Dell EMC Server Deployment Pack Version 4.1 for Microsoft System Center Configuration Manager

User's Guide

August 2021
Rev. A02

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.

Contents

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Introduction

This document describes the activities that you can perform with the Dell EMC Server Deployment Pack (DSDP) Version 4.1 for Microsoft System Center Configuration Manager (SCCM) or Microsoft Endpoint Configuration Manager(MECM).

This release, of DSDP v4.1(revision A02), is the final release for Microsoft System Center Configuration Manager (Microsoft Endpoint Configuration Manager) product with the associated functionalities. This release and the releases prior to this will continue to be available for web download on the supported PowerEdge servers but no additional features, new platform and associated components will be added as the Product is fully deprecated.

No support for upcoming generations and models of PowerEdge servers, outside of the supported systems list. This also implies that **no future release of the software for any new hardware and operating systems will be made available beyond this DSDP v4.1 (A02)** and available only for the currently listed PowerEdge servers. For more information about features supported, see dell.com/support/documents.

NOTE: Dell EMC recommends customers to immediately transition to OpenManage Integration for Microsoft System Center(OMIMSSC) for Microsoft Endpoint Configuration Manager(MECM).

This document contains information about requirements and the supported software necessary for working with DSDP. If you are installing this version of DSDP after a long time after its release date, check to see if there is an updated version of this document on the support site. For accessing documents on support site, visit Accessing Documents From The Dell Support Site or see **Dell.com/support/Manuals/us/en/04/Product/server-deployment-pack-v4.1-sccm**.

NOTE: The Dell Deployment Toolkit (DTK) which is a already deprecated, is packaged with DSDP 4.1. Hence, the DTK needs to be used only with this DSDP and any usage outside stands unsupported.

NOTE: The associated Dell EMC Deployment Tool Kit (DTK) v6.4.0 is available for all latest iDRAC9 based PowerEdge Servers, to be used with the Dell EMC Server Deployment Pack only for the corresponding newly certified PowerEdge servers listed here and dell.com/support. No additional upgrade to the deployment pack is required to support the PowerEdge servers.

NOTE: The PowerEdge servers other than the list of iDRAC9 based platforms are not supported.

Topics:

What's new in this release

- **NOTE:** DSDP will be deprecated with version 4.1 (revision A02) release. This is the final release.
- Support for Update 2103 for Configuration Manager
- Support for Update 2010 for Configuration Manager
- Support for Update 2006 for Configuration Manager
- Support for latest iDRAC9 based PowerEdge servers (Intel) :
  - R750
  - R750xa
  - R650
  - C6520
  - MX750c
  - R450
  - R550
  - R650xs

- R750xs
- Support for PowerEdge RAID Controllers (PERC), series 9 and 10 for Dell EMC systems are:
  - PERC H745
  - PERC H345
  - PERC H840
  - HBA345
  - HBA330 MMZ
  - PERC H745P MX
- The set and get iDRAC configuration using .INI file (dependent on RACADM deprecated feature) is not supported with iDRAC version 4.40.40.00 or later. Use XML input file to configure iDRAC.

  NOTE: No additional upgrade to the DSDP is required to support the latest iDRAC 9-based PowerEdge servers. Use the provided DTK v6.4 with your installed DSDP 4.1.

Dell EMC Server Deployment Pack features overview

You can perform the following tasks using the Dell EMC Server Deployment Pack:

- Configure the server's integrated Dell Remote Access Controller (iDRAC), RAID, BIOS, and .XML files using .INI files and Command Line Interface (CLI) options.

  NOTE: The set and get iDRAC configuration using .INI file (dependent on RACADM deprecated feature) is not supported with iDRAC version 4.40.40.00 or later. Use XML input file to configure iDRAC.

  NOTE: The Dell EMC Server Deployment Pack (DSDP) does not support deployment on Dell PowerEdge Boot Optimized Storage Solution (BOSS) controllers, PowerEdge RAID Controllers (PERC), series 11 and Non-volatile memory express(NVMe). Recommends to use OpenManage Integration for Microsoft System Center(OMIMSSC) for SCCM/MECM for these new technologies.
- Create a Dell-specific boot image that is used in the operating system deployment.
- Import and apply driver installation packages for specific Dell servers.
- Consolidate start hovers over various wizards to perform a typical server deployment on-site server installation.
- Support for Update 2103 for Configuration Manager, or Update 2010 for Configuration Manager, or Update 2006 for Configuration Manager, or Update 2002 for Configuration Manager, or Update 1910 for Configuration Manager, or Update 1906 for Configuration Manager, or Support for Update 1810 for Configuration Manager, or System Center Configuration Manager 2016, or System Center Configuration Manager 2012 releases.
- Import Dell Deployment ToolKit (DTK) using the **PowerEdge Deployment ToolKit Configuration Wizard**.

  NOTE: The DTK version 6.4 contained in the package is supported only for Dell EMC Server Deployment Pack (DSDP) not otherwise. Using this version of DTK outside of DSDP is unsupported.

NOTE: For all supported operating systems, see the Supporting operating systems section in `Dell EMC Server Deployment Pack Version 4.1 for Microsoft System Center Configuration Manager Installation Guide`.

This release, of DSDP v4.1(revision A02), is the final release for Microsoft System Center Configuration Manager (Microsoft Endpoint Configuration Manager) product with the associated functionalities. This release and the releases prior to this will continue to be available for web download on the supported PowerEdge servers but no additional features, new platform and associated components will be added as the Product is fully deprecated.

No support for upcoming generations and models of PowerEdge servers, outside of the supported systems list. This also implies that **no future release of the software for any new hardware and operating systems will be made available beyond this DSDP v4.1 (A02)** and available only for the currently listed PowerEdge servers. For more information about features supported, see dell.com/support/documents.

NOTE: Dell EMC recommends customers to immediately transition to OpenManage Integration for Microsoft System Center(OMIMSSC) for Microsoft Endpoint Configuration Manager(MECM) and System Center Virtual Machine Manager(SCVMM).

Configuration manager and operating system support matrix for Dell EMC Server Deployment Pack

The following table provides information about the operating systems that are supported by Dell EMC Server Deployment Pack for Configuration Manager:

Table 1. Compatible operating systems supported by Dell EMC Server Deployment Pack for WinPE

Configuration Manager Version	WinPE Version	Operating system Deployment
Update 2103 for Configuration Manager	10.1	• Windows Server 2019 • Windows Server 2016
Update 2010 for Configuration Manager	10.1	• Windows Server 2019 • Windows Server 2016
Update 2006 for Configuration Manager	10.1	• Windows Server 2019 • Windows Server 2016
Update 2002 for Configuration Manager	10.1	• Windows Server 2019 • Windows Server 2016 • Windows Server 2012 R2
Update 1910 for Configuration Manager	10.1	• Windows Server 2019 • Windows Server 2016 • Windows Server 2012 R2
Update 1906 for Configuration Manager	10.1	• Windows Server 2019 • Windows Server 2016 • Windows Server 2012 R2
Update 1810 for Configuration Manager	10.1	• Windows Server 2019 • Windows Server 2016 • Windows Server 2012 R2
System Center Configuration Manager 2016	10	• Windows Server 2016 • Windows Server 2012 R2
System Center Configuration Manager 2012 SP2	5.0	• Windows Server 2012 R2 • Windows Server 2012 • Windows Server 2008 R2*
System Center Configuration Manager 2012 R2 SP1	5.0	• Windows Server 2012 R2 • Windows Server 2012 • Windows Server 2008 R2*
System Center Configuration Manager 2012 R2	5.0	• Windows Server 2012 R2 • Windows Server 2012 • Windows Server 2008 R2*
System Center Configuration Manager 2012 SP1	4.0	• Windows Server 2012 • Windows Server 2008 R2*
System Center Configuration Manager 2012	3.0	• Windows Server 2008 • Windows Server 2008 R2

Legend:

*—For Windows Server 2008 R2 support, go to **support.microsoft.com/kb/2853726**.

Distributed Configuration Manager setups on multiple primary site servers

You can install DSDP on multiple primary site servers. While installing DSDP on the primary site servers, ensure that the versions of DTK and OpenManage used in the CAS and all primary site servers are the same.

Following are the limitations of the installation.

- If DSDP is uninstalled on primary site server 1 where you have imported DTK, you cannot use the existing boot images in the primary site server 2 or create boot images in it. Reimport DTK from the primary site server 2 to create the boot images. The site server where DTK is first imported, serves as the source for the boot image driver.
- You can import the OpenManage Driver for a particular server model only on one primary site server. This server serves as the OM Driver source for other primary site servers.
- If two primary site servers exist, four Dell packages are displayed in the Configuration Manager console. Of the four packages, two are the original source and the remaining two are the instances from the second primary site.

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Before using Configuration Manager

Before you begin using the Configuration manager, ensure the following:

- Import the DTK packages if you are upgrading DSDP using the option **Remove Dell Deployment ToolKit (DTK) utilities and Windows PE drivers** or installing DSDP for the first time. For more information about importing a DTK package for the Update 2103 for Configuration Manager, Update 2010 for Configuration Manager, or Update 2006 for Configuration Manager, or Update 2002 for Configuration Manager, Update 1910 for Configuration Manager, or Update 1906 for Configuration Manager, or Update 1810 for Configuration Manager, or System Center Configuration Manager 2016, or System Center Configuration Manager 2012, see Importing a DTK Package for hardware configuration and OS deployment.
- Distribute and update the appropriate packages to Configuration Manager distribution points. The **Update Distribution Points** operation ensures that all packages of the Dell EMC Server Deployment Pack that you installed are updated on the distribution points. The Distribution operation ensures that the packages are available on the distribution points for the client systems to access them. To add a distribution point, see Online Documentation for System Center Configuration Manager.

NOTE: The DTK version 6.4.0 contained in the package is only supported for Dell EMC Server Deployment Pack(DSDP) not otherwise.

NOTE: You can download the package from dell support site, extract, and then import the DTK `.exe` file, and CAB file.

Dell EMC Server Deployment Pack provides consolidated start hovers over various wizards to perform a typical server deployment. To access the wizards sequentially, right-click the **Operating System Deployment** node and select **Dell PowerEdge Server Deployment**. You can use DSDP for Configuration Manager to perform the following tasks:

- Import a Dell Deployment ToolKit (DTK).
- Create Dell boot images for server deployment.
- Import Dell EMC OpenManage Server Driver Pack.
- Create an operating system deployment task sequence.

NOTE: Always start the Configuration Manager console with administrator privileges.

NOTE: Starting from MECM 2103 installed setups, **Only allow console extensions that are approved for the hierarchy** option in **MECM Hierarchy** settings properties must be disabled to view the configuration manager console launch point in MECM console. For more information see, Configuration Manager console section in Microsoft documentation.

Topics:

Recommended Dell Deployment Toolkit version for Dell EMC Server Deployment Pack

DSDP with DTK versions supports the following Configuration Manager versions:

- Update 2103 for Configuration Manager
- Update 2010 for Configuration Manager
- Update 2006 for Configuration Manager
- Update 2002 for Configuration Manager
- Update 1910 for Configuration Manager
- Update 1906 for Configuration Manager
- Update 1810 for Configuration Manager
- System Center Configuration Manager 2016
- System Center Configuration Manager 2012 SP2
- System Center Configuration Manager 2012 R2 SP1
- System Center Configuration Manager 2012 R2
- System Center Configuration Manager 2012 SP1

- System Center Configuration Manager 2012

For more compatibility level of information, see *Dell EMC Server Deployment Pack Version 4.1 for Microsoft System Center Configuration Manager Installation Guide*.

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Using the Dell EMC Server Deployment Pack on systems running System Center Configuration Manager

This section provides information about how to use Dell EMC Server Deployment Pack on systems running Update 2103 for Configuration Manager, Update 2010 for Configuration Manager, Update 2006 for Configuration Manager, Update 2002 for Configuration Manager, Update 1910 for Configuration Manager, or Update 1906 for Configuration Manager, or Update 1810 for Configuration Manager, or System Center Configuration Manager 2016, or System Center Configuration Manager 2012.

Topics:

Dell Driver CAB files

A cabinet (`.cab`) file is a compressed file that contains other distribution files, such as drivers and system files.

The Dell Driver CAB file provides new levels of flexibility for creating and deploying customized boot images.

Importing Dell Driver CAB files for creating boot image

1. Download the latest CAB file from **Dell.com/support**.
2. Launch the **Configuration Manager Console**.
3. In the left pane, select **Software Library** > **Overview** > **Application Management** > **Packages**.
4. Right-click **Packages** and select **Dell PowerEdge Server Deployment** > **Launch Deployment Toolkit Configuration Wizard.**
   The **Dell PowerEdge Deployment ToolKit Configuration Wizard** screen is displayed.
5. Click **Browse** and navigate and select the CAB file that you have downloaded.
   The selected CAB file version, Windows PE version, and architecture are displayed in **Cab Selection for Import** section on **Dell PowerEdge Deployment ToolKit Configuration Wizard**.

   If the WinPE drivers are already installed on this system, then the following message is displayed:**WinPE drivers are already present on this system, importing DTK or Cab file will be overwriting the existing WinPE drivers. Are you sure you want to continue?**

   The Dell Driver CAB files are successfully imported. To create the boot image, perform steps 7 to 11 in the Upgrading a Dell Driver CAB files section.

Upgrading Dell Driver CAB files

1. Launch **Configuration Manager Console**.
2. In the left pane, select **Software Library** > **Overview** > **Application Management** > **Packages**.
3. Right-click **Packages** and select **Dell PowerEdge Server Deployment** > **Launch Deployment Toolkit Configuration Wizard.**
   The **PowerEdge Deployment ToolKit Configuration Wizard** screen is displayed. If there is an existing CAB file package on the server, then the CAB file version, Windows PE version, and architecture is displayed under CAB Selection for Import section.

4. Click **Browse**, navigate and then select the CAB file that you have downloaded, then click **Next**.
   The selected CAB file version, Windows PE version, and architecture are displayed in **CAB Selection for Import** section.
5. In **Boot Image Selection**, select any one of the following options:

   NOTE: Make sure that you import a 64-bit CAB file before selecting x64 boot images in any of the following options:

Use Boot Image from WAIK/ADK tools	This option is used to create both x64 and x86 Dell boot images. The source for the boot image creation is obtained from Windows Automated Installation Kit (WAIK) or Windows Assessment and Deployment Kit (ADK), depending on the configuration, and all the Windows PE custom install packages are added to the boot image.
Use existing Boot Image from Configuration Manager	This option allows you to select an existing boot image in Configuration Manager. Select an existing boot image from the drop-down list and use it to create a Dell boot image.
Use a custom Boot Image	This option is used to import a custom boot image from any other location. Specify the Universal Naming Convention (UNC) path of the Windows Imaging (WIM) file and select the boot image from the drop-down list.

   NOTE:
   - Only finalized images are supported if you select the **Use a Custom Boot Image** option for WinPE.
   - The source for the boot image creation is obtained from Windows Automated Installation Kit (WAIK) or Windows Assessment and Deployment Kit (ADK), depending on the configuration, and all the Windows PE custom install packages are added to the boot image. For more information about WAIK and ADK versions, see the Microsoft Windows AIK or Windows ADK documentation.
   - Ensure that you have latest update to the WinPE image. For more information, see https://docs.microsoft.com/en-us/windows-hardware/manufacture/desktop/winpe.
   - While upgrading DTK `.exe` drivers with CAB file drivers, It may overwrite the existing DTK tools and drivers with CAB file drivers.

6. Click **Next**.
   The **Boot Image Property** screen is displayed.
7. In the **Boot Image Property**, enter a name for the Dell boot image.
   The **Version** and **Comments** fields are optional.
8. Click **Create**.
   The boot image creation process begins. A progress bar shows the status of the boot image creation. After the boot image is created, the boot image details are displayed on the **Summary** screen and this information includes DTK or CAB file details, and success state.
9. Right-click each of the newly created boot images and perform the update and manage distribution points operations.
   The drivers imported from Dell Driver CAB files are injected into WinPE. This process depends on the Configuration Manager and ADK. It is recommended that you read the limitations documented for these products before creating a boot image. For more information, see **technet.microsoft.com/en-us/library/hh825070.aspx**

   NOTE: You can view the CAB configuration details only by using the **PowerEdge Deployment ToolKit Configuration Wizard**.

Customizing boot image and deploying OS through Dell Driver CAB files

After importing Dell Driver CAB files, perform the following tasks:

1. Creating a Boot Image for Deploying PowerEdge Servers.
2. Enabling Command Prompt for Debugging Boot Images.
3. Distributing Content and Updating Distribution Points.
4. Configuring the Task Sequence Steps to Apply Operating System Image And Driver Package.
5. Deploying a Task Sequence.
6. Methods for deploying task sequence.

Creating a boot image for deploying PowerEdge servers

1. Launch **Configuration Manager Console.**
2. In the left pane, select **Software Library** > **Overview** > **Operating Systems** > **Boot Images**.
3. Right-click **Boot Images** and select **Dell PowerEdge Server Deployment** > **Create Dell Server Boot Image**.
   The **Dell PowerEdge Boot Image Creation Wizard** is displayed.
4. In **Boot Image Selection**, select any one of the following options:

   NOTE: Make sure that you import a 64-bit version of DTK before selecting x64 boot images in any of the following options:

Use Boot Image from WAIK/ADK tools	This option is used to create both x64 and x86 Dell boot images. The source for the boot image creation is obtained from Windows Automated Installation Kit (WAIK) or Windows Assessment and Deployment Kit (ADK), depending on the configuration, and all the Windows PE custom install packages are added to the boot image.
Use existing Boot Image from Configuration Manager	This option allows you to select an existing boot image in Configuration Manager. Select an existing boot image from the drop-down list and use it to create a Dell boot image.
Use a custom Boot Image	This option is used to import a custom boot image from any other location. Specify the Universal Naming Convention (UNC) path of the Windows Imaging (WIM) file and select the boot image from the drop-down list.

   NOTE: Only finalized images are supported if you select the **Use a Custom Boot Image** option for WinPE.

   NOTE: The Windows PE custom boot image should have **XML**, **Scripting**, and **WMI** packages installed on it. For more information about installing these packages, see the *Microsoft Windows AIK* or *Windows ADK* documentation.

5. Click **Next**.
   The **Boot Image Property** screen is displayed.
6. Enter a name for the Dell boot image.
   The **Version** and **Comments** fields are optional.
7. Click **Create**.
   The boot image creation process begins. A progress bar shows the status of the boot image creation. After the boot image is created, the boot image details are displayed on the **Summary** screen and this information includes DTK or CAB file details, and success state.
8. Right-click each of the newly created boot images and perform the update and manage distribution points operations.

   The drivers imported from DTK or CAB are injected into WinPE. This process depends on the Microsoft System Center Configuration Manager and ADK. It is recommended that you read the limitations documented for these products before creating a boot image. For example, **technet.microsoft.com/en-us/library/hh825070.aspx**

   NOTE: You can view the DTK configuration details only by using the **PowerEdge Deployment ToolKit Configuration Wizard**.

Enabling command prompt for debugging boot images

NOTE: To debug the task sequence workflow or failure in the WinPE environment, press <F8>.

1. Launch **Configuration Manager Console**.
2. In the left pane, select **Software Library** > **Overview** > **Operating Systems** > **Boot Images**.
3. Right-click on the boot image and select **Properties**.
4. In the **Properties** window, select the **Customization** tab and select **Enable Command Prompt (testing only)** check box.
5. Click **Apply**, and proceed with distribute and update the boot image to the SCCM distribution point. For more information, see Distributing Content and Updating Distribution Points.

Distributing content and updating distribution points

1. Launch **Configuration Manager Console**.
2. In the left pane, select **Software Library** > **Overview** > **Application Management** > **Packages** > **Dell PowerEdge Deployment.**
3. Right-click **PowerEdge Deployment Toolkit Integration** and click **Distribute Content**.
   The **Distribute Content Wizard** is displayed.
4. Right-click **PowerEdge Deployment Toolkit Integration** and click **Update Distribution Points**.
   A message box prompting for a confirmation is displayed.
5. Click **OK** to update the distribution points.
6. Click **Next** and proceed through the wizard to manage the distribution points. For more information, see Online Documentation for System Center Configuration Manager.

   WARNING: Ensure that you do not select Reload boot images check box while updating the distribution point for boot image created by DSDP.

   NOTE: The **Boot Image** created is customized with Dell Deployment Toolkit drivers and tools. If you select Reload boot image check box in the update distribution point wizard, the boot image gets rebuild using the specified WinPE and Client version that will result in loss of Dell Toolkit drivers and tools. Reloaded Boot Images that if used for deployment results in failure of BIOS configuration. For more information, see https://docs.microsoft.com/en-us/sccm/osd/get-started/manage-boot-images.

7. Go to **Overview** > **Boot Images** > **Operating Systems.**
8. Right-click the boot image you created and click **Distribute Content**.
   The **Distribute Content Wizard** screen is displayed.
9. Follow the instructions in the wizard to manage the distribution points.
10. To update and manage distribution points for the driver packages you imported, go to **Driver Packages** > **Dell PowerEdge Driver Packages <Dell OpenManage Version>.**
    The driver packages window is displayed.
11. Right-click each of the newly imported driver packages and perform the distribute content and update distribution points operations.

Configuring the task sequence steps to apply operating system image and driver package

This section describes the steps required to apply operating system image and add Dell drivers.

NOTE: Ensure that you configure the right partitions in **Format and Partition Disk** task sequence step for **UEFI Boot mode**. For more information, see `Task sequence steps to manage BIOS to UEFI conversion` in microsoft documentation.

Applying the operating system image

NOTE: Before you begin this task, make sure that you have the required operating system image file (`.wim` file) within the **Operating System Images** tree in the Configuration Manager.

To apply the operating system image:

1. In the left pane of the **Task Sequence Editor**, under **Deploy Operating System**, click **Apply Operating System Image.**
2. Select one of the following options:
   - **Apply operating system from a captured image**
   - **Apply operating system from an original installation source**
3. Browse and select the operating system location and click **OK**.

Adding Dell driver packages

1. In the left side of the **Task Sequence Editor**, under **Deploy Operating System**, click **Apply Driver Package**.
2. Click **Browse**.
   The **Select a Driver Package** window is displayed.
3. Click **Dell PowerEdge Driver Packages <OM Version>**.
   A list of driver packages available in the **Dell EMC Server Deployment Pack** is displayed.
4. Select a package for a PowerEdge server, such as **Dell R720-Microsoft Windows 2008x86 OMx.x version**.
5. Click **Apply**.

   NOTE: After operating system deployment, make sure that the mass-storage driver installed is same as that specified in the Task Sequence. If you find any differences, then update the driver manually.

Deploying a task sequence

Methods for deploying a task sequence

Now that the task sequence is ready, use any of the following methods to deploy the task sequence you have created:

- Deploy through a CD
- Deploy through a USB
- Deploy through PXE

For more information, see Online Documentation for System Center Configuration Manager.

Dell Deployment ToolKit

The Dell 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-operating system environment in a reliable way, without changing their current deployment processes. Using DTK you can install operating systems on Dell systems in BIOS mode.

NOTE: If the folders containing boot critical drivers are not present, then the wizard displays an error message.

Importing a DTK package for hardware configuration and OS deployment

1. Download the DTK version 6.4.0 which is packaged with DSDP from the `dell support site`.

   NOTE: The DTK v6.4.0 is supported only for all latest iDRAC9 based PowerEdge servers.

2. Browse to the location where DTK file is extracted and then run the .exe file.
3. Start the **Configuration Manager Console**.
4. In the left pane, select **Software Library** > **Overview** > **Application Management** > **Packages**.
5. Right-click **Packages** and select **Dell PowerEdge Server Deployment** > **Launch Deployment Toolkit Configuration Wizard.**
   The **Dell PowerEdge Deployment ToolKit Configuration Wizard** screen is displayed.
6. Click **Browse** and go to and select DTK self-extractable .exe file that you have downloaded.
   The selected DTK version, Windows PE version, and architecture is displayed under **DTK selected for import**.

   NOTE: If the WinPE drivers are already installed on this system, and then the following message is displayed:

   WinPE drivers are already present on this system, importing Cab file will be overwriting the existing WinPE drivers. Are you sure you want to continue?
7. Follow steps 4–8 in the Creating a Boot Image for Deploying PowerEdge Servers section for creating a boot image.

Upgrading a DTK package

1. Launch **Configuration Manager Console**.
2. In the left pane, select **Software Library** > **Overview** > **Application Management** > **Packages**.
3. Right-click **Packages** and select **Dell PowerEdge Server Deployment** > **Launch Deployment Toolkit Configuration Wizard.**
   The **PowerEdge Deployment ToolKit Configuration Wizard** screen is displayed. If there is an existing DTK package on the server, then the DTK version, Windows PE version, and architecture is displayed under **DTK present on system**.
4. Click **Browse**, navigate and select DTK self-extractable zip file that you have downloaded.
   The selected DTK version, Windows PE version, and architecture are displayed in **DTK selected for import** section.
5. Click **Next**.
6. In **Boot Image Selection** screen is displayed.
7. In Boot Image Properties, follow steps 3 to 8 in the Creating a Boot Image for Deploying PowerEdge Servers section for creating a boot image.

Customizing boot image, configuring hardware and deploying OS through DTK

After importing DTK package, perform the following tasks:

1. Creating a Boot Image for Deploying PowerEdge Servers
2. Enabling Command Prompt for Debugging Boot Images
3. Distributing Content and Updating Distribution Points
4. Configuring the Hardware Components of Your Server
5. Configuring Task Sequence Actions
6. Creating Task Sequences for RAID DRAC and iDRAC
7. Configuring the Task Sequence Steps to Apply Operating System Image And Driver Package
8. Deploying a Task Sequence
9. Methods for deploying a task sequence

System Lockdown Mode

The System iDRAC Lockdown Mode feature is available for 14th generation and all latest iDRAC9 based PowerEdge servers. This feature when enabled locks the system configuration modification tasks. This feature is intended to protect the system from unintentional changes.

Set the*iDRACLockDownMode variable* in the task sequence during Operating System Deployment.

When the System Lockdown Mode is enabled, the following functionalities have limitations:

- All system configuration modification tasks; **Set** operation cannot be performed.
- OS deployment

NOTE:

- To restrict OS deployment in System Lockdown Mode, you must add **`iDRACLockDownMode variable with value 0`** in the deployed section of task sequence. To add the *iDRACLockDownMode variable*, see Adding iDRACLockDownMode variable.
- Do not set the *iDRACLockDownMode variable* in the task sequence during Operating System Deployment for the following scenarios:
  - DSDP does not check for the System Lockdown Mode feature, and continues with OS deployment when no hardware configuration is selected.
  - DSDP does not check for the System Lockdown Mode feature, and continues with OS deployment in presence of a CAB file.

Adding iDRACLockDownMode variable

To add the iDRACLockDownMode variable:

1. Launch **Configuration Manager Console**.
2. In the left pane, select **Software Library** > **Overview** > **Operating Systems** > **Task Sequences** .
3. Right-click the desired Task Sequence and then, click **Edit**.
   The **Task Sequence Editor** window is displayed.
4. Click **Deploy Operating System**.
5. Click **Options** > **Add Condition** > **Task Sequence Variable**Options.
   The **Task Sequence Variable** window is displayed.
6. In the **Task Sequence Variable** window, enter the following:
   a. In the **Variable** text box, enter the name **`iDRACLockDownMode`**for the variable.
   b. From the **Condition** drop-down menu, select **`equals`**.
   c. In the **Value** text box, enter **`0`**.
   d. Click **OK**.
7. Click **Apply** and, then **OK**.

Configuring the hardware components of your server

Configure the various components of the hardware on your server.

Creating a task sequence

You can create a task sequence in two ways to configure your server:

- Create a Dell-specific task sequence using PowerEdge Server Deployment template.
- Create a custom task sequence.

The task sequence proceeds to the next task sequence step irrespective of the success or failure of the command.

Creating a Dell specific task sequence

To create a Dell-specific task sequence using PowerEdge Server Deployment template:

1. Launch **Configuration Manager Console**.
   The **Configuration Manager Console** screen is displayed.
2. In the left pane, select **Software Library** > **Overview** > **Operating Systems** > **Task Sequences**.
3. Right-click **Task Sequences**, and then click **Bare Metal Server Deployment** > **Create Dell PowerEdge Server Deployment Template.**
   The **Dell PowerEdge Server Deployment Task Sequence Wizard** is displayed.
4. Type the name of the task sequence in **Task Sequence Name** field.
5. Select the boot image that you want to use from the drop-down list.

   NOTE: It is recommended that you use the Dell custom boot image that you created.

6. Under **Server Hardware Configuration**, select the hardware items that you want to configure in this task sequence.
7. Under **Operating System Installation**, select the operating system installation type. The options are:
   - **Use an OS WIM image**
   - **Scripted OS install**
8. Select an operating system package from the **Operating system package to use** drop-down menu.
9. If you have a package with **unattend.xml**, then select it from the **Package with unattend.xml info** menu. Else, select **<do not select now>**.
10. Click **Create**
    The **Task Sequence Created** window is displayed with the name of the task sequence you created.
11. Click **Close** in the confirmation message box that is displayed.

Creating a custom task sequence

1. Launch the **Configuration Manager Console**.

The **Configuration Manager Console** screen is displayed.

2. In the left pane, select **Software Library** > **Overview** > **Operating Systems** > **Task Sequences**.
3. Right-click **Task Sequences**, and then click **Create Task Sequence**.
   The **Create Task Sequence Wizard** is displayed.
4. Select **Create a new custom task sequence**, and click **Next**.
5. Enter a name for the task sequence in the **Task sequence name** text box.
6. Browse for the Dell boot image that you had created, and click **Next**.
   The **Confirm the Settings** screen is displayed.
7. Review your settings and click **Next**.
8. Click **Close** in the confirmation message box that is displayed.

Editing a task sequence

1. Launch the **Configuration Manager Console**.
   The **Configuration Manager Console** screen is displayed.
2. In the left pane, select **Software Library** > **Operating Systems** > **Task Sequence**.
3. Right-click the task sequence that you want to edit and click **Edit**.
   The **Task Sequence Editor** window is displayed.
4. Click **Add** > **Dell Deployment** > **Apply Drivers from Dell Lifecycle Controller.**
   The custom action for your Dell EMC Server Deployment Pack is loaded. You can now make changes to the task sequence.

   NOTE:
   - When editing a task sequence for the first time, the error message, **Setup Windows, and Configuration Manager** is displayed. To resolve the error, create and select the **Configurations Manager Client Upgrade package**. For more information about creating packages, see the Configuration Manager documentation at **Technet.microsoft.com**.
   - Make sure that the *Set RebootStep Variable* step in a task sequence is enabled for any set configuration.

Adding diskpart clean to task sequence

1. In **Task Sequence Editor**, click **Add** > **General** > **Command Line**.
2. In the **Name** text box, enter ***Diskpart Clean*** as the name for the command line.
3. Select the input command line option `diskpartclean.bat`.
4. Select package **Dell PowerEdge Deployment** > **Dell PowerEdge Custom Reboot Script.**

Configuring task sequence actions

When you select **PowerEdge Server Configuration** from the **Task Sequence Editor**, the following tabs are displayed:

- **Action Settings**
- **Variable Replacement**
- **Logs/Return Files**

This section explains the **Action Settings** tab. For information about **Variable Replacement** tab, see Variable Replacement. For information about **Logs/Return Files** tab, see Log/Return Files .

Deploying a task sequence on static IP networks

The task sequence deployment involves the following steps:

- Preparing the .CSV File
- Importing Targets
- Creating the Bootable Media for OS Deployment
- Using the Bootable Media for OS Deployment

Preparing the .CSV file

Update the sample CSV file located at `C:\Program Files\Microsoft Configuration Manager\OSD\Lib\Packages\Deployment\Dell\PowerEdge\NetworkSetting\Samples\MACIPMap.csv` by adding a row for each of the targets.

NOTE: Ensure that the MAC address for each target matches the MAC address of the target's NIC port that is connected and active on the network.

NOTE: If **EnableDHCP** is true, the values of IPAddress, SubnetMask and IPGateway are ignored, but DNS fields are used to set DNS Servers for both WinPE and post OSD network settings.

Importing targets

1. In the left side of Configuration Manager, expand **Assets and Compliance**, right-click **Devices**, and select **Import Computer Information** wizard.
2. Select **Import computers using a file** and click **Next**.
3. Enter the file path in the **Import file** text box or click **Browse** to navigate to the location where the file you want import is stored.
4. Select the **This file has column headings** check box.
5. From the **Assign As** drop-down list select **Variable** and click **Next**.
6. In the **Choose Target Collection** window, select the required option and click **Next**.

   NOTE: If an existing device has the same name, it is over-written.

7. In the **Summary** window, review the content and click **Next**. The wizard imports the computers from the file and displays a confirmation message.

Creating the bootable media for OS deployment

1. In the left side of Configuration Manager, right-click **Task Sequences** and select **Create Task Sequence Media**.
2. In the **Select Media** window, select **Bootable Media**.
3. Select the **Allow unattended operating system deployment** check box and click **Next**.
4. In the **Media Management**, **Media Type**, **Security**, and **Boot Image** windows, select the options based on the prevailing environment, and click **Next**.
5. In the **Customization** window, select the **Enable prestart command** check box.
6. In the **Command line input** text box, enter the following command.

   ```
   cscript.exe UpdateNI.vbs
   ```

7. Select the **Include files in the prestart command** check box.
8. Click **Set** next to the **Package** to select the **Dell PowerEdge Deployment** > **Dell PowerEdge Startup Network Setting** package.
9. Click **Browse** next to the **Distribution point** text box to select the appropriate distribution point and click **Next**.
10. In the **Summary** window, review the content and click **Next**.
    The bootable media is created, and a confirmation message is displayed.

NOTE: If a new entry is added to `MACIPMAP.csv`, update the **PowerEdge Startup Network Setting-<Sitecode>** to **Distribution Point and create a new task sequence media**.

NOTE: If you see the prompt `Press any key to boot to CD\DVD` when booting to the Task Sequence Media. For more information, see section `Installing Windows to an EFI-Based Computer` in docs.microsoft.com to remove the prompt and automatically boot to Task Sequence Media.

Using the bootable media for OS deployment

The operating system deployment is unattended unless the tasks in the task sequence require it. For example if the Windows serial number is not provided in the task sequence, the Windows operating system waits for it during the deployment process.

NOTE: You can use the same bootable media for all servers entered in the **.CSV** file, provided you select the appropriate driver packages in the task sequence on the site server.

Configuring system BIOS

1. Right-click the task sequence and click **Edit**.
2. From the left hand side of the **Task Sequence Editor**, under **Configure Hardware** > **Step 1** , click **Set BIOS Config (ini file)** > **Action Settings** tab.
3. From the **Configuration action type** drop-down list, select **BIOS Config (ini file)**.
   The **View** button is enabled.
   NOTE: You can also select **BIOS Config (command line)** if you want to configure the system by using the CLI option. For more information about the CLI option usage, see Command Line Options.
4. Click **View** to open the **.ini** file. Make modifications as per the configurations required and save the file.
   For information about the .ini file format, see the "Sample File Formats" section in the *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide* available at **Dell.com/support/manuals**.
5. Select **Save to a file in the toolkit package for this custom action when I click OK** in the pop-up message, and then click **OK**.
6. Save the file in the default directory.
   An example of default directory: `\\<site server hostname>\sms_<site code>\OSD\lib\Packages\Deployment\Dell\PowerEdge\DTK\Template\Configs\Syscfg`.
7. Click **Apply** to save the edited file to the task sequence.
8. Select **Set** from the **Action:** drop-down menu.
   The **Configuration file/Command line parameters** field is enabled. For more information, see Configuration file/ Command line Parameter Options.

Alternatively, you can select the **<Create configuration file>** option from the drop-down list to create a **.ini** file from the start .

Configuring file or command line parameter options

There are three options you can choose from:

- <Create configuration file>
- <Import configuration file>
- Edit <syscfg.ini>

After creating the `.ini` file using any of above options, click **Apply in the Task Sequence Editor** window. The task sequence for **Set BIOS Config (ini file)** is created.

CAUTION: When you update or save a new file in the package, it is not automatically updated on all of its distribution points. To make sure that the new file is available to systems that need it, you must update the distribution points from the Software Distribution→ Packages→ Dell PowerEdge Deployment→ Dell PowerEdge Deployment ToolKit Integration <version> node.

<Create configuration file>

On selecting the <Create configuration file> option, the **Create** button is displayed.

1. Click **Create**.
2. Do one of the following in the **Configuration File Editor**:
   - Click **Import File** to import an existing **.ini** file from a directory.
   - Create an online **.ini** file in the **Configuration File Editor** field and click **OK**. This prompts you to save the **.ini** file you created to a local drive or network share of your choice.
3. If you select the **Save these changes to the existing file in the toolkit package when I click OK** option, your configuration is exported to a file when you click **OK**.

<Import configuration file>

On selecting the **<Import configuration file>** option, the **Import** button is displayed. Click **Import** to import an existing `.ini` file.

Edit <syscfg.ini>

This is a sample `BIOS.ini` file.

NOTE: For information about the .ini file format, see the "Sample File Formats" section in the latest *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide* available at **Dell.com/support/manuals**.

1. Click **View** to see the existing `syscfg.ini` file.
2. In the **Configuration File Editor** window, edit the `syscfg.ini` file, select the **Save these changes to the existing file in the toolkit package when I click OK** option and click **OK**.

Edit <raidcfg.ini>

This is a sample `raidcfg.ini` file.

NOTE: For information about the ini file format, see the "Sample File Formats" section in the latest *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide* available at **Dell.com/support/manuals**.

1. Click **View** to see the existing `raidcfg.ini` file.
2. In the **Configuration File Editor** window, edit the `raidcfg.ini` file, select the **Save these changes to the existing file in the toolkit package when I click OK** option and then click **OK**.
   After creating the `.ini` file using any of the preceding options listed, click **Apply in the Task Sequence Editor** window. The task sequence for **Set RAID Config (ini file)** is created.

Configuring system BIOS using XML input

To configure your system BIOS using XML input:

1. Right-click the task sequence and click **Edit.**
2. In the left side of the **Task Sequence Editor**, under **Configure Hardware** > **Step 1**, click **Set BIOS Config (xml file)** > **Action Settings** tab.
3. From the **Configuration action type** drop-down list, select **BIOS Config (xml file)**.
4. From the **Configuration file / Command line parameters** drop-down list, select **syscfg_xml.xml**.
   The **View** button is enabled.
5. Click **View** to open the **XML** file in the **Configuration File Editor**. Make modifications as per the required configurations and save the file.

   For information about the ini file format in:
   - Dell's 12th generation systems, see "Sample File Formats" in the *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide*
   - Dell's 13th generation systems, see "Sample File Formats" in the *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide*
   - Dell's 14th generation systems and all latest iDRAC9 based PowerEdge servers systems, see "Sample File Formats" in the *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide*

   available at **Dell.com/support/manuals**.
6. Select **Save to a file in the toolkit package for this custom action when I click OK**, click **OK** to save the changes and return to the **Task Sequence Editor**, and then click **OK**.
7. Save the file in the default directory.

   An example of default directory: `\\<site server hostname>\sms_<site code>\OSD\lib\Packages\Deployment\Dell\PowerEdge\DTK\Template\Configs\Syscfg`.
8. Click **Apply** to save the edited file to the task sequence.
9. Select **Set** from the **Action:** drop-down menu.
   The **Configuration file/Command line parameters** field is enabled. For more information, see Configuration file/ Command line Parameter Options.

Alternatively, you can select the **<Create configuration file>** option from the drop-down to create an **XML** file from the start.

Configuring iDRAC7, iDRAC8, and iDRAC9 using XML input

To configure iDRAC7, iDRAC8, and iDRAC9 using XML input:

1. Right-click the task sequence, and click **Edit.**
2. In the left side of the **Task Sequence Editor**, under **Configure Hardware** > **Step 1**, click **set iDRAC7 Config (xml file)** > **Action Settings** tab.
   - For iDRAC8, click **Configure Hardware** > **Step 1**, click **set iDRAC8 Config (xml file)** > **Action Settings**.
   - For iDRAC9, click **Configure Hardware** > **Step 1**, click **set iDRAC9 Config (xml file)** > **Action Settings**.
3. From the **Configuration action type** drop-down list, select **iDRAC 7 Config (xml file)**.
   - For iDRAC8, select the **iDRAC 8 Config (xml file)** option.
   - For iDRAC9, select the **iDRAC 9 Config (xml file)** option.
4. From the **Configuration file / Command line parameters** drop-down list, select **idrac_xml.xml**.
   The **View** button is enabled.
5. Click **View** to open the **XML** file. Make modifications as per the configurations that are required and save the file.

   For information about the .XML file format in:
   - Dell's 12th generation systems, see "Sample File Formats" in the *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide* and for more information, see Console and operating system support matrix for Dell EMC Server Deployment Pack.
   - Dell's 13th generation systems, see "Sample File Formats" in the *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide* and for more information, see Console and operating system support matrix for Dell EMC Server Deployment Pack.
   - Dell's 14th generation systems and all latest iDRAC9 based PowerEdge servers systems, see "Sample File Formats" in the *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide* and for more information, see Console and operating system support matrix for Dell EMC Server Deployment Pack.

   Available at **Dell.com/support/manuals**.
6. Select **Save to a file in the toolkit package for this custom action when I click OK** to save the changes and return to the **Task Sequence Editor**, and then click **OK**.
7. Save the file in the default directory.

   An example of default directory: `\\<site server hostname>\sms_<site code>\OSD\lib\Packages\Deployment\Dell\PowerEdge\DTK\Template\Configs\Syscfg`.
8. Click **Apply** to save the edited file to the task sequence.
9. Select **Set** from the **Action:** drop-down menu.
   The **Configuration file/Command line parameters** field is enabled. For more information, see Configuration file/ Command line Parameter Options.

Alternatively, you can select the **<Create configuration file>** option from the drop-down list to create an **XML** file from the start.

Configuring Set Boot Order

1. Right-click the task sequence and click **Edit**.
   The **Task Sequence Editor** window is displayed.
2. Click **Add** > **Dell Deployment** > **PowerEdge Server Configuration.**
   The custom action for Dell EMC Server Deployment Pack is loaded.
3. From the **Configuration action type** drop-down list, select **Boot Order**.
4. From the **Action** drop-down list, select **Set**.
5. Under **Configuration file/Command line parameters**, `select --bootseq=virtualcd.slot.1`. This sets the boot order to boot from a virtual CD. To retrieve the boot device ids for a device, see Retrieving Boot Device IDs.

   NOTE: See the *Dell Deployment Toolkit CLI Guide* for information about parameters for `--bootseq` option.

Retrieving boot device IDs

1. Create a task sequence using DSDP:
   a. Launch the **Create Dell Task Sequence** wizard.

b. In **Server Hardware**, select **Set BIOS config**.
c. Select the appropriate boot image, credentials, and other inputs.
d. Click **Create and Save the Task Sequence**.

2. Edit the task sequence and from the **Action** drop-down list, select **Get**.
   a. Right-click on the task sequence and click **Edit**.
   b. Delete the step **Build the Reference Machine** as deploying OS is not required.
   c. Click **Set BIOS Config (ini file)**.
   d. Change the action to **Get**.
   e. In **Configuration File/Command line parameters**, provide a filename. This filename is assigned to the BIOS config file that is created after running the task sequence.
   f. In the **Log/Return Files** tab, provide the share path and credentials of the location where you want to create the file.
   g. Save the task sequence.
3. Run the task sequence on the target for which you need to set the boot order.
   A file is created in the mentioned share location with the specified file name.
4. Select a value for the **bootseq** attribute from the config file. For example:
   `bootseq=nic.emb.1,cdrom.emb.0,hdd.emb.0,virtualfloppy.slot.1,virtualcd.slot.1`
   Values separated by comma are the individual bootable devices in the target.
5. Select the device ID of the device which you want to set in the boot order. For example, `hdd.emb.0`.

Configuring RAID by using RAID Config (wizard)

By using the **RAID Config (wizard)** you can create a new configuration file or import an existing configuration to configure RAID on your systems.

For instance, to configure RAID by creating a new configuration file using the **RAID Config (wizard)**. From the left-hand side of the **Task Sequence Editor**, under **Configure Hardware** > **Step1**, click **Set RAID Config (wizard)**.

Under **Configuration file/Command line parameters** there are three options you can choose from:

- <Create configuration file>
- <Import configuration file>
- <sample.xml>

<Create configuration file>

To create steps for RAID:

1. Select the sample .ini file from the drop-down.
   The **View** button is enabled.
2. Click **View** to open the .ini file. Make modifications as per the configurations that are required and save the file.
   For information about the .ini file format, see “Sample File Formats” in the *Dell OpenManage Deployment Toolkit Version 4.4 Command Line Interface Reference Guide*. You can access the guide from this URL: **www.dell.com/support/Manuals**.
3. Select **Save to a file in the toolkit package for this custom action when I click OK** and click **OK** to return to the **Task Sequence Editor** window.
4. Click **OK**.
5. Save the file in the default directory.
   An example of default directory: `\\<site server hostname>\sms_<site code>\OSD\lib\Packages\Deployment\Dell\PowerEdge\DTK\Template\Configs\Raidcfg`.
6. Click **Apply** to save the edited file to the task sequence.

Alternatively, you can select the **<Create configuration file>** option from the drop-down to create an **.ini** file from the start.

<Import configuration file>

1. Select **<Import configuration file>** from the **Configuration file/Command line parameters** drop-down menu.
2. Click **Import**.
3. Specify the location of the configuration file you want to import and click **Open.**

<sample.xml>

1. From the **Configuration file / Command line parameters** drop-down list, select **<sample.xml>**.
2. Click **View**.
3. To edit the **sample.xml**, see <Create configuration file>.

Creating task sequences for RAID, and iDRAC

From the **Configuration action type** menu, you can select the options that are listed in the following table to create task sequences for RAID, and iDRAC:

Table 2. Creating Task Sequences for RAID, and iDRAC

Option	Suboptions	Description
RAID Configuration (.ini file)	5i-raid0.ini	Sample file for RAID 0.
	5i-raid1.ini	Sample file for RAID 1.
	5i-raid5.ini	Sample file for RAID 5.
	raidcfg.ini	Use the existing **raidcfg.ini** file to configure RAID. For a similar example, see <Edit syscfg.ini>.
	iscsicfg.ini	Use the existing **iscsicfg.ini** file to configure RAID. For a similar example, see <Edit syscfg.ini>.
RAID Configuration (command line)	None	Use this option if you want to manually configure the RAID tokens using the CLI.
iDRAC Configurations	<Create configuration file>	For more information about the BIOS option, see <Create configuration file>.
	<Import configuration file>	For more information about the BIOS option, see <Import configuration file>.
	idrac()cfg.ini	Use the existing **idrac6cfg.ini**, **idrac7cfg.ini**, **idrac8cfg.ini**, or **idrac9cfg.ini** file respectively to configure the iDRAC. For a similar example, see <Edit syscfg.ini>.

NOTE: The set and get iDRAC configuration using .INI file (dependent on RACADM deprecated feature) is not supported with iDRAC version 4.40.40.00 or later. Use XML input file to configure iDRAC.

The hardware component sequences are displayed in the Task Sequence Editor after configuring the system BIOS, RAID, and iDRAC.

Variable Replacement

The **Variable Replacement** tab allows you to use and configure task variables like:

- **System Variables**
- **Task Sequence Variables**
- **Machine Variables**
- **Collection Variables**

Configuring Variable Replacement tab options

1. Select one of the following options under the **Action to take when a variable is unintialized or the value is null or blank** section:

Use a null/blank value	Uses a variable that has not been initialized or has a blank value. This allows the clients to continue processing the action even if the variable is undefined or blank.
Fail the task	Fails an action that cannot retrieve a valid variable value. This allows you to view what is wrong with an action instead of trying to debug a failed command line or an incorrectly configured system.

2. Select **Search all text input files for variables to replace** to do the following:
   - Enable client-side scripts to search for and replace variables in the command line or within files specified.
   - Replace variables with values found in the task sequence environment or the Windows system environment.

   For optimum performance of the action clear the **Search all text input files for variables to replace** check box.
3. To replace any instances of a password in the **Actions with the password provided and confirmed** dialog box, select **Replace %PASSWORD% variables with this password**.
4. To set additional variables on the system, select **Manually define additional variables** . To define the additional variables:
   a. Type a variable **Name**.
   b. Type the variable **Value**.
   c. Select the variable **Type** from the drop-down menu.
5. Click **Apply** and then click **OK**.

Retrieving log files or capturing configuration files

1. Select **Retrieve the task sequence log file from the client after this action runs**.
2. Select **Enable extended / debug logging by this action** to get extensive information in the log files.
3. Select **Retain network folder settings from a prior step, if available** to copy any available network folder settings from the previous step **or** to configure the network folder settings proceed to step 4.
4. Enter a valid network/local path to save the file.
5. Enter the domain and account name to access the path.
6. Enter and confirm the password.
7. If you have specified a network path in step 4, then select **Map a drive letter to the network share above** and then select a drive letter from the drop-down menu.
8. Click **Apply** and then click **OK**.

Importing Dell Server Driver Packages

Dell EMC Server Deployment Pack provides a wizard to create driver packages in Configuration Manager, based on the server-operating system combination from the drivers available in the **Dell EMC OpenManage Server Driver Pack**. These packages are used in the task sequences that are used for operating system deployment.

1. Download the latest ISO from the Dell support site, Dell.com/support.
2. Launch **Configuration Manager Console**.
3. In the left pane, select **Software Library** → **Overview** → **Operating Systems** → **Driver Packages**.
4. Right-click **Driver Packages**, select **Dell Server Driver Package** → **Import Dell PowerEdge Server Driver Packages**. The **Dell PowerEdge Server Driver Package Import Wizard** is displayed asking for the location of the **Dell EMC OpenManage Server Driver Pack**.

   NOTE:
   - If you have downloaded an ISO image, then create a physical disk or mount it on a virtual drive.
   - Use Dell EMC OM Server Driver Pack ISO version 10.1.

5. Select the drive in which you inserted the ISO and click Next.
   A list of driver packages for a combination of servers and operating systems is displayed.
6. Select the required packages and click **Finish**.
   A progress bar displays the status of the import. After the import is complete, the import summary is displayed.

   NOTE: The import of drivers may take more time and the progress bar may not be updated immediately.
7. Click **Close**.

4

Troubleshooting

NOTE: Before you run the sample commands provided in the troubleshooting section, see the DTK documentation and if required recreate the commands based on machine configuration.

Topics:

An error occurs while trying to apply RAID on a system using command line interface

When you try to apply RAID using Command Line Interface on a system where an earlier version of RAID is already configured, an error is displayed.

Resolution: Add one more Dell PowerEdge Server configuration Task Sequence step (RAID Command Line) to clear the existing RAID Level. For more information, see the *Dell Deployment ToolKit User's Guide*.

Upgrade Scenario 1

If you are upgrading from DSDP version 4.0 to 4.1 by retaining DTK utilities, Windows PE drivers, and boot images created by DSDP, then do the following:

1. Edit the Task Sequence, in the left pane, from **Add** drop-down menu, click **General**, and then click **Set Task Sequence Variable**.
2. Add **Set Site Server Address** following **Restart in Windows PE** with the following details:
   - In **Name,** type `Set Site Server Address`.
   - In **Task Sequence Variable,** type `SiteServer`.
   - In **Value**, type `<Site server FQDN>`. For example: ss1.abc.com
   - Click **Apply** and then click **OK**.
3. Distribute and Update the **PowerEdge Custom Reboot Script** and **PowerEdge Deployment Toolkit Integration** packages.

NOTE: During upgrade, the drivers assigned to a boot image are removed, you must link the boot image to the task sequence and then inject the drivers into the boot image.

Upgrade Scenario 2

If you are upgrading from DSDP version 4.0 to 4.1 by removing DTK utilities, Windows PE drivers, and boot images created by DSDP, then do the following:

1. Edit the Task Sequence.

   NOTE: when you edit the task sequence, the following error is displayed:

   Diskpart clean step has lost reference to the package

   In the message prompt, click **Ok**.
2. Select the **Diskpart clean** tab. Click **Browse** to select Dell PowerEdge Custom Reboot script package.
3. In the left pane, from **Add** drop-down menu, click **General**, and then click **Set Task Sequence Variable**.
4. Add **Set Site Server Address** following **Restart in Windows PE** with the following details:
   - In **Name,** type `Set Site Server Address`.

- In **Task Sequence Variable,** type `SiteServer`.
- In **Value**, type `<Site server FQDN>`. For example: `ss1.abc.com`
- Click **Apply** and then click **OK**.

5. Distribute and Update the **PowerEdge Custom Reboot Script** and **PowerEdge Deployment Toolkit Integration** packages.

NOTE: During upgrade, the boot image is removed, you must create a boot image, link the boot image to the task sequence, and then inject the drivers into the boot image.

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Command line options

DSDP supports the command line options supported in Dell Deployment Toolkit.

For more information about the command line options, usage guidelines, and syntax, see *Dell OpenManage Deployment Toolkit Command Line Interface Reference Guide*.

The SYSCFG and RAIDCFG commands are supported in DSDP

- SYSCFG — The Deployment Toolkit (DTK) system configuration utility SYSCFG commands enable you to run commands to get information about configuration file format, and individual executables used to configure server BIOS, DTK state settings, and system information including PCI device detection.
- RAIDCFG — The Deployment Toolkit (DTK) RAID configuration utility RAIDCFG provides commands to configure all supported RAID controllers.

NOTE: To get correct results, it is recommended that you type command line options in the **Task Sequence** wizard.

—acpower

Table 3. SYSCFG Command

Option	`--acpower`
Valid Arguments	on, off, last
Description	Sets the behavior for the system after AC power is lost. This option specifies how the system responds to the restoration of AC power and is particularly useful in systems that are turned off using a power strip. When set to **on**, the system turns on after AC is restored. When set to **off**, the system does not turn on after AC is restored. When set to **last**, the system turns on if the system was on when AC power was lost. If the system was off when AC power was lost, the system remains off when power is restored. This option can be replicated. Example: `A:>syscfg --acpower=on acpower=on`
Applicable Systems	All Dell PowerEdge systems prior to PowerEdge 12G and later systems.

When using this command in DSDP, remove syscfg and run the command

```
--acpower=on acpower=on
```

Table 4. RAIDCFG Command

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`-vd -vd=id - ac=svdn - vdn= <string> -c=id` or `vdisk vdisk= id action= setvdname vdname=<string> controllerid= id`	NA	NA	Sets the name of the specified virtual disk on the specified controller. Example: `A:>raidcfg -vd -vd=2 -ac=svdn -vdn=xxx -c=2 RAIDCFG Command successful!`

When using this command in DSDP, remove `raidcfg` and run the command.

```
-vd -vd=2 -ac=svdn -vdn=xxx -c=2 RAIDCFG Command successful!
```

6

Other Dell documents you might need

In addition to this guide and the online help, you must see the following documents to get details on specific Dell OpenManage products. These documents are available at **Dell.com/support/manuals**.

- The *Dell EMC Server Deployment Pack Version 4.1 for Microsoft System Center Configuration Manager Installation Guide* provides information about installing DSDP 4.1 on your system.
- The *Dell Chassis Management Controller User's Guide* provides comprehensive information about using the controller that manages all modules in the chassis containing your Dell server.
- The *Integrated Dell Remote Access Controller User's Guide* provides information about installation, configuration, and maintenance of the Integrated Dell Remote Access Controller (iDRAC) on management and managed systems.
- The *Command Line Reference Guide for iDRAC and CMC* and *Dell EMC OpenManage Enterprise Modular Edition for PowerEdge MX7000 Chassis* provides comprehensive information about using the RACADM command line utility on Dell's PowerEdge platforms.
- The *Dell OpenManage Deployment ToolKit User's Guide* provides general, best practices procedures that focus on the basic tasks for a successful deployment using Windows Preinstallation Environment (Windows PE) or embedded Linux.
- The *Dell OpenManage Deployment ToolKit Command Line Interface Reference Guide* provides information about the command line utilities to configure system features.
- The *Server Update Utility User's Guide* provides information about how to identify and apply updates to your system.
- The *Dell Repository Manager User's Guide* provides information about how to create customized bundles and repositories for servers running on Microsoft Windows operating systems.
- The *Glossary* for information about terms used in this document.
- Integrated Dell Remote Access Controller with Lifecycle Controller User's Guide.

Topics:

Contacting Dell

NOTE: If you do not have an active Internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog.

Dell EMC provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Go to **Dell.com/support.**
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.
4. Select the appropriate service or support link based on your need.

NOTE: For remote enterprise documentation, go to **dell.com/esmmanuals**. For information about documentation support, go to **www.dell.com/support/manuals**. On the Manuals page, click **Software** > **Systems Management**. Click the specific product on the right-side to access the documents.

Accessing support content from the Dell EMC support site

Access supporting content related to an array of systems management tools using direct links, going to the Dell EMC support site, or using a search engine.

- Direct links:

- For Dell EMC Enterprise Systems Management and Dell EMC Remote Enterprise Systems Management—https://www.dell.com/esmmanuals
- For Dell EMC Virtualization Solutions—www.dell.com/virtualizationsolutions
- For Dell EMC OpenManage—https://www.dell.com/openmanagemanuals
- For iDRAC—https://www.dell.com/idracmanuals
- For Dell EMC OpenManage Connections Enterprise Systems Management—https://www.dell.com/OMConnectionsEnterpriseSystemsManagement
- For Dell EMC Serviceability Tools—https://www.dell.com/serviceabilitytools

- Dell EMC support site:
  1. Go to https://www.dell.com/support.
  2. Click **Browse all products**.
  3. From the **All products** page, click **Software**, and then click the required link.
  4. Click the required product and then click the required version.

Using search engines, type the name and version of the document in the search box.