4952 | | TCP | | | | Deployment Solutions communication used for managing the connection drops | |
| 6389 | Proprietary | TCP | 1.x | None | In/Out | Enables communication between a host system (through NaviCLI/NaviSecC LI or Navisphere Host Agent) and a Navisphere Array Agent on a storage system | No |
| 8080 | | | | | | Deployment Solutions Web Console | |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|--------------|----------|-----------|----------|--------------------------|-----------|---|---|
| 16992 | | | | | Out | AMT management unsecure | No |
| 16993 | | | | | Out | AMT management secure | No |
| 16994 | | | | | Out | AMT management redirection service unsecure | No |
| 16995 | | | | | Out | AMT management redirection service secure | No |
| 50120-50124 | | | | | | Task Server | |
| 52028, 52029 | | TCP | | | | NS Client Multicast | |
| 1024 - 65535 | DCOM | TCP/UDP | Unkno wn | None | In/Out | WMI query management (random port) | OS - msdn. microsoft.com/enus/library/ms809327.aspx |

Dell OpenManage Baseboard Management Controller - PowerEdge x8xx systems

| | | | | | | | |
|-----|------|-----|-----------------------------|------|--------|-------------------------|----|
| 623 | RMCP | UDP | PowerEdge x8xx systems only | None | In/Out | IPMI access through LAN | No |
|-----|------|-----|-----------------------------|------|--------|-------------------------|----|

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---|--------------|-----------|---------|--------------------------|-----------|--|--------------|
| Dell OpenManage Baseboard Management Utility | | | | | | | |
| 623 | Telnet | TCP | 1.x | None | In/Out | Accepts incoming Telnet connections | Yes |
| 623 | RMCP | UDP | 1.x | None | In/Out | Basic BMC commands: server status, power up/down, and so on. | No |
| 623 | RMCP | UDP | 1.x | None | In/Out | Basic BMC commands and console redirection | No |
| Dell OpenManage Client Instrumentation | | | | | | | |
| 20 | HTTP and FTP | TCP | 7.x | None | In/Out | Flash BIOS communication | No |
| 21 | HTTP and FTP | TCP | 7.x | None | In/Out | Flash BIOS communication | No |
| 80 | HTTP and FTP | TCP | 7.x | None | In/Out | Flash BIOS communication | No |
| 135 | DCOM | TCP/UDP | 7.x | None | In/Out | Monitoring and configuration through WMI | No |
| 135 | DCOM | TCP | 7.x | None | Out | Event transmission through WMI | No |
| 1024-65535 (Dynamically assigned) | DCOM | TCP/UDP | 7.x | None | In/Out | Monitoring and configuration through WMI | |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|-------------------------------------|-----------------|------------------|----------------|---------------------------------|------------------|--|---------------------|
| Dell OpenManage IT Assistant | | | | | | | |
| 22 | SSH | TCP | 7.x | 128-bit | In/Out | IT Assistant contextual application launch—SSH client Remote software updates to Server Administrator— for systems supporting Linux operating systems Performance monitoring in Linux systems | Yes |
| 23 | Telnet | TCP | 7.x | None | In/Out | IT Assistant contextual application launch—Telnet to Linux device | No |
| 25 | SMTP | TCP | 7.x | None | In/Out | Optional e-mail alert action from IT Assistant | No |
| 68 | UDP | UDP | 7.x | None | Out | Wake-on-LAN | Yes |
| 80 | HTTP | TCP | 7.x | None | In/Out | IT Assistant contextual application launch— PowerConnect console | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---------------|-----------------|------------------|----------------|---------------------------------|------------------|---|---------------------|
| 135 | RPC | TCP | 7.x | None | In/Out | Event reception through CIM from Server Administrator—for systems supporting Windows operating systems | No |
| 135 | RPC | TCP/ UDP | 7.x | None | In/Out | Remote software update transfer to Server Administrator—for systems supporting Windows operating systems Remote Command Line—for systems supporting Windows operating systems | No |
| 161 | SNMP | UDP | 7.x | None | In/Out | SNMP query management | No |
| 162 | SNMP | UDP | 7.x | None | In | Event reception through SNMP | No |
| 162 | SNMP | UDP | 7.x | None | Out | SNMP trap forwarding action from IT Assistant | No |
| 389 | LDAP | TCP | 7.x | 128-bit | In/Out | Domain authentication for IT Assistant log on | No |
| 443 | Proprietary | TCP | 8.0 | None | In/Out | EMC Storage discovery and inventory | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---|-----------------|------------------|----------------|---------------------------------|------------------|---|---------------------|
| 623 | RMCP | UDP | 8.0 | None | In/Out | IPMI access through LAN | No |
| 1433 | Proprietary | TCP | 7.x | None | In/Out | Optional remote SQL server access | Yes |
| 2606 | Proprietary | TCP | 7.x | None | In/Out | Network monitoring service communication port | Yes |
| 2607 | HTTPS | TCP | 7.x | 128-bit SSL | In/Out | IT Assistant Web GUI | Yes |
| 3389 | RDP | TCP | 7.x | 128-bit SSL | In/Out | IT Assistant contextual application launch—Remote desktop to Windows terminal services | Yes |
| 6389 | Proprietary | TCP | 8.0 | None | In/out | Enables communication between a host system (through NaviCLI/NaviSec CLI or Navisphere Host Agent) and a Navisphere Array Agent on a Storage system | No |
| Dell Chassis Management Controller | | | | | | | |
| 20 | FTP | TCP | | None | Out | FTP data client | No |
| 21 | FTP | TCP | | None | Out | FTP command client | No |
| 22 | SSH | TCP | | 128-bit | In | SSH server | Yes |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|-----------------|-------------------------------------|-----------|---------|--------------------------|-----------|-----------------------------------|--------------|
| 23 | Telnet | TCP | | None | In | Telnet server | Yes |
| 25 | SMTP | TCP | | None | Out | SMTP client | No |
| 53 | DNS | TCP | | None | Out | DNS client | No |
| 67 ^a | DHCP | UDP | | | | | |
| 68 ^a | DHCP- assigned IP address | UDP | | None | Out | DHCP client | No |
| 69 | TFTP | UDP | | None | Out | TFTP client | No |
| 80 | HTTP | TCP | | None | In | HTTP server | Yes |
| 161 | SNMP Agent | UDP | | None | In | SNMP Agent (server) | No |
| 162 | SNMP Trap | UDP | | None | Out | SNMP trap client | No |
| 443 | HTTPS | TCP | | 128-bit | In | HTTPS server | Yes |
| 514 | Remote syslog | TCP | | None | Out | Syslog client | Yes |
| 636 | LDAPS, Active Directory | TCP | | SSL | Out | LDAPS, Active Directory client | Yes |
| 3269 | LDAPS for global catalog (GC) | TCP | | None | Out | Active Directory client | No |

a. When a DHCP client connects to a DHCP server, the source port is 68 and the destination port is 67. When the DHCP server responds to the DHCP client, the source port is 67 and destination port is 68. The CMC only acts as a DHCP client.

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---|-----------------|------------------|----------------|---------------------------------|------------------|---|---------------------|
| Dell OpenManage Server Administrator | | | | | | | |
| 22 | SSH | TCP | 2.0 | 128-bit | In/Out | Remote Server Administrator Command Line (for IT Assistant.) Remote Software Update feature (for Linux operating systems.) | Yes |
| 25 | SMTP | TCP | 2.0 | None | In/Out | Optional e-mail alert messages from Server Administrator | No |
| 135 | RPC | TCP/ UDP | 2.0 | None | In/Out | CIM management queries | No |
| 135 | RPC | TCP/ UDP | 2.0 | None | In/Out | Remote Server Administrator Command Line (for IT Assistant.). Remote software update feature (for Windows operating systems.) | No |
| 139 | NetBIOS | TCP | 2.0 | None | In/Out | Remote Server Administrator Command Line (for IT Assistant.) Remote Software Update (for Windows operating systems.) | No |
| 161 | SNMP | UDP | 1.x, 2.0 | None | In/Out | SNMP query management | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|--------------|-------------|-----------|----------|--------------------------|-----------|--|--------------|
| 162 | SNMP | UDP | 1.x, 2.0 | None | Out | SNMP trap event | No |
| 443 | HTTPS | TCP | 7.x | 128-bit SSL | In/Out | Remote Management using Web Server to connect to OpenWSMAN/WinRM) | Yes |
| 445 | NetBIOS | TCP | 2.0 | None | In/Out | Remote software updates to Server Administrator (for Windows operating systems.) | No |
| 1311 | HTTPS | TCP | 1.x | 128-bit SSL | In/Out | Web GUI | Yes |
| 1311 | HTTPS | TCP | 7.x | 128-bit SSL | In/Out | Server Administrator Web GUI | Yes |
| 11487 | Proprietary | UDP | 1.x | None | In | Remote Flash BIOS update initiation from IT Assistant | Yes |
| 11489 | Proprietary | TCP | 1.x | None | In | Remote Flash BIOS update file transfer from IT Assistant | Yes |
| 1024 - 65535 | DCOM | TCP/UDP | 2.0 | None | In/Out | CIM/WMI query management | Yes |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|--|-----------------|------------------|----------------|---------------------------------|------------------|--|---------------------|
| Dell Remote Access Controller (DRAC): DRAC III, DRAC III/XT, ERA, and ERA/O | | | | | | | |
| 21 | FTP | TCP | 1.0 | None | In/Out | Firmware update through FTP and certificate upload or download | No |
| 23 | Telnet | TCP | 1.0 | None | In/Out | Optional Telnet-based CLI management | No |
| 25 | SMTP | TCP | 1.0 | None | In/Out | Optional e-mail alert messages | No |
| 68 | DHCP | UDP | 1.2 | None | In/Out | DHCP assigned IP address | No |
| 69 | TFTP | UDP | 1.0 | None | In/Out | Firmware update through Trivial FTP. Remote floppy boot through TFTP | No |
| 80 | HTTP | TCP | 1.0 | None | In/Out | Web GUI redirected to HTTPS | No |
| 162 | SNMP | UDP | 1.0 | None | Out | SNMP trap event | No |
| 443 | HTTPS | TCP | 1.0 | 128-bit SSL | In/Out | Web management GUI | No |
| 443 | HTTPS | TCP | 3.2 | 128-bit SSL | In/Out | Remote racadm CLI utility | No |
| 5869 | Proprietary | TCP | 1.0 | None | In/Out | Remote racadm CLI utility | No |
| 5900 | VNC | TCP | 1.0 | 56 bit DES | In/Out | Video redirection | Yes |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|--------------------|-------------|-----------|---------|--------------------------|-----------|---|--------------|
| 5900 | VNC | TCP | 3.2 | 128-bit RC | In/Out | Video redirection | Yes |
| 5981 | VNC | TCP | 1.0 | None | In/Out | Video redirection | Yes |
| random and > 32768 | Proprietary | TCP | 1.0 | None | In/Out | Firmware update from the Web GUI | No |
| DRAC 4 | | | | | | | |
| 22 | SSHv2 | TCP | 1.30 | 128-bit | In/Out | Optional Secure Shell (SSH) CLI management | Yes |
| 23 | Telnet | TCP | 1.0 | None | In/Out | Optional Telnet CLI management | Yes |
| 25 | SMTP | TCP | 1.0 | None | In/Out | Optional e-mail alert messages | No |
| 53 | DNS | UDP | 1.20 | None | In/Out | Dynamic Domain name server (DNS) registration of the host name assigned within DRAC | No |
| 68 | DHCP | UDP | 1.0 | None | In/Out | DHCP assigned IP address | No |
| 69 | TFTP | UDP | 1.0 | None | In/Out | Firmware update through Trivial FTP | No |
| 80 | HTTP | TCP | 1.0 | None | In/Out | Web GUI redirected to HTTPS | Yes |
| 161 | SNMP Agent | UDP | 1.0 | None | In/Out | SNMP query management | No |
| 162 | SNMP | UDP | 1.0 | None | Out | SNMP trap event | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|----------------|------------------------------|------------------|----------------|---|------------------|--|---------------------|
| 443 | HTTPS | TCP | 1.0 | 128-bit SSL | In/Out | Web management GUI and remote RACADM CLI utility | Yes |
| 636 | LDAP | TCP | 1.0 | 128-bit SSL | In/Out | Optional Active Directory Services (ADS) authentication | No |
| 3269 | LDAP for global catalog (GC) | TCP | 1.0 | 128-bit SSL | In/Out | Optional ADS authentication | No |
| 3668 | Proprietary | TCP | 1.0 | None | In/Out | CD or diskette virtual media service | Yes |
| 5869 | Proprietary | TCP | 1.0 | None | In/Out | Remote RACADM spcmp server | No |
| 5900 | Proprietary | TCP | 1.0 | 128bit RC4, Keyboard/mouse traffic only | In/Out | Console redirection | Yes |
| DRAC/MC | | | | | | | |
| 23 | Telnet | TCP | 1.0 | None | In/Out | Optional Telnet CLI management | Yes |
| 25 | SMTP | TCP | 1.0 | None | In/Out | Optional e-mail alert messages | No |
| 53 | DNS | UDP | 1.0 | None | In/Out | Dynamic DNS registration of host name assigned within DRAC | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---------------|---------------------------------|------------------|----------------|---------------------------------|------------------|--|---------------------|
| 68 | DHCP | UDP | 1.0 | None | In/Out | DHCP assigned IP address | No |
| 69 | TFTP | UDP | 1.0 | None | In/Out | Firmware update through Trivial FTP | No |
| 80 | HTTP | TCP | 1.0 | None | In/Out | Web GUI redirected to HTTPS | Yes |
| 161 | SNMP Agent | UDP | 1.0 | None | In/Out | SNMP query management | No |
| 162 | SNMP trap | UDP | 1.0 | None | Out | SNMP trap event | No |
| 389 | Active Directory authentication | TCP | 1.0 | None | In/Out | Optional ADS authentication | No |
| 443 | HTTPS | TCP | 1.0 | 128-bit SSL | In/Out | Web management GUI and remote racadm CLI utility | No |
| 636 | Active Directory authentication | TCP | 1.0 | 128-bit SSL | In/Out | Optional ADS authentication | No |
| 3269 | Active Directory authentication | TCP | 1.0 | 128-bit SSL | In/Out | Optional ADS authentication | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---------------|-----------------|------------------|----------------|---------------------------------|------------------|--|---------------------|
| DRAC 5 | | | | | | | |
| 22 | SSHv2 | TCP | 1.30 | 128-bit SSL | In/Out | Optional Secure Shell (SSH) CLI management | Yes |
| 23 | Telnet | TCP | 1.0 | None | In/Out | Optional Telnet CLI management | Yes |
| 25 | SMTP | TCP | 1.0 | None | In/Out | Optional e-mail alert messages | No |
| 53 | DNS | UDP | 1.0 | None | In/Out | Dynamic DNS registration of host name assigned within DRAC | No |
| 68 | DHCP | UDP | 1.0 | None | In/Out | DHCP assigned IP address | No |
| 69 | TFTP | UDP | 1.0 | None | In/Out | Firmware update through Trivial FTP | No |
| 80 | HTTP | TCP | 1.0 | None | In/Out | Web GUI redirected to HTTPS | Yes |
| 161 | SNMP | UDP | 1.0 | None | In/Out | SNMP query management | No |
| 162 | SNMP | UDP | 1.0 | None | Out | SNMP trap event | No |
| 443 | HTTPS | TCP | 1.0 | 128-bit SSL | In/Out | Web management GUI and remote racadm CLI utility | No |
| 623 | RMCP/RMC P+ | UDP | 1.0 | 128-bit SSL | In/Out | IPMI over LAN | No |
| 636 | LDAPS | TCP | 1.0 | 128-bit SSL | In/Out | Optional ADS authentication | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---|-------------------------------|-----------|---------|--------------------------|-----------|--------------------------------------|--------------|
| 3269 | LDAPS for global catalog (GC) | TCP | 1.0 | 128-bit SSL | In/Out | Optional ADS authentication | No |
| 3668 | Proprietary | TCP | 1.0 | None | In/Out | Virtual Media Service | Yes |
| 3669 | Proprietary | TCP | 1.0 | 128-bit SSL | In/Out | Virtual Media Secure Service | Yes |
| 5900 | | TCP | 1.0 | 128-bit SSL | Out | Console Redirection: keyboard/mouse | Yes |
| 5901 | | TCP | 1.0 | 128-bit SSL | In | Console Redirection: Video | Yes |
| iDRAC 6 for Rack and Tower Servers | | | | | | | |
| 22 | SSH | | | | | | Yes |
| 23 | Telnet | | | | | | Yes |
| 80 | HTTP | | | | | | Yes |
| 443 | HTTPS | | | | | | Yes |
| 623 | RMCP/RMC P+ | | | | | | No |
| 5900 | Virtual Console/Virtual Media | | | | | | Yes |
| iDRAC for Blade Servers | | | | | | | |
| 22 | Secure Shell (SSH) | TCP | 1.30 | 128-bit SSL | In/Out | Secure CLI management | Yes |
| 23 | Telnet | TCP | 1.0 | None | In/Out | Optional Telnet-based CLI management | Yes |
| 25 | SMTP | TCP | 1.0 | None | In/Out | Optional e-mail alert messages | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---------------|-------------------------------|------------------|----------------|---------------------------------|------------------|--|---------------------|
| 53 | DNS | UDP | 1.0 | None | In/Out | Dynamic DNS registration of host name assigned within DRAC | No |
| 68 | DHCP-assigned IP address | UDP | 1.0 | None | In/Out | DHCP assigned IP address | No |
| 69 | TFTP | UDP | 1.0 | None | In/Out | Firmware update through Trivial FTP | No |
| 80 | HTTP | TCP | 1.0 | None | In/Out | Redirected to HTTPS | Yes |
| 162 | SNMP traps | UDP | 1.0 | None | Out | SNMP trap event | No |
| 443 | HTTPS | TCP | 1.0 | 128-bit SSL | In/Out | Web management GUI | Yes |
| 623 | RMCP/RMC P+ | UDP | 1.0 | 128-bit SSL | In/Out | IPMI over LAN | No |
| 636 | LDAPS | TCP | 1.0 | 128-bit SSL | In/Out | Optional ADS authentication | No |
| 3269 | LDAPS for global catalog (GC) | TCP | 1.0 | 128-bit SSL | In/Out | Optional ADS authentication | No |
| 3668, 3669 | Virtual Media Service | TCP | 1.0 | None-SSL | In/Out | For the Virtual Media transfer | Yes |
| 3670, 3671 | Virtual Media Secure Service | TCP | 1.0 | SSL | In/Out | For Virtual Media redirection and transfer | Yes |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---|------------------------------------|-----------|---------|--------------------------|-----------|--|--------------|
| 5900 | Console Redirection keyboard/mouse | TCP | 1.0 | Non-SSL | In/Out | For mouse and keyboard redirection | Yes |
| 5901 | Console Redirection video | TCP | 1.0 | None-SSL | In/Out | For video redirection | Yes |
| iDRAC 6 Enterprise for Blade Servers | | | | | | | |
| 22 | SSH | TCP | 1.30 | 128-bit SSL | In/Out | Secure CLI management | Yes |
| 23 | Telnet | TCP | 1.0 | None | In/Out | Optional Telnet-based CLI management | Yes |
| 25 | SMTP | TCP | 1.0 | None | In/Out | Optional e-mail alert messages | No |
| 53 | DNS | UDP | 1.0 | None | In/Out | Dynamic DNS registration of host name assigned within DRAC | No |
| 68 | DHCP-assigned IP address | UDP | 1.0 | None | In/Out | DHCP assigned IP address | No |
| 69 | TFTP | UDP | 1.0 | None | In/Out | Firmware update through Trivial FTP | No |
| 80 | HTTP | TCP | 1.0 | None | In/Out | Redirected to HTTPS | Yes |
| 162 | SNMP trap | UDP | 1.0 | None | Out | SNMP trap event | No |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|---------------|--|------------------|----------------|---------------------------------|------------------|---|---------------------|
| 443 | HTTPS | TCP | 1.0 | 128-bit SSL | In/Out | Web management CLI | Yes |
| 623 | RMCP/RMC P+ | UDP | 1.0 | 128-bit SSL | In/Out | IPMI over LAN | No |
| 636 | LDAPS | TCP | 1.0 | 128-bit SSL | In/Out | Optional ADS authentication | No |
| 3269 | LDAPS for global catalog (GC) | TCP | 1.0 | 128-bit SSL | In/Out | Optional ADS authentication | No |
| 3668, 3669 | Virtual Media Service | TCP | 1.0 | Non-SSL | In/Out | For Virtual Media transfer | No |
| 3670, 3671 | Virtual Media Secure Service | TCP | 1.0 | SSL | In/Out | For Virtual Media redirection and transfer | No |
| 3672 | vFlash Service | TCP | 1.0 | SSL | In/Out | Used for uploading and downloading vFlash partitions in 3.0 firmware only | No |
| 5900 | Console Redirection keyboard/mouse use | TCP | 1.0 | Non-SSL | In/Out | For mouse and keyboard redirection | Yes |
| 5901 | Console Redirection video | TCP | 1.0 | Non-SSL | In/Out | For video redirection | Yes |

Table 2-1. Dell OpenManage UDP/TCP Ports Default Locations (continued)

| Port # | Protocol | Port Type | Version | Maximum Encryption Level | Direction | Usage | Configurable |
|--------------------|-----------------|-----------|---------|--------------------------|-----------|---|--------------|
| 5988 | Used for WS-MAN | TCP | 1.0 | None | In/Out | No interface will be able to communicate directly. It is enabled and listen only for the loopback interface. This is used for WS-MAN communication. | Yes |
| Digital KVM | | | | | | | |
| 2068 | Proprietary | TCP | 1.0 | 128-bit SSL | In/Out | Video redirection — keyboard/mouse | No |
| 3668 | Proprietary | TCP | 1.0 | None | In/Out | Virtual Media | No |
| 8192 | Proprietary | TCP | 1.0 | None | In/Out | Video redirection to client viewer | No |



NOTE: CIM ports are dynamic. See the Microsoft knowledge base at support.microsoft.com for information on CIM port usage.



NOTE: If you are using a firewall, you must open all ports listed in Table 2-1 to ensure that IT Assistant and other Dell OpenManage applications function correctly.