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Dell EMC OpenManage Deployment Toolkit 6.0.1 for Microsoft Windows Preinstallation Environment Release Notes

Topics:

This document describes the new features, enhancements, and fixed issues in Dell Openmanage Deployment Toolkit 6.0.1 for Microsoft Windows Preinstallation Environment

Release Type and Definition

Deployment ToolKit

The Dell OpenManage Deployment Toolkit (DTK) includes a set of utilities, scripts, and sample configuration files that to deploy and your Dell system. 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.

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.

Version

6.0.1

Release Date

June 2017

Previous Version

5.5.0

DTK Deprecation Message

The OpenManage Deployment Toolkit (DTK) along with the associated tools and capabilities will be deprecated for version 6.0.1 and later:

- 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 on downloading RACADM, see **support.dell.com**.

> (i) **NOTE: DTK will continue to support any new hardware or operating system for the 14th generation of PowerEdge servers. However, support for later generations of PowerEdge servers will be deprecated. For more information about features supported by DTK, see the latest User's Guide available at dell.com/openmanemanuals .**

Importance

RECOMMENDED: Dell recommends applying this update during your next scheduled update cycle. The update contains feature enhancements or changes that will help keep your system software current and compatible with other system modules (firmware, BIOS, drivers and software).

Platforms Affected

For a complete list of supported Dell PowerEdge systems and supported Operating systems, see the *Dell Systems Software Support Matrix* available in the required version of OpenManage Software at **dell.com/openmanemanuals**.

What Is Supported

Hardware and Software Requirements

Before beginning the deployment process, ensure that you have the following tools, software, and information ready to use:

- Advanced knowledge of Windows.
- Windows Assessment and Deployment Kit (ADK) to build Windows PE.
- Working knowledge of Microsoft Remote Installation Services (RIS) and Automated Deployment Services (ADS) (including setting up of RIS and ADS environments), or any other third-party deployment system or tool.
- Working knowledge of Windows Deployment Services (WDS) or any other third-party deployment system or tool for Windows PE.
- A workstation with the following capabilities:
  - A writable CD/DVD drive and CD/DVD writing software
  - Network access
- A target system with a CD/DVD drive if you are performing a local deployment or network access if you are performing a network deployment.
- All Deployment Toolkit utilities, sample scripts, and sample configuration files.
- All required Windows PE drivers, operating system drivers, and the Dell utility partition image file.
- A minimum BIOS version is recommended on some of the platforms for all the DTK options to work correctly. In general, it is good practice to use the latest ("n") version of BIOS firmware or the "n-1" version that is available on "dell.com/support." For more information see the Dell Systems Software Support Matrix available in the required version of OpenManage Software at dell.com/openmanemanuals.

Operating Systems Requirements

DTK Utilities (SYSCFG and RAIDCFG) and scripts (sample) supports Windows PE 5.1 and Windows PE 10.0.

For Microsoft WinPE and OS deployment support limitations refer to `http://technet.microsoft.com/en-us/library/hh824993.aspx`.

DTK helps deploy the following Microsoft Windows Server Operating Systems:

- Microsoft Windows Server 2012 R2 Foundation, Essentials, Standard, and Datacenter editions
- Microsoft Windows Server 2016 Essentials, Standard, and Datacenter editions

What's New

The new features for this release include:

- Below DTK features newly added:

  - Post OS driver installation through LC driver pack using DTK WinPE image
  - Added support for Lockdown mode
  - Secureboot Enablement
  - Racadm converter to support more token
  - OS deployment in AHCI non-raid mode
  - OS deployment through HBA330 mini
  - Support added for OS deployment on greater than 2TB (raid and non-raid in UEFI Mode)
  - Support for OS deployment on SSD (SATA/SAS) harddisk
  - Support added for OS deployment on harddisk connected to Rear backplane
  - Added support for Software RAID NvMe device (Windows)
  - Added support for OS deployment using s140 SWRAID controller
  - Added support for PERC 10 controllers

- Added support for the following Dell PowerEdge servers:

  - PER740
  - PER740XD
  - PER640
  - PER940
  - PEC6420
  - PR7920

  (i) **NOTE: For the list of supported operating systems and Dell servers, see the** *Dell Systems Software Support Matrix* **at dell.com/openmanagemanuals.**

Important Notes

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/).

DTK operating system deployment limitation:

DTK does not support operating system deployment, when multiple boot VDs exist on a single controller or when the server has multiple boot controllers. If multiple boot controllers exist on the server, the boot VD must be created on any one of the controllers, and the boot VD must be set as first boot device in system BIOS.

On debranded or rebranded servers, Deployment toolkit is not supported.

(i) **NOTE: During booting WInPE ISO image for Windows PE 5.1 and Windows PE 10.0 user will not be prompted for entering any key to continue.**

SYSCFG

- Some options may not be present on all systems, which may be due to the BIOS version or hardware feature set. The usage information generated by running **SYSCFG** without arguments shows only those options that are valid for your system.
- The **--devseq** option is present only if you have an available, bootable hard-disk partition. If this option is present in the configuration file, but not present on your system, you will receive a usage error.

- It is required to perform a warm reboot after applying the SYSCFG settings changes on Dell PowerEdge 12th generation of PowerEdge systems.
- If you perform operations that change the "--redmem" option, reboot your system immediately. It is applicable to both command line and "--infile" usage.

> (i) **NOTE:** Additionally, the --redmem option should not be issued with any other command and should be immediately followed by a system reboot. This is important when you develop scripts that can alter the --redmem setting.

- For options that use text strings such as username, password, hostname, and community string, using characters such as <space>, "<," ">," "|," "=" on the command line can be misinterpreted by the command line parser and may cause errors. To avoid such errors, use only alphanumeric characters.
- If you set the username using syscfg username option, Serial over LAN (SOL) access for the corresponding user will be enabled by default. You can disable SOL access for a user using **syscfg solaction --userid=<userid> --action=disable** command.

RAIDCFG

- When creating virtual disks, the chunk (stripe) size is always in KBs. Do not specify any units of measure for the chunk size.
- When providing multiple physical disks for the "create virtual disk" command, do not separate the disks with spaces.

  For example, "-ad=1:4, 1:5" causes an error. The correct way to input multiple physical disks is "-ad=1:4,1:5,1:6" or "-ad=1:4:0,1:5:0,1:6:0".
- If you change the controller mode from SCSI to RAID mode, data loss may occur. Back up any data you require before changing the modes.
- For creating RAID0 on any SWRAID controller minimum two hard-disks to be connected.
- On Software RAID Controller, NVMe PCIe-SSD add-on card is not supported.
- SwRAID does not support blink/unblink operation.
- Lockdown Mode enabled will not impact with Raidcfg functionality.

Known Issues

SYSCFG Issues

- In DRAC , the **--virtualmedia** and **--vflash** options do not work if there is an active virtual media session. Disconnect the virtual media using the DRAC GUI. Log into DRAC. **Click Media** > **Virtual Media** > **Disconnect**.
- The syscfg --bootseq command detects CD-ROM with SAS/SATA controllers as unk.emb.1.
- The option for **powerctl**, which is **softshutdown**, does not work on Windows PE.
- On Windows PE, when you run the syscfg command to list all available options, if you press CTR + C before the command fully executes, an error message is displayed. Click OK. You can ignore the message.
- The **--solbitrate** option in **solcfgparams** and the **--mgscommbitrate** option in **serialcfgparams** accept a baud rate of 57600, but tools such as "ipmish" and "solproxy" do not function at that baud rate for PowerEdge systems.

RAIDCFG Issues

- If both the software and hardware RAID is enabled, raidcfg will show the same controller ID for both the controllers. Disable either software raid or insert the hardware raid other than PCIe slot 0 in the server.
- You can assign up to 10 Global hot spares using Raidcfg. Use the Dell OpenManage Server Administrator Storage Management for assigning more than 10 Global hot spares.
- Software RAID controller CachePolicy setting is "Not Applicable". Hence VD created with different cachepolicy settings from OROM utility will be displayed as "Not Applicable".
- On Software RAID Controller, NVMe PCIe-SSD add-on card is not supported.
- Lockdown Mode enabled will not impact with Raidcfg functionality.
- On Dell PERC H740 controllers, conversion of a RAID Capable Disk to Non-RAID disk and vice versa is not supported using RAIDCFG.

RACADM Issues

- If you use virtual media to boot into Windows PE, executing certain RACADM commands may cause Windows PE to crash.
- After generating the rac configuration file using the `racadm getconfig -f <file_name>` command, comment out the following properties in the configuration file before you update a configuration using the `racadm config -f <file_name>` command:
  - `#cfgRacTuneCtrlEConfigDisable=0`
  - `#cfgRacTuneLocalConfigDisable=0`

- VLAN objects (cfgNicVLanEnable, cfgNicVLanId, and cfgNicVLanPriority) displayed using the local RACADM command `racadm getconfig -g cfgLanNetworking` or VLAN objects generated in the configuration file using the local RACADM command `racadm getconfig -f <file name>` do not contain the leading "#" symbol, which indicates that they are read-only.

Windows PE Issues

- Running partcfg.bat may fail when virtual media is enabled. For the hard disk, partcfg.bat uses the driver letter "c:". When virtual media is enabled, sometimes, the virtual device gets assigned with the drive letter "c:" And, partcfg.bat execution fails. To run partcfg.bat successfully, either disable the virtual media or use the diskpart command to assign a free driver letter for partcfg.bat.
- Support for Windows PE 3.0 for 32-bit and 64-bit has been removed, so deployment of windows 2008 OS no longer supported.
- Support for Windows PE 4.0 for 64-bit has been removed, so deployment of windows 2012 OS no longer supported
- Software RAID S140 supported only on Windows 64-bit operating system.

Installation Prerequisites

Before extracting Deployment Toolkit components, ensure that you have:

- Download the DTK ISO from dell.com/support
- A workstation that has 512 MB RAM
- A writable CD drive and CD-writing software (optional)
- Network access
- A minimum BIOS version is recommended on some of the platforms for all the DTK options to work properly. In general, it is a good practice to use the latest ("n") version of BIOS firmware or the "n-1" version that is available on "dell.com/support."

Installation Procedure

For complete installation and deployment instructions, see the *Dell OpenManage Deployment Toolkit User's Guide* and the *Dell OpenManage Deployment Toolkit Installation Guide* available at dell.com/openmanagemanuals.

Installation and Configuration Notes

- The sample scripts are provided as examples for customers who want to develop their own deployment process. Some customers may find that the scripts work well in their environment, while some customers may need to develop their own scripts entirely from scratch. Customers deploying multiple systems to provide unique information for each server when appropriate. For example, system host names, IP addresses, and BIOS asset tags need to be unique for each system. Modify the shell scripts and configuration files to reflect the unique information for each system being deployed. Many options are available to optimize this process.
- Installation of Dell utility partition is no longer supported on Windows PE.

Upgrading From Previous Versions

When upgrading from a previous release of the DTK, ensure that you create environment for the new DTK version separately from the previous version of DTK. This step is necessary because the environments and requirements for the new DTK versions are completely different.

Contacting Dell

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

Dell 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:

Go to **dell.com/contactdell**.

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.**