

Dell EMC Systems Management Tools And Documentation Installation Guide

Version 9.3

Notes, cautions, and warnings

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

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

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

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About

The Systems Management Tools and Documentation Installation Guide provides an overview of the management station software and installation instructions for the same. For information about installing Server Administrator, see the *Dell EMC Server Administrator Installation Guide* in the *Dell EMC Systems Management Tools and Documentation* software.

Systems Management software

The following are the systems management image software:

- Systems Management Tools and Documentation
- Server Updates
- Management Console

You can download the free ISO image of the software from www.dell.com/Support/Home.

If you require the software DVDs, you must opt to purchase the software DVDs at the time of order or after point of sale.

For information about systems that support systems management software, supported operating systems, and components, see *Dell EMC OpenManage Systems Software Support Matrix* at www.dell.com/OpenManageManuals.

Topics:

- [Managed system and management station](#)
- [Systems Management Tools and Documentation software](#)

Managed system and management station

Depending on the way, you use the systems management tools, you can classify the systems as:

- **Managed System**
A managed system is any system that is monitored and managed using Server Administrator or Management Console. A Server Administrator is one of the systems management tools on the *Systems Management Tools and Documentation* software. You can manage systems running Server Administrator locally or remotely through a supported web browser. For more information about Server Administrator, see the *Server Administrator User's Guide* on the *Systems Management Tools and Documentation* software.
- **Management Station**
A management station is a laptop, desktop, or server that you use to remotely manage one or more managed systems from a central location. You can use the following tools:
 - Intelligent Platform Management Interface (IPMI) Utilities
 - Integrated Dell Remote Access Controller (iDRAC) tools
 - Dell OpenManage Essentials or Server Administrator Web Server

Systems Management Tools and Documentation software

The *Systems Management Tools and Documentation* software contains the systems management software. The systems management software helps you to manage the systems by monitoring the system components, diagnosing issues, notifying through alerts, and troubleshooting remotely. Systems management software is classified as managed system software and management station software.

Managed system software

The following applications include the managed system software:

- Server Administrator

Server Administrator provides comprehensive one-to-one in-band server managements solutions. You can manage a server locally and remotely using a web browser-based Graphical User Interface (GUI) and Command Line Interface (CLI).

NOTE: When you perform a fresh installation on a system running a 64-bit operating system, a 64-bit version of the Server Administrator is used for the installation. If you want to upgrade Server Administrator, a 32-bit version of the Server Administrator is used for the upgrade.

Management station software

The following applications include the management station software:

Active Directory Snap-In

The Active Directory (AD) Snap-In utility provides an extension snap-in to the Microsoft Active Directory to manage AD objects specific to products on this software.

iDRAC Tools

The iDRAC console is a management station software that provides remote management capabilities for the systems. You can remotely connect to the iDRAC global hardware and access the RAC features by using a web browser or the RACADM Command Line Interface (CLI). RACADM CLI is the command-line user interface to the RAC.

- RACADM—For more information, see [RACADM](#)
- VMCLI—For more information, see [VMCLI](#)
- IPMI Tools—For more information, see [IPMI Tools](#)

You can install RAC either on the managed system or on the management station.

For information about installing RAC on the managed system, see the *Server Administrator Installation Guide*. For information about installing on the management station, see [Installing Management Station Software on Windows](#). For more information about RAC, see the *Remote Access Controller User's Guide*

NOTE: From OpenManage 9.3, x86 BMC is not available. The BMC x64 version is a part of iDRAC tools.

RACADM

The Dell Remote Access Controller Admin (RACADM) utility is a command line tool that enables remote or local management of Dell Servers using the iDRAC. RACADM provides similar functionality to the iDRAC Graphical User Interface (GUI). The Dell Chassis Management Controller (CMC) can be managed remotely with RACADM. RACADM commands can be run remotely from a management station and/or locally on the managed system. RACADM commands enable you to view the managed system information, perform power operations on the managed system, perform firmware updates, configure settings and more. Because RACADM is run from a command line interface (CLI), system administrators can create scripts that control and update Dell systems in a one-to-many fashion.

VMCLI

The Virtual Media Command Line Interface (VMCLI) utility provides virtual media features from the management station to iDRAC on the managed system. You can access virtual media features, including image files and hard drives, and to deploy an operating system on multiple remote systems in a network

IPMI Tools

Intelligent Platform Management Interface (IPMI) tool is a utility for managing and configuring devices that support the Intelligent Platform Management Interface. IPMI is an open standard for monitoring, logging, recovery, inventory, and control of hardware that is implemented independent of the main CPU, BIOS, and operating system. The IPMI tool program provides a simple command-line interface to this BMC. It features the ability to read the sensor data repository (SDR) and print sensor values, display the contents of the System Event Log (SEL), print Field Replaceable Unit (FRU) inventory information, read and set LAN configuration parameters, and perform remote chassis power control.

This program lets you manage IPMI functions of either the local system, by using a kernel device driver, or a remote system, using IPMI V1.5 and IPMI v2.0.

IPMI management of a local system interface requires a compatible IPMI kernel driver to be installed and configured. On Linux, the driver is called Open IPMI and it is included in standard distributions. On Solaris, the driver is called BMC and is included in Solaris 10. On Windows, it communicates through WMI driver. Management of a remote station requires the IPMI-over-LAN interface to be enabled and configured. Depending on the particular requirements of each system it may be possible to enable the LAN interface using IPMI tool over the system interface.

Dell Lifecycle Controller

Dell recommends using the Embedded Management, Integrated Dell Remote Access Controller 9 (iDRAC9) with Lifecycle Controller instead of Dell Systems Build and Update Utility (SBUU). SBUU is replaced with Lifecycle Controller on Dell's 14th generation of PowerEdge servers. iDRAC with Lifecycle Controller is an Embedded Systems Management application for operating system deployment and lifecycle management of PowerEdge servers. You can access Dell Lifecycle Controller by pressing **<F10>** during system boot up. The local GUI of iDRAC9 with Lifecycle Controller enables you to do the following in a pre-OS environment:

- Hardware configuration
- Operating system and hypervisor deployments
- Hardware updates
- Hardware diagnostics
- Easy maintenance of PowerEdge servers

The Lifecycle Controller is embedded on all Dell's 11th generation and later PowerEdge servers. No tools or downloads are required to use the capabilities of Lifecycle Controller.

For more information, see the following documents available at www.dell.com/OpenManageManuals:

- *Dell Lifecycle Controller Version <Version Number> User's Guide*
- *Dell Lifecycle Controller Remote Services Version <Version Number> Quick Start Guide*
- *Dell Lifecycle Controller Web Services Interface Guide*
- *Lifecycle Controller Integration Best Practices*

Dell OpenManage Essentials

Dell recommends using Dell OpenManage Essentials as replacement for IT Assistant. Dell OpenManage Essentials (OME) provide improved capabilities such as:

- Discovering and inventorying the systems.
- Monitoring systems' health.
- Viewing and managing system alerts.
- Performing system updates.
- Viewing hardware inventory and compliance reports.

For more information regarding Dell OpenManage Essentials, contact service provider.

iDRAC Service Module

The iDRAC Service Module is a lightweight optional software application that can be installed on a Dell's 12th generation and later PowerEdge servers. Using the iDRAC Service Module you can configure the features on the supported operating system. The iDRAC Service Module provides additional Server Management data to iDRAC and presents one-to-many consoles with access to Systems Management data through operating system interfaces.

The iDRAC Service Module also complements the iDRAC interfaces such as the GUI, RACADM CLI, and WSMAN with additional monitoring features. For more information, see *iDRAC Service Module <Version Number> Installation Guide* available at www.dell.com/Support/Home.

Dell OpenManage Deployment Toolkit (DTK)

The Dell OpenManage Deployment Toolkit (DTK) includes a set of utilities, sample scripts, and sample configuration files that you can use to deploy and configure the Dell systems. You can use DTK to build script-based and RPM-based installation for deploying large number of systems on a pre-OS environment in a reliable way, without changing their current deployment processes. Using DTK you can install operating systems on Dell systems in BIOS or Unified Extensible Firmware Interface (UEFI) mode.

In addition to the command-line utilities used to configure various system features, DTK also provides sample scripts and configuration files to perform common deployment tasks and documentation. These files and scripts describe the use of the DTK in Microsoft Windows Pre-installation Environment (Windows PE) and Linux environments. For more information, see the following documents available at www.dell.com/OpenManageManuals:

- *Dell OpenManage Deployment Toolkit Version <Version Number> User's Guide*
- *Dell OpenManage Deployment Toolkit Version <Version Number> Command Line Interface Reference Guide*
- *Dell OpenManage Deployment Toolkit Version <Version Number> Installation Guide*

DTK Deprecation Message

This release, DTK 6.3, is the final release for the OpenManage Deployment Toolkit (DTK) along with the associated tools and capabilities. However the releases prior to this will continue to be available for web download on legacy supported PowerEdge servers.

- Redundant Array of Independent Disks Configuration (RAIDCFG) Utility
- System Configuration (SYSCFG) Utility
- ELI tool
- Utility Partition (UPINIT)

It is recommended to use the RACADM Command Line (CLI) as a replacement for the RAIDCFG and SYSCFG utilities. For more information about downloading RACADM, see https://www.dell.com/support/home/us/en/19/products/software_int/software_ent_systems_mgmt/remote_ent_sys_mgmt.

NOTE: No DTK support for upcoming generations of PowerEdge servers. Also no new OSes will be supported by DTK beyond DTK 6.3 on supported PowerEdge servers. For more information about features supported by DTK, see the latest User's Guide available at www.dell.com/OpenManageManuals.

Installing management station software on Microsoft Windows

- 1 Log on with administrator privileges to the system on which you want to install the management station applications.
- 2 Mount the *Systems Management Tools and Documentation* software onto the DVD drive or download the web installer.

NOTE: You can download the web installer from www.dell.com/Support/Home.

- 3 Run **autorun.exe**.

NOTE: If you are using the DVD to install, select the management station application that you want to install, and then click **Install**.

- 4 Follow the instructions in the Install Wizard.

NOTE: To install Server Administrator and iDRAC command line tools together, install Server Administrator without the iDRAC command line tools from system management software installer, and then separately install iDRAC command line installer.

Installing management station software on Microsoft Windows Server and Hyper-V Server

Windows Server or Hyper-V Server operating system does not support a user interface (UI) based installation of the software components. Install the software in CLI mode on Server Core. For more information about Server Core, see the Microsoft website.

NOTE: Log in as a built-in Administrator to install systems management software on Windows Server and Windows client operating system. For more information about built-in Administrator account, see the Windows Server Help.

Installing management station software using the CLI mode

NOTE: Run the Command Prompt as an administrator to successfully perform tasks using the CLI mode.

To install the RAC Tools, launch the MSI file using the command:

```
· msixexec /i iDRACTools_x64.msi
```

NOTE: On the *Systems Management Tools and Documentation* software:

- The **iDRACTools_x64.msi** file is at **SYSMGMT\ManagementStation\windows\iDRACToolsx64**.
- iDRAC tools provide local and remote management capabilities for system that is equipped with iDRAC.

To install Active Directory Snap-In, launch the MSI file using the command:

```
· msixexec /i ADSnapIn_x64.msi
```

NOTE: On the *Systems Management Tools and Documentation* software:

- The **ADSnapIn_x64.msi** file is at **SYSMGMT\ManagementStation\windows\ADSnapInx64**.

To install the localized version of the management station software, at the command prompt type the following: `msiexec / I <management_station_software>.msi TRANSFORMS= <language_transform>.mst`

NOTE: Replace *<language_transform>.mst* with the appropriate language file:

- 1031.mst (German)
- 1034.mst (Spanish)
- 1036.mst (French)
- 1041.mst (Japanese)
- 2052.mst (Simplified Chinese)

Uninstalling management station software using the CLI mode

To uninstall management station software, run the commands as listed in the following table:

Table 1. Commands to uninstall management station software

Management Station Software	Command
iDRAC Tools	<code>msiexec /x iDRACTools_x64.msi</code> (or) <code>msiexec /x {1E7F7A76-A4A8-4C3A-889C-BBE30779CDEF}</code>
Active Directory Snap-In	<code>msiexec /x ADSnapIn_x64.msi</code> (or) <code>msiexec /x {234D1FF5-4FEF-4E9C-A6C6-84378F86F0B2}</code>
Systems Management	<code>msiexec /x SysMgmtx64.msi</code> (or) <code>msiexec /x {B92A1800-2D51-48FD-96E5-F192304DFBFE}</code>

Installing management station software on supported Red Hat Enterprise Linux, SUSE Linux Enterprise Server

Only iDRAC tools are supported on the Red Hat Enterprise Linux, SUSE Linux Enterprise Server operating systems.

On systems running Red Hat Enterprise Linux operating system, DVDs are automounted with the **-noexec mount** option. You cannot run any executable program from the DVD. Mount the DVD-ROM manually and then run the executable programs.

To install iDRAC tools, go to the **SYSMGMT/ManagementStation/linux** directory and install the BMU RPM specific to the operating system.

To install the latest version of iDRAC Tools, do the following:

For IPMI:

- 1 Uninstall the existing IPMI tool:
 - a Query the existing IPMI tool: `rpm -qa | grep ipmitool`
If the IPMI tool is already installed, the query returns `ipmitool-x.x.xx-x.x.xx`.
 - b To uninstall the IPMI tool:
 - On systems running SUSE Linux Enterprise Server, type `rpm -e ipmitool-x.x.xx-x.x.xx`
 - On systems running Red Hat Enterprise Linux 6.x and 7.x, type `rpm -e ipmitool`

NOTE: The existing settings that are defined in the IPMITOOL are retained.

- 2 Browse to the **iDRACTOOLS\ipmitool\<OS>** directory and then type `rpm -ivh *.rpm`.

For RACADM:

- 1 To install RACADM:
 - a Go to the directory, where the tar.gz of iDRACTools is downloaded.
 - b Run the `tar -zxvf` on the tar.gz to unzip the contents into the current directory.
 - c From the current directory, where you have extracted the files, go to **/linux/rac** folder.
 - d To install the RACADM binary, start the script **install_racadm.sh**.

NOTE: Open a new console window to run the RACADM commands. You cannot run the RACADM commands from the console window using which you started the **install_racadm.sh** script.

- 2 If you get an SSL error message for remote RACADM, do the following:
 - a Run the command `openssl version` to find the openssl version installed in the Host operating system.
 - b Locate the openssl libraries, which are present in the HOST operating system, for example, `ls -l /usr/lib64/libssl*`.
 - c Soft-link the library `libssl.so` using the `ln -s` command to the appropriate OpenSSL version present in the Host operating system, for example, `ln -s /usr/lib64/libssl.so.<version> /usr/lib64/libssl.so`.
- 3 To uninstall RACADM, use the **uninstall_racadm.sh** script.

For VMCLI:

- 1 Place VMCLI binary in the installation directory.

- 2 Include the directory in path variable (`export PATH=$PATH:/path/to/installdir`).