Dell EMC OpenManage Deployment Toolkit Version 6.1

Command Line Interface Reference Guide

DELL EMC

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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1

Introduction

Dell OpenManage Deployment Toolkit (DTK) includes a set of utilities, sample scripts, and sample configuration files to deploy and configure your Dell system. You can use DTK to build script-based and RPM-based installation for deploying a large number of systems reliably, without changing their current deployment processes. You can use DTK in a Microsoft Windows Preinstallation Environment (Windows PE) or a Linux environment.

Topics:

- DTK Deprecation Message
- What is new in this release
- SYSCFG equivalent RACADM commands
- Supported Systems
- Supported operating systems
- Toolkit Utilities
- Replication Of DTK Utilities
- Other Documents You May Need
- Accessing documents from the Dell EMC support site
- Contacting Dell

DTK Deprecation Message

The OpenManage Deployment Toolkit (DTK) along with the associated tools and capabilities will be deprecated for version 6.1 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**.

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/openmanagemanuals .

What is new in this release

The new features for this release include:

- Support for the following PowerEdge servers:
  - PER740
  - PER740XD
  - PER640
  - R940

- C6420
- R540
- R6415
- R7415
- R7425
- C4140
- C6320P
- R440
- T440
- M640
- FC640
- T640
- C6400

- Support for the Precision Rack System:
  - PR7920

- Support for below Network Cards:
  - Intel Ethernet Network Adptr XXV710-DA2
  - NetXtreme BCM5719/5720 1Gbps devices
  - NetXtreme-E BCM574xx 10Gbps/25Gbps devices
  - Mellanox ConnectX-4 Dual Port 100 GbE QSFP Network Adapter
  - Intel X550 rNDC
  - Intel 10GbE 4P X710

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

NOTE: Use both DTK and the Server Administrator from the same release version to get complete supported features of Server Administrator.

SYSCFG equivalent RACADM commands

The DTK SYSCFG deployment scripts are converted to equivalent RACADM scripts, that helps in migration to utilize RACADM in the deployment solution. Starting 12th generation of PowerEdge servers and later, selected set of SYSCFG commands are a part of the DTK sample scripts. The utility has the conversion tool for converting the SYSCFG scripts in both environments Microsoft Windows and Linux operating systems. The list of DTK sample scripts are present in **\Toolkit\Tools\CONVERTER\ windows_scripts.lst** for Microsoft Windows operating systems and **toolkit/Converter/ linux_scripts.lst** for Linux operating system. The converted scripts are available in the folder **racscripts**. The set of converted commands are available in **dtktoracadm_dict.map**.

The following table lists the set of commands:

Table 1. SYSCFG equivalent RACADM commands

Group	SYSCFG Commands	Equivalent RACADM Commands
iDRAC Settings	lcp --dnsdhcp	iDRAC.IPv4.DNSFromDHCP
	lcp --domainname	iDRAC.NIC.DNSDomainName
	lcp --dnsracname	iDRAC.NIC.DNSRacName
	lcp --dnsregisterrac	iDRAC.NIC.DNSRegister
	--idractype	iDRAC.Info.Type -z legacy

Group	SYSCFG Commands	Equivalent RACADM Commands
	--autoneg	iDRAC.NIC.Autoneg
	--gateway	iDRAC.IPv4.Gateway
	--ipaddress	iDRAC.IPv4.Address
	--macaddress	iDRAC.NIC.MACAddres
	--nicselectionfailover	iDRAC.NIC.Failover
	--subnetmask	iDRAC.IPv4.Netmask
	--vanilla	iDRAC.NIC.VLanID
	--dnsserver1v6	get iDRAC.IPv6.DNS1
	--dnsserver2v6	get iDRAC.IPv6.DNS2
	--gatewayv6	iDRAC.IPv6.Gateway
	--ipv6address1	iDRAC.IPv6.Address1
	--ipv6address2	iDRAC.IPv6.Address2
	--linklocaladdrv6	iDRAC.IPv6.LinkLocalAddress
	--prefixlengthv6	iDRAC.IPv6.PrefixLength
	--connectionmode	iDRAC.IPMISerial.ConnectionMode
	--msgcommbitrate	iDRAC.IPMISerial.BaudRat
	--msgcommflowctrl	iDRAC.IPMISerial.FlowControl
	--tmcfghandshakectrl	iDRAC.IPMISerial.HandshakeControl
	--tmcfglineediting	iDRAC.IPMISerial.LineEdit
	--tmcfgnewlineseq	iDRAC.IPMISerial.NewLineSeq
	--solcharaccuminterval	iDRAC.IPMISOL.AccumulateInterval
	--solbitrate	iDRAC.IPMISOL.BaudRate
	--solprivlevel	iDRAC.IPMISOL.MinPrivilege
	--solcharsendthreshold	iDRAC.IPMISOL.SendThreshold
BIOS Option Settings	--HddSeq	BIOS.BiosBootSettings.HddSeq
Boot Settings	--BootMode	BIOS.BiosBootSettings.BootMode
	--BootSeqRetry	BIOS.BiosBootSettings.BootSeqRetry
	--HddFailover	BIOS.BiosBootSettings.HddFailover
	--SetBootOrderFqdd*n*	BIOS.BiosBootSettings.SetBootOrderFqddn
	--SetLegacyHddOrderFqdd*n*	BIOS.BiosBootSettings.SetLegacyHddOrderFqddn
Integrated Devices	--EmbVideo	BIOS.IntegratedDevices.EmbVideo
	--IoatEngine	BIOS.IntegratedDevices.IoatEngine
	--IntegratedNetwork1	BIOS.IntegratedDevices.IntegratedNetwork1

Group	SYSCFG Commands	Equivalent RACADM Commands
	--IntegratedNetwork2	BIOS.IntegratedDevices.IntegratedNetwork2
	--IntegratedRaid	BIOS.IntegratedDevices.IntegratedRaid
	--InternalUsb	BIOS.IntegratedDevices.InternalUsb
	--OsWatchdogTimer	BIOS.IntegratedDevices.OsWatchdogTimer
	--SriovGlobalEnable	BIOS.IntegratedDevices.SriovGlobalEnable
	--Usb3Setting	BIOS.IntegratedDevices.Usb3Setting
Memory Settings	--DynamicCoreAllocation	BIOS.ProcSettings.DynamicCoreAllocation
	--CorrEccSmi	BIOS.MemSettings.CorrEccSmi
	--MemTest	BIOS.MemSettings.MemTest
	--NodeInterleave	BIOS.MemSettings.NodeInterleave
	--memopmode	BIOS.memsettings.MemOpMode
Miscellaneous Settings	--AssetTag	BIOS.MiscSettings.AssetTag
	--ErrPrompt	BIOS.MiscSettings.ErrPrompt
	--NumLock	BIOS.MiscSettings.NumLock
	--ForceInt10	BIOS.MiscSettings.ForceInt10
	--insystemcharacterization	BIOS.MiscSettings.InSystemCharacterization
Processor Settings	--DcuIpPrefetcher	BIOS.ProcSettings.DcuIpPrefetcher
	--DcuStreamerPrefetcher	BIOS.ProcSettings.DcuStreamerPrefetcher
	--LogicalProc	BIOS.ProcSettings.LogicalProc
	--ProcExecuteDisable	BIOS.ProcSettings.ProcExecuteDisable
	--ProcHwPrefetcher	BIOS.ProcSettings.ProcHwPrefetcher
	--ProcVirtualization	BIOS.ProcSettings.ProcVirtualization
	--RtidSetting	BIOS.ProcSettings.RtidSetting
	--ProcX2Apic	BIOS.ProcSettings.ProcX2Apic
	--cpucore	BIOS.ProcSettings.ProcCores
	--cpuspeed	BIOS.ProcSettings.ProcCoreSpeed
	--logicproc	BIOS.procsettings.LogicalProc
	--proc1brand	BIOS.procsettings.Proc1Brand
	--proc1id	BIOS.procsettings.Proc1Id
	--proc1l2cache	BIOS.procsettings.Proc1L2Cache
	--proc1l3cache	BIOS.procsettings.Proc1L3Cache
	--proc1numcores	BIOS.procsettings.Proc1NumCores
	--proc2brand	BIOS.procsettings.Proc2Brand
	--proc2id	BIOS.procsettings.Proc2Id

Group	SYSCFG Commands	Equivalent RACADM Commands
	--proc2l2cache	BIOS.procsettings.Proc2L2Cache
	--proc2l3cache	BIOS.procsettings.Proc2L3Cache
	--proc2numcores	BIOS.procsettings.Proc2NumCores
	--proc64bit	BIOS.procsettings.Proc64bit
	--procadjcacheline	BIOS.procsettings.ProcAdjCacheLine
	--procbusspeed	BIOS.procsettings.ProcBusSpeed
	--proccorespeed	BIOS.procsettings.ProcCoreSpeed
	--qpispeed	BIOS.procsettings.QpiSpeed
	--procconfigtdp	BIOS.procsettings.ProcConfigTdp
SATA Settings	--WriteCache	BIOS.SataSettings.WriteCache
	--SecurityFreezeLock	BIOS.SataSettings.SecurityFreezeLock
	--Sembsataraid	BIOS.SataSettings.EmbSata
	--embsata	BIOS.SataSettings.EmbSata
	--sata0	BIOS.SataSettings.SataPortA
	--sata1	BIOS.SataSettings.SataPortB
	--sata2	BIOS.SataSettings.SataPortC
	--sata3	BIOS.SataSettings.SataPortD
	--sata4	BIOS.SataSettings.SataPortE
	--sata5	BIOS.SataSettings.SataPortF
	--sata7	BIOS.SataSettings.SataPortH
	--sataporta	BIOS.SataSettings.SataPortA
	--sataportb	BIOS.SataSettings.SataPortB
	--sataportc	BIOS.SataSettings.SataPortC
	--sataportd	BIOS.SataSettings.SataPortD
	--sataporte	BIOS.SataSettings.SataPortE
	--sataportf	BIOS.SataSettings.SataPortF
	--sataportg	BIOS.SataSettings.SataPortG
	--sataportgmodel	BIOS.SataSettings.SataPortGModel
	--sataportgdrivetype	BIOS.SataSettings.SataPortGDriveType
	--sataportgcapacity	BIOS.SataSettings.SataPortGCapacity
	--sataporth	BIOS.SataSettings.SataPortH
	--sataporthmodel	BIOS.SataSettings.SataPortHModel
	--sataporthdrivetype	BIOS.SataSettings.SataPortHDriveType
	--sataporthcapacity	BIOS.SataSettings.SataPortHCapacity

Group	SYSCFG Commands	Equivalent RACADM Commands
	--sataporti	BIOS.SataSettings.SataPortI
	--sataportimodel	BIOS.SataSettings.SataPortIModel
	--sataportidrivetype	BIOS.SataSettings.SataPortIDriveType
	--sataporticapacity	BIOS.SataSettings.SataPortICapacity
	--sataportj	BIOS.SataSettings.SataPortJ
	--sataportjmodel	BIOS.SataSettings.SataPortJModel
	--sataportjdrivetyp	BIOS.SataSettings.SataPortJDriveType
	--sataportjcapacity	BIOS.SataSettings.SataPortJCapacity
Serial Communication	--ConTerrmType	BIOS.SerialCommSettings.ConTermType
	--ExtSerialConnector	BIOS.SerialCommSettings.ExtSerialConnector
	--FailSafeBaud	BIOS.SerialCommSettings.FailSafeBaud
	--RedirAfterBoot	BIOS.SerialCommSettings.RedirAfterBoot
Slot Disablement	--Slot*n*	BIOS.SlotDisablement.Slot*n*
System Information	--svctag	BIOS.SysInformation.SystemServiceTag
System Security	--AcPwrRcvryDelay	BIOS.SysSecurity.AcPwrRcvryDelay
	--PwrButton	BIOS.SysSecurity.PwrButton
	--SetupPassword	BIOS.SysSecurity.SetupPassword
	--SysPassword	BIOS.SysSecurity.SysPassword
System Power	--maxpowercap	System.Power.Cap.MaxThreshold
	--minpowercap	System.Power.Cap.MinThreshold
	--capenable	System.Power.Cap.Enable

Supported Systems

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

Supported operating systems

DTK utilities support Windows PE 10.0 (64-bit), Windows PE 5.1 (64-bit), and Windows PE 4.0 (64-bit), to deploy the following operating systems in BIOS and UEFI mode:

- Microsoft Windows Server 2012 R2 Foundation, Essentials, Standard, and Datacenter editions
- Microsoft Windows Server 2012 Foundation, Essentials, Standard, and Datacenter editions
- Microsoft Windows Server 2016 Foundation, Essentials, and Standard editions
- Dell's Precision R7920 Supported operating systems
  - Microsoft Windows 8.1 (64-bit)
  - Microsoft Windows 10 (64-bit)
- Dell's Precision R7910 Supported operating systems

- Microsoft Windows 7 (32-bit and 64-bit)
- Microsoft Windows 8.1 (64-bit)
- Microsoft Windows 10 (64-bit)

For Linux, the DTK utilities support deploying the following operating systems in BIOS and UEFI mode:

- SUSE Linux Enterprise Server 12 SP3 (64-bit)
- Red Hat Enterprise Linux 7.4 (64-bit)
- Red Hat Enterprise Linux 6.9 (64-bit)

You can install the DTK Linux RPM utilities on the following operating systems in BIOS and UEFI mode:

- SUSE Linux Enterprise Server 12 SP3 (64-bit)
- Red Hat Enterprise Linux 7.4 (64-bit)
- Red Hat Enterprise Linux 6.9 (64-bit)

NOTE: The RPMs are available in the RPMs folder of `DTK ELI ISO` at linux.dell.com/repo/hardware, and also in the *Dell EMC Systems Management Tools and Documentation* DVD.

Toolkit Utilities

DTK contains utilities that allow you to configure the BIOS, Baseboard Management Controller (BMC), Remote Access Controller (RAC), RAID controllers, and hard-drive partitions on supported Dell systems. Additionally, the utilities can be integrated with the sample files provided with the toolkit to fully configure one-to-many target systems in a scripted mass system deployment.

System Configuration Utility

The SYSCFG utility performs the following tasks:

- Reports and sets BIOS configuration options.
- Reports and sets BMC/RAC configuration options.
- Reports and sets user-configurable states.
- Reports system information, including PCI device detection.

RAID Configuration Utility

The RAIDCFG utility reports and sets RAID configuration options.

RAC Configuration Utility

The RACADM utility reports and sets RAC configuration options for Dell Remote Access Controller DRAC 5, iDRAC6, and iDRAC7, and iDRAC8.

Disk Partitioning Utility

The UPINIT script creates, formats, and populates a Dell Utility Partition.

Replication Of DTK Utilities

This section explains the replication of DTK utilities.

File Format

The **-i** and **-o** options use the **.ini** file format for system configuration (SYSCFG) options. All name/value entries that follow the `[syscfg]` section header in the **.ini** file belong to the SYSCFG utility. For an example of the **syscfg.ini** file, see Sample SYSCFG Utility .ini File Format.

SYSCFG Replication Rules

Not all BIOS and BMC options can be replicated using the **.ini** file. For example, boot sequence and device sequence are only replicated if a device name list can be supplied. A numerical device list cannot be replicated since the index values can change from system to system. In addition, because the service tag information is static, it is not commented out in the output file or replicated. See the description of each option for further replication information.

The **syscfg.ini** file cannot be used across different systems. The file output operation places system identification information at the beginning of the `[syscfg]` section. This information is used to determine if the file can be accepted as input for a system. The following information is used for system identification:

- System ID Byte(s)
- System Name
- BIOS Version

If these values do not match the values found on the system, the file input operation fails.

The following is the SYSCFG behavior during replication:

- Options not available in SYSCFG are termed invalid options. If SYSCFG encounters an invalid option in the **syscfg.ini** file, the SYSCFG utility terminates.
- Unsupported options are options available in SYSCFG but not applicable on certain systems. If SYSCFG encounters an unsupported option, SYSCFG logs this option and continues to the next option.
- Unsupported arguments are arguments valid in SYSCFG but not applicable on certain systems. If SYSCFG encounters an unsupported argument, SYSCFG terminates.
- SYSCFG logs a message in the log file for each option processed in the **syscfg.ini** file. To generate the log file, use the **logfile** option.

RAID Replication

The RAID replication feature reads the RAID configuration information from the source system and creates a **raid.ini** file. This **raid.ini** file can be applied to the RAID configurations of the target system. The RAID replication requires both, the source system and the target system to have similar RAID controllers.

RACADM Replication

The **RACREP.BAT** sample script applies RAC configuration options to the target system based on the configuration information that has been saved in a configuration file. User input is optional, depending on variables set in the **RACREP.BAT** sample script. This script uses the **RACADM.EXE** utility to configure the RAC in the target system using the RAC configuration file, **raccfg.ini**. The **raccfg.ini** configuration file is passed as the first parameter to the **RACREP.BAT** script. If this parameter is not passed, the default variable values used in this script

are set in the **TKENVSET.BAT** scripts. An optional second parameter can be passed to this file, which specifies the IP address used in configuring the RAC. The **raccfg.ini** file is generated with the **RACCAP.BAT** sample script.

Other Documents You May Need

In addition to this guide, you can access the following guides available at **dell.com/support/manuals**.

- The *Dell OpenManage Deployment Toolkit Installation Guide* provides information about installing and deploying DTK on supported Dell systems. The guide is also available as part of the DTK download.
- The *Dell OpenManage Deployment Toolkit User's Guide* provides best practice procedures that focus on the basic tasks for successful deployment of Dell systems.
- The *Dell Systems Software Support Matrix* provides information about the various Dell systems, the operating systems supported by these systems, and the Dell OpenManage components that can be installed on these systems.
- The *Dell OpenManage Installation Guide* provides additional information about performing an unattended installation of Dell OpenManage Server Administrator on systems running supported Windows, Red Hat Enterprise Linux, and Citrix Xen Server operating systems.
- The *Dell OpenManage Server Administrator User's Guide* provides information on using Server Administrator on supported operating systems.
- The *Dell Update Packages User's Guide* provides information about obtaining and using Dell Update Packages as part of your system update strategy.
- The *Dell OpenManage Sever Administrator Storage Management User's Guide* provides information about RAID controllers.
- The *Integrated Dell Remote Access Controller 8 (iDRAC8) Command Line Interface Reference Guide* provides information about the RACADM subcommands, supported interfaces, property database groups and object definitions for iDRAC8 and CMC.
- The *Integrated Dell Remote Access Controller 8 (iDRAC8) User's Guide* provides information about configuring and using iDRAC8 for 13th generation rack, tower, and blade servers to remotely manage and monitor your system and its shared resources through a network.
- The Glossary provides information about the terms used in this document.
- The Deployment Toolkit release notes **(**for Windows PE and embedded Linux**)** which is also available as part of the DTK download, provides the latest available information about the installation and operation of the DTK components and the list of PowerEdge systems supported for this version of DTK.

Accessing documents from the Dell EMC support site

You can access the required documents using the following links:

- For Dell EMC Enterprise Systems Management documents — **Dell.com/SoftwareSecurityManuals**
- For Dell EMC OpenManage documents — **Dell.com/OpenManageManuals**
- For Dell EMC Remote Enterprise Systems Management documents — **Dell.com/esmmanuals**
- For iDRAC and Dell EMC Lifecycle Controller documents — **Dell.com/idracmanuals**
- For Dell EMC OpenManage Connections Enterprise Systems Management documents — **Dell.com/OMConnectionsEnterpriseSystemsManagement**
- For Dell EMC Serviceability Tools documents — **Dell.com/ServiceabilityTools**
- a Go to **Dell.com/Support/Home**.

  b Click **Choose from all products**.

  c From **All products** section, click **Software & Security**, and then click the required link from the following:
  - **Enterprise Systems Management**
  - **Remote Enterprise Systems Management**
  - **Serviceability Tools**
  - **Dell Client Command Suite**
  - **Connections Client Systems Management**

  d To view a document, click the required product version.

- Using search engines:
  - Type the name and version of the document in the search box.

Contacting Dell

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:

1 Visit **www.dell.com/support** .
2 Select your support category.
3 If you are not a U.S customer, select your country code at the bottom of the page, or select **All** to see more choices.
4 Select the appropriate service or support link based on your need.

2

Command Syntax Overview

Syntax refers to the way a command and its parameters are entered. Dell OpenManage Deployment Toolkit (DTK) Command Line Interface (CLI) commands can be arranged in any order as long as they conform to the basic command line syntax.

Topics:

- DTK Utilities General Usage
- Command Line Syntax
- Case Sensitivity
- Command Line Option Delimiters
- Other Delimiters
- Read And Write Commands
- File Input And Output Commands
- Log Files
- Help Option
- Error Checking And Error Messages

DTK Utilities General Usage

The following table lists the general usage models of the DTK utilities:

Table 2. DTK Utilities

Utilities	Usage

SYSCFG	`syscfg --option1=[arg1] ... --optionX=[argX]`
	or
	`syscfg bmcoption1 --bmcsuboption1=[arg1]...--bmcsuboptionX=argX]`

RAIDCFG	`raidcfg [mandatory options] <optional arguments>`
RACADM	`racadm <options> <subcommand> <subcommand_options>` **NOTE: The Command Line Reference Guide for iDRAC6 and CMC available on dell.com/support/manuals provides information about the RACADM subcommands, supported interfaces, property database groups and object definitions for iDRAC6 and CMC.**

UPINIT	For WinPE:
	`upinit --disk=0 --size=32 --file=t:\upimage.bin`
	For Linux:
	`upinit --disk=/dev/sda --size=32 --file=/tmp/upimage.bin`

The DTK command line switches, configuration file formatting, and error reporting follow similar style and behavior. However, individual DTK utilities can sometimes differ from one another in significant ways. You must familiarize yourself with the command line syntax and utility-specific options and arguments for each utility before using DTK.

NOTE: Some of the command line options in DTK are followed by an asterisk. Such options are used for reporting purposes only.

Command Line Syntax

The following table lists the generic command line characters and arguments present in the command line options with a short description of these characters.

Table 3. Command Line Options

Element	Description
-	Prefix single character options. **NOTE: This delimiter is not applicable to Baseboard Management Controller (BMC) sub-options.**
--	Prefix multi-character options.
utilname	Indicates the generic designation for a DTK utility name.
o	Indicates the generic single-character designation for an option.
optionX	Indicates the generic multi-character designation for a utility name, where you can use X to distinguish multiple options used in the same command line instance.
argX	Indicates the generic designation for an argument, where you can use X to distinguish multiple arguments used in the same command line instance.
[mandatory option]	Indicates the generic designation for a mandatory argument.
<optional argument>	Indicates the generic designation for an optional argument.
<string>	Indicates the generic designation for a string.
<filename>	Indicates the generic designation for a filename.
[ ]	Indicates a component of the command line. Enter only the information within the brackets and exclude the brackets.
...	Indicates that the previous argument can be repeated several times in a command. Enter only the information within the ellipses and exclude the ellipses.

|	Separates two mutually exclusive choices in a syntax line. For example:
	`usb: Turns the usb controller on or off`
	`Argument: enable | disable | legacy`
	`Enter only one choice: --usb=enable, --usb= disable, or --usb=legacy.`

Case Sensitivity

- Command line options, pre-defined and user-defined arguments, and filenames given as arguments are all case-sensitive on PowerEdge systems prior to PowerEdge 12G systems.
- Unless specified otherwise, enter all commands, options, arguments, and command line switches in lowercase letters.

Command Line Option Delimiters

The following table lists some examples of valid and invalid DTK command lines.

Table 4. Command Line Option Delimiters

Valid / Invalid	DTK Command Line	Example
valid	`syscfg --option1 --option2`	`syscfg --asset --floppy`
invalid	`syscfg --option1=argument --option2 --option3`	`syscfg --asset=R910 --floppy -- bootseq`
valid	`syscfg -o=filename --option1 --option2`	`syscfg -o=/tmp/myfile.txt --floppy --bootseq`
valid	`syscfg -l=filename --option1 --option2`	`syscfg -l=/tmp/myfile.txt --floppy --bootseq`
invalid	`syscfg -i=filename --option1 --option2`	`syscfg -i=/tmp/myfile.txt --floppy --bootseq`
valid	`syscfg --option=argument bmcoption --option1= argument`	`syscfg --embnic=on pcp --hostname=webserver`

NOTE: Do not combine options that specify report or set actions in a command line instance.

Other Delimiters

The following table lists the other delimiters:

Table 5. Other delimiters

Delimiter	Example	Description
White space (space or tab)	`syscfg --option=argument1 argument2`	considers `argument1` and `argument2` as two arguments.
A string surrounded by double quotation marks regardless of the white space contained within, is interpreted as a single SYSCFG argument.	`syscfg --option="argument1 argument2"`	considers `argument1` and `argument2` a single argument.
A double quotation mark preceded by a backslash (\") is interpreted as a literal double quotation mark (").	`syscfg --option="\"argument"`	considers **"argument** as the argument.
Backslashes are interpreted literally, unless they immediately precede a double quotation mark. If an even number of backslashes are followed by a double	`syscfg --option="\\"argument"`	considers **** and **argument** as two arguments.

Delimiter	Example	Description
quotation mark, then one backslash (\) is taken for every pair of backslashes (\\), and the double quotation mark (") is interpreted as a string delimiter.		
If an odd number of backslashes are followed by a double quotation mark, then one backslash (\) is taken for every pair of backslashes (\\) and the double quotation mark is interpreted as an escape sequence by the remaining backslash, causing a literal double quotation mark (") to be placed in the SYSCFG argument.	`syscfg --option="\\\"argument"`	considers **\ "argument** as the argument.

Read And Write Commands

Options can report a certain value or set of values based on the presence of an argument. These **read** or **write** actions are implied in the DTK command line arguments. The **get**, **read**, **set**, or **write** commands, for example, are not required.

NOTE: You cannot combine options that specify read or write actions in a command line instance.

Table 6. Read and Write Command Examples

Valid/Invalid	DTK Command Line Example
valid	`syscfg --option1 --option2`
valid	`syscfg --option1=arg --option2=arg`
invalid	`syscfg --option1=arg --option2`

File Input And Output Commands

- Specify the file input using the `-i <filename>` command, where `<filename>` is the name of the input file.
- Specify the file output using the `-o <filename>` command, where `<filename>` is the name of the output file.

Log Files

If the log file already exists, information is appended to the file. This allows multiple tools to use the same log file to record information. Use the `-l` option to record the output of a utility.

The log duplicates all standard output and error information to the specified file. Each log file begins with a time stamp and utility name. For example, `YYYY/MM/DD HH:MM:SS <utilname> - <output text>`.

The following is an example of the logging behavior:

```
2003/11/28 10:23:17 syscfg - option1=on
2003/11/28 10:23:17 syscfg - option2=on
2003/11/28 10:23:17 syscfg - option3 =off
```

NOTE: The log files may contain sensitive information such as passwords and authentication information. To protect such information, it is recommended that only the administrator accesses the log files.

Help Option

The **-h** and **--help** options display general usage information for the utility. If the argument matches a valid option, that usage information of the option is displayed. If the option has arguments, the arguments are displayed, separated by a | character. If the argument does not match a valid option, a usage error is given (and usage information is displayed). This option cannot be replicated.

Error Checking And Error Messages

The DTK utilities check your commands for correct syntax when you enter them. When a command is executed successfully, a message displays stating that your command has been successful. Unrecognized or invalid options and arguments result in a usage error that displays the DTK utility name and version along with a short message. For information about the error messages, see Messages And Codes.

3

DTK Seamless package

The DTK Seamless package is a single installer package that carries Linux DTK RPMs (RHEL, SLES) and its dependency.

Seamless package — Downloading and Installing

This section describes the downloading and installing of DTK seamless package.

The seamless package auto recognizes the OS type and its respective dependency during the installation and installs SYSCFG, RAIDCFG, and RACADM tools on post Linux operating system.

The advantages of seamless package are:

The size of the DTK seamless package is less (approximately 60MB) compared to that of the complete OM DVD size.

The DTK seamless package is posted independently on **www.dell.com/support** with OM and DTK releases.

The seamless package supports both interactive and non-interactive modes of DTK tool installation.

Interactive mode options:

Type the following command: `./DTKTOOLS_<release version>_Linux64_<build number>.Bin`

The options displayed on the screen are as follows:

Deployment Tools Install Utility

Available install options:

```
[ ] 1. Command line BIOS configuration utility (syscfg utility)

[ ] 2. Command line RAID configuration utility (raidcfg utility)

[ ] 3. DRAC command line configuration utility

[ ] 4. All features

Enter the number to select/deselect (toggle selection) a component

Enter i to install the selected components.

Enter q to quit.
```

Once the DTK tools installation is complete, success message is displayed on the screen.

To uninstall the DTK tools, run the command

```
/opt/dell/toolkit/bin/dtktools-uninstall.sh –d
```

Non-interactive mode:

In the non-interactive mode, all the available tools are installed by default. Any other option is ignored.

Type the following command:

```
./DTKTOOLS_<release version>_Linux64_<build number>.Bin [—f/--force]
```

Once the DTK tools installation is complete, success message is displayed on the screen.

To uninstall the DTK tools, run the command

```
./DTKTOOLS_<release version>_Linux64_<build number>.Bin [-d/--delete]
```

To view the available options, run the following command in the command line:

```
./DTKTOOLS_<release version>_Linux64_<build number>.Bin [—h/--help].
```

The seamless package uninstalls the older DTK tool set version, and upgrades it to a newer version if Server Administrator is not present in the system.

4

SYSCFG

This section documents the Deployment Toolkit (DTK) system configuration utility. It describes the command line parameters, configuration file format, and individual executables used to configure server BIOS and Baseboard Management Controller (BMC) settings, DTK state settings, and system information including PCI device detection.

Topics:

- Features
- SYSCFG General Options
- SYSCFG For BIOS Configuration
- Sub Options And Arguments For power Option
- Sub Options And Arguments For tcm Option
- Sub Options And Arguments For tpm Option
- SYSCFG For BMC And Remote Access Controller Configuration
- SYSCFG For State Configuration
- SYSCFG for System Configuration
- SYSCFG For IPv6 Configuration
- PCI Reporting

Features

The SYSCFG utility:

- Displays help and usage information.
- Outputs configuration options to a file or screen.
- Reads configuration options from a file or Command Line Interface (CLI) parameters.
- Configures BMC/Remote Access Controller (RAC) users, local area network (LAN) channel and serial channel settings, BMC/RAC platform event filter (PEF) settings, and BMC/RAC serial-over-LAN (SOL) settings.
- Configures the nonmaskable interrupt (NMI) and power button.
- Reports the BMC/RAC firmware version, BMC/RAC device global unique identifier (GUID), and BMC/RAC LAN channel and serial channel information.
- Reports BMC/RAC session information.
- Clears BMC/RAC system event log (SEL).
- Restores BMC/RAC factory defaults.
- Records and reports the state data value.
- Displays system configuration information.
- Returns specific error codes and messages.
- Logs activity to a given filename.
- Configures the BIOS features using ini file, DTK xml file, and ws-man xml file.

NOTE: In Microsoft Windows Preinstallation Environment (Windows PE), the SYSCFG utility is located at \dell\toolkit\tools or \dell\toolkit\tools directory. In Linux, you can find it in the/opt/dell/toolkit/bin directory.

SYSCFG General Options

NOTE: Some of the options in SYSCFG are followed by an asterisk. The asterisk is not part of the command syntax. Such options are used for reporting purposes only. These commands do not accept any sub-options or arguments. The values associated with these commands are reported by the BIOS. You cannot modify these values.

No Option

Table 7. No Option

Valid Arguments	NA
Description	The SYSCFG utility displays the usage information.

envar

Table 8. SYSCFG General — envar

Valid Arguments	*<valid filename> <valid path>*

Description	Stores the environment variable data to a file when used with the **– s** option. This file can be called from other scripts to set the environment variable. The value of *<filename>* must not be specified if the **DTKENVSCR** environment variable is set to a valid filename. In this case, the filename pointed to by **DTKENVSCR** is used to store the environment variable data.
	Example:
	`syscfg --mem -s=temp --envar= Z:\scripts\file.bat`
	When used without the **-s** option, **--envar** takes the default variable.
	Linux Example:
	`syscfg --svctag --envar= /tmp/myvars.txt`
	`svctag = 2G8LC1S`
	`syscfg_var =’2G8LC1S’`
	`source /tmp/myvars.txt`
	Windows PE Example:
	`syscfg --svctag --envar=i:\myvars.bat`
	`svctag = 2G8LC1S`
	`syscfg_var =’2G8LC1S’`
	`call i:\myvars.bat`

h or help

Table 9. SYSCFG General — h or help

Valid Arguments	none or *<valid option name>*

Description	Displays the general usage information for the utility, when no argument is provided. If the argument matches a valid option, that option's usage information is displayed. If the option has arguments, the arguments are displayed, separated by a | character. If the option has sub-options, all sub-options, valid arguments, and a description are listed. If the argument does not match a valid option, a usage error is given (and usage information is displayed). This option cannot be replicated.
	Example:
	`A:>syscfg -h lanchannelaccess`
	`lanchannelaccess: Reports LAN channel access information.`
	`Sub-options:`
	`pefalerting: Enable or disable PEF (Platform Event Filter)alerting.`
	`Arguments: enable | disable`
	`ipmioverlan: Enable or disable`
	`IPMI over LAN access.`
	`Arguments: disable | alwaysavail`
	`channelprivlmt: Sets the maximum privilege level that can be accepted on the LAN channel.`
	`Arguments: user | operator |administrator`

i or infile

Table 10. SYSCFG General — i or infile

Valid Arguments	*<filename>*
Description	Directs the SYSCFG utility to take input from the **.ini** file. The utility searches the file for a section heading identical to the utility name. An error is returned if the file or section is not found. If the section is found, each name/value pair is applied to the system. The names must match a valid option, and the arguments must be in the proper format for the option. If an option is not available on a system and it is specified in a file, the utility ignores the option. If any errors are found in the format of the names or values, an error is returned and the options are not applied to the system. If this option is used with other function command options, they are applied in the order in which they appear on the command line, overriding any previous commands. Example: `A:>syscfg -i <filename>.ini`

ix or inxmlfile

Table 11. SYSCFG General — ix or inxmlfile

Valid Arguments	*<filename>*
Description	Directs the SYSCFG utility to receive input from the **xml** file. The utility searches the BIOS option in the file. An error is returned if the file is not found. The provided option must match a valid option, and the arguments must be in the proper format for the option. If an option is not available on a system and it is specified in a file, the utility ignores the option. If any errors are found in the format of the names or values, an error is returned and the options are not applied to the system. If this option is dependent on any other option, they are applied in the order in which they appear in the xml file. **NOTE: It is applicable only on 12G and later systems.** Example: `A:>syscfg --ix filename.xml` **NOTE: You can modify or use the BIOS configuration captured in xml format from a PowerEdge server for large scale deployment configurations using RACADM or WS-MAN. For more information on using RACADM and WS-MAN refer *Integrated Dell Remote Access Controller 8 (iDRAC8) RACADM Command Line Interface Reference Guide* and *Dell Lifecycle Controller-Remote Services Quick Start Guide* respectively available at dell.com/support/manuals.**

l or logfile

Table 12. SYSCFG General — l or logfile

Valid Arguments	*<filename>*
Description	Logs the command line output to a time-stamped file. The utility either appends the information to an existing log file or creates a new file. The log file contains the same information as the standard output, plus timestamp information. Users should use this option instead of redirection for task diagnosis. For more information, see Log Files . Example: `A:>syscfg -l logfile --option=<filename>`

o or outfile

Table 13. SYSCFG General — o or outfile

Valid Arguments	*<filename>*
Description	Prints all replicable options to the specified filename. The format of the output is in the **.ini** format, with the utility name as the section header. On PowerEdge 11G systems, if a file with the same name already exists, the information is appended to the file, but on

	PowerEdge 12G it overwrites the existing file. If this option is used with other function commands, the commands are applied in the order in which they appear. This option captures replicable BMC and BIOS options. Example: `A:>syscfg -o <filename>.ini`

ox or outxmlfile

Table 14. SYSCFG General — ox or outxmlfile

Valid Arguments	*<filename>*
Description	Prints all BIOS options to the specified xml file. **NOTE: It is applicable only on 12G and later sytems.** Example: `A:>syscfg --ox filename.ini`

ovrwrt

Table 15. SYSCFG General — ovrwrt

Valid Arguments	NA

Description	Used with the **-o** option to cause the output file to be overwritten if a file of the same name already exists. This option cannot be replicated.
	
	Example:
	
	`A:>syscfg -o=filename.ini --ovrwrt`
	
	`The file filename has been overwritten.`

px or pendingxmlfile

Table 16. SYSCFG General — px or pendingxmlfile

Valid Arguments	*<filename>*
Description	Prints all the pending BIOS options to a specified xml file. **NOTE: It is applicable only on 12G and later sytems.** Example: `A:>syscfg --px filename.xml`

s

Table 17. SYSCFG General — s

Valid Arguments	*<string>*

Description	Prints the variable name and the assigned value to the console. This option when used with **--envar**, picks up the environment variable data and stores it in a file. This file can be called from a script. For more information, see envar.
	Example:
	`A:>syscfg -s ENVNAME --svctag`
	`svctag=SERVICE`
	`ENVNAME=SERVICE`

version

Table 18. SYSCFG General version

Valid Arguments	NA

Description	Displays the version information, current time, and date for the utility. This option cannot be replicated.
	Example:
	`A:>syscfg --version syscfg Version 4.4 P01(Windows - Jan 29 2014,16:48:48)`
	`Copyright (c) 2002-2014 Dell Inc.`

SYSCFG For BIOS Configuration

SYSCFG uses BIOS interfaces to manipulate boot order and BIOS settings. It configures all options available on the BIOS setup screen, including boot order, embedded device configuration, and asset tag management. Consider the following while using the SYSCFG options:

- On systems prior to 12G, options and arguments are case-sensitive.

  NOTE: The naming format of Dell PowerEdge systems is yxxx; y denotes alphabets, for example, M (modular), R (rack), or T (tower) and x denotes numbers. For example, a PowerEdge R720 is a 12th Generation rack mount 700 series server.
- On 12th generation of PowerEdge servers and later systems, the SYSCFG options are grouped.
- Running SYSCFG without arguments on any system only displays the valid options.
- Reboot the system for the BIOS options to take effect.
- On 12th generation of PowerEdge systems are backward compatible and support legacy arguments **enable** and **disable**. However, it is recommended to use **enabled** and **disabled** on 12th generation of PowerEdge systems as the arguments **enable** and **disable** may be deprecated in future. For more information, see the BIOS options help.
- To list the options which are set on the system, but not applied due to pending reboot, type:

  `syscfg --pendingvalues`
- If a setup password is set, provide the password while configuring the SYSCFG options as:

  `syscfg --<bios-option>=<value> -- valsetuppwd=<password>`
- Some of the BIOS options or arguments may not be available on all systems due to:
  - The BIOS version or hardware feature set.

- A missing or expired license. The system displays an error message if the required license is not found. For more information, see *Dell License Manager* on **dell.com/support/manuals**.

- Some of the options are followed by an asterisk. The asterisk is not part of the command syntax. Such options are used for reporting purposes only. These commands do not accept any suboptions or arguments. The values associated with these commands are reported by the BIOS. You cannot modify these values.

SYSCFG BIOS commands

SYSCFG BIOS equivalent RACADM commands are listed:

For more information on RACADM commands, see the *RACADM Command Line Reference Guide* available at **dell.com/openmanagemanuals.com**.

Table 19. BIOS options with equivalent RACADM options

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
BIOS Option Settings	--BootSeq	--bootseq	BIOS.BiosBootSettings.BootSeq
	--HddSeq	--devseq	BIOS.BiosBootSettings.HddSeq
Boot Settings	--BootMode	--bootmode	BIOS.BiosBootSettings.BootMode
	--BootSeqRetry	--bootseqretry	BIOS.BiosBootSettings.BootSeqRetry
	--HddFailover **NOTE: The option is not supported on 12G systems.**	--hddfailover	BIOS.BiosBootSettings.HddFailover
	--SetBootOrderFqddn **NOTE: The option is supported only on 13G and later systems.**	N/A	BIOS.BiosBootSettings.SetBootOrderFqddn
	--SetLegacyHddOrderFqdd*n* **NOTE: The option is supported only on 13G and later systems.**	N/A	BIOS.BiosBootSettings.SetLegacyHddOrderFqdd
Integrated Devices	--EmbVideo	--embvideoctrl	BIOS.IntegratedDevices.EmbVideo
	--IoatEngine	--ioat	BIOS.IntegratedDevices.IoatEngine
	--IntegratedNetwork1	N/A	BIOS.IntegratedDevices.IntegratedNetwork1
	--IntegratedNetwork2	N/A	BIOS.IntegratedDevices.IntegratedNetwork2
	--IntegratedRaid	--integratedraid	BIOS.IntegratedDevices.IntegratedRaid
	--IntegratedSas	--integratedsas	BIOS.IntegratedDevices.IntegratedSas
	--InternalSdCard	--embsdcard	BIOS.IntegratedDevices.InternalSdCard

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	--InternalSdCardRedundancy	--embsdcardredundancy	BIOS.IntegratedDevices.InternalSdCardRedundancy
	--InternalUsb	--internalusb	BIOS.IntegratedDevices.InternalUsb
	--InternalUsb1	--internalusbport1	BIOS.IntegratedDevices.InternalUsb1
	--InternalUsb2	--internalusbport2	BIOS.IntegratedDevices.InternalUsb2
	--OsWatchdogTimer	--oswatchdogtimer	BIOS.IntegratedDevices.OsWatchdogTimer
	--SriovGlobalEnable	--sriov	BIOS.IntegratedDevices.SriovGlobalEnable
	--UsbPorts	--usbports	BIOS.IntegratedDevices.UsbPorts
	--Usb3Setting **NOTE: The option is supported only on 13G and later systems.**	N/A	N/A
	--InternalSdCardPrimaryCard **NOTE: The option is supported only on 13G and later systems.**	N/A	N/A
	--CurrentEmbVideoState **NOTE: The option is supported only on 13G and later systems.**	N/A	N/A
	IscsiDev1ConnChapType **NOTE: The option is available only on 14G and later systems.**	N/A	
	IscsiDev1ConnDhcpEnDis **NOTE: The option is available only on 14G and later systems.**	N/A	
	IscsiDev1ConnEnDis **NOTE: The option is available only on 14G and later systems.**	N/A	
	IscsiDev1ConnInterface	N/A	

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	NOTE: The option is available only on 14G and later systems.		
	IscsiDev1ConnProtocol **NOTE: The option is available only on 14G and later systems.**	N/A	
	IscsiDev1ConnTimeout **NOTE: The option is available only on 14G and later systems.**	N/A	
	IscsiDev1ConnVlanEnDis **NOTE: The option is available only on 14G and later systems.**	N/A	
	IscsiDev1ConnVlanId **NOTE: The option is available only on 14G and later systems.**	N/A	
	IscsiDev1ConnAuth **NOTE: The option is available only on 14G and later systems.**	N/A	N/A
Memory Settings	--CorrEccSmi	N/A	N/A
	--DynamicCoreAllocation	N/A	N/A
	--MemOpMode	--memoperatingmode	BIOS.MemSettings.MemOpMode
	--MemOpVoltage	--dimmvoltage	BIOS.MemSettings.MemOpVoltage
	--MemTest	--memtest	BIOS.MemSettings.MemTest
	--NodeInterleave	--nodeinterleave	BIOS.MemSettings.NodeInterleave
	--RedundantMem	--redmem	BIOS.MemSettings.RedundantMem
	--SerialDbgOut	N/A	BIOS.MemSettings.Serialdbgout
	--SysMemSize*	--mem*	BIOS.MemSettings.SysMemSize
	--SnoopMode	--snoopfilter	BIOS.MemSettings.SnoopFilter

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	NOTE: The option is not supported on 12G systems.		
	--SysMemSpeed*	N/A	BIOS.MemSettings.SysMemSpeed
	--SysMemType*	N/A	BIOS.MemSettings.SysMemType
	--SysMemVolt*	N/A	BIOS.MemSettings.SysMemVolt
	--VideoMem*	N/A	BIOS.MemSettings.VideoMem
	--ClusterOnDie **NOTE: The option is supported only on 13G and later systems.**	N/A	N/A
	RedundantOsLocation **NOTE: The option is supported only on 14G and later systems.**	N/A	N/A
Miscellaneous Settings	--AssetTag*	--asset*	BIOS.MiscSettings.AssetTag
	--ErrPrompt	--f1f2promptonerror	BIOS.MiscSettings.ErrPrompt
	--InSystemCharacterization	N/A	BIOS.MiscSettings.InSystemCharacterization
	--NumLock	--numlock	BIOS.MiscSettings.NumLock
	--ForceInt10 **NOTE: The option is supported only on 13G and later systems.**	N/A	BIOS.MiscSettings.ForceInt10
	--InSystemCharacterization **NOTE: The option is supported only on 13G and later systems.**	N/A	BIOS.MiscSettings.InSystemCharacterization
	--ReportKbdErr **NOTE: The option is not supported on 13G and later systems.**	--rptkeyerr	BIOS.MiscSettings.ReportKbdErr
	DellAutoDiscovery	N/A	

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	NOTE: The option is available only on 14G and later systems.		
	DellWyseP25BIOSAccess **NOTE: The option is available only on 14G and later systems.**	N/A	
Network Settings **NOTE: The option is supported only on 13G and later systems.**	--PxeDevnEnDis	N/A	BIOS.NetworkSettings.PxeDev*n*EnDis
	HttpDevnInterface **NOTE: The option is available only on 14G and later systems.**	N/A	
	HttpDevnProtocol **NOTE: The option is available only on 14G and later systems.**	N/A	
	HttpDevnVlanEnDis **NOTE: The option is available only on 14G and later systems.**	N/A	
	HttpDevnVlanId **NOTE: The option is available only on 14G and later systems.**	N/A	
	--PxeDevnInterface	N/A	BIOS.PxeDevice1Settings.PxeDev*n*Protocol
	--PxeDevnProtocol	N/A	BIOS.PxeDevice1Settings.PxeDev*n*Protocol
	--PxeDevnVlanEnDis	N/A	BIOS.PxeDevice1Settings.PxeDev*n*VlanEnDis
	--PxeDevnVlanId	N/A	BIOS.PxeDevice1Settings.PxeDev*n*VlanId

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	--PxeDevnVlanPriority	N/A	BIOS.PxeDevice1Settings.PxeDev*n*VlanPriority
One-Time Boot **NOTE: The option is not supported on Dell PowerEdge 13G and later systems.**	--OneTimeBootMode	N/A	BIOS.OneTimeBoot.OneTimeBootMode
	--OneTimeBootSeqDev	--nextboot	BIOS.OneTimeBoot.OneTimeBootSeqDev
	--OneTimeHddSeqDev	N/A	BIOS.OneTimeBoot.OneTimeHddSeqDev
	--OneTimeUefiBootSeqDev	N/A	BIOS.OneTimeBoot.OneTimeUefiBootSeqDev
Processor Settings	--DataReuse	--datareuse	BIOS.ProcSettings.DataReuse
	--DculpPrefetcher	N/A	BIOS.ProcSettings.DculpPrefetcher
	--DcuStreamerPrefetcher	--dcustreamerprefetcher	BIOS.ProcSettings.DcuStreamerPrefetcher
	--LogicalProc	--logicproc	BIOS.ProcSettings.LogicalProc
	--Proc1Brand*	N/A	BIOS.ProcSettings.Proc1Brand
	--Proc1Id*	N/A	BIOS.ProcSettings.Proc1Id
	--Proc1L2Cache*	N/A	BIOS.ProcSettings.Proc1L2Cache
	--Proc1L3Cache*	N/A	BIOS.ProcSettings.Proc1L3Cache
	--Proc1NumCores*	N/A	BIOS.ProcSettings.Proc1NumCores
	--Proc2Brand*	N/A	BIOS.ProcSettings.Proc2Brand
	--Proc2Id*	N/A	BIOS.ProcSettings.Proc2Id
	--Proc2L2Cache*	N/A	BIOS.ProcSettings.Proc2L2Cache
	--Proc2L3Cache*	N/A	BIOS.ProcSettings.Proc2L3Cache
	--Proc2NumCores*	N/A	BIOS.ProcSettings.Proc2NumCores
	--Proc3Brand*	N/A	BIOS.ProcSettings.Proc3Brand
	--Proc3Id*	N/A	BIOS.ProcSettings.Proc3Id
	--Proc3L2Cache*	N/A	BIOS.ProcSettings.Proc3L2Cache
	--Proc3L3Cache*	N/A	BIOS.ProcSettings.Proc3L3Cache
	--Proc3NumCores*	N/A	BIOS.ProcSettings.Proc3NumCores
	--Proc4Brand*	N/A	BIOS.ProcSettings.Proc4Brand
	--Proc4Id*	N/A	BIOS.ProcSettings.Proc4Id
	--Proc4L2Cache*	N/A	BIOS.ProcSettings.Proc4L2Cache
	--Proc4L3Cache*	N/A	BIOS.ProcSettings.Proc4L3Cache
	--Proc4NumCores*	N/A	BIOS.ProcSettings.Proc4NumCores

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	--Proc64bit*	N/A	BIOS.ProcSettings.Proc64bit
	--ProcAdjCacheLine	--adjcacheprefetch	BIOS.ProcSettings.ProcAdjCacheLine
	--ProcBusSpeed*	N/A	BIOS.ProcSettings.ProcBusSpeed
	--ProcCores	--cpucore	BIOS.ProcSettings.ProcCores
	--ProcCoreSpeed*	N/A	BIOS.ProcSettings.ProcCoreSpeed
	--ProcExecuteDisable	--cpuxdsupport	BIOS.ProcSettings.ProcExecuteDisable
	--ProcHwPrefetcher	--hwprefetcher	BIOS.ProcSettings.ProcHwPrefetcher
	--ProcVirtualization	--virtualization	BIOS.ProcSettings.ProcVirtualization
	--QpiBandwidthPriority	--qpibandwidthpriority	BIOS.ProcSettings.QpiBandwidthPriority
	--QpiSpeed	N/A	BIOS.ProcSettings.QpiSpeed
	--RtidSetting	N/A	BIOS.ProcSettings.RtidSetting
	--Proc*n*ControlledTurbo **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.ProcSettings.Proc*n*ControlledTurbo
	--ProcConfigTdp **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.ProcSettings.ProcConfigTdp
	--ProcX2Apic **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.ProcSettings.ProcX2Apic
SATA Settings	--EmbSata	--embsataraid	BIOS.SataSettings.EmbSata
	--eSataPort1	N/A	BIOS.SataSettings.eSataPort1
	--eSataPort1Capacity*	N/A	BIOS.SataSettings.eSataPort1Capacity
	--eSataPort1DriveType*	N/A	BIOS.SataSettings.eSataPort1DriveType
	--eSataPort1Model*	N/A	BIOS.SataSettings.eSataPort1Model
	--SataPortA	--sata0	BIOS.SataSettings.SataPortA
	--SataPortACapacity*	N/A	BIOS.SataSettings.SataPortACapacity
	--SataPortADriveType*	N/A	BIOS.SataSettings.SataPortADriveType
	--SataPortAModel*	N/A	BIOS.SataSettings.SataPortAModel
	--SataPortB	--sata1	BIOS.SataSettings.SataPortB

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	--SataPortBCapacity*	N/A	BIOS.SataSettings.SataPortBCapacity
	--SataPortBDriveType*	N/A	BIOS.SataSettings.SataPortBDriveType
	--SataPortBModel*	N/A	BIOS.SataSettings.SataPortBModel
	--SataPortC	--sata2	BIOS.SataSettings.SataPortC
	--SataPortCCapacity*	N/A	BIOS.SataSettings.SataPortCCapacity
	--SataPortCDriveType*	N/A	BIOS.SataSettings.SataPortCDriveType
	--SataPortCModel*	N/A	BIOS.SataSettings.SataPortCModel
	--SataPortD	--sata3	BIOS.SataSettings.SataPortD
	--SataPortDCapacity*	N/A	BIOS.SataSettings.SataPortDCapacity
	--SataPortDDriveType*	N/A	BIOS.SataSettings.SataPortDDriveType
	--SataPortDModel*	N/A	BIOS.SataSettings.SataPortDModel
	--SataPortE	--sata4	BIOS.SataSettings.SataPortE
	--SataPortECapacity*	N/A	BIOS.SataSettings.SataPortECapacity
	--SataPortEDriveType*	N/A	BIOS.SataSettings.SataPortEDriveType
	--SataPortEModel*	N/A	BIOS.SataSettings.SataPortEModel
	--SataPortF	--sata5	BIOS.SataSettings.SataPortF
	--SataPortFCapacity*	N/A	BIOS.SataSettings.SataPortFCapacity
	--SataPortFDriveType*	N/A	BIOS.SataSettings.SataPortFDriveType
	--SataPortFModel*	N/A	BIOS.SataSettings.SataPortFModel
	--SataPortG **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	--sata6	BIOS.SataSettings.SataPortG
	--SataPortGCapacity* **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortGCapacity
	--SataPortGDriveType* **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortGDriveType
	--SataPortGModel*	N/A	BIOS.SataSettings.SataPortGModel

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	NOTE: The option is supported only on Dell PowerEdge 13G and later systems.		
	--SataPortH **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	--sata7	BIOS.SataSettings.SataPortH
	--SataPortHCapacity* **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortHCapacity
	--SataPortHDriveType* **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortHDriveType
	--SataPortHModel* **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortHModel
	--SataPortI **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortI
	--SataPortICapacity **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortICapacity
	--SataPortIDriveType **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortIDriveType
	--SataPortIModel	N/A	BIOS.SataSettings.SataPortIModel

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	NOTE: The option is supported only on Dell PowerEdge 13G and later systems.		
	--SataPortJ **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortJ
	--SataPortJCapacity **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortJCapacity
	--SataPortJDriveType **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortJDriveType
	--SataPortJModel **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SataPortJModel
	--SecurityFreezeLock **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SataSettings.SecurityFreezeLock
Serial Communication	--ConTerrmType	--conterm	BIOS.SerialCommSettings.ConTermType
	--ExtSerialConnector	--extserial	BIOS.SerialCommSettings.ExtSerialConnector
	--FailSafeBaud	--fsbr	BIOS.SerialCommSettings.FailSafeBaud
	--RedirAfterBoot	N/A	BIOS.SerialCommSettings.RedirAfterBoot
	--SerialComm	--serialcomm	BIOS.SerialCommSettings.SerialComm
	--SerialPortAddress	--serialportaddrsel	BIOS.SerialCommSettings.SerialPortAddress
Slot Disablement	--Slot*n*	N/A	BIOS.SlotDisablement.Slot*n*
	SlotnBif	N/A	N/A

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	NOTE: The option is supported only on Dell PowerEdge 14G and later systems.		
System Information	--SysMfrContactInfo*	N/A	BIOS.SysInformation.SysMfrContactInfo
	--SystemBiosVersion*	--biosver	BIOS.SysInformation.SystemBiosVersion
	--SystemManufacturer*	N/A	BIOS.SysInformation.SystemManufacturer
	--SystemModelName*	N/A	BIOS.SysInformation.SystemModelName
	--SystemServiceTag*	--svctag/--syssvctag*	BIOS.SysInformation.SystemServiceTag
	--SystemMeVersion* **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	N/A
	--UefiComplianceVersion **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SysInformation.UefiComplianceVersion
System Profile Settings	--CollaborativeCpuPerfCtrl	N/A	BIOS.SysProfileSettings.CollaborativeCpuPerfCtrl
	--MemFrequency	--memorypowermode	BIOS.SysProfileSettings.MemFrequency
	--MemPatrolScrub	N/A	BIOS.SysProfileSettings.MemPatrolScrub
	--MemRefreshRate	N/A	BIOS.SysProfileSettings.MemRefreshRate
	--MemVolt	N/A	BIOS.SysProfileSettings.MemVolt
	--MonitorMwait	N/A	BIOS.SysProfileSettings.MonitorMwait
	--PowerSaver	N/A	BIOS.SysProfileSettings.PowerSaver
	--ProcC1E	--cpuc1e	BIOS.SysProfileSettings.ProcC1E
	--ProcCStates	--cstates	BIOS.SysProfileSettings.ProcCStates
	--ProcPwrPerf	--cpupowermode	BIOS.SysProfileSettings.ProcPwrPerf
	--ProcTurboMode	--turbomode	BIOS.SysProfileSettings.ProcTurboMode
	--SysProfile	--profile	BIOS.SysProfileSettings.SysProfile
	--EnergyEfficientTurbo **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SysProfileSettings.EnergyEfficientTurbo
	--Proc*n*TurboCoreNum	N/A	N/A

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	NOTE: The option is supported only on Dell PowerEdge 13G and later systems.		
	--EnergyPerformanceBias **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**		BIOS.SysProfileSettings.EnergyPerformanceBias
	--UncoreFrequency **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**		BIOS.SysProfileSettings.UncoreFrequency
System Security	--AcPwrRcvry	--acpower	BIOS.SysSecurity.AcPwrRcvry
	--AcPwrRcvryDelay	N/A	BIOS.SysSecurity.AcPwrRcvryDelay
	--AcPwrRcvryUserDelay	N/A	BIOS.SysSecurity.AcPwrRcvryUserDelay
	--AesNi	N/A	BIOS.SysSecurity.Aesni
	--IntelTxt	--inteltxt	BIOS.SysSecurity.IntelTxt
	--NmiButton	--nmibutton	BIOS.SysSecurity.NmiButton
	--PasswordStatus	--pwdlock	BIOS.SysSecurity.PasswordStatus
	--PwrButton	--powerbutton	BIOS.SysSecurity.PwrButton
	--SetupPassword	--setuppwd	BIOS.SysSecurity.SetupPassword
	--SysPassword	--syspwd	BIOS.SysSecurity.SysPassword
	--SystemCpldVersion*	N/A	N/A
	--TcmActivation **NOTE: The option is not supported on Dell PowerEdge 13G and later systems.**	--tcmactivation	BIOS.SysSecurity.TcmActivation
	--TcmClear **NOTE: The option is not supported on Dell PowerEdge 13G and later systems.**	--tcmclear	BIOS.SysSecurity.TcmClear
	--TcmSecurity	--tcmsecurity	BIOS.SysSecurity.TcmSecurity

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	NOTE: The option is not supported on Dell PowerEdge 13G and later systems.		
	--TpmActivation **NOTE: The option is not supported on Dell PowerEdge 13G and later systems.**	--tpmactivation	BIOS.SysSecurity.TpmActivation
	--TpmClear **NOTE: The option is not supported on Dell PowerEdge 13G and later systems.**	--tpmclear	BIOS.SysSecurity.TpmClear
	--TpmSecurity	--tpmsecurity	BIOS.SysSecurity.TpmSecurity
	--TpmStatus	N/A	BIOS.SysSecurity.TPMStatus
	--TpmInfo **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	N/A
	--TpmCommand **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SysSecurity.TpmCommand
	--UefiVariableAccess	N/A	N/A
	--SecureBoot **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	BIOS.SysSecurity.SecureBoot
	--SecureBootPolicy **NOTE: The option is supported only on Dell PowerEdge 13G and later systems.**	N/A	N/A
	SecureBootMode	N/A	N/A

Group	Option on 12G and Later systems	Option on Systems Prior to 12G Systems	Equivalent RACADM Option
	NOTE: The option is available only on 14G and later systems.		
	TpmPpiBypassClear	N/A	N/A
	TpmPpiBypassProvision	N/A	N/A
UEFI Boot Settings	--UefiBootSeq	N/A	BIOS.BiosBootSettings.UefiBootSeq

BIOS Option Settings

You can manage the BIOS start settings using the options in this group.

BootSeq or bootseq

Table 20. SYSCFG Options Supported BootSeq or bootseq

Valid Arguments	• On systems prior to 12G: numerical list separated by commas or list of device names separated by commas • On 12G and later systems: list of device names separated by commas

Description	Enables, disables, and orders the devices in a boot order list. Only the devices present on the system are listed in the boot sequence.
	NOTE: Only the devices listed in the bootseq are enabled.
	Without an argument, this option prints the boot order list. The argument must be formatted as a comma-separated numerical list with no spaces. The list must be within the bounds of the current boot list, that is, the low and high numbers must match, and the same number of entries must be supplied. Systems that use a numerical list for boot order cannot be replicated.
	Some systems also allow the boot order to be expressed as a list of device names. Device names are formatted as a *name.location.instance* string, where *name* is the name of the device, *location* is either **slot** or **embedded (emb)**, and *instance* is the numerical position of the device. Some device name examples are shown below. Systems that support a list of device names for boot order can be replicated.
	Numerical Lists Examples:
	`A:>syscfg --bootseq= 2,3,4,5,1,6`
	`The following devices are set in the boot sequence:`
	`Device 2:* usbcdrom.slot.1- USB CD-ROM device`
	`Device 3:* virtualcd.slot.1 - VIRTUAL CDROM`
	`Device 4:* hdd.emb.0 -Hard drive C:`
	`Device 5:* nic.emb.1 - MBA v2.5.12 Slot 0500`
	`Device 1:* virtualfloppy.slot.1 - VIRTUAL FLOPPY`
	`Device 6:* usbfloppy.slot.1 - USB Floppy device`

	NOTE: The asterisk indicates that the device is enabled in the BIOS.
	Device Name Examples:
	Example of device names:
	`nic.slot.1 (network adapter 1 in PCI slot)`
	`nic.emb.1 (network adapter 1 on system board)`
	`hdd.emb.0 (hard drive C:)`
	`cdrom.emb.0 (CD drive)`
	Device Name Lists Examples
	Example 1:
	`#syscfg --bootseq`
	`The following devices are set in the boot sequence:`
	`Device 2:* cdrom.emb.0 - IDE CD-ROM device`
	`Device 3:* hdd.emb.0 - Hard drive C:`
	`Device 5:* virtual.slot.1 - VIRTUALCDROM DRIVE`
	`Device 1:* floppy.emb.0 - Diskette drive A:1226`
	`Device 6:* virtual.slot.2 - VIRTUALFLOPPY DRIVE`
	`Device 4:* nic.emb.1 - IBA GE Slot 0638 v1226`
	Example 2:
	`#syscfg --bootseq=nic.emb.1,virtual.slot.1`
	The following devices are set in the boot sequence:
	`Device 4:* nic.emb.1 - IBA GE Slot 0638 v`
	`Device 5:* virtual.slot.1 - VIRTUALCDROM DRIVE`
	`Device 2: cdrom.emb.0 - IDE CD-ROM device`
	`Device 3: hdd.emb.0 - Hard drive C:`
	`Device 1: floppy.emb.0 - Diskette drive A:`
	NOTE: The asterisk indicates that the device is enabled in the BIOS.

Applicable Systems	All PowerEdge systems

HddSeq or devseq

Table 21. SYSCFG Options Supported — HddSeq or devseq

Valid Arguments	• On systems prior to 12G: numerical list separated by commas or list of device names separated by commas • On 12G and later systems: list of device names separated by commas
Description	Sets the hard-drive sequence for a system. The first hard drive in the system will be the bootable C: drive in DOS/DOS-like operating systems. Without an argument, this option displays the device list. The argument must be formatted as a comma-separated numerical

	list of device index values. The list must be within the bounds of the current boot list. For example, the low and high numbers must match. Systems that use a numerical list for boot order cannot be replicated. This option is applicable when `bootmode` is set to `Bios` and has no effect when `bootmode` is set to `Uefi`.
	
	Some systems allow the boot order to be expressed as a list of device names. Systems that support device names also support replication of the boot order through the output file option. Device names are formatted as a *name.location.instance* string, where name is the *name* of the device, *location* is either **slot** or **embedded (emb)** , and *instance* is the numerical position of the device. Some device name examples are shown below. Systems that support a list of device names for boot order can be replicated.
	
	Example 1:
	
	`A:>syscfg --devseq`
	`The following devices are set in the disk device sequence:`
	`Device 1:* hdd.emb.0 - System BIOS boot devices`
	`Device 2:* scsiraid.slot.3 - PERC 5/E Adapter(bus 02 dev 02)`
	`Device 3:* usbkey.slot.0 - Hard-disk-emulated USB flash drive`
	
	Example 2:
	
	`A:>syscfg --devseq= hdd.emb.1,scsiraid.emb.1`
	`The following devices are set in the disk device sequence:`
	`Device 1:* hdd.emb.0 - System BIOS boot devices`
	`Device 2:* scsiraid.emb.1 - AIC-7899, A:00 Seagate`
	
	NOTE: The asterisk indicates that the device is enabled in the BIOS.

Applicable Systems	All PowerEdge systems.

Boot Settings

You can manage the boot settings using the options in this group.

BootMode or bootmode

Table 22. BootMode or bootmode

Valid Arguments	• On systems prior to 12G: uefi, bios • On 12G and later systems: Uefi, Bios

Description	Determines the boot mode of the system. Allows booting to Unified Extensible Firmware Interface (UEFI) -capable operating systems or ensures compatibility with operating systems that do not support UEFI.
	
	NOTE: If boot mode is modified, reboot the system before executing the OS installation scripts.
	
	Example:
	
	`A:>syscfg --bootmode=uefi`
	`bootmode=uefi`

Applicable Systems	All PowerEdge 11G and later systems

BootSeqRetry or bootseqretry

Table 23. BootSeqRetry or bootseqretry

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the boot sequence retry feature. When set to **enable**, the system re-attempts to set the boot order after a 30-second time-out if the last boot attempt has failed. This option can be replicated.
	`A:>syscfg --bootseqretry=enable`
	`bootseqretry=enable`

Applicable Systems	All PowerEdge systems

HddFailover or hddfailover

Table 24. HddFailover or hddfailover

Valid Arguments	• On systems prior to 12G: off, on • On 12G and later systems: Enabled, Disabled

Descriptionoff	Specifies the device in the **Hard Disk Drive Sequence** menu that has not been attempted in the boot sequence. When set to **on**, all devices are attempted in an order in which they are configured. When set to **off**, only the first device in the hard disk sequence is attempted. This option can be replicated.
	Example:
	`A:>syscfg --hddfailover=on`
	`hddfailover=on`

Applicable Systems	All systems except PowerEdge 12G systems.

SetBootOrderFqdd*n*

Table 25. SetBootOrderFqdd*n*

Valid Arguments	• On systems prior to 13G: NA • On 13G and later systems: *<string>*
Description	Displays the list of FQDDs representing the boot list to be applied on the next boot. **NOTE: The value of *n* in SetBootOrderFqdd*n* can be 1–16.**

	Example:
	`A:>syscfg --SetBootOrderFqdd1=xxxx,yyy,zzzz`
	`SetBootOrderFqdd1=xxxx,yyy,zzzz`

Applicable Systems	PowerEdge 13G and later systems

SetLegacyHddOrderFqdd*n*

Table 26. SetLegacyHddOrderFqdd*n*

Valid Arguments	• On systems prior to 13G: NA • On 13G and later systems: <*string*>

Description	Displays the list of FQDDs representing the legacy hard-disk drive list to be applied on the next boot.
	NOTE: The value of *n* in SetLegacyHddOrderFqdd*n* can be 1–16.
	Example:
	`A:>syscfg --SetLegacyHddOrderFqdd1=xxxx,yyy,zzzz`
	`SetLegacyHddOrderFqdd1=xxxx,yyy,zzzz`

Applicable Systems	PowerEdge 13G and later systems

Integrated Devices

You can use the options in this group to manage the integrated devices such as internal NIC and integrated USB.

EmbNic1 or embnic1

Table 27. EmbNic1 or embnic1

Valid Arguments	• On systems prior to 12G: on, off, onnopxe, onwithiscsi • On 12G and later systems: Enabled, EnabledPxe, EnablediScsi, Disabled

Description	Turns the first embedded NIC on with PXE on, off, or on without PXE enabled. This option is only valid for supported systems that have a NIC. If the NIC is enabled without PXE, it is not found in the boot order. If the NIC is turned on with PXE, it is placed at the end of the boot order. The **onnopxe** argument is not supported on all systems.
	The **onwithiscsi** argument enables the embedded NIC to boot from the iSCSI server. The **embnic1** option can be replicated.
	Example:
	`A:>syscfg --embnic1=onnopxe`
	`embnic1=onnopxe`

Applicable Systems	All PowerEdge systems

EmbNic1Nic2 or embnic1nic2

Table 28. EmbNic1Nic2 or embnic1nic2

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled, DisabledOs

Description	Enables or disables the operating system interface of the first and second embedded NIC controllers.
	
	Example:
	
	`A:>syscfg --embnic1nic2=enable`
	
	`--embnic1nic2=enable`

Applicable Systems	PowerEdge 11G and later systems

EmbNic2 or embnic2

Table 29. EmbNic2 or embnic2

Valid Arguments	• On systems prior to 12G: on, off, onnopxe, onwithiscsi • On 12G and later systems: Enabled, EnabledPxe, EnablediScsi, Disabled

Description	Turns the second embedded NIC on with PXE on, off, or on without PXE enabled. This option is only valid for supported systems that have a NIC. If the NIC is enabled without PXE, it is not found in the boot order. If the NIC is turned on with PXE, it is placed at the end of the boot order. The **onnopxe** argument is not supported on all systems.
	
	The **onwithiscsi** argument enables the embedded NIC to boot from the iSCSI server. The **embnic1** option can be replicated.
	
	Example:
	
	`A:>syscfg --embnic2=onnopxe`
	
	`embnic2=onnopxe`

Applicable Systems	All PowerEdge systems

EmbNic3 or embnic3

Table 30. EmbNic3 or embnic3

Valid Arguments	• On systems prior to 12G: on, off, onnopxe, onwithiscsi • On 12G and later systems: Enabled, EnabledPxe, EnablediScsi, Disabled
Description	Turns the third embedded NIC on with PXE on, off, or on without PXE enabled. This option is only valid for supported systems that have a NIC. If the NIC is enabled without PXE, it is

	not found in the boot order. If the NIC is turned on with PXE, it is placed at the end of the boot order. The **onnopxe** argument is not supported on all systems.
	
	The **onwithiscsi** argument enables the embedded NIC to boot from the iSCSI server. The **embnic1** option can be replicated.
	
	Example:
	
	`A:>syscfg --embnic3=onnopxe`
	
	`embnic3=onnopxe`

Applicable Systems	All PowerEdge systems

EmbNic3Nic4 or embnic3nic4

Table 31. EmbNic3Nic4 or embnic3nic4

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled, DisabledOs

Description	Enables or disables the operating system interface of the third and fourth embedded NIC controllers.
	
	Example:
	
	`A:>syscfg --EmbNic3Nic4=enable`
	
	`--embnic3nic4=enable`

Applicable Systems	PowerEdge 11G and later systems

EmbNic4 or embnic4

Table 32. EmbNic4 or embnic4

Valid Arguments	• On systems prior to 12G: on, off, onnopxe, onwithiscsi • On 12G and later systems: Enabled, EnabledPxe, EnablediScsi, Disabled

Description	Turns the fourth embedded NIC on with PXE enabled, off, or on without PXE enabled. This option is only valid for supported systems that have four embedded NICs. If the fourth NIC is enabled without PXE, it is not found in the boot order. If the fourth NIC is turned on with PXE, it is placed at the end of the boot order. The **onnopxe** argument is not supported on all systems. This option can be replicated.
	
	The **onwithiscsi** argument enables the embedded NIC to boot from the iSCSI server. The **embnic4** option can be replicated.
	
	Example:
	
	`A:>syscfg --embnic4=onnopxe`
	
	`embnic4=onnopxe`

Applicable Systems	All PowerEdge systems

EmbVideo or embvideoctrl

Table 33. EmbVideo or embvideoctrl

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the BIOS support for the Embedded Video Controller
	Example:
	`A:>syscfg --embvideoctrl=enable`
	`embvideoctrl=enable`

Applicable Systems	PowerEdge 11G and later systems

IoatEngine or ioat

Table 34. IoatEngine or ioat

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the I/O Acceleration Technology (I/OAT) DMA Engine option. This option must be enabled only if the hardware and software support I/OAT on your system. This option can be replicated.
	Example:
	`A:>syscfg --ioat=enabled`
	`ioat=enabled`

IntegratedNetwork1

Table 35. IntegratedNetwork1

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled, DisabledOs

Description	Enables or disables Integrated Network 1.
	NOTE: If set to `DisabledOs`, the Integrated NICs may still be available for shared network access by the embedded management controller. This function must be configured through the NIC management utilities provided with your system.
	Example:
	`A:>syscfg --IntegratedNetwork1=Enabled`
	`IntegratedNetwork1=Enabled`

Applicable Systems	PowerEdge 12G and later systems

IntegratedNetwork2

Table 36. IntegratedNetwork2

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled, DisabledOs

Description	Enables or disables Integrated Network 2.
	NOTE: If set to `DisabledOs`, the Integrated NICs may still be available for shared network access by the embedded management controller. This function must be configured through the NIC management utilities provided with your system.
	Example:
	`A:>syscfg --IntegratedNetwork2=Enabled`
	`IntegratedNetwork2=Enabled`

Applicable Systems	PowerEdge 12G and later systems

IntegratedRaid or integratedraid

Table 37. IntegratedRaid or integratedraid

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the integrated RAID controller. This option can be replicated.
	Example:
	`A:>syscfg --integratedraid=disable`
	`integratedraid=disable`

Applicable Systems	All PowerEdge systems.

IntegratedSas or integratedsas

Table 38. IntegratedSas or integratedsas

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled
Description	Enables or disables the integrated SAS controller. This option can be replicated.

	Example:
	`A:>syscfg --integratedsas=enable`
	`integratedsas=enable`

Applicable Systems	All PowerEdge systems.

InternalSdCard or embsdcard

Table 39. InternalSdCard or embsdcard

Valid Arguments	• On systems prior to 12G: on, off • On 12G and later systems: On, Off

Description	Enables or disables the embedded SD card port.
	Example:
	`A:>syscfg --embsdcard=off`
	`embsdcard=off`

Applicable Systems	All PowerEdge systems

InternalSdCardRedundancy or embsdcardredundancy

Table 40. InternalSdCardRedundancy or embsdcardredundancy

Valid Arguments	• On systems prior to 12G: mirrormode, disable • On 12G and later systems: Mirror, Disabled

Description	Sets the internal SD card port redundancy to `Mirror` mode or `Disabled`.
	When set to `Mirror` mode, read-write operation occurs on both the secure digital (SD) cards. When one of the SD cards fails and is replaced, on booting, the data of the active card is copied to the offline card.
	When set to `Disabled`, read-write operation occurs only on SD card 1.
	NOTE: On Blade systems, disable the vflash key to configure this option.
	Example:
	`A:>syscfg --embsdcardredundancy=mirrormode`
	`embsdcardredundancy=mirrormode`

Applicable Systems	All PowerEdge systems

InternalUsb or internalusb

Table 41. InternalUsb or internalusb

Valid Arguments	• On systems prior to 12G: off, on • On 12G and later systems: On, Off

Description	Turns the internal USB port on or off.
	Example:
	`A:>syscfg --internalusb=on`
	`internalusb=on`

Applicable Systems	All PowerEdge systems.

InternalUsb1 or internalusbport1

Table 42. InternalUsb1 or internalusbport1

Valid Arguments	• On systems prior to 12G: on, off • On 12G and later systems: On, Off

Description	Turns the internal USB port 1on or off.
	Example:
	`A:>syscfg --internalusbport1=on`
	`internalusbport1=on`

Applicable Systems	All PowerEdge systems.

InternalUsb2 or internalusbport2

Table 43. InternalUsb2 or internalusbport2

Valid Arguments	• On systems prior to 12G: on, off • On 12G and later systems: On, Off

Description	Turns the internal USB port 2 on or off.
	Example:
	`A:>syscfg --internalusbport2=on`
	`internalusbport2=on`

Applicable Systems	All PowerEdge 12G and later systems.

OsWatchdogTimer or oswatchdogtimer

Table 44. OsWatchdogTimer or oswatchdogtimer

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Aids in the recovery of the operating system when the system stops responding. When this option is set to **enable**, the operating system is allowed to initialize the timer. When set to **disable** (the default), the timer has no effect on the system.
	Example:
	`A:>syscfg --oswatchdogtimer=enable`
	`oswatchdogtimer=enable`

Applicable Systems	All PowerEdge systems.

SriovGlobalEnable or sriov

Table 45. SriovGlobalEnable or sriov

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables support for Single Root I/O Virtualization (SR-IOV) devices.
	Example:
	`A:>syscfg --sriov=disable`
	`sriov=disable`

Applicable Systems	All PowerEdge systems.

UsbPorts or usbports

Table 46. UsbPorts or usbports

Valid Arguments	• On systems prior to 12G: enable, enablebackonly, disable • On 12G and later systems: AllOn, OnlyBackPortsOn, AllOff
Description	Enables or disables USB ports. When set to **enable**, it enables all user accessible USB ports. When set to **enablebackonly**or **OnlyBackPortsOn**, the front user-accessible ports are disabled. When set to **disable** or **AllOff**, both front and back user accessible ports are disabled. This option can be replicated.

	Example:
	`A:>syscfg --usbports=enable`
	`usbports=enable`

Applicable Systems	All PowerEdge systems.

MmioAbove4Gb

Table 47. MmioAbove4Gb

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled, Disabled

Description	This field helps in enabling support for PCIe devices that require large amount of memory. Enable this option only for 64-bit operating systems.
	Example:
	`A:>syscfg --MmioAbove4Gb=Enabled`
	`MmioAbove4Gb=Enabled`

Usb3Setting

Table 48. Usb3Setting

Valid Arguments	• On systems prior to 13G: NA • On 13G and later systems: Auto, Enabled, Disabled

Description	Enables or disables the USB 3.0 port.
	• `Auto` — USB ports operate at USB 2.0 speed.
	• `Enabled` — USB ports operates at USB 3.0 speed.
	• `Disabled` — USB 3.0 host controller is disabled and the speed is set to USB 2.0.
	Example:
	`A:>syscfg --Usb3Setting=Auto`
	`Usb3Setting=Auto`

Applicable Systems	All systems prior to PowerEdge 13G systems

CurrentEmbVideoState

Table 49. CurrentEmbVideoState

Valid Arguments	• On systems prior to 12G: NA

	• On 12G and later systems: read-only

Description	Displays the current state of the Embedded Video Controller.
	
	Example:
	
	`A:>syscfg --CurrentEmbVideoState`
	`CurrentEmbVideoState=xxx`

Applicable Systems	PowerEdge 12G and later systems

InternalSdCardPrimaryCard

Table 50. InternalSdCardPrimaryCard

Valid Arguments	• On systems prior to 13G: NA • On 13G and later systems: SdCard1, SdCard2

Description	Sets an internal SD card as the primary SD card.
	
	`A:>syscfg --InternalSdCardPrimaryCard=SdCard1`
	`InternalSdCardPrimaryCard=SdCard1`

IscsiDev1ConnChapType

Table 51. IscsiDev1Con<*n*>ChapType

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: OneWay, Mutual

Description	Sets the Challenge Handshake Authentication Protocol (CHAP) type of the iSCSI connection. Where the value of *n* in `IscsiDev1Con`*n*`ChapType` can be 1 or 2.
	
	Example:
	
	`A:>syscfg --IscsiDev1Con1ChapType=Mutual`
	`IscsiDev1Con1ChapType=Mutual`

Applicable Systems	PowerEdge 14G and later systems

IscsiDev1ConnDhcpEnDis

Table 52. IscsiDev1ConnDhcpEnDis

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: Enabled, Disabled
Description	Enables or disables the Dynamic Host Configuration Protocol (DHCP) of the iSCSI connection. Where the value of *n* in `IscsiDev1Con`*n*`DhcpEnDis` can be 1 or 2.

	Example:
	`A:>syscfg --IscsiDev1Con1DhcpEnDis=Enabled`
	`IscsiDev1Con1DhcpEnDis=Enabled`

Applicable Systems	PowerEdge 14G and later systems

IscsiDev1Con*n*EnDis

Table 53. IscsiDev1Con*n*EnDis

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: Enabled, Disabled

Description	Sets the configuration of the iSCSI connection. Where the value of *n* in IscsiDev1Con*n*EnDis can be 1 or 2.
	Example:
	`A:>syscfg --IscsiDev1Con1EnDis=Enabled`
	`IscsiDev1Con1EnDis=Enabled`

Applicable Systems	PowerEdge 14G and later systems

IscsiDev1Con*n*Interface

Table 54. IscsiDev1ConnInterface

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: *<FQDD name>*

Description	Displays the NIC interface of the iSCSI connection. Where the value of *n* in `IscsiDev1Con`*n*`Interface` can be 1 or 2.
	Example:
	`A:>syscfg --IscsiDev1Con1Interface`
	`IscsiDev1Con1Interface=XXXX`

Applicable Systems	PowerEdge 14G and later systems

IscsiDev1Con*n*Protocol

Table 55. IscsiDev1Con*n*Protocol

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: IPv4, IPv6
Description	Displays the IP used for the iSCSI connection. Where the value of *n* in `IscsiDev1Con`*n*`Protocol` can be 1 or 2.

	Example: `A:>syscfg --IscsiDev1Con1Protocol IscsiDev1Con1Interface=IPv4`
Applicable Systems	PowerEdge 14G and later systems

IscsiDev1Con*n*Timeout

Table 56. IscsiDev1Con*n*Timeout

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: <*integer*>
Description	Sets the time-out of the iSCSI connection. Where the value of *n* in `IscsiDev1Con`*n*`Timeout` can be 1 or 2. Example: `A:>syscfg --IscsiDev1Con1Timeout=XXXX IscsiDev1Con1Timeout=XXXX`
Applicable Systems	PowerEdge 14G and later systems

IscsiDev1Con*n*VlanEnDis

Table 57. IscsiDev1ConnVlanEnDis

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: Enabled, Disabled
Description	Enables or disables the virtual LAN (VLAN) configuration of the iSCSI connection. Where the value of *n* in IscsiDev1Con*n*VlanEnDis can be 1 or 2. Example: `A:>syscfg --IscsiDev1Con1VlanEnDis=Enabled IscsiDev1Con1VlanEnDis=Enabled`
Applicable Systems	PowerEdge 14G and later systems

IscsiDev1Con*n*VlanId

Table 58. IscsiDev1Con*n*VlanId

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: <*integer*>
Description	Displays the virtual LAN (VLAN) ID of the iSCSI connection. Where the value of *n* in `IscsiDev1Con`*n*`VlanId` can be 1 or 2.

	Example: `A:>syscfg --IscsiDev1Con1VlanId IscsiDev1Con1VlanId=XXXX`
Applicable Systems	PowerEdge 14G and later systems

IscsiDev1Con*n*Auth

Table 59. IscsiDev1Con*n*Auth

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: None, Chap
Description	Sets the authentication type of the iSCSI connection. Where the value of *n* in `IscsiDev1Con*n*Auth` can be 1 or 2. Example: `A:>syscfg --IscsiDev1Con1Auth=None IscsiDev1Con1Auth=None`
Applicable Systems	PowerEdge 14G and later systems

Network Settings

You can manage the system network settings using the options in this group.

PxeDev*n*EnDis

Table 60. PxeDev*n*EnDis

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled, Disabled
Description	Enables or disables the Preboot Execution Environment (PXE) device. When enabled, a Unified Extensible Firmware Interface (UEFI) boot option is created for the PXE device. **NOTE: The value of n in `PxeDevnEnDis` can be 1–4.** Example: `A:>syscfg --PxeDev1EnDis=Enabled PxeDev1EnDis=Enabled`
Applicable Systems	PowerEdge 12G and later systems

PxeDev*n*Interface

Table 61. PxeDev*n*Interface

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the NIC interface used for the PXE device. **NOTE: The value of *n* in `PxeDevnInterface` can be 1–4.** Example: `A:>syscfg --PxeDev1Interface`
Applicable Systems	PowerEdge 12G and later systems

PxeDev*n*Protocol

Table 62. PxeDev*n*Protocol

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the IP version used for the PXE device. **NOTE: The value of *n* in `PxeDevnVlanId` can be 1–4.** Example: `A:>syscfg --PxeDev1Protocol`
Applicable Systems	PowerEdge 12G and later systems

PxeDev*n*VlanEnDis

Table 63. PxeDev*n*VlanEnDis

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the virtual LAN (VLAN) of the PXE device.
	NOTE: The value of *n* in `PxeDevnVlanEnDis` can be 1–4.
	Example:
	`A:>syscfg --PxeDev1VlanEnDis=Enabled`
	`PxeDev1VlanEnDis=Enabled`

Applicable Systems	PowerEdge 12G and later systems

PxeDev*n*VlanId

Table 64. PxeDev*n*VlanId

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: <*integer*>
Description	Sets the virtual LAN (VLAN) of the PXE device. **NOTE: The value of *n* in `PxeDevnVlanId` can be 1–4.** Example: `A:>syscfg --PxeDev1VlanId=XXXX`
Applicable Systems	PowerEdge 12G and later systems

PxeDev*n*VlanPriority

Table 65. PxeDev*n*VlanPriority

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: <*integer*>

Description	Sets the virtual LAN (VLAN) priority of the PXE device.
	NOTE: The value of *n* in `PxeDevnVlanPriority` can be 1–4.
	Example:
	`A:>syscfg --PxeDev1VlanPriority=X`
	`PxeDev1VlanPriority=X`

Applicable Systems	PowerEdge 12G and later systems

HttpDevnInterface

Table 66. HttpDevnInterface

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: NIC.Integrated.1-1-1, NIC.Integrated.1-2-1, NIC.Integrated.1-3-1, NIC.Integrated.1-4-1

Description	The NIC interface used for HTTP device. The value of *n* in `HttpDevnInterface` can be from 1 to 4.
	Example:
	`A:>syscfg --HttpDev1Interface=NIC.Integrated.1-2-1`
	`HttpDev1Interface=NIC.Integrated.1-1-1`

Applicable Systems	PowerEdge 14G and later systems

HttpDevnProtocol

Table 67. HttpDevnProtocol

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: IPv4, IPv6

Description	Determines whether the Internet Protocol version 4 older version or the Internet Protocol version 6 the newest version is used for this device. The value of *n* in `HttpDevnProtocol` can be from 1 to 4.
	Example:
	`A:>syscfg --HttpDev2Protocol=IPv4`
	`HttpDev2Protocol=IPv4`

Applicable Systems	PowerEdge 14G and later systems

HttpDevnVlanEnDis

Table 68. HttpDevnVlanEnDis

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: Enabled, Disabled

Description	Set the field to Enabled if your DNS or HTTP servers reside on a Virtual LAN (VLAN). The value of *n* in `HttpDevnVlanEnDis` can be from 1 to 4.
	Example:
	`A:>syscfg --HttpDev3VlanEnDis=Enabled`
	`HttpDev3VlanEnDis=Enabled`

Applicable Systems	PowerEdge 14G and later systems

HttpDevnVlanId

Table 69. HttpDevnVlanId

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: Enabled, Disabled
Description	When VLAN is enabled, identifies which of the 4094 possible VLANs contains the desired DNS or HTTP servers. This value can be 1 – 4094 inclusive. Where n is from 1 to 4. Example: `A:>syscfg --HttpDev2VlanId=Enabled`

Applicable Systems	PowerEdge 14G and later systems

Memory Settings

You can manage the memory-related configuration settings using the objects in this group.

CorrEccSmi or memprefailurenotify

Table 70. CorrEccSmi or memprefailurenotify

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the Correctable ECC SMIs. When enabled, the SMIs report the Correctable ECC errors.
	This option can be replicated.
	Example:
	`A:>syscfg --CorrEccSmi=Enabled`
	`CorrEccSmi=Enabled`

Applicable Systems	PowerEdge 12G and later systems

DynamicCoreAllocation

Table 71. DynamicCoreAllocation

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the operating system capability to maintain the logical processors in the idle state to reduce power consumption.
	Example:
	`A:>syscfg --DynamicCoreAllocation=Enabled`
	`DynamicCoreAllocation=Enabled`

Applicable Systems	PowerEdge 12G and later systems

MemOpMode or memoperatingmode

Table 72. MemOpMode or memoperatingmode

Valid Arguments	• On systems prior to 12G: optimizer, mirror, advancedecc

	• On 12G and later systems: OptimizerMode, SpareMode, MirrorMode, AdvEccMode, SpareWithAdvEccMode

Description	Selects the memory operating mode. This feature is active only if a valid memory configuration is detected. When `OptimizerMode` is enabled, the DRAM controllers operate independently in 64-bit mode and provide optimized memory performance. When `MirrorMode` is enabled, only half of the installed memory is reported as available to the operating system. When `AdvECCMode` is enabled, the two DRAM controllers are combined in 128-bit mode to provide optimized reliability. Memory that cannot be teamed by the controllers is not reported to the operating system. When `SpareMode` is enabled, the memory size reported to the operating system does not include the spare portion.
	Example:
	`A:>syscfg --memoperatingmode=optimizer`
	`memoperatingmode=optimizer`

Applicable Systems	PowerEdge 11G and later systems

MemOpVoltage or dimmvoltage

Table 73. MemOpVoltage or dimmvoltage

Valid Arguments	• On systems prior to 12G: auto, 1.5 • On 12G and later systems: AutoVolt, Volt15V

Description	Sets the DIMM voltage selection. When set to `AutoVolt`(default value), the system automatically sets the voltage to the optimal setting based upon the DIMM capability and the installed DIMM population. This option also enables setting the system DIMM voltage to a higher (1.5V) setting if the DIMMs support multiple voltages and have been set to a lower voltage.
	NOTE: Volt15V represents 1.5 Volt.
	Example:
	`A:>syscfg --dimmvoltage=auto`
	`dimmvoltage=auto`

Applicable Systems	PowerEdge 12G and later systems.

MemTest or memtest

Table 74. MemTest or memtest

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled
Description	Enables or disables the **POST** extended memory test.

	Example:
	`A:>syscfg --MemTest=Enabled`
	`MemTest=Enabled`

Applicable Systems	All PowerEdge systems

NodeInterleave or nodeinterleave

Table 75. NodeInterleave or nodeinterleave

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables node interleaving, if the system is configured with matching memory. If set to `disable` (default), the system supports Non-Uniform Memory (NUMA) architecture memory configurations. This field is active only if the memory configuration can support node interleaving.
	NOTE: The `nodeinterleave` option is same as `memintleave` option. For more information, see memintleave.
	Example:
	`A:>syscfg --nodeinterleave=enable`
	`nodeinterleave=enable`

Applicable Systems	All PowerEdge systems.

redmem

Table 76. redmem

Valid Arguments	off, spare, mirror, DDDC

Description	Allows selection of the required redundant memory mode, or disables redundant memory. This option can be replicated.
	Example:
	`A:>syscfg --redmem=off`
	`redmem=off`

Applicable Systems	PowerEdge systems with Intel Xeon 7500 series processor

SerialDbgOut

Table 77. SerialDbgOut

Valid Arguments	• On systems prior to 12G: NA

	• On 12G and later systems: Enabled, Disabled

Description	Enables or disables the RC/MRC Serial debug output.
	Example:
	`A:>syscfg --SerialDbgOut=Enabled`
	`SerialDbgOut=Enabled`

Applicable Systems	PowerEdge 12G and later systems.

SysMemSize or mem

Table 78. SysMemSize or mem

Valid Arguments	• On systems prior to 12G: read-only • On 12G and later systems: read-only

Description	Displays the amount of main memory in the system.
	Example:
	`A:>syscfg --mem`
	`mem=500`

Applicable Systems	PowerEdge 11G and later systems.

SnoopMode or snoopfilter

Table 79. SnoopMode or snoopfilter

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the snoop filter option from the system BIOS.
	Example:
	`A:>syscfg --snoopfilter=enable`
	`snoopfilter=enable`

Applicable Systems	All PowerEdge systems.

SysMemSpeed

Table 80. SysMemSpeed

Valid Arguments	• On systems prior to 12G: NA

	• On 12G and later systems: read-only
Description	Displays the clock frequency of the main memory. Example: `A:>syscfg --SysMemSpeed`
Applicable Systems	PowerEdge 12G and later systems.

SysMemType

Table 81. SysMemType

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the type of main memory installed in the system. Example: `A:>syscfg --SysMemType`
Applicable Systems	PowerEdge 12G and later systems.

SysMemVolt

Table 82. SysMemVolt

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the voltage of the main memory. Example: `A:>syscfg --SysMemVolt`
Applicable Systems	PowerEdge 12G and later systems.

VideoMem

Table 83. VideoMem

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the total amount of video memory available to the embedded video controller.

	Example: `A:>syscfg --VideoMem`
Applicable Systems	PowerEdge 12G and later systems.

ClusterOnDie

Table 84. ClusterOnDie

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the **Cluster On Die** option. When enabled, the feature enhances the performance of the system with two caching agents.
	`A:>syscfg --ClusterOnDie=Enabled`
	`ClusterOnDie=Enabled`

Applicable Systems	PowerEdge 12G and later systems

RedundantOsLocation

Table 85. RedundantOsLocation

Valid Arguments	• On systems prior to 14G: NA
Description	Specifies the backup device for the Redundant OS Control feature. When Redundant OS Boot is set to Enabled, the BIOS will boot to this device. **NOTE: In order for the devices and slots listed below to show up as optional backup devices, their settings must be as shown:** **`SD Card Port -- On`** **`Internal USB Port -- On`** **`Embedded SATA -- anything other than Off`** **`PCIe Slot Disablement -- Enabled`** Example: `A:>syscfg --RedundantOsLocation`
Applicable Systems	PowerEdge 14G and later systems.

Miscellaneous Settings

You can manage the miscellaneous settings using the options in this group.

AssetTag or asset

Table 86. AssetTag or asset

Valid Arguments	• On systems prior to 12G: read-only • On 12G and later systems: read-only

Description	Reports or sets the customer-programmable asset tag number for a system. This value can be replicated.
	NOTE: The Asset Tag is a string assigned to a system, usually by an administrator, for security or tracking purposes. The Asset Tag can be up to 10 characters long and can contain only printable US-ASCII characters. For more information on delimiters, see Command Line Option Delimiters.
	Example:
	`A:>syscfg --asset=<ASSETTAG>`
	`asset=ASSETTAG`

Applicable Systems	All PowerEdge systems except Blade systems

ErrPrompt or f1f2promptonerror

Table 87. ErrPrompt or f1f2promptonerror

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the BIOS to prompt F1 or F2 error codes.
	Example:
	`A:>syscfg --f1f2promptonerror=enable`
	`f1f2promptonerror=enable`

Applicable Systems	PowerEdge 10G and later systems

InSystemCharacterization

Table 88. InSystemCharacterization

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: FastBoot, OptimizedBoot, Disabled
Description	In-System Characterization (ISC) runs during power-on self-test (POST) on detecting relevant changes in the system configuration to optimize power and performance. ISC takes about 20 seconds to run, and a system restart is required to apply the system configuration changes. The `FastBoot` option runs ISC and continues without applying ISC results until

	the next system restart. The `OptimizedBoot` option runs ISC and forces an immediate system restart to apply the results. If set to `Disabled`, ISC does not run.
	
	Example:
	
	`A:>syscfg --InSystemCharacterization=FastBoot`
	`InSystemCharacterization=FastBoot`

NumLock or numlock

Table 89. NumLock or numlock

Valid Arguments	• On systems prior to 12G: on, off • On 12G and later systems: On, Off

Description	Turns the keyboard number lock on or off. This option is not replicated.
	
	Example:
	
	`A:>syscfg --numlock=on`
	
	`numlock=on`

Applicable Systems	All PowerEdge systems.

ForceInt10

Table 90. ForceInt10

Valid Arguments	• On systems prior to 13G: NA • On 13G and later systems: Enabled, Disabled
Description	Determines whether the system BIOS loads the legacy video (INT 10h) option ROM from the video controller or not. Set to `Enabled` if the operating system does not support UEFI video output standards. **NOTE: This field is supported only in UEFI boot mode. This field cannot be set to `Enabled` if UEFI SecureBoot is enabled.** Example: `A:>syscfg --ForceInt10=Enabled`
Applicable Systems	PowerEdge 13G and later systems

InSystemCharacterization

Table 91. InSystemCharacterization

Valid Arguments	• On systems prior to 12G: NA

	• On 12G and later systems: FastBoot, OptimizedBoot, Disabled

Description	In-System Characterization (ISC) runs during power-on self-test (POST) on detecting relevant changes in the system configuration to optimize power and performance. ISC takes about 20 seconds to run, and a system restart is required to apply the system configuration changes. The `FastBoot` option runs ISC and continues without applying ISC results until the next system restart. The `OptimizedBoot` option runs ISC and forces an immediate system restart to apply the results. If set to `Disabled`, ISC does not run.
	
	Example:
	
	`A:>syscfg --InSystemCharacterization=FastBoot`
	`InSystemCharacterization=FastBoot`

ReportKbdErr or rptkeyerr

Table 92. ReportKbdErr or rptkeyerr

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Report, Noreport

Description	Enables or disables the BIOS to report keyboard errors during POST. This option can be replicated.
	
	Example:
	
	`A:>syscfg --rptkeyerr=disable`
	
	`rptkeyerr=disable`

Applicable Systems	All PowerEdge systems

DellAutoDiscovery

Table 93. *DellAutoDiscovery*

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: PlatformDefault, AutoDiscovery, ManualControl

Description	Allow BIOS to dynamically scan for PCIe devices rather than relying strictly on system slot definitions. The Platform Default setting will strictly follow the system slot definitions when configuring each PCIe slot.
	
	The Auto Discovery setting will analyze the installed PCIe cards and determine the correct configuration for each slot. This may include bifurcation of the slot for multiple devices. Manual Control allows the user to override bifurcation settings for each slot.
	
	Example:
	
	`A:>syscfg --DellAutoDiscovery=PlatformDefault`
	
	`DellAutoDiscovery=AutoDiscovery`

Applicable Systems	PowerEdge 14G and later systems

DellWyseP25BIOSAccess

Table 94. DellWyseP25BIOSAcess

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: Enabled, Disabled

Description	This field enables or disables Remote user to access BIOS Setup via Dell Wyse P25/P45 Portal. If P25/P45 BIOS Access is turned OFF, it cannot be turned back on remotely from the P25/P45. Turning this feature OFF will also prevent keyboard and mouse access to Diagnostics, Boot Options, and other Pre-OS functionality.
	Example:
	`A:>syscfg --DellWyseP25BIOSAccess=Enabled`
	`DellWyseP25BIOSAccess=Enabled`

Applicable Systems	PowerEdge 14G and later systems

One-Time Boot

You can manage the one time boot settings using the options in this group.

OneTimeBootMode

Table 95. OneTimeBootMode

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Disabled, OneTimeBootSeq, OneTimeHddSeq, OneTimeUefiBoot Seq, OneTimeCustomBootSeqStr, OneTimeCustomH ddSeqStr, OneTimeCustomU efiBootSeqStr

Description	Allows to set the one-time boot sequence.
	Example:
	`A:>syscfg --OneTimeBootMode=Disabled`
	`OneTimeBootMode=Disabled`

Applicable Systems	PowerEdge 12G and later systems.

OneTimeBootSeqDev or nextboot

Table 96. OneTimeBootSeqDev or nextboot

Valid Arguments	• On systems prior to 12G: <*valid device name*> (from the **bootseq** option device list)

	• On 12G and later systems: numerical list separated by commas or list of device names separated by commas

Description	Sets the specified device as the first device in the boot order for the next boot cycle only. The device must be a device from the **bootseq** option device list. Run the **bootseq** option to see a list of available device names. For more information, see --bootmode . This option is not replicated. If Boot Mode is set to `UEFI`, the system temporarily switches the Boot Mode to `BIOS` when attempting a one-time boot to the device.
	
	Example:
	
	`A:>syscfg --OneTimeBootSeqDev= 2,3,4,5,1,6`
	`The following devices are set in the boot sequence:`
	`Device 2:* usbcdrom.slot.1- USB CD-ROM device`
	`Device 3:* virtualcd.slot.1 - VIRTUAL CDROM`
	`Device 4:* hdd.emb.0 -Hard drive C:`
	`Device 5:* nic.emb.1 - MBA v2.5.12 Slot 0500`
	`Device 1:* virtualfloppy.slot.1 - VIRTUAL FLOPPY`
	`Device 6:* usbfloppy.slot.1 - USB Floppy device`
	
	NOTE: The asterisk indicates that the device is enabled in the BIOS.

Applicable Systems	All PowerEdge systems.

OneTimeHddSeqDev

Table 97. OneTimeHddSeqDev

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: numerical list separated by commas or list of device names separated by commas

Description	Determines the one-time boot hard disk when the One-Time Boot Device List is set to BIOS Hard-Disk Drive Sequence Device. If Boot Mode is set to `UEFI`, the system temporarily switches the Boot Mode to `BIOS` when attempting a one-time boot to the device.
	
	Example:
	
	`A:>syscfg --OneTimeHddSeqDev= 2,3,4,5,1,6`
	`The following devices are set in the boot sequence:`
	`Device 2:* usbcdrom.slot.1- USB CD-ROM device`
	`Device 3:* virtualcd.slot.1 - VIRTUAL CDROM`
	`Device 4:* hdd.emb.0 -Hard drive C:`
	`Device 5:* nic.emb.1 - MBA v2.5.12 Slot 0500`
	`Device 1:* virtualfloppy.slot.1 - VIRTUAL FLOPPY`
	`Device 6:* usbfloppy.slot.1 - USB Floppy device`
	
	NOTE: The asterisk indicates that the device is enabled in the BIOS.

Applicable Systems	PowerEdge 12G and later systems.

OneTimeUefiBootSeqDev

Table 98. OneTimeUefiBootSeqDev

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: numerical list separated by commas or list of device names separated by commas

Description	Determines the one-time boot device when the One-Time Boot Device List is set to UEFI Boot Sequence Device. If Boot Mode is set to `BIOS`, the system temporarily switches the Boot Mode to `UEFI` when attempting a one-time boot to the device.
	
	Example:
	`A:>syscfg --OneTimeUefiBootSeqDev= 2,3,4,5,1,6`
	`The following devices are set in the boot sequence:`
	`Device 2:* usbcdrom.slot.1- USB CD-ROM device`
	`Device 3:* virtualcd.slot.1 - VIRTUAL CDROM`
	`Device 4:* hdd.emb.0 -Hard drive C:`
	`Device 5:* nic.emb.1 - MBA v2.5.12 Slot 0500`
	`Device 1:* virtualfloppy.slot.1 - VIRTUAL FLOPPY`
	`Device 6:* usbfloppy.slot.1 - USB Floppy device`
	NOTE: The asterisk indicates that the device is enabled in the BIOS.

Applicable Systems	PowerEdge 12G and later systems.

Processor Settings

You can manage the processor settings using the options in this group.

DataReuse or datareuse

Table 99. DataReuse or datareuse

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables (default value) or disables data reuse in cache. Set to enable for High Performance Computing (HPC) applications. Set to disable for energy efficiency. This option can be replicated.
	`A:>syscfg --datareuse=enable`
	`datareuse=enable`

Applicable Systems	PowerEdge 11G and later systems

DcuIpPrefetcher

Table 100. DcuIpPrefetcher

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled, Disabled

Description	Enables (default value) or disables DCU IP Prefetcher.
	Example:
	`A:>syscfg --DcuIpPrefetcher=Enabled`
	`DcuIpPrefetcher=Enabled`

Applicable Systems	PowerEdge 12G and later systems

DcuStreamerPrefetcher or dcustreamerprefetcher

Table 101. DcuStreamerPrefetcher or dcustreamerprefetcher

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables DCU Streamer Prefetcher. This option can be replicated.
	Example:
	`A:>syscfg --dcustreamerprefetcher=enable`
	`dcustreamerprefetcher=enable`

Applicable Systems	PowerEdge 11G and later systems

LogicalProc or logicproc

Table 102. LogicalProc or logicproc

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled
Description	Enables or disables the logical processors of a system. When this option is set to `Enabled` (default value), the BIOS reports all logical processors. When set to `Disabled`, the BIOS only reports one logical processor per core. Each processor core supports maximum two logical processors. This option is available on all systems that support logical processing (Hyperthreading). This option can be replicated.

	Example:
	`A:>syscfg --logicproc=enable`
	`logicproc=enable`

Applicable Systems	All PowerEdge systems.

Proc1Brand

Table 103. Proc1Brand

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the brand text provided by the processor manufacturer. Example: `A:>syscfg --Proc1Brand`
Applicable Systems	PowerEdge 12G and later systems.

Proc1Id

Table 104. Proc1Id

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the family, model, and stepping values of the processor. Example: `A:>syscfg --Proc1Id`
Applicable Systems	PowerEdge 12G and later systems.

Proc1L2Cache

Table 105. Proc1L2Cache

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the amount of memory in the corresponding processor cache. Example: `A:>syscfg --Proc1L2Cache`
Applicable Systems	PowerEdge 12G and later systems.

Proc1L3Cache

Table 106. Proc1L3Cache

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the amount of memory in the corresponding processor cache. Example: `A:>syscfg --Proc1L3Cache`
Applicable Systems	PowerEdge 12G and later systems.

Proc1NumCores

Table 107. Proc1NumCores

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the number of cores in the processor package. Example: `A:>syscfg --Proc1NumCores`
Applicable Systems	PowerEdge 12G and later systems.

Proc2Brand

Table 108. Proc2Brand

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the brand text provided by the processor manufacturer. Example: `A:>syscfg --Proc2Brand`
Applicable Systems	PowerEdge 12G and later systems.

Proc2Id

Table 109. Proc2Id

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the family, model, and stepping values of the processor. Example: `A:>syscfg --Proc2Id`
Applicable Systems	PowerEdge 12G and later systems.

Proc2L2Cache

Table 110. Proc2L2Cache

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the amount of memory in the corresponding processor cache. Example: `A:>syscfg --Proc2L2Cache`
Applicable Systems	PowerEdge 12G and later systems.

Proc2L3Cache

Table 111. Proc2L3Cache

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the amount of memory in the corresponding processor cache. Example: `A:>syscfg --Proc2L3Cache`
Applicable Systems	PowerEdge 12G and later systems.

Proc2NumCores

Table 112. Proc2NumCores

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the number of cores in the processor package. Example: `A:>syscfg --Proc2NumCores`
Applicable Systems	PowerEdge 12G and later systems.

Proc3Brand

Table 113. Proc3Brand

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the brand text provided by the processor manufacturer. Example: `A:>syscfg --Proc3Brand`
Applicable Systems	PowerEdge 12G and later systems.

Proc3Id

Table 114. Proc3Id

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the family, model, and stepping values of the processor. Example: `A:>syscfg --Proc3Id`
Applicable Systems	PowerEdge 12G and later systems.

Proc3L2Cache

Table 115. Proc3L2Cache

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the amount of memory in the corresponding processor cache. Example: `A:>syscfg --Proc3L2Cache`
Applicable Systems	PowerEdge 12G and later systems.

Proc3L3Cache

Table 116. Proc3L3Cache

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the amount of memory in the corresponding processor cache. Example: `A:>syscfg --Proc3L3Cache`
Applicable Systems	PowerEdge 12G and later systems.

Proc3NumCores

Table 117. Proc3NumCores

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the number of cores in the processor package. Example: `A:>syscfg --Proc3NumCores`
Applicable Systems	PowerEdge 12G and later systems.

Proc4Brand

Table 118. Proc4Brand

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the brand text provided by the processor manufacturer. Example: `A:>syscfg --Proc4Brand`
Applicable Systems	PowerEdge 12G and later systems.

Proc4Id

Table 119. Proc4Id

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the family, model, and stepping values of the processor. Example: `A:>syscfg --Proc4Id`
Applicable Systems	PowerEdge 12G and later systems.

Proc4L2Cache

Table 120. Proc4L2Cache

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the amount of memory in the corresponding processor cache. Example: `A:>syscfg --Proc4L2Cache`
Applicable Systems	PowerEdge 12G and later systems.

Proc4L3Cache

Table 121. Proc4L3Cache

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the amount of memory in the corresponding processor cache. Example: `A:>syscfg --Proc4L3Cache`
Applicable Systems	PowerEdge 12G and later systems.

Proc4NumCores

Table 122. Proc4NumCores

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the number of cores in the processor package. Example: `A:>syscfg --Proc4NumCores`
Applicable Systems	PowerEdge 12G and later systems.

Proc64bit

Table 123. Proc64bit

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Specifies if the installed processor supports 64-bit extensions or not. Example: `A:>syscfg --Proc64bit`
Applicable Systems	On Dell's 12th generation PowerEdge systems and later systems.

ProcAdjCacheLine or adjcacheprefetch

Table 124. ProcAdjCacheLine or adjcacheprefetch

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: Enable, Disable • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled

Description	When set to `Enabled` (default), the system is optimized for applications that require high utilization of sequential memory access. When set to `Disabled`, the system is optimized for applications that require high utilization of random memory access.
	Example:
	`A:>syscfg --adjcacheprefetch=enable`
	`adjcacheprefetch=enable`

Applicable Systems	All PowerEdge systems.

ProcBusSpeed

Table 125. ProcBusSpeed

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the bus speed of the processor. Example: `A:>syscfg --ProcBusSpeed`
Applicable Systems	Dell's 12th generation PowerEdge and later systems.

ProcCores or cpucore

Table 126. ProcCores or cpucore

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: 1, 2, 4, 6, 8, 10, 12, 14, 16, all • On Dell's 12th generation PowerEdge and later systems: single, all, dual, quad, 1, 2, 4, 6, 8, 10, 12, 14, 16, 18
Description	Controls the number of enabled cores in each processor. The default value is set to the maximum number of cores per processor. The number of cores depends on the processor. Reading the cpucore that is set to the highest value of number of cores displays as all. For example, if six-core CPU is installed, after setting to the highest value, 6, when you read the cpucore, it displays as all.

	Example:
	`A:>syscfg --cpucore=1`
	`cpucore=1`

Applicable Systems	All PowerEdge systems.

ProcCoreSpeed

Table 127. ProcCoreSpeed

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the clock speed of the processors. Example: `A:>syscfg --ProcCoreSpeed`
Applicable Systems	Dell's 12th generation PowerEdge and later systems.

ProcExecuteDisable or cpuxdsupport

Table 128. ProcExecuteDisable or cpuxdsupport

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: enable, disable • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled

Description	Enables or disables the Execute Disable Memory Protection Technology feature of the CPU.
	Example:
	`A:>syscfg --cpuxdsupport=enable`
	`cpuxdsupport=enable`

Applicable Systems	All PowerEdge systems running on Intel processors.

ProcHwPrefetcher or hwprefetcher

Table 129. ProcHwPrefetcher or hwprefetcher

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: enable, disable • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled
Description	Enables or disables the hardware prefetcher. Processor preempts what data might be needed next, when set to **enable**. When some data is found, it loads several steps in advance.

	Processor does not preempt, when set to **disable**.
	This option can be replicated.
	Example:
	`A:>syscfg --hwprefetcher=enable`
	`hwprefetcher=enable`

Applicable Systems	All PowerEdge systems.

ProcVirtualization or virtualization

Table 130. ProcVirtualization or virtualization

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: enable, disable • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled

Description	Enables or disables virtualization in the CPU. When set to **enable**, it enables the additional hardware capabilities from Virtualization technology in applicable **CPUs**.
	When set to **disable**, it disables the additional hardware capabilities from Virtualization technology.
	This option can be replicated.
	Example:
	`A:>syscfg --virtualization=enable`
	`virtualization=enable`

Applicable Systems	All PowerEdge systems

QpiBandwidthPriority or qpibandwidthpriority

Table 131. QpiBandwidthPriority or qpibandwidthpriority

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: compute, io • On Dell's 12th generation PowerEdge and later systems: InputOutput, Compute

Description	Sets the bandwidth priority to **compute** or **io**. Set to compute for computation-intensive applications. Set to **io** for I/O intensive applications. This option can be replicated.
	Example:
	`A:>syscfg --qpibandwidthpriority=compute`
	`qpibandwidthpriority=compute`

Applicable Systems	Dell's 11th generation PowerEdge and later systems

QpiSpeed

Table 132. QpiSpeed

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: MaxDataRate, 9GTps, 8GTps, 7GTps, 6GTps

Description	Sets the speed of the processor.
	Example:
	`A:>syscfg --QpiSpeed=8GTps`
	`QpiSpeed=8GTps`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

RtidSetting

Table 133. RtidSetting

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled

Description	When set to `Enabled`, it allocates more (Requestor Transaction IDs) RTIDs to the remote socket thereby increasing cache performance between the sockets.
	Example:
	`A:>syscfg --RtidSetting=Enabled`
	`RtidSetting=Enabled`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

ProcnControlledTurbo

Table 134. ProcnControlledTurbo

Valid Arguments	• On systems prior to Dell's 13th generation PowerEdge systems: enable, disable • On Dell's 13th generation PowerEdge and later systems: Disabled, ControlledTurboLimit, ControlledTurboLimitMinus1, ControlledTurboLimitMinus2, ControlledTurboLimitMinus3
Description	Controls the turbo engagement. Enable this option only if `SysProfile` is set to `PerfOptimized`. **NOTE: The value of *n* in `Procn`ControlledTurbo can be 1–4.**

	Example: `A:>syscfg --Proc1ControlledTurbo=Disabled`

ProcConfigTdp

Table 135. ProcConfigTdp

Valid Arguments	• On systems prior to Dell's 13th generation PowerEdge systems: NA • On Dell's 13th generation PowerEdge and later systems: Nominal, Level1, Level2

Description	Configures the Thermal Design Power (TDP).
	Example:
	`A:>syscfg --ProcConfigTdp=Nominal`
	`ProcConfigTdp=Nominal`

ProcX2Apic

Table 136. ProcX2Apic

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled

Description	Enables or disables the x2APIC mode.
	Example:
	`A:>syscfg --ProcX2Apic=Enabled`
	`ProcX2Apic=Enabled`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

SATA Settings

You can manage the BIOS SATA settings using the options in this group.

EmbSata or embsataraid

Table 137. EmbSata or embsataraid

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: off, combined, ata, ahci, raid, qdma

	• On Dell's 12th generation PowerEdge and later systems: Off, AtaMode, RaidMode, AhciMode

Description	Configures an embedded SATA RAID controller. This option can be replicated.
	• **off** /**Off** — disables the embedded SATA RAID controller.
	• **combined**— sets the SATA RAID controller to combined mode.
	• **ata**/ **AtaMode**— sets SATA RAID controller to ATA mode.
	• **ahci**/ **AhciMode**— sets ATA RAID controller to ahci mode.
	• **raid**/**RaidMode** — sets SATA RAID controller to RAID mode.
	• **qdma** — sets the SATA RAID controller to support ATAPI devices at transfer rates much higher than PIO. A device driver must be installed on your system to use the QDMA mode.
	Example:
	`A:>syscfg --embsataraid=off`
	`embsataraid=off`

Applicable Systems	All PowerEdge systems

eSataPort1

Table 138. eSataPort1

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Off, Auto

Description	Sets the embedded SATA port1 to `auto` or `off`.
	Example:
	`A:>syscfg --eSataPort1=Off`
	`eSataPort1=Off`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

eSataPort1Capacity

Table 139. eSataPort1Capacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: read-only
Description	Displays the total capacity of a hard-disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --eSataPort1Capacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems.

eSataPort1DriveType

Table 140. eSataPort1DriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Indicates the type of device attached to the embedded SATA port. Example: `A:>syscfg --eSataPort1DriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems.

eSataPort1Model

Table 141. eSataPort1Model

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --eSataPort1Model`
Applicable Systems	Dell's 12th generation PowerEdge and later systems.

SataPortA or sata0

Table 142. SataPortA or sata0

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Off, Auto

Description	Sets the drive type of the selected device to `off` or `auto` This option can be replicated.
	Example:
	`A:>syscfg --sata0=auto`
	`sata0=auto`

Applicable Systems	All PowerEdge systems

SataPortACapacity

Table 143. SataPortACapacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortACapacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortADriveType

Table 144. SataPortADriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Indicates the type of device attached to the SATA port. Example: `A:>syscfg --SataPortADriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortAModel

Table 145. SataPortAModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortAModel`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortB or sata1

Table 146. SataPortB or sata1

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Auto, Off

Description	Turns the SATA port 1 to **auto** or **off**. This option can be replicated.
	Example:
	`A:>syscfg --sata1=auto`
	`sata1=auto`

Applicable Systems	All PowerEdge systems

SataPortBCapacity

Table 147. SataPortBCapacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortBCapacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortBDriveType

Table 148. SataPortBDriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Indicates the type of device attached to the SATA port. Example: `A:>syscfg --SataPortBDriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortBModel

Table 149. SataPortBModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortBModel`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortC or Sata2

Table 150. SataPortC or Sata2

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Off, Auto

Description	Turns the SATA port 2 to **auto** or **off**. This option can be replicated.
	Example:
	`A:>syscfg --sata2=auto`
	`sata2=auto`

Applicable Systems	All PowerEdge systems

SataPortCCapacity

Table 151. SataPortCCapacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortCCapacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortCDriveType

Table 152. SataPortCDriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Indicates the type of device attached to the SATA port. Example: `A:>syscfg --SataPortCDriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortCModel

Table 153. SataPortCModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortCModel`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortD or sata3

Table 154. SataPortD or sata3

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Auto, Off

Description	Turns the SATA port 3 to **auto** or **off**. This option can be replicated.
	Example:
	`A:>syscfg --sata3=auto`
	`sata3=auto`

Description	Turns the SATA port 3 to **auto** or **off**. This option can be replicated.

	Example:
	`A:>syscfg --sata3=auto`
	`sata3=auto`

Applicable Systems	All PowerEdge systems.

SataPortDCapacity

Table 155. SataPortDCapacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortDCapacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortDDriveType

Table 156. SataPortDDriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	This option indicates type of device attached to this SATA port. Example: `A:>syscfg --SataPortDDriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortDModel

Table 157. SataPortDModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortDModel`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortE or sata4

Table 158. SataPortE or sata4

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Off, Auto

Description	Turns the SATA port 4 to **auto** or **off**. This option can be replicated.
	Example:
	`A:>syscfg --sata4=auto`
	`sata4=auto`

Applicable Systems	All PowerEdge systems.

SataPortECapacity

Table 159. SataPortECapacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortECapacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortEDriveType

Table 160. SataPortEDriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	This option indicates type of device attached to this SATA port. Example: `A:>syscfg --SataPortEDriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortEModel

Table 161. SataPortEModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortEModel`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortF or sata5

Table 162. SataPortF or sata5

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Off, Auto

Description	Turns the SATA port 5 to **auto** or **off**. This option can be replicated.
	Example:
	`A:>syscfg --sata5=auto`
	`sata5=auto`

Applicable Systems	All PowerEdge systems.

SataPortFCapacity

Table 163. SataPortFCapacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortFCapacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortFDriveType

Table 164. SataPortFDriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	This option indicates type of device attached to this SATA port. Example: `A:>syscfg --SataPortFDriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortFModel

Table 165. SataPortFModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortFModel`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortG or sata6

Table 166. SataPortG or sata6

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Off, Auto

Description	Turns the SATA port 6 to **auto** or **off**. This option can be replicated.
	Example:
	`A:>syscfg --sata6=auto`
	`sata6=auto`

Applicable Systems	All PowerEdge systems prior to Dell's 12th generation PowerEdge systems.

SataPortGCapacity

Table 167. SataPortGCapacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortGCapacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortGDriveType

Table 168. SataPortGDriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	This option indicates type of device attached to this SATA port. Example: `A:>syscfg --SataPortGDriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortGModel

Table 169. SataPortGModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortGModel`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortH or sata7

Table 170. SataPortH or sata7

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Off, Auto

Description	Turns the SATA port 7 to **auto** or **off**. This option can be replicated.
	Example:
	`A:>syscfg --sata7=auto`
	`sata7=auto`

Applicable Systems	All PowerEdge systems.

SataPortHCapacity

Table 171. SataPortHCapacity

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the total capacity of a hard-disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortHCapacity`
Applicable Systems	PowerEdge 12G and later systems.

SataPortHDriveType

Table 172. SataPortHDriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	This option indicates type of device attached to this SATA port. Example: `A:>syscfg --SataPortHDriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortHModel

Table 173. SataPortHModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortHModel`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortI or sata7

Table 174. SataPortI or sata7

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Off, Auto

Description	Turns the SATA port 7 to **auto** or **off**. This option can be replicated.
	Example:
	`A:>syscfg --sata7=auto`
	`sata7=auto`

Applicable Systems	All PowerEdge systems

SataPortICapacity

Table 175. SataPortICapacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortICapacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortIDriveType

Table 176. SataPortIDriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	This option indicates type of device attached to this SATA port. Example: `A:>syscfg --SataPortIDriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortIModel

Table 177. SataPortIModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortHModel`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortJ or sata7

Table 178. SataPortJModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: auto, off • On Dell's 12th generation PowerEdge and later systems: Off, Auto

Description	Turns the SATA port 7 to **auto** or **off**. This option can be replicated.
	Example:
	`A:>syscfg --sata7=auto`
	`sata7=auto`

Applicable Systems	All PowerEdge systems.

SataPortJCapacity

Table 179. SataPortJCapacity

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives. Example: `A:>syscfg --SataPortJCapacity`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortJDriveType

Table 180. SataPortJDriveType

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	This option indicates type of device attached to this SATA port. Example: `A:>syscfg --SataPortJDriveType`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SataPortJModel

Table 181. SataPortJModel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the drive model of the selected device. Example: `A:>syscfg --SataPortJModel`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SecurityFreezeLock

Table 182. SecurityFreezeLock

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled

Description	Sends the Security Freeze Lock command to the embedded SATA drives during power-on self-test (POST). The option is applicable only to ATA and AHCI, and not to RAID.
	
	Example:
	
	`A:>syscfg --SecurityFreezeLock=Enabled`
	`SecurityFreezeLock=Enabled`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

Serial Communication

You can manage the serial port settings using the options in this group.

ConTermType or conterm

Table 183. ConTermType or conterm

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: vt100, ansi • On Dell's 12th generation PowerEdge and later systems: Vt100, Vt220, Ansi

Description	Sets the console terminal type. On some systems, vt100 may also set the terminal type to vt220. This option is available on all supported systems that support console redirection. This option can be replicated.
	
	Example:
	
	`A:>syscfg --conterm=vt100`
	
	`conterm=vt100`

Applicable Systems	All PowerEdge systems

ExtSerialConnector or extserial

Table 184. ExtSerialConnector or extserial

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: com1, com2, rad

	• On Dell's 12th generation PowerEdge and later systems: Serial1, Serial2, RemoteAccDeviceDescription

Description	Sets the behavior of the external serial connector. When set to **com1** , the BIOS maps the external serial connector to COM port 1. The **com1** setting is the default.
	
	When set to **com2** , the external serial connector is routed to the **COM2** interface. Terminal escape sequences can toggle the external connector between the system (COM2) and the remote access device.
	
	When set to **rad** , the external serial connector is routed to the remote access device interface. Terminal escape sequences can toggle the external connector between the system (**COM2**) and the remote access device.
	
	This option can be replicated.
	
	Example:
	
	`A:>syscfg --extserial=com1`
	
	`extserial=com1`
	
	The **--serialcomm** option can be used with the external serial (**--extserial**) option instead of the --conred (available on systems earlier than PowerEdge 9G systems) option.

Applicable Systems	All PowerEdge systems except Blade systems.

FailSafeBaud or fsbr

Table 185. FailSafeBaud or fsbr

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: 115200, 57600, 19200, 9600 • On Dell's 12th generation PowerEdge and later systems: 115200, 57600, 19200, 9600

Description	Sets the console redirection fail safe baud rate in bps. The BIOS attempts to determine the baud rate automatically. This failsafe baud rate is used only if the attempt fails.
	
	Example:
	
	`A:>syscfg --fsbr=9600`
	
	`fsbr=9600`

Applicable Systems	All PowerEdge systems.

RedirAfterBoot

Table 186. RedirAfterBoot

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled
Description	Sets the BIOS console redirection to enable or disable when the operating system is loaded.

	Example:
	`A:>syscfg --RedirAfterBoot=Enabled`
	`RedirAfterBoot=Enabled`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

SerialComm or serialcomm

Table 187. SerialComm or serialcomm

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: on, com1cr, com2cr, off • On Dell's 12th generation PowerEdge and later systems: OnNoConRedir, OnConRedirCom1, OnConRedirCom2, Off

Description	Enables or disables the serial communication devices (Serial Device 1 and Serial Device 2) in BIOS.
	Example:
	`A:>syscfg --SerialComm=OnNoConRedir`
	`SerialComm=OnNoConRedir`

Applicable Systems	All Dell's 12th generation PowerEdge and later systems

SerialPortAddress or serialportaddrsel

Table 188. SerialPortAddress or serialportaddrsel

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: default, alternate • On Dell's 12th generation PowerEdge and later systems: Serial1Com1Serial2Com2, Serial1Com2Serial2Com1, Com1, Com2

Description	Sets the port address of the serial devices.
	On systems prior to Dell's 12th generation PowerEdge systems, when this option is **default**, Serial Device 1 is set to COM port 1 and Serial Device 2 is set to COM port 2.
	On systems prior to Dell's 12th generation PowerEdge systems, when this option is **alternate**, Serial Device 1 is set to COM port 2 and Serial Device 2 is set to COM port 1.
	This option can be replicated.
	Example:
	`A:>syscfg --serialportaddrsel=default`
	`serialportaddrsel=default`

Applicable Systems	Dell's 11th generation PowerEdge and later systems

Slot Disablement

You can manage the slot disablement settings using the options in this group.

Slot*n*

Table 189. Slot*n*

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled, BootDriverDisabled

Description	Controls the configuration of the installed card in the specified slot.
	NOTE: The value of *n* in Slot*n* can be 1–10.
	Example:
	`A:>syscfg --Slot1=Enabled`
	`Slot1=Enabled`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

Slot*n*Bif

Table 190. Slot*n*Bif

Valid Arguments	• On systems prior to 14G: NA • On 14G: x16, x4, x8, x4x4x8, x8x4x4
Description	Controls the configuration of the installed card in the specified slot. Where the value of *n* in Slot*n* can be 1 or 2. Example: `A:>syscfg --Slot1Bif=x8`
Applicable Systems	PowerEdge 14G and later systems

System Information

You can view the system configuration details using the options in this group.

SysMfrContactInfo

Table 191. SysMfrContactInfo

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the information for contacting the Original Equipment Manufacturer (OEM) of this system. Example: `A:>syscfg --SysMfrContactInfo`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SystemBiosVersion or biosver

Table 192. SystemBiosVersion or biosver

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: Read-only • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the current revision of the system BIOS firmware. Example: `A:>syscfg --biosver`
Applicable Systems	All PowerEdge systems

SystemManufacturer

Table 193. SystemManufacturer

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the name of the Original Equipment Manufacturer (OEM) of this system. Example: `A:>syscfg --SystemManufacturer`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SystemModelName

Table 194. SystemModelName

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the product name of the system. Example: `A:>syscfg --SystemModelName`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

SystemServiceTag or svctag or syssvctag

Table 195. SystemServiceTag or svctag or syssvctag

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: Read-only • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the system service tag (a unique identifier assigned by the Original Equipment Manufacturer (OEM) of this system). **NOTE: The `syssvctag` option reports the system service tag on a Blade system.** Example: `A:>syscfg --svctag`
Applicable Systems	All PowerEdge systems.

SystemMeVersion

Table 196. SystemMeVersion

Valid Arguments	• On systems prior to Dell's 13th generation PowerEdge systems: NA • On Dell's 13th generation PowerEdge systems: Read-only
Description	Displays the version of the Management Engine firmware. Example: `A:>syscfg --SystemMeVersion`
Applicable Systems	Dell's 13th generation PowerEdge systems

UefiComplianceVersion

Table 197. UefiComplianceVersion

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Read-only
Description	Displays the UEFI compliance level of the system firmware. Example: `A:>syscfg --UefiComplianceVersion`
Applicable Systems	Dell's 12th generation PowerEdge and later systems

System Profile Settings

You can manage the system profile settings using the options in this group.

CollaborativeCpuPerfCtrl

Table 198. CollaborativeCpuPerfCtrl

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled

Description	When set to `Enabled`, the operating system demand based power management (OS DBPM) and system demand based power management (System DBPM) controls the CPU power management. This feature can be enabled only when CPU power management (`ProcPwrPerf`) is set to system DBPM in `Custom` mode.
	Example:
	`A:>syscfg --CollaborativeCpuPerfCtrl=Enabled`
	`CollaborativeCpuPerfCtrl=Enabled`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

MemFrequency or memorypowermode

Table 199. MemFrequency or memorypowermode

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: min, 978, 800, 1067, 1333, max

	• On Dell's 12th generation PowerEdge and later systems: MaxPerf, 2133MHz, 1866MHz, 1600MHz, 1333MHz, 1067MHz, 800MHz, MaxReliability

Description	Sets the speed of system memory.
	NOTE: On systems prior to Dell's 12th generation PowerEdge systems, memorypowermode is a suboption of Power.
	Example:
	`A:>syscfg --MemFrequency=MaxPerf`
	`MemFrequency=MaxPerf`

Applicable Systems	All PowerEdge systems.

MemPatrolScrub

Table 200. MemPatrolScrub

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Standard, Extended, Disabled

Description	Sets the Memory Patrol Scrub frequency as `Standard Mode`, `Extended Mode`, or `Disabled`.
	Example:
	`A:>syscfg --MemPatrolScrub=Standard`
	`MemPatrolScrub=Standard`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

MemRefreshRate

Table 201. MemRefreshRate

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: 1x, 2x

Description	Sets the Memory Refresh Rate as `1x` or `2x`
	Example:
	`A:>syscfg --MemRefreshRate=1x`
	`MemRefreshRate=1x`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

MemVolt

Table 202. MemVolt

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: AutoVolt, Volt15V, Volt135V **NOTE: Volt15V represents 1.5 Volt and Volt135V represents 1.35 Volts.**

Description	Sets the DIMM voltage selection.
	Example:
	`A:>syscfg --MemVolt=AutoVolt`
	`MemVolt=AutoVolt`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

MonitorMwait

Table 203. MonitorMwait

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: NA • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled

Description	Enables or disables Monitor/Mwait instructions. You can disable Monitor/Mwait only when C state is disabled in Custom mode.
	Example:
	`A:>syscfg --MonitorMwait=Enabled`
	`MonitorMwait=Enabled`

Applicable Systems	Dell's 12th generation PowerEdge and later systems

PowerSaver

Table 204. PowerSaver

Valid Arguments	• On systems prior to Dell's 13th generation PowerEdge systems: NA • On Dell's 13th generation PowerEdge and later systems: Enabled, Disabled

Description	Enables or disables the power-saving Dell Active Power Controller (DAPC) algorithm.
	Example:
	`A:>syscfg --PowerSaver=Enabled`
	`PowerSaver=Enabled`

Applicable Systems	Dell's 13th generation PowerEdge and later systems

ProcC1E or cpucle

Table 205. ProcC1E or cpucle

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: enable, disable • On Dell's 12th generation PowerEdge systems and later systems: Enabled, Disabled

Description	Enables or disables C1-E. By default, it is enabled. This option can be replicated.
	Example:
	`A:>syscfg --cpucle=enable`
	`cpucle=enable`

Applicable Systems	On Dell's 11th generation PowerEdge systems and later systems

ProcCStates or cstates

Table 206. ProcCStates /or cstates

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems : enable, disable • On Dell's 12th generation PowerEdge and later systems : Enabled, Disabled

Description	Enables or disables the power c states of the processor. When enabled, the processor can operate in all available power states.
	`A:>syscfg --cstates=enable`
	`cstates=enable`

Applicable Systems	On Dell's 12th generation PowerEdge and later systems

ProcPwrPerf or cpupowermode

Table 207. ProcPwrPerf or cpupowermode

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: min, max, osdbpm, systemdbpm • On Dell's 12th generation PowerEdge and later systems: MaxPerf, MinPwr, SysDbpm, OsDbpm
Description	Sets CPU Power Management to maximum performance, operating system DBPM, or System DBPM (DAPC). **NOTE: The `cpupowermode` option is a suboption of Power.**

	Example:
	`A:>syscfg --ProcPwrPerf=OsDbpm`
	`ProcPwrPerf=OsDbpm`

Applicable Systems	All PowerEdge systems.

ProcTurboMode or turbomode

Table 208. ProcTurboMode or turbomode

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: enable, disable • On Dell's 12th generation PowerEdge and later systems: Enabled, Disabled

Description	Enables or disables core-based turbo mode. Turbo mode is a feature on Intel processors that allows one processor core to increase the frequency by one bin whenever the other core has gone into an idle state. When enabled, the processor can operate in Turbo Boost Mode.
	Example:
	`A:>syscfg --turbomode=enable`
	`--turbomode=enable`

Applicable Systems	Dell's 11th generation PowerEdge and later systems running on Intel processors

SysProfile or profile

Table 209. SysProfile or profile

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: maxperformance, osctl, apc, custom • On Dell's 12th generation PowerEdge and later systems: PerfPerWatt OptimizedOs, PerfPerWatt OptimizedDapc, PerfOptimized, Custom, DenseCfg Optimized

Description	Configures the system power profile. When set to a mode other than custom, BIOS will set each option accordingly. When set to custom, you can change setting of each option.
	NOTE: On systems prior to Dell's 12th generation PowerEdge systems, `profile` is a sub-option of power.
	Example:
	`A:>syscfg --profile=maxperformance`
	`profile=maxperformance`

Applicable Systems	All PowerEdge systems

EnergyEfficientTurbo

Table 210. EnergyEfficientTurbo

Valid Arguments	• On systems prior to Dell's 13th generation PowerEdge systems: NA

	• On Dell's 13th generation PowerEdge and later systems: Enabled, Disabled

Description	Enables or disables the Energy Efficient Turbo (EET). EET is a mode of operation where the core frequency of a processor is adjusted within the turbo range based on workload.
	
	Example:
	
	`A:>syscfg --EnergyEfficientTurbo=Enabled`
	`EnergyEfficientTurbo=Enabled`

Applicable Systems	Dell's 13th generation PowerEdge and later systems

Proc*n*TurboCoreNum

Table 211. Proc*n*TurboCoreNum

Valid Arguments	• On systems prior to Dell's 13th generation PowerEdge systems: NA • On Dell's 13th generation PowerEdge and later systems: All, 1, 2, 4, 6, 8, 10, 12, 14, 16, 18

Description	Sets the number of Turbos Boost-enabled cores for a processor. By default, the maximum number of cores per processor is enabled.
	
	NOTE: The value of *n* in `ProcnTurboCoreNum` can be 0–3.
	
	Example:
	
	`A:>syscfg --Proc1TurboCoreNum=6`
	`Proc1TurboCoreNum=6`

EnergyPerformanceBias

Table 212. EnergyPerformanceBias

Valid Arguments	• On systems prior to Dell's 13th generation PowerEdge systems: NA • On Dell's 13th generation PowerEdge and later systems: MaxPower, BalancedPerformance, BalancedEfficiency, LowPower
Description	Sets the Energy Efficient Policy. The CPU uses this setting to control the internal behavior of the processor and to determine whether to target higher performance or better power savings. Example: `A:>syscfg --EnergyPerformanceBias=MaxPower`
Applicable Systems	Dell's 13th generation PowerEdge and later systems

UncoreFrequency

Table 213. UncoreFrequency

Valid Arguments	• On systems prior to Dell's 13th generation PowerEdge systems: NA • On Dell's 13th generation PowerEdge and later systems: DynamicUFS, MaxUFS, MinUFS
Description	Sets the processor uncore frequency. Dynamic mode allows the processor to optimize power resources across the cores and uncore during runtime. The optimization of the uncore frequency to either save power or to optimize the performance is dependent on the `EnergyPerformanceBias` option setting. Example: `A:>syscfg --UncoreFrequency=DynamicUFS`
Applicable Systems	Dell's 13th generation PowerEdge and later systems

System Security

You can manage the system security properties of the BIOS using the options in this group.

AcPwrRcvry or acpower

Table 214. AcPwrRcvry acpower

Valid Arguments	• On systems prior to Dell's 12th generation PowerEdge systems: on, off, last • On Dell's 12th generation PowerEdge and later systems: 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 PowerEdge systems.

AcPwrRcvryDelay

Table 215. AcPwrRcvryDelay

Valid Arguments	• On systems prior to 12G: NA

	• On 12G and later systems: Immediate, User, Random

Description	Specifies how the system supports the staggering of power-up after AC power has been restored to the system.
	Example:
	`A:>syscfg --AcPwrRcvryDelay=Immediate`
	`AcPwrRcvryDelay=Immediate`

Applicable Systems	PowerEdge 12G and later systems

AcPwrRcvryUserDelay

Table 216. AcPwrRcvryUserDelay

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: *<integer>*

Description	Controls the user defined AC Recovery Delay. The delay must be in the range of 60 seconds to 240 seconds.
	Example:
	`A:>syscfg --AcPwrRcvryUserDelay=60`
	`AcPwrRcvryUserDelay=60`

Applicable Systems	PowerEdge 12G and later systems

AesNi

Table 217. AesNi

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled, Disabled

Description	Displays the current status of Intel Processor AES-NI feature.
	Example:
	`A:>syscfg --AesNi=Enabled`
	`AesNi=Enabled`

Applicable Systems	PowerEdge 12G and later systems

IntelTxt or inteltxt

Table 218. IntelTxt or inteltxt

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: On, Off

Description	Turns the Trusted Execution Technology on or off. To enable Intel TXT, VT must be enabled, and the TPM must be enabled with pre-boot measurements and activated.
	Example:
	`A:>syscfg --inteltxt=enable`
	`inteltxt=enable`
	NOTE: To enable the Intel TXT option in a supported processor, make sure that the:
	• Virtualization technology in **Processor** setting is enabled.
	• TPM module is installed and initialed as **OK** by BIOS.
	• TPM security in System security is set to **on with pre-boot measurements**.
	• User password is not set.

Applicable Systems	All PowerEdge 11G and later systems with Intel processors.

NmiButton or nmibutton

Table 219. NmiButton or nmibutton

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the Non-Maskable Interrupt (NMI) button on the front panel. The NMI button can be used to alert the operating system in certain cases.
	NOTE: This option configures Baseboard Management Controller (BMC) and Remote Access Controller (RAC) settings.
	Example:
	`A:>syscfg --nmibutton=enable`
	`nmibutton=enable`

Applicable Systems	PowerEdge 11G and later systems

PasswordStatus or pwdlock

Table 220. PasswordStatus or pwdlock

Valid Arguments	• On systems prior to 12G: lock, unlock

	• On 12G and later systems: Locked, Unlocked

Description	Locks the system password. To prevent the system password from being modified, set this option to `locked`and enable setup password. This field also prevents the system password from being disabled by the user while the system boots.
	Example:
	`A:>syscfg --pwdlock=lock`
	`pwdlock=lock`

Applicable Systems	All PowerEdge systems.

PwrButton or powerbutton

Table 221. PwrButton or powerbutton

Valid Arguments	• On systems prior to 12G: enable, disable • On 12G and later systems: Enabled, Disabled

Description	Enables or disables the power button on the front panel.
	Example:
	`A:>syscfg --powerbutton=enable`
	`powerbutton=enable`

Applicable Systems	All PowerEdge systems.

SetupPassword or setuppwd

Table 222. SetupPassword or setuppwd

Valid Arguments	• On systems prior to 12G: read-only • On 12G and later systems: read-only

Description	Sets the setup password for the BIOS. The setup password locks the BIOS F2 screen. The argument string supplied to this option is the password. Passwords are limited to alphanumeric characters and cannot exceed 32 characters in length. If a current setup password is set, it must be given through the **oldsetuppwd** option. This option is not replicated. For more information on delimiters, see Command Line Option Delimiters .
	Example:
	`A:>syscfg --setuppwd=asetuppassword`
	`The password has been set. Please use a warm reboot to apply the password to the system.`
	Example 2:
	`A:>syscfg --setuppwd=asetuppassword --oldsetuppwd=currentpassword`
	`The password has been set. Please use a warm reboot to apply the password to the system.`

	Example 3:
	`A:>syscfg --setuppwd=asetuppassword --oldsetuppwd=currentpassword`
	`The old password entered is incorrect. The new password will not be set. Please try again.`

Applicable Systems	All PowerEdge systems

SysPassword or syspwd

Table 223. SysPassword or syspwd

Valid Arguments	• On systems prior to 12G: read-only • On 12G and later systems: read-only

Description	Sets the system password for the BIOS. The system password is required when booting the system. The argument string supplied to this option is the password. Generally, passwords are limited to alphanumeric characters and cannot exceed 32 characters in length. If a current system password is set, it must be given through the **oldsyspwd** option. This option is not replicated. For more information on delimiters, see Command Line Option Delimiters .
	Example 1:
	`A:>syscfg --syspwd=password`
	`The password has been set. Please use a warm reboot to apply the password to the system.`
	Example 2:
	`A:>syscfg --syspwd=password --oldsyspwd=password`
	`The password has been set. Please use a warm reboot to apply the password to the system`
	.
	NOTE: You cannot disable your password using DTK. To disable your password, you must use the system BIOS.

Applicable Systems	All PowerEdge systems

SystemCpldVersion

Table 224. SystemCpldVersion

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the current revision of the Complex Programmable Logic Device (CPLD) of the system. Example: `A:>syscfg --SystemCpldVersion`
Applicable Systems	PowerEdge 12G and later systems

TcmActivation or tcmactivation

Table 225. TcmActivation or tcmactivation

Valid Arguments	• On systems prior to 12G: enabled, disabled, and nochange • On 12G systems: NoChange, Activate, Deactivate

Description	Allows the user to change the operational state of the Trusted Cryptography Module (TCM). This field is read-only when `TCM Security` is set to `Off`.
	NOTE: The tcmactivation option is a sub-option of tcm.
	Example:
	`A:>syscfg --tcmactivation=enabled`
	`tcmactivation=enabled`

Applicable Systems	All systems prior to PowerEdge 13G systems.

TcmClear or tcmclear

Table 226. TcmClear or tcmclear

Valid Arguments	• On systems prior to 13G: Yes, No • On 13G systems: NA

Description	**CAUTION: Clearing the TCM will cause loss of all keys in the TCM. This could affect booting of the operating system.**
	When set to `Yes`, all the contents of the TCM will be cleared. This field is read-only when `TCMSecurity` is set to `Off`.
	NOTE: The tcmclear option is a sub-option of tcm.
	Example:
	`A:>syscfg --TcmClear=Yes`
	`TcmClear=Yes`

Applicable Systems	All systems prior to PowerEdge 13G systems.

TcmSecurity or tcmsecurity

Table 227. TcmSecurity or tcmsecurity

Valid Arguments	• On systems prior to 12G: on, off • On 12G and later systems: On, Off
Description	Controls the reporting of the Trusted Cryptography Module (TCM) in the system.

	NOTE: The tcmsecurity option is a sub-option of tcm.
	Example:
	`A:>syscfg --tcmsecurity=on`
	`tcmsecurity=on`

Applicable Systems	All PowerEdge systems.

TpmActivation or tpmactivation

Table 228. TpmActivation or tpmactivation

Valid Arguments	• On systems prior to 12G: enabled, disabled, nochange • On 12G systems: NoChange, Activate, Deactivate

Description	Allows the user to change the operational state of the Trusted Platform Module (TPM). This field is read-only when `TPM Security` is set to `Off`.
	NOTE: The tpmactivation option is a sub-option of tpm.
	Example:
	`A:>syscfg --tpmactivation=enabled`
	`tpmactivation=enabled`

Applicable Systems	All systems prior to PowerEdge 13G systems.

TpmClear or tpmclear

Table 229. TpmClear or tpmclear

Valid Arguments	• On systems prior to 12G: NA • On 12G systems: Yes, No

Description	**CAUTION: Clearing the TPM will cause loss of all keys in the TPM. This could affect booting of the operating system.**
	When set to `Yes`, all the contents of the TPM will be cleared. This field is read-only when `TCMSecurity` is set to `Off`.
	NOTE: The tpmclear option is a sub-option of tpm.
	Example:
	`A:>syscfg --TpmClear=Yes`
	`TpmClear=Yes`

Applicable Systems	All systems prior to PowerEdge 13G systems.

TpmSecurity or tpmsecurity

Table 230. TpmSecurity or tpmsecurity

Valid Arguments	• On systems prior to 12G: off, onwithpbm, onwithoutpbm • On 12G and later systems: Off, OnPbm, OnNoPbm

Description	Controls the reporting of the Trusted Platform Module (TPM) in the system.
	NOTE: The tpmsecurity option is a sub-option of tpm.
	Example:
	`A:>syscfg --tpmsecurity=off`
	`tpmsecurity=off`

Applicable Systems	All PowerEdge systems.

TpmStatus

Table 231. TpmStatus

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: read-only
Description	Displays the current status of TPM. Example: `A:>syscfg --TpmStatus`
Applicable Systems	PowerEdge 12G and later systems

TpmInfo

Table 232. TpmInfo

Valid Arguments	• On systems prior to 13G: NA • On 13G and later systems: read-only
Description	Displays the TPM type and firmware version. Example: `A:>syscfg --TpmInfo`
Applicable Systems	PowerEdge 13G and later systems

TpmCommand

Table 233. TpmCommand

Valid Arguments	• On systems prior to 13G: NA • On 13G and later systems: None, Activate, Deactivate, Clear
Description	Configures the Trusted Platform Module (TPM). • `None` — Commands are not sent to the TPM. • `Activate` — TPM is enabled. • `Deactivate` — TPM is disabled. • `Clear` — All the contents of TPM are cleared. **NOTE: This field is read-only when `TpmSecurity` is set to `Off`.** **CAUTION: Clearing TPM results in loss of all keys in the TPM. This could affect booting to operating system.** Example: `A:>syscfg --TpmCommand=Activate`
Applicable Systems	PowerEdge 13G and later systems

SecureBoot

Table 234. SecureBoot

Valid Arguments	• On systems prior to 12G: NA • On 12G and later systems: Enabled.

Description	Enables the `BootSeqRetry` feature. When set to Enabled, the system re-attempts the boot sequence after a 30-second timeout, if the last boot attempt has failed.
	Example:
	`A:>syscfg --SecureBoot=Enabled`
	`SecureBoot=Enabled`

Applicable Systems	PowerEdge 12G and later systems

SecureBootPolicy

Table 235. SecureBootPolicy

Valid Arguments	• On systems prior to 12G: NA

	• On 12G and later systems: Standard, Custom

Description	Sets the process to authenticate pre-boot images. When set to `Standard`, the BIOS uses the system manufacturer keys and certificates to authenticate pre-boot images. When set to `Custom`, the BIOS uses user-defined keys and certificates. The default value is `Standard`.
	
	Example:
	
	`A:>syscfg --SecureBootPolicy=Standard`
	`SecureBootPolicy=Standard`

Applicable Systems	PowerEdge 12G and later systems

UefiVariableAccess

Table 236. UefiVariableAccess

Valid Arguments	• On systems prior to 13G: NA • On 13G and later systems: Standard, Controlled

Description	Secures the UEFI variables. When set to `Standard`, the UEFI variables are accessible from the operating system as per the UEFI specification. When set to `Controlled`, selected UEFI variables are protected in the operating system and new UEFI boot entries are pushed to the end of the current boot order.
	
	Example:
	
	`A:>syscfg --UefiVariableAccess=Standard`
	`UefiVariableAccess=Standard`

Applicable Systems	PowerEdge 13G and later systems

SecureBootMode

Table 237. SecureBootMode

Valid Arguments	• On systems prior to 14G: NA • On 14G and later systems: UserMode, DeployedMode.
Description	This feature configures the BIOS uses the Secure Boot Policy Objects — PK, KEK, db, dbx. In Setup Mode and Audit Mode, PK is not present, and BIOS does not authenticate programmatic updates to the policy objects. In User Mode and Deployed Mode, PK is present, and BIOS performs signature verification on programmatic attempts to update policy objects. Deployed Mode is the most secure mode. Use Setup, Audit, or User Mode when provisioning the system, then use Deployed Mode for normal operation. Available mode transitions depend on the current mode and PK presence. In Audit Mode, the BIOS performs signature verification on preboot images and logs results in the Image Execution Information Table, but executes the images whether they pass or fail

	verification. Audit Mode is useful for programmatically determining a working set of policy objects.
	
	Example:
	
	`A:>syscfg --SecureBootMode=UserMode`
	`SecureBootMode=UserMode`

Applicable Systems	PowerEdge 14G and later systems

TpmPpiBypassClear

Table 238. TpmPpiBypassClear

Valid Arguments	• On systems prior to 14G: N/A • On 14G and later systems: Enabled, Disabled

Description	When set to Enabled, allows the Operating System to bypass Physical Presence Interface (PPI) prompts when issuing PPI Advanced Configuration and Power Interface (ACPI) clear operations.
	
	Example:
	
	`A:>syscfg --tpmPpiByPassClear=Enabled`
	
	`tpmPpiBypassClear=Enabled`

Applicable Systems	14G PowerEdge systems.

TpmPpiBypassProvision

Table 239. TpmPpiBypassProvision

Valid Arguments	• On systems prior to 14G: N/A • On 14G and later systems: Enabled, Disabled

Description	When set to Enabled, allows the Operating System to bypass Physical Presence Interface (PPI) prompts when issuing PPI Advanced Configuration and Power Interface (ACPI) provisioning operations.
	
	Example:
	
	`A:>syscfg --tpmPpiByPassProvision=Enabled`
	
	`tpmPpiBypassProvision=Enabled`

Applicable Systems	14G PowerEdge systems.

UEFI Boot Settings

You can manage the UEFI settings using the options in this group.

UefiBootSeq

Table 240. UefiBootSeq

Valid Arguments	• On systems prior to 12G : NA • On 12G and later systems : list of device names separated by commas
Description	Enables, disables, and orders the devices in a UEFI boot order list. Only the devices present on the system are listed in the UefiBootSeq. The first option in the list is attempted first. If the first option is not successful, the second option is attempted, and so on. The system attempts to launch only the enabled boot options and does not launch disabled boot options. This option is applicable when **bootmode** is set to `UEFI` and has no effect when **bootmode** is set to `BIOS`. **NOTE: Only the devices listed in the bootseq are enabled.**
Applicable Systems	All PowerEdge 12 and later systems.

DTKTORACADM

The DTK SYSCFG deployment scripts are converted to equivalent RACADM scripts, that helps in migration to utilize RACADM in the deployment solution. The utility has the conversion tool for converting the SYSCFG scripts in both environments: Microsoft Windows and Linux operating systems. Starting 12th generation of PowerEdge servers and later, selected set of SYSCFG commands are a part of the DTK sample scripts. The list of DTK sample scripts are present in **\Toolkit\Tools\CONVERTER\windows_scripts.lst** for Microsoft Windows operating systems and **toolkit/Converter/ linux_scripts.lst** for Linux operating system. The converted scripts are available in the folder **racscripts**.

Table 241. DTKTORACADM Command on Windows Operating System

Valid Arguments	**`dtktoracadm.exe` or `dtktoracadm.exe windows_scripts.lst debug`**
Description	On systems running Windows operating system, run the command, where **windows_scripts.lst** is the input file which contains the list of path to run the RACADM scripts and **debug** is an option which list the file status.
Applicable Systems	All PowerEdge 12 and later systems.

Table 242. DTKTORACADM Command on Linux Operating System

Valid Arguments	**`python dtktoracadm.py` or `python dtktoracadm.py linux_scripts.lst debug`**
Description	On the system running Linux operating system, in the prompt type the command, where **linux_scripts.lst** is the input which contains the list of path to run the RACADM scripts and **debug** is an option which list the file status.
Applicable Systems	All PowerEdge 12 and later systems.

The set of converted commands are available in **dtktoracadm_dict.map**. For more information see, *Dell EMC OpenManage Deployment Toolkit User's Guide* or *Dell EMC OpenManage Deployment Toolkit Installation Guide*. The following table lists the set of commands available:

Table 243. SYSCFG equivalent RACADM commands

Group	SYSCFG Commands	Equivalent RACADM Commands
iDRAC Settings	lcp --dnsdhcp	iDRAC.IPv4.DNSFromDHCP
	lcp --domainname	iDRAC.NIC.DNSDomainName
	lcp --dnsracname	iDRAC.NIC.DNSRacName
	lcp --dnsregisterrac	iDRAC.NIC.DNSRegister
	--idractype	iDRAC.Info.Type -z legacy
	--autoneg	iDRAC.NIC.Autoneg
	--gateway	iDRAC.IPv4.Gateway
	--ipaddress	iDRAC.IPv4.Address
	--macaddress	iDRAC.NIC.MACAddres
	--nicselectionfailover	iDRAC.NIC.Failover
	--subnetmask	iDRAC.IPv4.Netmask
	--vlanid	iDRAC.NIC.VLanID
	--dnsserver1v6	get iDRAC.IPv6.DNS1
	--dnsserver2v6	get iDRAC.IPv6.DNS2
	--gatewayv6	iDRAC.IPv6.Gateway
	--ipv6address1	iDRAC.IPv6.Address1
	--ipv6address2	iDRAC.IPv6.Address2
	--linklocaladdrv6	iDRAC.IPv6.LinkLocalAddress
	--prefixlengthv6	iDRAC.IPv6.PrefixLength
	--connectionmode	iDRAC.IPMISerial.ConnectionMode
	--msgcommbitrate	iDRAC.IPMISerial.BaudRat
	--msgcommflowctrl	iDRAC.IPMISerial.FlowControl
	--tmcfghandshakectrl	iDRAC.IPMISerial.HandshakeControl
	--tmcfglineediting	iDRAC.IPMISerial.LineEdit
	--tmcfgnewlineseq	iDRAC.IPMISerial.NewLineSeq
	--solcharaccuminterval	iDRAC.IPMISOL.AccumulateInterval
	--solbitrate	iDRAC.IPMISOL.BaudRate
	--solprivlevel	iDRAC.IPMISOL.MinPrivilege
	--solcharsendthreshold	iDRAC.IPMISOL.SendThreshold
BIOS Option Settings	--HddSeq	BIOS.BiosBootSettings.HddSeq
Boot Settings	--BootMode	BIOS.BiosBootSettings.BootMode

Group	SYSCFG Commands	Equivalent RACADM Commands
	--BootSeqRetry	BIOS.BiosBootSettings.BootSeqRetry
	--HddFailover	BIOS.BiosBootSettings.HddFailover
	--SetBootOrderFqdd*n*	BIOS.BiosBootSettings.SetBootOrderFqddn
	--SetLegacyHddOrderFqdd*n*	BIOS.BiosBootSettings.SetLegacyHddOrderFqddn
Integrated Devices	--EmbVideo	BIOS.IntegratedDevices.EmbVideo
	--IoatEngine	BIOS.IntegratedDevices.IoatEngine
	--IntegratedNetwork1	BIOS.IntegratedDevices.IntegratedNetwork1
	--IntegratedNetwork2	BIOS.IntegratedDevices.IntegratedNetwork2
	--IntegratedRaid	BIOS.IntegratedDevices.IntegratedRaid
	--InternalUsb	BIOS.IntegratedDevices.InternalUsb
	--OsWatchdogTimer	BIOS.IntegratedDevices.OsWatchdogTimer
	--SriovGlobalEnable	BIOS.IntegratedDevices.SriovGlobalEnable
	--Usb3Setting	BIOS.IntegratedDevices.Usb3Setting
Memory Settings	--DynamicCoreAllocation	BIOS.ProcSettings.DynamicCoreAllocation
	--CorrEccSmi	BIOS.MemSettings.CorrEccSmi
	--MemTest	BIOS.MemSettings.MemTest
	--NodeInterleave	BIOS.MemSettings.NodeInterleave
	--memopmode	BIOS.memsettings.MemOpMode
	--videomem	BIOS.memsettings.VideoMem
	--sysmemvolt	BIOS.MemSettings.SysMemVolt
	--sysmemtype	BIOS.MemSettings.SysMemType
	--sysmemspeed	BIOS.MemSettings.SysMemSpeed
	--sysmemsize	BIOS.memsettings.SysMemSize
	--memoperatingmode	BIOS.memsettings.MemOpMode
Miscellaneous Settings	--AssetTag	BIOS.MiscSettings.AssetTag
	--ErrPrompt	BIOS.MiscSettings.ErrPrompt
	--NumLock	BIOS.MiscSettings.NumLock
	--ForceInt10	BIOS.MiscSettings.ForceInt10
	--insystemcharacterization	BIOS.MiscSettings.InSystemCharacterization
Processor Settings	--DcuIpPrefetcher	BIOS.ProcSettings.DcuIpPrefetcher
	--DcuStreamerPrefetcher	BIOS.ProcSettings.DcuStreamerPrefetcher
	--LogicalProc	BIOS.ProcSettings.LogicalProc
	--ProcExecuteDisable	BIOS.ProcSettings.ProcExecuteDisable
	--ProcHwPrefetcher	BIOS.ProcSettings.ProcHwPrefetcher
	--ProcVirtualization	BIOS.ProcSettings.ProcVirtualization
	--RtidSetting	BIOS.ProcSettings.RtidSetting

Group	SYSCFG Commands	Equivalent RACADM Commands
	--ProcX2Apic	BIOS.ProcSettings.ProcX2Apic
	--cpucore	BIOS.ProcSettings.ProcCores
	--cpuspeed	BIOS.ProcSettings.ProcCoreSpeed
	--logicproc	BIOS.procsettings.LogicalProc
	--proc1brand	BIOS.procsettings.Proc1Brand
	--proc1id	BIOS.procsettings.Proc1Id
	--proc1l2cache	BIOS.procsettings.Proc1L2Cache
	--proc1l3cache	BIOS.procsettings.Proc1L3Cache
	--proc1numcores	BIOS.procsettings.Proc1NumCores
	--proc2brand	BIOS.procsettings.Proc2Brand
	--proc2id	BIOS.procsettings.Proc2Id
	--proc2l2cache	BIOS.procsettings.Proc2L2Cache
	--proc2l3cache	BIOS.procsettings.Proc2L3Cache
	--proc2numcores	BIOS.procsettings.Proc2NumCores
	--proc64bit	BIOS.procsettings.Proc64bit
	--procadjcacheline	BIOS.procsettings.ProcAdjCacheLine
	--procbusspeed	BIOS.procsettings.ProcBusSpeed
	--proccorespeed	BIOS.procsettings.ProcCoreSpeed
	--qpispeed	BIOS.procsettings.QpiSpeed
	--procconfigtdp	BIOS.procsettings.ProcConfigTdp
SATA Settings	--WriteCache	BIOS.SataSettings.WriteCache
	--SecurityFreezeLock	BIOS.SataSettings.SecurityFreezeLock
	--embsata	BIOS.SataSettings.EmbSata
	--sata0	BIOS.SataSettings.SataPortA
	--sata1	BIOS.SataSettings.SataPortB
	--sata2	BIOS.SataSettings.SataPortC
	--sata3	BIOS.SataSettings.SataPortD
	--sata4	BIOS.SataSettings.SataPortE
	--sata5	BIOS.SataSettings.SataPortF
	--sata7	BIOS.SataSettings.SataPortH
	--sataporta	BIOS.SataSettings.SataPortA
	--sataportb	BIOS.SataSettings.SataPortB
	--sataportc	BIOS.SataSettings.SataPortC
	--sataportd	BIOS.SataSettings.SataPortD
	--sataporte	BIOS.SataSettings.SataPortE
	--sataportf	BIOS.SataSettings.SataPortF

Group	SYSCFG Commands	Equivalent RACADM Commands
	--sataportg	BIOS.SataSettings.SataPortG
	--sataportgmodel	BIOS.SataSettings.SataPortGModel
	--sataportgdrivetype	BIOS.SataSettings.SataPortGDriveType
	--sataportgcapacity	BIOS.SataSettings.SataPortGCapacity
	--sataporth	BIOS.SataSettings.SataPortH
	--sataporthmodel	BIOS.SataSettings.SataPortHModel
	--sataporthdrivetype	BIOS.SataSettings.SataPortHDriveType
	--sataporthcapacity	BIOS.SataSettings.SataPortHCapacity
	--sataporti	BIOS.SataSettings.SataPortI
	--sataportimodel	BIOS.SataSettings.SataPortIModel
	--sataportidrivetype	BIOS.SataSettings.SataPortIDriveType
	--sataporticapacity	BIOS.SataSettings.SataPortICapacity
	--sataportj	BIOS.SataSettings.SataPortJ
	--sataportjmodel	BIOS.SataSettings.SataPortJModel
	--sataportjdrivetyp	BIOS.SataSettings.SataPortJDriveType
	--sataportjcapacity	BIOS.SataSettings.SataPortJCapacity
Serial Communication	--ConTerrmType	BIOS.SerialCommSettings.ConTermType
	--ExtSerialConnector	BIOS.SerialCommSettings.ExtSerialConnector
	--FailSafeBaud	BIOS.SerialCommSettings.FailSafeBaud
	--RedirAfterBoot	BIOS.SerialCommSettings.RedirAfterBoot
Slot Disablement	--Slot*n*	BIOS.SlotDisablement.Slot*n*
System Information	--svctag	BIOS.SysInformation.SystemServiceTag
System Security	--AcPwrRcvryDelay	BIOS.SysSecurity.AcPwrRcvryDelay
	--PwrButton	BIOS.SysSecurity.PwrButton
	--SetupPassword	BIOS.SysSecurity.SetupPassword
	--SysPassword	BIOS.SysSecurity.SysPassword
System Power	--maxpowercap	System.Power.Cap.MaxThreshold
	--minpowercap	System.Power.Cap.MinThreshold
	--capenable	System.Power.Cap.Enable
	--nmibutton	BIOS.SysSecurity.NmiButton
	--powerbutton	BIOS.SysSecurity.PwrButton

SYSCFG Options On PowerEdge Systems Prior To PowerEdge 12G Systems

The following are the valid options and arguments supported on PowerEdge systems earlier than PowerEdge 12G systems.

assignintr

Table 244. assignintr

Valid Arguments	standard, distributed

Description	Controls the interrupt assignment of PCI devices in the system. This option is set to **standard** by default, causing standard interrupt routing that uses interrupt A, B, C, and D for all PCIe devices. When set to **distributed**, the interrupt routing is swizzled at the MCH root ports to minimize sharing of interrupts across all PCIe (and PCI-X in the Programmable Interrupt Controller (PIC) mode) devices.
	Example:
	`A:>syscfg --assignintr=standard`
	`assignintr=standard`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

bezelir

Table 245. bezelir

Valid Arguments	enable, disable

Description	Enables or disables the ESM to monitor and log front bezel intrusion conditions.
	Example:
	`A:>syscfg --bezelir=enable`
	`bezelir=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

cmosdefaults

Table 246. cmosdefaults

Valid Arguments	enable, disable

Description	Enables or disables the request for a default CMOS value during the next reboot.
	`A:>syscfg --cmosdefaults=enable`
	`cmosdefaults=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

conboot

Table 247. conboot

Valid Arguments	enable, disable

Description	Enables or disables configuring or reporting of console redirection after reboot. This option is available on all supported systems that support console redirection. This option can be replicated.
	
	Example:
	
	`A:>syscfg --conboot=enable`
	
	`conboot=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12Gsystems

coreperformanceboost

Table 248. coreperformanceboost

Valid Arguments	enable, disable

Description	Enables or disables the AMD Core Performance Boost feature. When enabled, it allows higher performance power states if additional power is available to the CPU. This option can be replicated.
	
	Example:
	
	`A:>syscfg --coreperformanceboost=enable`
	
	`coreperformanceboost=enable`

Applicable Systems	PowerEdge R715, R815, R515, R415, and M915 systems with AMD Opteron 6000 series processor

dbpm

Table 249. dbpm

Valid Arguments	enable, disable

Description	Enables or disables demand-based power management. This option can be replicated.
	
	Example:
	
	`A:>syscfg --dbpm=enable`
	
	`dbpm=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embhypervisor

Table 250. embhypervisor

Valid Arguments	off, on

Description	Turns on or off the embedded hypervisor port.
	
	Example:
	
	`A:>syscfg --embhypervisor=on`
	
	`embhypervisor=on`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embideraid

Table 251. embideraid

Valid Arguments	on, off

Description	Turns on or off the embedded IDE RAID controller. This option is only valid for supported systems that have IDE ROMB. This option can be replicated.
	
	Example:
	
	`A:>syscfg --embideraid=on`
	
	`embideraid=on`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embnic1pxe

Table 252. embnic1pxe

Valid Arguments	enable, disable

Description	Enables or disables Preboot Execution Environment (PXE) on the first embedded NIC. If PXE is disabled, the first NIC is not found in the boot order. If PXE is enabled, the first NIC is placed at the end of the boot order. This option is only present on systems that do not support the **embnic1** option. This option can be replicated.
	
	Example:
	
	`A:>syscfg --embnic1pxe=enable`
	
	`embnic1pxe=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embnic2pxe

Table 253. embnic2pxe

Valid Arguments	enable, disable

Description	Enables or disables Preboot Execution Environment (PXE) on the second embedded NIC. If PXE is disabled, the second NIC is not found in the boot order. If PXE is enabled, the second NIC is placed at the end of the boot order. This option is only present on systems that do not support the **embnic2** option. This option can be replicated.
	
	Example:
	
	`A:>syscfg --embnic2pxe=enable`
	
	`embnic2pxe=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embnics

Table 254. embnics

Valid Arguments	enable, disable

Description	Turns both the embedded NICs on or off. This option is only present on systems that do not support the **embnic1** and **embnic2** options. This option can be replicated.
	
	Example:
	
	`A:>syscfg --embnics=enable`
	
	`--embnics=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embscsi1

Table 255. embscsi1

Valid Arguments	`on, off`

Description	Turns the first embedded SCSI controller. This option is only valid for supported systems that have an embedded SCSI controller. This option can be replicated.
	
	Example:
	
	`A:>syscfg --embscsi1=on`
	
	`embscsi1=on`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embscsi2

Table 256. embscsi2

Valid Arguments	`on, off`

Description	Turns the second embedded SCSI controller. This option is only valid for supported systems that have an embedded SCSI controller. This option can be replicated.
	
	Example:
	
	`A:>syscfg --embscsi2=on`
	
	`embscsi2=on`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embscsiraid

Table 257. embscsiraid

Valid Arguments	`raid, off, scsi`

Description	Sets the specified value for the SCSI RAID controller. This option is only valid for supported systems that have SCSI ROMB. Some systems do not support the scsi argument. This option can be replicated.
	
	CAUTION: If you change the controller from SCSI to RAID mode, data loss may occur. Backup any data you must save before changing modes.
	
	Example:
	
	`A:>syscfg --embscsiraid=raid`
	
	`embscsiraid=raid`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embscsiraidchb

Table 258. embscsiraidchb

Valid Arguments	raid, scsi

Description	Sets the second channel on an embedded RAID controller to SCSI or RAID. This option is only valid for systems that support RAID/RAID and RAID/SCSI settings for channels A and B. This option can be replicated.
	
	Example:
	
	`A:>syscfg --embscsiraidchb=raid`
	
	`embscsiraidchb=raid`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embscsiraidchb

Table 259. embscsiraidchb

Valid Arguments	raid, scsi

Description	Sets the second channel on an embedded RAID controller to SCSI or RAID. This option is only valid for systems that support RAID/RAID and RAID/SCSI settings for channels A and B. This option can be replicated.
	
	Example:
	
	`A:>syscfg --embscsiraidchb=raid`
	
	`embscsiraidchb=raid`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems

embsdcardredundancy

Table 260. embsdcardredundancy

Valid Arguments	mirrormode, disable

Description	Sets the redundancy to mirrormode or disabled.
	
	If set to **mirrormode**, read-write operation occurs on both the secure digital (SD) cards. If one of the SD cards fails and is replaced, on booting, the data is copied to that SD card.
	
	If set to **disable**, read-write operation occurs only on SD card 1.
	
	On Blade systems, disable the vflash key to configure this option.
	
	Example:
	
	`A:>syscfg --embsdcardredundancy=mirrormode`
	
	`embsdcardredundancy=mirrormode`

Applicable Systems	This option is degraded.

redmem

Table 261. redmem

Valid Arguments	off, spare, mirror, DDDC

Description	Allows selection of the required redundant memory mode, or disables redundant memory. This option can be replicated.
	
	Example:
	
	`A:>syscfg --redmem=off`
	`redmem=off`

Applicable Systems	PowerEdge systems with Intel Xeon 7500 series processor

power

Table 262. power

Valid Arguments	NA
Description	For details about the power suboptions and arguments, see Sub Options For Power Option.
Applicable Systems	PowerEdge 11G systems

tcm

Table 263. tcm

Option	`tcm`
Valid Arguments	NA
Description	For details about the **tcm** suboptions and arguments, see Sub Options For tcm Option.
Applicable Systems	PowerEdge 10G, 11G, and 12G systems

tpm

Table 264. tpm

Valid Arguments	NA
Description	For details about the **tpm** suboptions and arguments, see Sub Options For tpm Option.
Applicable Systems	PowerEdge 10G, 11G, and 12G systems

Sub Options And Arguments For power Option

Table 265. Sub Options And Arguments For power Option

Option	Sub-option	Arguments	Description
`power`	`--profile`	*<powerprofile>* where *powerprofile* can be maxperformance, osctl, apc	Displays the settings similar to the BIOS setup screen for the respective profile. Reboot the system for the settings to take effect.

Option	Sub-option	Arguments	Description
			If power profiles are not available on the platform, an error message is displayed. `A:>syscfg power--profile=maxperformance --setuppwdoverride`
		custom	Creates the custom profile. Reboot the system for the settings to take effect. `A:>syscfg power --profile=custom --setuppwdoverride`
	`--cpupowermode`	min, max, osdbpm, systemdbpm	Allows you to set the CPU power and performance management to minimum power, maximum performance, operating system DBPM, or system DBPM mode. Example: `A:>syscfg power --profile=custom --cpupowermode=min --setuppwdoverride`
	`--memorypowermode`	min, 978, 800, 1067, 1333, max	Allows you to set memory power and performance management to minimum power mode, maximum power mode, 978 Mhz, 800 Mhz, 1067 Mhz, or 1333 Mhz. `A:>syscfg power --profile=custom --memorypowermode=min --setuppwdoverride`
	`--fanpowermode`	min, max	Allows you to set the fan algorithm to the minimum power optimized or maximum performance optimized mode. `A:>syscfg power --profile=custom --fanpowermode=min --setuppwdoverride` **NOTE: Set the value of profile to custom to change the values of cpupowermode , memorypowermode , and fanpowermode.**
	`--profile`	NA	Displays the profile set and the respective profile parameters.
	`--cap` **NOTE: This option is available only with the appropriate installed license.**		Displays the values of budgetcap, and the maximum and minimum power thresholds in Watts.
	`--cap<budgetcap> --unit<unit>` **NOTE: This option is available only with the appropriate installed license.**	<*budgetcap*> is the limit for power consumption in Watts, or btuphr, or percent. <*unit*> is the unit of the <*budgetcap*> value and can be watt, or btuphr, or percent.	The value of <budgetcap> must be between the maximum and minimum threshold values, else an error is displayed. If the value is less than the minimum threshold value, a warning message appears. If the unit is btuphr, it is converted in to Watts using the formula **Watt = BTU/hr /3.413**. If the unit is percent, the formula is **Power Cap (Watts) = [Power supply rating for input power (Watts) - Min potential power (Watts)] * Power Cap (%) + Min potential power (Watts)]**

Option	Sub-option	Arguments	Description
			Example: `A:>syscfg power --cap=<value> --unit=watt --setuppwdoverride`
	`--maxpowercap`		Displays the value of the maximum power threshold.
	`--minpowercap`		Displays the value of the minimum power threshold.
	`--valsetuppwd`	*<string>*	Validates the setup password for power authentication. If you try to change the DTK settings, you are prompted to enter this password to access the settings. For more information on delimiters, see Command Line Option Delimiters. `A:>syscfg power --profile= maxperformance --valsetuppwd= <setup_password>`
	`--setuppwdoverride`	NA	Does not prompt you for a password to access the DTK settings on systems that do not have a setup password configured. `A:>syscfg power --profile= maxperformance –setuppwdoverride`

Sub Options And Arguments For tcm Option

Table 266. Sub Options And Arguments For tcm Option

Option	Sub-option	Arguments	Description
`tcm`	`--tcmsecurity`	off	Does not report the presence of TCM to the operating system.
		on	Reports the presence of TCM to the operating system. Example: `A:>syscfg tcm --tcmsecurity=off`
	`--tcmactivation`	enabled	Enables and activates the TCM feature.
		disabled	Disables and deactivates the TCM feature.
		nochange	Does not alter the operational state of the TCM feature. Example: `A:>syscfg tcm --tcmactivation=enabled`
	`--tcmclear`	NA	Clears the contents of the **TCM** chip without erasing the **tcmsecurity** and **tcmactivation** settings. Example: `A:>syscfg tcm --tcmactivation=enabled --tcmclear --setuppwdoverride`
	`--tcmundoclear`	NA	Cancels the result of the **tcmclear** setting.

Option	Sub-option	Arguments	Description
			Example: `A:>syscfg tcm --tcmactivation=enabled --tcmundoclear --setuppwdoverride`

Sub Options And Arguments For tpm Option

The following table lists the sub-options and arguments for the **tpm** option.

Table 267. Sub Options And Arguments For tpm Option

Option	Sub-option	Arguments	Description
`tpm`	`--tpmsecurity`	off	Does not report the presence of TPM to the operating system.
		onwithpbm	Directs the BIOS to store the TCG compliant measurements to the TPM during a POST operation.
		onwithoutpbm	Directs the BIOS to bypass the preboot measurements. Example: `A:>syscfg tpm --tpmsecurity=onwithoutpbm --setuppwdoverride`
	`--tpmactivation`	enabled	Enables and activates the TPM feature.
		disabled	Disables and deactivates the TPM feature.
		nochange	Does not alter the operational state of the TPM feature. Example: `A:>syscfg tpm --tpmactivation=enabled --setuppwdoverride` **NOTE: You cannot set tpmactivation when tpmsecurity is set to off.** **NOTE: After setting tpmactivation to enabled or disabled, if you reboot your system, DTK displays the `TPM Configuration Honoured system will reset and the system reboots again` message and reboots.** **NOTE: When you set tpmactivation to enabled or disabled, DTK displays the value of tpmactivation as nochange. However, the TPM feature is activated/deactivated when you reboot the system.**
	`--tpmclear`	NA	Clears the contents of the **TPM** chip without erasing the **tpmsecurity** and **tpmactivation** settings. Example: `A:>syscfg tpm --tpmactivation=enabled --tpmclear --setuppwdoverride`
	`--undotpmclear`	NA	Cancels the result of the **tpmclear** setting. If you specify this setting before specifying the **tpmclear** setting, the

Option	Sub-option	Arguments	Description
			`There is currently no pending TPM Clear request` message is displayed. Example: `A:>syscfg tpm --tpmactivation=enabled --undotpmclear --setuppwdoverride`
	`--valsetuppwd`	*<string>*	Validates the setup password for TPM authentication. If you try to change DTK settings, you are prompted to enter this password to access the settings. For more information on delimiters, see Command Line Option Delimiters. Example: `A:>syscfg tpm --tpmactivation=enabled --tpmclear --valsetuppwd=<setup_password>`
	`--setuppwdoverride`	NA	On systems that do not have a setup password configured, if you set this option, you are not prompted for a password to access **DTK** settings. `A:>syscfg tpm --tpmactivation=enabled --tpmclear --setuppwdoverride`

SYSCFG For BMC And Remote Access Controller Configuration

SYSCFG configures Baseboard Management Controller (BMC) and Remote Access Controller (RAC) settings.

NOTE: Some of the following options or arguments might not be available on all systems.

NOTE: For options that use text strings such as username, password, hostname, and community string, using some characters such as <space>, <, >, | , or = on the command line can be misinterpreted by the command line parser and cause errors.

NOTE: The following options or arguments are also applicable to DRAC 5.

The following tables document valid options, sub-options, and arguments along with a description of the expected behavior of each option and suboption. Options, sub-options, and arguments are case-sensitive. All options, sub-options, and pre-defined arguments are lowercase unless explicitly stated otherwise. Some features that must be noted while reading this section are:

- Unless otherwise specified, all sub-options to options are optional.
- If a sub-option is not specified for an option, all valid sub-option values are displayed for the option. If sub-options are specified, then only those suboptions are reported.
- Wherever options or sub-options take empty strings as input, the string **NULL** should be input. For example, options such as **username** and suboptions such as **commstring** and **hostname** can take an empty string as input.

bmcversion

Table 268. bmcversion options

Option	Sub-option	Valid Arguments	Description
`bmcversion`			Displays the version information for the BMC and the BMC firmware. This option cannot be replicated.
	`--devid`	NA	Reports the BMC device ID.
	`--devrevision`	NA	Reports the BMC device revision.
	`--majorfwversion`	NA	Reports the BMC device major firmware revision.

	`--minorfwversion`	NA	Reports the BMC device minor firmware revision.
			Example:
			`A:>syscfg bmcversion devid=32`
			`devrevision=0`
			`majorfwversion=0`
			`minorfwversion=40`

chassistype

Table 269. chassistype

Option	Sub-option	Valid Arguments	Description

`--chassistype*`	NA	NA	Identifies the Chassis Management Controller (CMC). The possible values are `9 (M1000e)`, `10 (VRTX)`, and `0 (others)`.
			Example:
			`A:>syscfg -- chassistype`
			`chassistype=10 (VRTX)`

clearsel

Table 270. clearsel

Option	Sub-option	Valid Arguments	Description

`--clearsel*`	NA	NA	Clears the System Event Log (SEL). This option cannot be replicated.
			Example:
			`A:>syscfg -- clearsel`
			`Clearing SEL...`

controlpanelaccess

Table 271. controlpanelaccess

Option	Sub-option	Valid Arguments	Description

`--controlpanelaccess`	NA	`viewandmodify`, `viewonly`, `disabled`	Sets or gets the access level for the Liquid Crystal Display (LCD).
			
			Example:
			`A:>syscfg -- controlpanelaccess= viewandmodify`
			`controlpanelaccess= viewandmodify`

deviceguid

Table 272. deviceguid

Option	Sub-option	Valid Arguments	Description

`--deviceguid*`	NA	NA	Displays the GUID for the BMC. This option cannot be replicated.
			
			Example:
			`A:>syscfg--deviceguid`
			
			`deviceguid=XXXXXXXXXX`

encryptkey

Table 273. encryptkey

Option	Sub-option	Valid Arguments	Description

`--encryptkey`	NA	*<hexadecimal number>*	Encrypts the IPMI sessions.
			
			The hexadecimal number entered as an argument is case insensitive although the value returned by the `encryptkey` option is always in uppercase.
			
			The value returned is appended with zeroes so that it is always 40 characters long.
			
			Example:
			`A:>syscfg -- encryptkey=abcd`
			
			`encryptkey= ABCD00000000000`
			`0000000000000000 0000000000`

fiberchannel

Table 274. fiberchannel

Valid Arguments	enable, disable

Description	Enables or disables embedded fiber channel. This option can be replicated.
	
	Example:
	
	`A:>syscfg --fiberchannel=enable`
	
	`fiberchannel=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

floppy

Table 275. floppy

Option	`--floppy`
Valid Arguments	auto, off, readonly

Description	Sets the diskette drive controller to **auto**, **off**, or **readonly**. This option is available on all supported systems that have a supported diskette drive. This option can be replicated
	
	Example:
	
	`A:>syscfg --floppy=auto`
	
	`floppy=auto`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

formfactor

Table 276. formfactor

Valid Arguments	read-only

Description	Displays the geometry of PowerEdge Blade systems. The option can have the following values: **halfheight** (the Blade systems occupies 1 slot of the chassis), **halfheight, dualwide** (the Blade system occupies 2 horizontal slots of the chassis), **fullheight** (the Blade system occupies 2 vertical slots of the chassis), **fullheight, dualwide** (the Blade system occupies 4 slots of the chassis) and **quarterheight** (the Blade systems occupies half slot of the chassis).
	
	Example:
	
	`A:>syscfg --formfactor=fullheight, dualwide`
	`formfactor=fullheight, dualwide`

Applicable Systems	All PowerEdge blade systems prior to PowerEdge 12G systems.

hddfailover

Table 277. hddfailover

Valid Arguments	off, on

Descriptionoff	Specifies the device in the **Hard Disk Drive Sequence** menu that has not been attempted in the boot sequence. When set to **on**, all devices are attempted in an order in which they are configured. When set to **off**, only the first device in the hard disk sequence is attempted. This option can be replicated.
	
	Example:
	
	`A:>syscfg --hddfailover=on`
	
	`hddfailover=on`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

hpcmode

Table 278. hpcmode

Valid Arguments	enable, disable

Description	Enables or disables the High Performance Computing (HPC) Mode. When set to **enable**, the HPC is enabled utilizing only the high frequency P-State settings. When set to **disable** (default value), all P-States inherent to the CPU are used.
	
	To fully enable HPC Mode, set the power management to custom, cpu power and performance management to OsDbpm, and fan power and performance management to maximum performance.
	
	Example:
	
	`A:>syscfg --hpcmode=enable`
	
	`hpcmode=enable`

Applicable Systems	All systems prior to PowerEdge 12G systems with AMD Opteron 6200 series processor

htassist

Table 279. htassist

Valid Arguments	enable, disable

Description	Enables or disables the **Probe Filter** chipset option. Some applications may have lower performance when the chipset feature is disabled.
	
	Example:
	
	`A:>syscfg --htassist=enable`
	
	`htassist=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems with AMD Opteron processors.

idecdrom

Table 280. idecdrom

Valid Arguments	auto, off

Description	Turns the CD drive on or off. This option can be replicated.
	Example:
	`A:>syscfg --idecdrom=auto`
	`idecdrom=auto`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

idracgui

Table 281. idracgui

Valid Arguments	enable, disable

Description	Enables and disables the iDRAC GUI. This option can be replicated.
	Example:
	`A:>syscfg --idracgui=disable`
	`idracgui=disable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

lpt

Table 282. lpt

Valid Arguments	lpt1, lpt2, lpt3, disable

Description	Configures or reports the I/O address of the LPT (parallel) port. This option is available on all supported systems with an LPT port. This option is recorded to an output file for replication.
	Example:
	`A:>syscfg --lpt=lpt1`
	`lpt=lpt1`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

memdynamicpower

Table 283. memdynamicpower

Valid Arguments	enable, disable

Description	Enables or disables the dynamic memory power states. This option can be replicated.
	Example:
	`A:>syscfg --memdynamicpower=enable`
	`memdynamicpower=enable`

Applicable Systems	PowerEdge systems with Intel Xeon 7500 series

memintleave

Table 284. memintleave

Valid Arguments	enable, disable

Description	Enables or disables the memory interleave mode. This option can be replicated.
	Example:
	`A:>syscfg --memintleave=enable`
	`memintleave=enable`
	NOTE: The memintleave option is same as Nodeinterleave option. For more information, see Memory Settings group.

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

memremap

Table 285. memremap

Valid Arguments	off, auto

Description	Sets the memory remapping to **off** or **auto**.
	Example:
	`A:>syscfg --memremap=off`
	`memremap=off`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

mouse

Table 286. mouse

Valid Arguments	on, off

Description	Turns the mouse controller on or off.
	
	This option can be replicated.
	
	Example:
	
	`A:>syscfg --mouse=off`
	
	`mouse=off`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

noraidprompt

Table 287. noraidprompt

Valid Arguments	NA

Description	Specifies that the BIOS must not prompt for confirmation when changing the mode of a RAID controller. This option can only be used with the **--embscsiraid** or **--embscsiraidchb** options.
	
	Without this option, the user is prompted during POST to confirm the change of a RAID controller from RAID (SCSI) to SCSI (RAID). This option is not replicated.
	
	CAUTION: When changing a RAID controller from SCSI to RAID or from RAID to SCSI, data is lost on the affected hard drives. The warning message for this data is not displayed if you use the --noraidprompt option. To avoid data loss, back up any information on the hard drives before changing the type of controller used with the drives
	
	Example:
	
	`A:>syscfg --embscsiraid=raid --noraidprompt`
	
	`embscsiraid=raid`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

oldsetuppwd

Table 288. oldsetuppwd

Valid Arguments	*<string>*
Description	Allows to set a new setup password if a setup password is already present on the system. The setup password locks the BIOS setup screen. The argument string supplied to this option is the current password. If this password is not correct, the new setup password is

	not applied to the system. Generally, passwords are limited to alphanumeric characters and cannot exceed 32 characters in length. This option is not replicated. For more information on delimiters, see Command Line Option Delimiters.
	
	Example:
	
	`A:>syscfg --setuppwd=asetuppassword --oldsetuppwd=currentpassword`
	
	`The password has been set.Please use a warm reboot to apply the password to the system.`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

oldsyspwd

Table 289. oldsyspwd

Valid Arguments	*<string>*

Description	Supplies the current system password for the BIOS. This option is only given when setting the new system password. If this password does not match the current system password, the new password is not applied to the system. The system password is required when booting the system. The argument string supplied to this option is the password. Generally, passwords are limited to alphanumeric characters and cannot exceed 32 characters in length. This option is not replicated. For more information on delimiters see Command Line Option Delimiters.
	
	Example1:
	
	`A:>syscfg --syspwd=<anotherpassword> --oldsyspwd=<password>`
	
	`The password has been set.Please use a warm reboot to apply the password to the system.`
	
	Example 2:
	
	`A:>syscfg --syspwd=<asyspassword> --oldsyspwd=<currentpassword>`
	
	`The old password entered is incorrect. The new password will not be set. Please try again.`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

opticaldrivectrl

Table 290. opticaldrivectrl

Valid Arguments	enable, disable

Description	Enables or disables the optical CD-ROM controller.
	
	Example:
	
	`A:>syscfg --opticaldrivectrl=enable`
	
	`opticaldrivectrl=enable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

remflashmedia

Table 291. remflashmedia

Valid Arguments	read-only

Description	Displays the redundancy status of internal dual SD module. The status can be:
	• Full — Secure digital card (SD) 1 and 2 are functioning properly.
	• Lost — Either any of the secure digital cards or both are not functioning properly.
	The option also displays the status of the individual SD cards as follows:
	• Active — The card is used for secure digital reads.
	• Standby — The card is receiving a copy of all secure digital reads.
	• Failed — An error is reported during a secure digital read or write.
	• Absent — No secure digital media is detected.
	• Offline — At boot, card identification signature is different from the non-volatile storage value or card is the destination of a copying operation that is in progress.
	• Write Protected — The card is write-protected.
	Example:
	`A:>syscfg --remflashmedia`
	`Internal Dual SD ModuleRedundancy=Lost`
	`SD1 status=Absent`
	`SD1 status=Active`

Applicable Systems	All systems prior to PowerEdge 12G systems

serial1

Table 292. serial1

Valid Arguments	disable, com1, com3, com1_bmc, bmcserial, bmclan, rac

Description	Configures or reports the first serial port communication port. This option can be replicated.
	• bmcserial — maps serial port 1 to BMC Serial.
	• bmclan — routes the serial traffic destined for serial1 out to NIC1.
	• com1_bmc — maps serial port 1 to COM port 1 BMC.
	• rac — maps serial port 1 to the RAC device.
	Example:
	`A:>syscfg --serial1=rac`
	`serial1=rac`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

serial2

Table 293. serial2

Valid Arguments	auto, disable, com2, com4

Description	Configures or reports the second serial port communication port. This option can be replicated.
	
	Example:
	
	`A:>syscfg --serial2=rac`
	
	`serial2=rac`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

slotname

Table 294. slotname

Valid Arguments	read-only

Description	Reports the slot name of the blade.
	
	Example:
	
	`A:>syscfg --slotname`
	
	`slotname=Slot5`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

sma

Table 295. sma

Valid Arguments	enable, disable

Description	Enables or disables processor sequential memory access.
	
	Example:
	
	`A:>syscfg --sma=disable`
	
	`sma=disable`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

sysrev

Table 296. sysrev

Valid Arguments	read-only
Description	Reports the system revision.
Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

usb

Table 297. usb

Valid Arguments	on, legacy, off

Description	Sets or reports the status of the USB port. When set to **on**, USB keyboards and mice function only for systems with operating systems that have native **USB** support. When set to **legacy**, **USB** keyboards and mice are supported through the BIOS to function in operating systems that do not natively support USB. This option can be replicated.
	
	Example:
	
	`A:>syscfg --usb=on`
	
	`usb=on`

Applicable Systems	All PowerEdge systems prior to PowerEdge 12G systems.

usbflash

Table 298. usbflash

Valid Arguments	auto, fdd, hdd

Description	Sets or reports the emulation for an **USB** flash device. The **USB** flash device can be set to emulate a hard drive (**HDD**) or a diskette drive (**FDD**). This option can be replicated.
	
	Example:
	
	`A:>syscfg --usbflash=auto`
	
	`usbflash=auto`

Applicable Systems	All systems prior to PowerEdge 12G systems.

vflash

Table 299. vflash

Valid Arguments	enable, disable

Description	Enables or disables vflash on iDRAC.
	Example:
	`A:>syscfg --vflash=enable`
	`vflash=enable`

Applicable Systems	All PowerEdge 11G systems or systems with iDRAC6

identify

Table 300. identify

Valid Arguments	0–254

Description	Flashes the identification LED for a specified number of seconds.
	NOTE: Use `0` to stop the blinking of the LED.
	Example:
	`A:>syscfg --identify=10`
	`identify=10`

Applicable Systems	All PowerEdge 11G systems with a BMC

idracversion

Table 301. idracversion

Option	Sub-option	Valid Arguments	Description
`--idracversion`			Displays the version information for the iDRAC and the iDRAC firmware. This option cannot be replicated.
	`--devid`	NA	Reports the iDRAC device ID.
	`--devrevision`	NA	Reports the iDRAC device revision.
	`--majorfwversion`	NA	Reports the major firmware revision of iDRAC.

Option	Sub-option	Valid Arguments	Description

	--minorfwversion	NA	Reports the minor firmware revision of iDRAC.
			`A:>syscfg --idracversion`
			`devid=32`
			`devrevision=0`
			`majorfwversion=0`
			`minorfwversion=40`

kvmstatusonlcd

Table 302. kvmstatusonlcd

Option	Sub-option	Valid Arguments	Description	Applicable Systems

--kvmstatusonlcd	NA	active, inactive	Configures the Dell Virtual KVM (vKVM) session status on the LCD.
			Example:
			`A:>syscfg --kvmstatusonlcd=active`
			`kvmstatusonlcd=active`
				PowerEdge 11G systems

lancfgparams

Table 303. lancfgparams

Option	Sub-option	Valid Arguments	Description
lancfgparams or lcp			Configures and displays LAN configuration parameters. This option can be replicated.
	--ipaddrsrc	static, dhcp	Sets the IP address source for the LAN channel. This sub-option can be replicated.
	--ipaddress	*<ipaddress>*	Sets the IP address for the LAN channel. This sub-option cannot be replicated.
	--subnetmask	*<subnetmask>*	Sets the subnet mask for the LAN channel. This sub-option can be replicated.
	--gateway	*<gateway>*	Sets the gateway for the LAN channel. This sub-option can be replicated.
	--commstring	*<string>*	Sets the community string (maximum of 16 printable ASCII characters) used in a platform event trap (PET). This sub-option can be replicated.
	--destipaddr	*<ipaddress>*	Sets the destination IP address or Fully Qualified Domain Name (FQDN) for the alert destination specified with the alertdest sub-option.

Option	Sub-option	Valid Arguments	Description

			The `destipaddr` sub-option is dependent on the `alertdest` sub-option. If the `alertdest` sub-option is not specified on the command line, the first alert destination (`alertdest=1`) is set with this IP address or FQDN. This sub-option can be replicated.
			NOTE: `FQDN` is applicable only for `destipaddr` option and is supported only on PowerEdge 12G systems.
			Example 1 (to set the destination IP address):
			`A:>syscfg lcp --alertdest=1 --destipaddr=192.168.100.15`
			Example 2 (to set the destination IP address as FQDN):
			`A:>syscfg lcp --alertdest=1 --destipaddr=xxx.yyy.com`

	`--alertdest`	`1, 2, 3, 4`	Sets the destination for the LAN alert. This sub-option can be replicated.
	`--vlantag`	`enable, disable`	Enables or disables VLAN tagging. This sub-option can be replicated.
	`--vlanid`	*<string>*	Sets the 12-bit VLAN ID. This sub-option can be replicated.
	`--vlanpriority`	`0-7`	Sets the VLAN priority value. This sub-option can be replicated.
	`--macaddress`	NA	Displays the BMC MAC address. This sub-option cannot be replicated.
	`--nicselection` **NOTE: This option is available only with the appropriate installed license.**	`shared, sharedfailover, dedicated, sharedreceiveonall`	Sets the operating mode of the NIC to `shared`, `sharedfailover`, `dedicated`, or `sharedreceiveonall`. Some of these options are not applicable on certain systems. **NOTE:** This option is applicable on systems prior to PowerEdge 12G systems. The `sharedreceiveonall` argument is available only on PowerEdge 11G systems.
	`--nicselection` **NOTE: This option is available only with the appropriate installed license.**	`dedicated, lom1, lom2, lom3, lom4`	Sets the operating mode of the iDRAC7 NIC to `dedicated`, `lom1`, `lom2`, `lom3`, or `lom4`. Some of these options are not applicable on certain systems due to underlying hardware. **NOTE: This option is applicable on PowerEdge 11G systems.**
	`--nicselectionfailover` **NOTE: This option is available only with the appropriate installed license.**	`none, lom1, lom2, lom3, lom4, all`	Sets the operating mode of the NIC selection failover to `none`, `lom1`, `lom2`, `lom3`, `lom4`, or `all`. Some of these options are not applicable on certain systems. due to underlying hardware. **NOTE: This option is applicable on PowerEdge 12G systems.**

Option	Sub-option	Valid Arguments	Description
	`--fullduplex`	`enable, disable`	Enables or disables full duplex on the RAC network interface.
	`--autoneg`	`enable, disable`	Enables or disables autonegotiation.
	`--speed`	`10,100`	Sets the network interface speed to 10 or 100 Mbps.
	`--dnsdhcp`	`enable, disable`	Enables or disables obtaining the DNS server IP address through DHCP.
	`--dnsserver1`	*<ipaddress>*	Sets the IP address of the primary DNS server for domain name resolution.
	`--dnsserver2`	*<ipaddress>*	Sets the IP address of the secondary DNS server for domain name resolution.
	`--dnsregisterrac`	`enable, disable`	Enables or disables binding of the RAC name to the IP address.
	`--dnsracname`	*<string>*	Sets the name of the RAC.
	`--domainnamefromdhcp`	`enable, disable`	Enables or disables getting the RAC domain name through DHCP.

	`--domainname`	*<string>*	Sets the domain name of the RAC.
			Example 1 (to display the current LAN configuration settings):
			`A:>syscfg --lancfgparams`
			`destipaddr=192.168.100.15`
			`vlantag=enable`
			`vlanid=1000`
			`vlanpriority=7`
			`macaddress=0:6:5b:fb:c8:a7`
			`commstring=public`
			`ipaddrsrc=static`
			`ipaddress=192.168.100.10`
			`subnetmask=255.255.255.0`
			`gateway=192.168.100.1`

Option	Sub-option	Valid Arguments	Description

			Example 2 (to set the LAN configuration parameters):
			`A:>syscfg --lancfgparams`
			`--destipaddr=192.168.100.15`
			`--vlantag=enable`
			`--vlanid=1000`
			`--vlanpriority=7`
			`--macaddress=0:6:5b:fb:c8:a7`
			`--commstring=public`
			`--ipaddrsrc=static`
			`--ipaddress=192.168.100.10`
			`--subnetmask=255.255.255.0`
			`--gateway=192.168.100.1`

lanchannelaccess

Table 304. lanchannelaccess

Option	Sub-option	Valid Arguments	Description
`lanchannelaccess or lca`			Sets or displays the LAN channel access settings such as alerting, IPMI over LAN, and user privilege. This option can be replicated.
	`--pefalerting`	`enable, disable`	Enables or disables PEF alerts. This sub-option can be replicated.
	`--ipmioverlan`	`disable, alwaysavail`	Sets the LAN channel access mode. This sub-option can be replicated.
	`--channelprivlmt`	`user, operator, administrator`	Sets the maximum privilege level accepted for the LAN channel. This sub-option can be replicated. Example (to configure the LAN channel with alerts and IPMI over LAN enabled): `A:>syscfg lanchannelaccess-- pefalerting=enable -- ipmioverlan=alwaysavail`

lanchannelinfo

Table 305. lanchannelinfo

Option	Sub-option	Valid Arguments	Description
`lanchannelinfo or lci`	NA	NA	Displays media and protocol information about the LAN channel. This option cannot be replicated.

lanuseraccess

Table 306. lanuseraccess

Option	Sub-option	Valid Arguments	Description
`lanuseraccess or lua`			Configures the privilege level and channel accessibility associated with a specified User ID for the LAN channel.
	`--userid`	`2–16`, if your system has a DRAC 5 controller	Sets the User ID. This sub-option can be replicated.
	`--usrprivlmt`	`user, operator, administrator, noaccess`	Sets the maximum BMC user privilege level for the LAN channel for the userid specified using the `userid`sub-option. This sub-option can be replicated. This sub-option is dependent on the `userid` sub-option.
	`--currentenableduserids`	NA	Reports the number of currently enabled User IDs on the LAN channel.

	`--useridswithfixednames`	NA	Reports the number of User IDs with fixed names on the LAN channel.
			
			Example 1 (to enable User ID 2 on the LAN channel with administrator privileges):
			`A:>syscfg lanuseraccess --userid=2 --usrprivlmt=administrator`
			
			Example 2 (to enable User ID 4 on the LAN channel with user privileges):
			`A:>syscfg lanuseraccess --userid=4 --usrprivlmt=user`

lcd1

Table 307. lcd1

Option	Sub-option	Valid Arguments	Description
`--lcd1`	NA	*<string>*	Sets the first line of user-defined text on the system LCD. This option can be replicated. For more information on delimiters, see Command Line Option Delimiters. **NOTE: Before setting user strings for `--lcd1`, ensure that `--lcd` is set to user.**

lcd2

Table 308. lcd2

Option	Sub-option	Valid Arguments	Description
`--lcd1`	NA	*<string>*	Sets the second line of user-defined text on the system LCD. This option can be replicated. For more information on delimiters, see Command Line Option Delimiters.

loaddefaults

Table 309. loaddefaults

Option	Sub-option	Valid Arguments	Description

`--loaddefaults*`	NA	NA	Restores the BMC to the defaults originally loaded on the controller. This option is used to return the BMC to a known-good state. This option cannot be replicated.
			NOTE: The NMI, power button, and SOL defaults are not reset by using this option.
			Example:
			`A:>syscfg --loaddefaults`
			`Loading defaults...`

nextboot

Table 310. nextboot

Option	Sub-option	Valid Arguments	Description

`--nextboot` or `--OneTimeBootSeqDev`	NA	valid device name (from the `bootseq` option device list)	Sets the specified device as the first device in the boot order for the next boot cycle only. The device must be a device from the `bootseq` option device list. Run the `bootseq` option to see a list of available device names. For more information, see --bootseq. This option is not replicated.
			
			Example 1:
			`A:>syscfg --bootseq`
			`Device 1: floppy.emb.0 - Diskette Drive A:`
			`Device 2: cdrom.emb.0 - CD-ROM device`
			`Device 3: hdd.emb.0 - Hard Drive C:`
			`Device 4: nic.emb.1 - Intel Boot Agent Version 4.0.17`
			`Device 5: nic.emb.2 - Intel Boot Agent Version 4.0.17`
			
			Example 2:
			`A:>syscfg --nextboot=nic.emb.1`
			`nextboot=nic.emb.1`

nmibutton

Table 311. nmibutton

Option	Sub-option	Valid Arguments	Description

`--nmibutton`	NA	`enable, disable`	Enables or disables the NMI button. This option can be replicated.
			
			Example:
			`A:>syscfg --nmibutton=enable`
			`nmibutton=enable`

passwordaction

Table 312. passwordaction

Option	Sub-option	Valid Arguments	Description
`passwordaction`			Configures and tests the password for the specified User ID. This option cannot be replicated. All three sub-options, `action`, `userid`, and `password` must be included in the command line. **NOTE: This option does not support 20 byte passwords.**
	`--userid`	`2–16`, if your system has a DRAC 5 controller	Specifies the BMC User ID. This sub-option cannot be replicated.
	`--action`	`setpassword`, `testpassword`	Sets or tests the password for the specified User ID. This sub-option cannot be replicated.

	`--password`	*<string>*	Sets the password (maximum of 16 printable ASCII characters) for the specified BMC User ID. This sub-option cannot be replicated.
			Example (to set and test the password for User ID 3):
			`A:>syscfg passwordaction --userid=3 --action=setpassword --password=bmcmaster passwordaction userid=3 action=setpassword password=*********`
			`A:>syscfg passwordaction --userid=3 --action=testpassword --password=bmcmastor`
			`Password test failed.`

pefcfgparams

Table 313. pefcfgparams

Option	Sub-option	Valid Arguments	Description
`pefcfgparams or pcp`			Configures and displays PEF configuration parameters. This option can be replicated.
	`--filter`	`fanfail`, `voltfail`, `discretevoltfail`, `tempwarn`, `tempfail`, `intrusion`, `redundegraded`,`red unlost`, `procwarn`, `procfail`, `powerwarn`, `powerfail`,	Specifies a PEF value. This sub-option can be replicated. For a complete list of all possible PEF messages along a description of each event, see BMC Platform Events Filter Alert Messages

Option	Sub-option	Valid Arguments	Description
		`hardwarelogfail, autorecovery, batterywarn, batteryfail, powerabsent, procabsent, systempowerwarn, systempowerfail`	
	`--filteraction`	`powercycle, reset, powerdown, power reduction, none`	Sets the event filter action for the filter specified using the `filter` sub-option. This sub-option depends on the `filter` sub-option. This sub-option can be replicated.
	`--hostname`	*<string>*	Sets the host name (maximum of 62 printable ASCII characters) for the BMC. This sub-option can be replicated. The `hostname` string must comprise only the followig characters: hyphen (-) , underscore (_) , and period (.) .
	`--filteralert`	`enable, disable`	Enables or disables alerts for the filter specified using the filter sub-option. This sub-option is dependent on the filter sub-option. This sub-option can be replicated.
	`--alertpolnum`	`1, 2, 3, 4`	Specifies the alert policy entry number. This sub-option can be replicated.

	`--alertpolstatus`	`enable, disable`	Enables or disables the alert policy specified using the `alertpolnum` sub-option. This sub-option can be replicated. This sub-option is dependent on the `alertpolnum` sub-option.
			
			Example: (to set the PEF configuration parameters):
			
			Example 1 (To configure the PEF so that the system is powered down in response to a fan failure event):
			
			`A:>syscfg pefcfgparams --filter= fanfail--filteraction=powerdown`
			
			`pefcfgparams filter=fanfail filteraction=powerdown`
			
			Example 2 (To configure the PEF so that a PEF alert is not sent to the destination IP address in response to a chassis intrusion event):
			
			`A:>syscfg pefcfgparams --filter= intrusion--filteralert=disable`
			
			`pefcfgparams filter= intrusion filteralert=disable`

Table 314. pefcffgparams

Option	Sub-option	Valid Arguments	Description	Applicable Systems
`pefcfgparams or pcp`			Configures and displays PEF configuration parameters. This option can be replicated.	All PowerEdge systems
	`--filter`	`fanfail, voltfail, discretevoltfail, tempwarn, tempfail, intrusion, redundegraded,redunlost, procwarn, procfail, powerwarn, powerfail, hardwarelogfail, autorecovery, batterywarn, batteryfail, powerabsent, procabsent, systempowerwarn, systempowerfail`	Specifies a PEF value. This sub-option can be replicated. For a complete list of all possible PEF messages along a description of each event, see BMC Platform Events Filter Alert Messages **NOTE: The `fanfail` option is not supported on PowerEdge 10G systems.**	
	`--filteraction`	`powercycle, reset, powerdown, power reduction, none`	Sets the event filter action for the filter specified using the `filter` sub-option. This sub-option depends on the `filter` sub-option. This sub-option can be replicated.	
	`--hostname`	*<string>*	Sets the host name (maximum of 62 printable ASCII characters) for the BMC. This sub-option can be replicated. The `hostname` string must comprise only the followig characters: hyphen (-) , underscore (_) , and period (.) . The length of the `hostname` string must be 62 characters or less for PowerEdge 9G systems and later.	
	`--filteralert`	`enable, disable`	Enables or disables alerts for the filter specified using the filter sub-option. This sub-option is dependent on the filter sub-option. This sub-option can be replicated.	
	`--alertpolnum`	`1, 2, 3, 4`	Specifies the alert policy entry number. This sub-option can be replicated.	

Option	Sub-option	Valid Arguments	Description	Applicable Systems

	`--alertpolstatus`	`enable, disable`	Enables or disables the alert policy specified using the `alertpolnum` sub-option. This sub-option can be replicated. This sub-option is dependent on the `alertpolnum` sub-option.
			
			Example: (to set the PEF configuration parameters):
			
			Example 1 (To configure the PEF so that the system is powered down in response to a fan failure event):
			
			`A:>syscfg pefcfgparams -- filter= fanfail-- filteraction=powerdown`
			
			`pefcfgparams filter=fanfail filteraction=powerdown`
			
			Example 2 (To configure the PEF so that a PEF alert is not sent to the destination IP address in response to a chassis intrusion event):
			
			`A:>syscfg pefcfgparams -- filter= intrusion-- filteralert=disable`
			
			`pefcfgparams filter= intrusion filteralert=disable`	

powerbutton

Table 315. powerbutton

Option	Sub-option	Valid Arguments	Description

`--powerbutton`	NA	`enable, disable`	Enables or disables the power button. This option can be replicated.
			
			Example:
			
			`A:>syscfg --powerbutton=enable`
			
			`powerbutton=enable`

powerctl

Table 316. powerctl

Option	Sub-option	Valid Arguments	Description
`--powerctl`	NA	`powerdown`	Performs a chassis powerdown and controls the reset of the system.

Option	Sub-option	Valid Arguments	Description
			Powerdown turns off the system.
		powercycle	Turns off the system and automatically turns on your system after a few seconds.
		reset	Resets the system.
		softshutdown	In Linux, the system turns off immediately. **NOTE: In Windows PE, this option does not work.** **NOTE: This option applies only to PowerEdge systems that are configured with a BMC.** **NOTE: This argument requires ACPI support to function properly.**

racreset

Table 317. racreset

Option	Sub-option	Valid Arguments	Description
--racreset*	NA	NA	Resets the RAC. It cannot be accompanied with any other option. This option cannot be replicated.

serialcfgparams

Table 318. serialcfgparams

Option	Sub-option	Valid Arguments	Description
serialcfgparams or scp			Configures and displays serial configuration parameters. This option can be replicated.
	--connectionmode	basic, terminal	Sets the connection mode used to perform **IPMI** messaging to the **BMC**. This sub-option can be replicated.
	--msgcomm	noflowctrl, rtscts	Sets the IPMI message communication flow control. This suboption can be replicated.
	--msgcommdtrhangup	NA	Reports the IPMI message communication DTR hang-up. This suboption cannot be replicated.
	--msgcommbitrate	9600, 19200, 57600, 115200	Sets the IPMI message communication baud rate in bits per second (bps). This sub-option can be replicated.
	--tmcfglineediting	enable, disable	Sets the line editing value for terminal mode configuration. This sub-option can be replicated.
	--tmcfgdelctrl	del, bksp	Sets the delete control value for terminal mode configuration. This sub-option can be replicated.

Option	Sub-option	Valid Arguments	Description
	--tmcfgechoctrl	echo, noecho	Sets the echo control value for terminal mode configuration. This sub-option can be replicated.
	--tmcfghandshakectrl	enable, disable	Sets the handshake control value for terminal mode configuration. This sub-option can be replicated.
	--tmcfgnewlineseq	noterm, crlf, null, cr, lfcr,1f	Sets the new line sequence value for terminal mode configuration. This sub-option can be replicated.

	--tmcfginputnewlineseq	cr, null	Sets the input new line sequence value for terminal mode configuration. This sub-option can be replicated.
			Example (to display the current serial configuration settings):
			`A:>syscfg serialcfgparams serialcfgparams tmcfgdelctrl=del`
			`tmcfgechoctrl=echo`
			`tmcfghandshakectrl=enable`
			`connectionmode=terminal`
			`tmcfgnewlineseq=crlf`
			`msgcommflowctrl=rtscts`
			`tmcfginputnewlineseq=cr`
			`msgcommdtrhangup=disable`
			`msgcommbitrate=19200`
			`tmcfglineediting=enable`

serialchannelaccess

Table 319. serialchannelaccess

Option	Sub-option	Valid Arguments	Description
--serialchannelaccess or sca			Sets or displays the channel access settings for the serial channel. This option can be replicated.
	--ipmioverserial	disable, alwaysavail	Sets the serial channel access mode. This sub-option can be replicated.
	--channelprivlmt	user, operator, administrator	Sets the maximum privilege level accepted for the serial channel. This sub-option can be replicated. Example (to configure the serial channel with **IPMI** over serial disabled and the

Option	Sub-option	Valid Arguments	Description

			maximum privilege level set to administrator):
			
			`A:>syscfg serialchannel access -- ipmioverserial=disable`
			
			`-- channelprivlmt=administrator serialchannelaccess`
			
			`ipmioverserial=disable`
			
			`channelprivlmt=administrator`

serialchannelinfo

Table 320. serialchannelinfo

Option	Sub-option	Valid Arguments	Description
`--serialchannelinfo or sci`			Displays media and protocol information about the serial channel. This option cannot be replicated.
	`--mediumtype`	NA	Displays the medium type for the serial channel. This sub-option cannot be replicated.
	`--prottype`	NA	Displays the protocol type for the serial channel. This sub-option cannot be replicated.
	`--ssnsupport`	NA	Displays the session support information for the serial channel. This sub-option cannot be replicated.

	`--activessncount`	NA	Displays the number of sessions that are activated on the serial channel. This sub-option cannot be replicated.
			
			Example:
			
			`A:>syscfg serialchannelinfo -- mediumtype`
			
			`mediumtype= asynch`

serialuseraccess

Table 321. serialuseraccess

Option	Sub-option	Valid Arguments	Description
`serialuseraccess or sua`			Configures the privilege level and channel accessibility associated with a specified

Option	Sub-option	Valid Arguments	Description
			User ID for the serial channel. This option can be replicated.
	`--userid`	`2–16`, if your system has a DRAC 5 controller	Sets the User ID. This sub-option can be replicated.
	`--usrprivlmt`	`user, operator, administrator,noaccess`	Sets the maximum **BMC** user privilege level for the serial channel for the User ID specified using the `userid` sub-option. This sub-option can be replicated. This sub-option is dependent on the `userid` sub-option.
	`--currentenableduserids`	NA	Reports the number of currently enabled User IDs on the serial channel. This sub-option can be replicated.

	`--useridswithfixednames`	NA	Reports the number of User IDs with fixed names on the serial channel. This sub-option can be replicated.
			
			Example 1 (to enable User ID 2 on the serial channel with administrator privileges) :
			
			`A:>syscfg serialuseraccess --userid=2 --usrprivlmt=administrator`
			
			`userid=2`
			
			`usrprivlmt=administrator`
			
			`status=enable`
			
			Example 2 (to enable User ID 4 on the serial channel with user privileges):
			
			`A:>syscfg serialuseraccess --userid=4 --usrprivlmt=user`
			
			`userid=4`
			
			`usrprivlmt=user`
			
			`status=enable`

solaction

Table 322. solaction

Option	Sub-option	Valid Arguments	Description
`solaction`			This option enables or disables Serial-Over- LAN (SOL) access for a particular user. This option can be replicated.

Option	Sub-option	Valid Arguments	Description

			Example:
			`A:>syscfg solaction --userid=2 --action=disable`
			`solaction userid=2 action=disable`

	`--userid`	`2–16`, if your system has a DRAC 5 controller	Specifies the BMC user ID. This sub-option can be replicated.
	`--action`	`enable, disable`	Enables or disables the user ID specified using the `userid` sub-option. This sub-option can be replicated and is dependent on the `userid` sub-option.

solcfgparams

Table 323. solcfgparams

Option	Sub-option	Valid Arguments	Description
`solcfgparams`			Configures and displays SOL configuration parameters. This option can be replicated.
	`--solenable`	`enable, disable`	Enables or disables if the SOL payload type can be activated. This option can be replicated.
	`--solprivlevel`	`user, operator, administrator`	Sets the minimum user privilege level required to activate the SOL. This option can be replicated.
	`--solcharaccuminterval`	`1–255`	Sets the Character Accumulate Interval in 5–ms increments (1–255). This sets the typical amount of time that the BMC waits before transmitting a partial SOL character data packet. This option can be replicated.
	`--solcharsendthreshold`	`1–255`	Specifies that the BMC automatically sends an SOL character data packet containing this number of characters in increments of 5 (1–255) as soon as this number of characters (or greater) has been accepted from the baseboard serial controller into the BMC. This option can be replicated.
	`--solbitrate`	`9600, 19200`	Sets the serial channel communication bit rate (in bps) with the BMC when SOL is activated. This option can be replicated. **NOTE: The arguments for `solbitrate` vary with various Dell systems. If an argument valid for a particular Dell system is entered for another system, the `Parameter out of range` error is displayed.**

Option	Sub-option	Valid Arguments	Description

			Example 1 (to display the current SOL configuration):
			`A:>syscfg solcfgparams`
			`solcfgparams solenable=enable`
			`solprivlevel=administrator`
			`solcharaccum interval=25`
			`solcharsend threshold=25`
			`solbitrate=9600`
			
			Example 2 (to set the SOL configuration parameters):
			`A:>syscfg solcfgparams`
			`--solenable=disable`
			`--solprivlevel=administrator`
			`--solcharaccum interval=25`
			`--solcharsend threshold=100`
			`--solbitrate=9600 solcfgparams`
			`solenable=disable`
			`solprivlevel=administrator`
			`solcharaccum interval=25`
			`solcharsend threshold=100`
			`solbitrate=9600`

ssninfo

Table 324. ssninfo

Option	Sub-option	Valid Arguments	Description
`ssninfo`			Displays information about the number of possible active sessions and the number of currently active sessions on all channels on the BMC. This option cannot be replicated. **NOTE: All PowerEdge systems prior to PowerEdge 12G systems.**
	`--maxactivessns`	NA	Displays the maximum possible active BMC sessions. This sub-option cannot be replicated.

	`--currentactivessns`	NA	Displays the number of currently active sessions on all channels of the BMC. This sub-option cannot be replicated.
			
			Example:
			
			`A:>syscfg ssninfo`
			`currentactivessns=1`
			`maxactivessns=4`

useraction

NOTE: For 14th generation of PowerEdge Systems, you have to configure the username and password before executing this command for a particular userid.

Table 325. useraction

Option	Sub-option	Valid Arguments	Description
useraction			Enables and disables BMC, **sua**, and **lua** user IDs. This option can be replicated.
	--userid	2–16, if your system has a DRAC 5 controller	Specifies the BMC user ID. This sub-option can be replicated.

	--action	enable, disable	Enables or disables the user ID specified using the userid sub-option. This sub-option can be replicated. This sub-option is dependent on the userid sub-option.
			
			Example to disable User ID 3:
			
			`A:>syscfg useraction --userid=3 --action=disable`
			
			`useraction userid=3 action=disable`

username

Table 326. username

Option	Sub-option	Valid Arguments	Description
username			Sets the BMC User ID and username. This option can be replicated.
	--userid	2–16 if your system has a DRAC 5 controller	Specifies the User ID. This sub-option can be replicated.

	--name	*<string>*	Sets the username (maximum of 16 printable ASCII characters) for the User ID specified using the userid sub-option. This sub-option can be replicated. This sub-option is dependent on the userid sub-option.
			
			Example 1(to configure User ID 3 with a user name):
			
			`A:>syscfg username --userid=3 --name=bmcmaster`
			
			`username userid=3 name=bmcmaster`
			
			Example 2 (to display the username for User ID 3):
			
			`A:>syscfg username --userid=3 --name`
			
			`username userid=3 name=bmcmaster`

version

Table 327. version

Option	Sub-option	Valid Arguments	Description
`--version`	NA	NA	Displays the version information for the SYSCFG utility.

virutualmedia

Table 328. virutualmedia

Option	Sub-option	Valid Arguments	Description
`--virutualmedia` **NOTE: This option is available only with the appropriate installed license.**	NA	`enable, disable, auto`	Enables or disables the virtual media. This option cannot be replicated.

SYSCFG For State Configuration

The SYSCFG utility allows the user to write a state data value on a system. This value is preserved across reboot or power-off operations. Users can use this state data value for storing important state information, such as the progress of a multi-reboot deployment process.

SYSCFG Options For State Configuration

The following table lists all valid options and arguments along with a description of the expected behavior of each option.

NOTE: Some of the following options or arguments are not available on all systems.

Table 329. SYSCFG Options For State Configuration

Option	Valid Arguments	Description
`-b or --byte`	*<string>*	Specifies a value to write to state data. The format of the argument must be in decimal format unless the -x option is given. If the -x option is given, the value is interpreted as hexadecimal format. The value can optionally contain 0x. The decimal range is 0–255, and the hexadecimal range is 0x00–0xFF.

Option	Valid Arguments	Description

		Example:
		`A:>syscfg -b 1`
		`The state byte has been set to 1.`
		`A:>syscfg -b 2 -x`
		`The state byte has been set to 0x02.`

`-r or --read*`
NOTE: The asterisk is not part of the command syntax.
	NA	Reads the value of state data. When used with the -x option, the value is reported in hexadecimal format (0xNN).
		Example:
		`A:>sysfg -r -x`
		`The state byte has been set to 0x02.`
		`A:>syscfg -r`
		`The state byte has been set to 2.`

`-x or --hex`	None	Specifies that a value should be in hexadecimal format.
		Example:
		`A:>sysfg -r -x`
		`The state byte has been set to 0x01.`
		`A:>sysfg -x -b 0x02`
		`The state byte has been set to 0x02.`

SYSCFG for System Configuration

SYSCFG enables system configuration and reporting. It reports system identification values, processor types and speeds, memory size, and detects device using PCI scan.

Options For System Configuration

Table below documents valid options and arguments along with a description of the expected behavior of each option. Options and arguments are case sensitive. All options and pre-defined arguments are lowercase unless stated otherwise.

NOTE: Some of the following options or arguments might not be available on all systems. Some of the command line options are followed by an asterisk. Such options are used for reporting purposes only.

Table 330. SYSCFG Options and Arguments for System Configuration

Option	Valid Arguments	Description
`--asset`	None	Reports the customer-programmable asset tag number for a system. This option displays the asset tag for a system. For Blade systems, the `SYSCFG` utility reports the asset tag for both the server module and the asset tag for its chassis. For more information on delimiters, see Command Line Option Delimiters .

Option	Valid Arguments	Description

		Example:
		`A:>syscfg --asset`
		`asset=ASSET`

`--biosver*`	None	Reports the BIOS version for a system. If used with the `-s` option, the environment variable is set to the BIOS version.
		Example:
		`A:>syscfg --biosver`
		`biosver=A08`

`--chassvctag*`	None	Reports the chassis service tag on blade systems.
		Example:
		`A:>syscfg --chassvctag`
		`chassvctag=SVCTAG1`

`--cpucount*`	None	Reports the number of processors found on the system.
		Example 1:
		`A:>syscfg --cpucount cpucount=1`
		Example 2:
		`A:>syscfg --cpucount cpucount=2`

`--cpuspeed*`	None	Reports the speed of all processors in a system.
		Example:
		`A:>syscfg --cpuspeed`
		`cpuspeed=1000MHz`

`--envfile`	*<filename>*	Reads the environment variable file (included in DTK as **sys.ini**) and sets environment variables to names in the file, based on the system's information. Primarily, this command performs a PCI scan and matches the vendor/device numbers of the devices to those specified in the environment variable file. For more information, see the Environment Variable File.
		Example:
		`A:>syscfg --envfile sys.ini`
		`DELLNIC1=INTEL PRO100`
		`DELLNIC2=INTEL PRO100`
		`DVIDEO1=RAGEXL`
		`DIDE1=PEQUR/ROSS IDE`
		`DSCSI1=AIC-7899`

`--mem*`	None	Reports the amount of system memory physically installed in the system, not the amount of memory available to an operating system. If used with the `-s` option, the environment variable is set to the amount of system memory. The last two characters of the memory value indicate the order of magnitude used (KB or MB).

Option	Valid Arguments	Description

		Example:
		`A:>syscfg --mem`
		`mem=256MB`

`-n`	*<filename>*	Specifies an input file to use for resolving PCI vendor and device numbers to strings. The file must be present (with read rights) and contain a properly formatted list. For more information, see PCI Reporting . This option must be used with the `pci` option.
		Example:
		`A:>syscfg -n pci.txt --pci`
		`PCI Bus: 2, Device: 4, Function: 0`
		`Vendor: 8086 - Intel Corp.`
		`Device: 1229 - 82557/8/9 [Ethernet Pro 100]`
		`Sub Vendor:8086 - Intel Corp.`
		`Sub Device:1017 - EtherExpress`
		`PRO/100+ Dual Port Server Adapter`
		`Slot: 01`
		`Class: 02 - Network`
		`SubClass: 00 - Ethernet`

`--ovrwrt*`	None	When used with the `outfile` option, this option specifies that the output file should be overwritten if it exists. **NOTE: This option is applicable only on PowerEdge systems prior to 12G.** Example: `A:>syscfg -outfile=out.ini --ovrwrt`

`--pci*`	None	Performs a scan of all PCI buses and displays the results. The utility uses an open source `pci.ids` file for vendor/device name resolution. The utility looks for a file called `pci.ids` in the current working directory. If the file is not found in the current working directory, the directory containing the SYSCFG executable is searched. If the `-n` option is used to specify a filename, this filename is used for resolution. If a specific filename is not given and the `pci.ids` file cannot be found, Unknown is printed for all vendor and device codes.
		For more information, see PCI Reporting.
		Example 1 (the `pci.ids` filename is specified in the command line instance):
		`A:>syscfg -n pci.ids --pci`
		`PCI Bus: 0, Device: 0, Function: 0`
		`Vendor: 1166 - ServerWorks`
		`Device: 0012 - CMIC-LE`
		`Slot: 00`
		`Class: 06 - Bridge`
		`SubClass: 00 - CPU/PCI`
		`PCI Bus: 0, Device: 0, Function: 1`
		`Vendor: 1166 - ServerWorks`
		`Device: 0012 - CMIC-LE`
		`Slot: 00`

Option	Valid Arguments	Description

		`Class: 06 - Bridge`
		`SubClass: 00 - CPU/PCI`
		
		`PCI Bus: 0, Device: 0, Function: 2`
		`Vendor: 1166 - ServerWorks`
		`Device: 0000 - Unknown`
		`Slot: 00`
		`Class: 06 - Bridge`
		`SubClass: 00 - CPU/PCI`

	None	Example 2 (the `pci.ids` file is located in the same directory as the utility so that names resolve):
		
		`A:>syscfg --pci`
		
		`PCI Bus: 0, Device: 0, Function: 0`
		`Vendor: 1166 - ServerWorks`
		`Device: 0012 - CMIC-LE`
		`Slot: 00`
		`Class: 06 - Bridge`
		`SubClass: 00 - CPU/PCI`
		
		`PCI Bus: 0, Device: 0, Function: 1`
		`Vendor: 1166 - ServerWorks`
		`Device: 0012 - CMIC-LE`
		`Slot: 00`
		`Class: 06 - Bridge`
		`SubClass: 00 - CPU/PCI`
		
		`PCI Bus: 0, Device: 0, Function: 2`
		`Vendor: 1166 - ServerWorks`
		`Device: 0000 - Unknown`
		`Slot: 00`
		`Class: 06 - Bridge`
		`SubClass: 00 - CPU/PCI`

	None	Example 3 (a `pci.ids` file does not exist) :
		
		`A:>syscfg --pci`
		
		`PCI Bus: 0, Device: 0, Function: 0`
		`Vendor: 1166 - Unknown`
		`Device: 0012 - Unknown`
		`Slot: 00`
		`Class: 06 - Bridge`
		`SubClass: 00 - CPU/PCI`
		
		`PCI Bus: 0, Device: 0, Function: 1`
		`Vendor: 1166 - Unknown`
		`Device: 0012 - Unknown`
		`Slot: 00`
		`Class: 06 - Bridge`
		`SubClass: 00 - CPU/PCI`
		
		`PCI Bus: 0, Device: 0, Function: 2`
		`Vendor: 1166 - Unknown`
		`Device: 0000 - Unknown`
		`Slot: 00`
		`Class: 06 - Bridge`
		`SubClass: 00 - CPU/PCI`

`-s`	*<string>*	Sets an environment variable to the value of a function command option. The string argument must be alphanumeric without any spaces or symbols. The variable name must be in upper case. This option must be used with at least one function command.

Option	Valid Arguments	Description

		Example:
		`A:>syscfg -s ENVNAME --svctag`
		`ENVNAME=SERVICE`

`--slot*`	None	Reports the slot on a Blade system. If it is not a Blade system, the slot is reported as 0. If used with the `-s` option, the environment variable is set to the slot.
		Example 1 (Blade systems) :
		`A:>syscfg --slot`
		`slot=1`
		Example 2 (Rack and Tower systems) :
		`A:>syscfg --slot`
		`slot=0`
		NOTE: This option is valid only on PowerEdge blade systems.

`--svctag*`	None	Reports the service tag for a system. If used with the `-s` option, the environment variable is set to the BIOS version.
		Example:
		`A:>syscfg --svctag`
		`svctag=113CD1S`

`--sysasset*`	None	Reports the system asset tag on Blade systems.
		Example:
		`A:>syscfg --sysasset`
		`sysasset=ASSET01`

`--sysid*`	None	Reports the unique system id bytes for a server. Servers contain a unique ID value based on their model. The ID value is reported as a hexadecimal value with a leading 0x, lowercase hexadecimal letters, and zero-padded to 2 bytes. If used with the `-s` general option, the environment variable is set to the system ID.
		Example:
		`A:>syscfg --sysid`
		`sysid=0x00df`

`--sysname*`	None	Reports the system identification string for a server, which is the string displayed under the Dell logo during POST. If used with the `-s` option, the environment variable is set to the system name.
		Example:
		`A:>syscfg --sysname`
		`sysname=PowerEdge 1550/1000`

`--syssvctag*`	None	Reports the system service tag on a Blade system.

Option	Valid Arguments	Description

		Example:
		`A:>syscfg --syssvctag`
		`syssvctag=BLADE01`

`--uuid*`	None	Reports the Unique User Identifier (UUID) for a system. The UUID is a unique system identifier used in PXE requests.
		Example:
		`A:>syscfg --uuid`
		`uuid=44454C4C-5300-104C-8044- B1C04F423131`

SYSCFG For IPv6 Configuration

The following table lists all valid options and arguments for IPv6 configuration along with a description of each option. These options are applicable only if the DRAC on your system supports IPv6.

NOTE: This option is available only if appropriate license is installed.

Table 331. SYSCFG For IPv6 Configuration

Option	Sub-option	Valid Arguments	Description
`lancfgparamsv6 or lcpv6`	`--ipv6`	`enable, disable`	Enables or disables the IPv6 stack. `A:> syscfg lcpv6 --ipv6=enable`

	`--ipsrcv6=static`
	`--ipaddrv6= <ipv6address>`
	`--prefixlengthv6=<prefix lengthv6>`
	`--gatewayv6=<ipv6gateway address>`
		NA	Allows you to manually configure IPv6 addresses.
			`A:>syscfg lcpv6`
			`--ipsrcv6=static --ipaddrv6=1234:1234:1234::1234`
			`--prefixlengthv6=32 --gatewayv6=1234:1234:1234::1`

	`--ipsrcv6=auto`	NA	Automatically configures the IPv6 addresses. `A:>syscfg lcpv6 --ipsrcv6=auto`
	`--dnssrcv6=auto`	NA	Automatically configures the DNS address. `A:>syscfg lcpv6 --dnssrcv6=auto`
	`--dnssrcv6=static` `-- dnsserver1v6=<ipv6dnsserver1 address>`	NA	Allows you to manually set the DNS address.
	`-- linklocaladdripv6=<linklocal addripv6>`		Allows you to view IPv6 addresses. `A:>syscfg lcpv6 -- linklocaladdripv6=134.56.45.233`
	`--gatewayv6=<gatewayv6>`		Allows you to view IP gatewayv6 address.

PCI Reporting

The scan of the PCI bus uses a file to resolve PCI vendor and device codes to vendor information strings. The format of the PCI output is as follows:

```
PCI Bus: 2, Device: 4, Function: 0
Vendor: 8086 - Intel Corp.
Device: 1229 - 82557/8/9 [Ethernet Pro 100]
Sub Vendor:8086 - Intel Corp.
```

```
Sub Device:1017 - EtherExpress PRO/100+ Dual Port Server Adapter
Slot: 01
Class: 02 - Network
SubClass: 00 - Ethernet
```

If the file for vendor resolution is not present, the utility prints `Unknown` next to a vendor name. If the file for environment variable names is not present, the utility fails the environment variable operation.

The **pci.ids** file is located at **\DELL\TOOLKIT\TOOLS** on Windows systems and **/opt/dell/toolkit/bin** on Linux systems. For more information and examples, see the Options For System Configuration.

Environment Variable File

The environment variable file can be used for discovering and recording system information to environment variables. The file consists of several sections with .ini format that map PCI vendor/device numbers to environment variable values. The environment variable file is **sys.ini** in **\DELL\TOOLKIT\TOOLS** on Windows systems and on Linux systems, you can find it in **/opt/dell/toolkit/bin** . For example, the `[DELLNIC]` section header designates that an environment variable named `dellnic1` should be set to the value of the name or value pair whose name matches the NIC's vendor or device number. If multiple NICs are present on a system, the environment variables are numbered sequentially: `dellnic1, dellnic2` , and so on

Environmental Variable File Excerpt (sys.ini)

```
[DELLNIC]
```

```
;environment variable will be set to INTELPRO100F for
vendor 8086, dev 1001
```

```
8086,1001=INTELPRO1000F
```

```
;environment variable will be set to INTELPRO100T for
vendor 8086, dev 1004
```

```
8086,1004=INTELPRO1000T
```

```
;environment variable will be set to INTELPRO100XT for
vendor 8086, dev 1008
```

```
8086,1008=INTELPRO1000XT
```

The names of the environment variables can be changed in the `Variable Names` section. If a name is changed, the section that corresponds to that name must be changed as well.

Also available in the **.ini** file is a section that maps the system ID number to a string. This string can be used to identify the system during the discovery phase of deployment. The section name is the environment variable that is set to the value of the name/value pair whose name matches the system ID. To change the name of the environment variable, change the value of the `MACHINE` name in the `Variable Names` section, and change the corresponding section name.

5

RAIDCFG

This section documents the Deployment Toolkit (DTK) RAID configuration utility. The RAIDCFG utility provides a single command line tool that can configure all supported RAID controllers.

Topics:

- Features
- Supported RAID Controllers
- RAIDCFG Options And Arguments
- RAID Configuration Utility Options And Arguments
- Quick Reference To RAIDCFG Commands

Features

The RAID configuration utility:

- Displays help and usage information.
- Reads configuration options from the Command Line Interface (CLI) parameters.
- Enumerates RAID controllers, physical disks, and virtual disks.
- Creates and deletes virtual disks.
- Logs activity to a given filename.
- Returns specific error codes and messages.
- Assigns and unassigns global and dedicated hot spares.

NOTE: In Microsoft Windows Preinstallation Environment (Windows PE), you can find the RAIDCFG utility at \DELL \x32\TOOLKIT\TOOLS or at \DELL\x64\TOOLKIT\TOOLS. In Linux, you can find it at/opt/dell/toolkit/bin.

Supported RAID Controllers

The RAIDCFG utility supports the following RAID controllers:

- PERC FD33xD and PERC FD33xS
- PERC H830 Adapter, PERC H330 Adapter, PERC H330 Embedded, PERC H730 Adapter, and PERC H730P Adapter
- PERC H330 Mini Monolithic, PERC H730 Mini Monolithic, and PERC H730P Mini Monolithic
- PERC H310 Adapter, PERC H310 Mini Blade, PERC H310 Mini Monolithic, PERC H310 Embedded, PERC H710 Mini Blade, PERC H710P Mini Blade, PERC H710 Adapter, and PERC H710 Adapter
- PERC H200 Integrated, PERC H200 Adapter, PERC H200 Embedded, PERC H700 Integrated, PERC H700 Adapter, and PERC H800 Adapter
- PERC 6/E Adapter, PERC 6/I Integrated, and PERC 6/I Adapter
- PERC 6/I Integrated for blade systems
- PERC 5/E Adapter, PERC 5/I Integrated, and PERC 5/I Adapter
- PERC S110, PERC S100, PERC S130, and PERC S300 software controller
- SAS 6iR Integrated and SAS 6iR Adapter

- SAS 5iR Integrated and SAS 5iR Adapter

RAIDCFG Options And Arguments

Table below lists all of the valid options, parameters, and arguments for the RAIDCFG utility. For more information on valid RAIDCFG options and their specific uses, see RAID Configuration Utility Options and Arguments.

Mandatory command line options must be present in the command. Optional command line options can be typed in any order after the mandatory options have been typed. Many options have both a short and long format. Short and long format options cannot be used in the same command line instance.

Table below shows some examples of valid and invalid short and long format command line instances. For an explanation of the specific order for each option, see RAID Configuration Utility Options And Arguments. For a list of frequently used RAID commands, see Quick Reference To RAIDCFG Commands.

NOTE: Some of the following options or arguments might not be available on all systems.

Table 332. RAIDCFG Short and Long Format Options

Option	Valid Arguments	Short Description	Mandatory or Optional

`No option`
`-h`
`-?`
or
`/?`
	NA	Displays general usage information for the utility. The usage information consists of a comprehensive list of valid options, parameters, and arguments.	Optional.
			See General Help for specific usage information.

`-ac or action`	`blink`	Blinks the specified physical disks on the specified controller.	See Blinking And Unblinking Array Disks for specific usage information.

	`ci`
	or
	`cancelinit`
		Cancels the slow or full initialization on the selected virtual disk.	See Initializing Virtual Disks for specific usage information.

	`cc` or `consistencycheck`	Checks the consistency for a specified virtual disk.	See Consistency Check For Virtual Disk for specific information.
	`ccc` or `cancelconsistencycheck`	Cancels the consistency check for a specified virtual disk.	See Consistency Check For Virtual Disk for specific information.

	`chsk`
	or
	`changesecuritykey`
		Changes the encryption key of the encryption-capable controller.	See Changing Encryption Key for specific information.

	`crbd`
	or
	`cancelrebuild`
		Cancels the rebuild of the physical disk associated with a specified virtual disk.	See Configuring Physical Disk Rebuild for specific information.

	`ctr`	Configures the array disk as RAID.	See Configuring Array Disk as RAID for specific information.

Option	Valid Arguments	Short Description	Mandatory or Optional
	or `converttoraid`		

	`csk`
	or
	`createsecuritykey`
		Creates encryption key for the encryption-capable controller.	See Creating Encryption Key for specific information.

	`ctnr`
	or
	`converttononraid`
		Configures the array disk as JBOD.	See Configuring Array Disk as RAID for specific information.

	`cvd`
	or
	`createvdisk`
		Creates a virtual disk.
		NOTE: When providing multiple physical disks for the createvdisk command, do not separate the disks with spaces. For example, `-ad= 1:4, 1:5` causes an error. The correct syntax for displaying multiple physical disks is `-ad= 1:4,1:5,1:6`
			See Creating Virtual Disks for specific usage information.

	`dvd`
	or
	`deletevdisk`
		Deletes a virtual disk.	See Deleting Virtual Disks for specific usage information.

	`dpc`
	or
	`discardPreservedCache`
		Discards the preserved cache on the controller.	See Discarding Preserved Cache for specific usage information.

	`dphs`
	or
	`disablepersistenthotspare`
		Disables the controller Persistent Hot Spare feature for the selected controller.	See Enabling and Disabling Persistent Dedicated Hot Spares for specific usage information.

	`dsk`
	or
	`deletesecuritykey`
		Deletes the encryption key of the encryption-capable controller.	See Deleting Encryption Key for specific usage information.

	`eai`
	or
	`enableautoimport`
		Configures the auto import property of the controller.	See Configuring Auto Import for specific usage information.

	`ephs`
	or
	`enablepersistenthotspare`
		Enables the controller Persistent Hot Spare feature for the selected controller.	See Enabling and Disabling Persistent Dedicated Hot Spares for specific usage information.

Option	Valid Arguments	Short Description	Mandatory or Optional

	`evs`
	or
	`expandvdsize`
		Increases the size of the virtual disk by the specified percentage.	See Increasing Virtual Disk Size for specific usage information.

	`fgnimp`
	or
	`foreignimport`
		Imports the foreign configuration for the indicated controller.	See Importing and Clearing Foreign Configurations for specific usage information.

	`fgnclr`
	or
	`foreignclear`
		Clears the foreign configuration for the specified controller.	See Importing and Clearing Foreign Configurations for specific usage information.

	`fgnrvr`
	or
	`foreignrecover`
		Recovers the foreign configuration for the specified controller.	See Importing and Clearing Foreign Configurations for specific usage information.

	`fi`
	or
	`fastinit`
		Initializes the virtual disk for the specified controller.	See Initializing Virtual Disks for specific usage information.

	`gfki`
	or
	`getforeignkeyids`
		Displays the foreign key ids present on the specified controller.	See Displaying Foreign Key Ids for specific usage information.

	`gpciels`
	or
	`getPCIeLinkSpeed`
		Displays the Peripheral Component Interconnect Express (PCIe) link speed of the controller.	See Setting and Displaying the PCIe Link Speed for specific usage information.

	`insecerase`
	or
	`instantsecureerase`
		Erases the encrypted physical disk that is in ready or foreign disk state.	See Erasing Encrypted Physical Disk for specific usage information.

	`isfc`
	or
	`importsecureforeignconfig`
		Imports the foreign configuration of the virtual disks secured with the specified passphrase.	See Importing Secured Foreign Configurations for specific usage information.

	`lghs`
	or
	`listglobalhotspare`
		Displays the array (physical) disks used for global hot spare for the specified controller.	See Assigning, Unassigning, And Listing Global Hot Spares for specific usage information.

	`offline`	Sets the physical disk state to offline.	See Configuring Physical Disk State for specific usage information.
	`online`	Sets the physical disk state to online.	See Configuring Physical Disk State for specific usage information.

Option	Valid Arguments	Short Description	Mandatory or Optional

	`rghs`
	or
	`removeglobalhotspare`
		Unassigns all global hot spares to disks on the specified controller.	See Assigning, Unassigning, And Listing Global Hot Spares for specific usage information.

	`replacepd`
	or
	`replacepdisk`
		Replaces the physical disk of a virtual disk by a ready state disk.	See Replacing Physical Disk Of A Virtual Disk for specific usage information.

	`rbd`
	or
	`rebuild`
		Rebuilds the physical disk associated with a specified virtual disk.	See Configuring Physical Disk Rebuild for specific information.

	`rst`
	or
	`reset`
		Resets the selected controller.	See Resetting The Controller for specific usage information.

	`sbf`
	or
	`setbootflag`
		Sets the indicated virtual disk as boot VD on the indicated controller.	See Setting A Virtual Disk As Bootable Virtual Disk for specific usage information.

	`sbm`
	or
	`setbootmode`
		Sets the bootmode of the controller to 0 (BIOS stop on error), 1 (BIOS continue on error), or 2 (Headless continue on error) during system startup or reboot.	See Setting Boot Mode for specific usage information.

	`sghs`
	or
	`setglobalhotspare`
		Assigns the specified disks as global hot spares on the specified controller.	Optional. See Assigning, Unassigning, And Listing Global Hot Spares for specific usage information.

	`sli`
	or
	`slowinit`
		Initializes the virtual disk for the specified controller using the `slowinit` command.	See Initializing Virtual Disks for specific usage information.

	`spciels`
	or
	`setPCIeLinkSpeed`
		Sets the PCIe link speed of the controller to 2 or 3.	See Setting And Displaying The PCIe Link Speed for specific usage information.

	`svdn`
	or
	`setvdname`
		Sets the name of the specified virtual disk on the specified controller.	See Setting Virtual Disk Name for specific usage information.

`-ad or adisk`	NA	Specifies an array disk command.	See Enumerating Array Disks for specific usage information.
	`ch:targ, ch:targ, ...` or `ch:targ:lun,...` or `ch:targ:enc`	Specifies an array disk. For SCSI controllers, the value of LUN should always be 0.	Optional. See Enumerating Array Disks for specific usage information.

Option	Valid Arguments	Short Description	Mandatory or Optional
	`channel:target`, or `channel:target:lun`, or `channel:target:enclosure`	For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure. **NOTE: You can also use `pdisk` or `-pd` instead of `adisk` or `-ad` to specify an array disk.**	
`-c or controllerid`	*<valid controller ID number>*	Specifies a RAID controller.	See Enumerating RAID Controllers for specific usage information.
`-cp or cachepolicy`	`d or e`	Specifies the cache policy for reads on a specified virtual disk or disk cache policy.	Optional. See Creating Virtual Disks for specific usage information.
`-ctrl or controller`	NA	Displays a list of the supported RAID controllers in the system, along with select property information.	Mandatory, must be typed in the correct order. See Enumerating RAID Controllers for specific usage information.
`-envc or envcommand`	*<string>*	Sets a user-defined environmental variable (*<string>*) to the value returned from a function call.	See Setting Environment Variables for specific usage information.
`-envn or envname`	*<string>*	Sets the environment variable (*<string>*) that equates to the value returned from a function call.	See Setting Environment Variables for specific usage information.

`-fd or failoverdrive`	`ch:targ`, `ch:targ, ...`
	
	or `ch:targ:lun,...`
	
	or `ch:targ:enc`
	
	`channel:target`, or `channel:target:lun`,
	
	or
	
	`channel:target:enclosure`
		Specifies the location of the failover drive in an array.
		
		For SCSI controllers, the value of LUN should always be 0.
		
		For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for `channel`, `target`, and `enclosure`.
		
		NOTE: From DTK 2.4 onwards, the `-fd` option creates dedicated hot spares instead of global hot spares. To set global hot spares, see Assigning, Unassigning, And Listing Global Hot Spares.
			Optional.
			
			See Creating Virtual Disks for specific usage information.

`-i`	*<filename>*	Reads the RAID configuration information from the given **.ini** filename and creates the RAID configurations on the specified controllers.	Mandatory. See Miscellaneous Options for specific usage information.
`-l or logfile`	*<filename>*	Logs command line output to a file.	Optional.

Option	Valid Arguments	Short Description	Mandatory or Optional
			See Miscellaneous Options for specific usage information.
-o	<filename>	Reads the RAID configurations from all available controllers and write these configurations in the given **.ini** filename.	Mandatory. See RAID Replication Options for specific usage information.
-r or raid	<valid RAID level number>	Sets the RAID level for the array. Valid RAID values are 0, 1, 5, 10, 50. If no value is specified for RAID, 0is taken as the default level.	Optional. See Creating Virtual Disks for specific usage information.
-rp or readpolicy	ra, ara, nra, rc, nrc	Sets the read policy for the virtual disk.	Optional. See Creating Virtual Disks for specific usage information.
-se or setenvironment	NA	Sets a user-defined environment variable to the value returned from the function call. The function calls are: getcontrollerslots, getfirmware, getcontrollertype, getadisks, getadiskcount, getfreeadisks, getfreeadiskcount, getfreeadisksize, and gethotspares.	Mandatory. See Setting Environment Variables for specific usage information.
-si or silent	NA	Does not display any information on the terminal console.	Optional. See Miscellaneous Options for specific usage information.
-sp or spanlength	<number>	The span size of RAID 5, which is a mandatory parameter for RAID 50. **NOTE: Spanlength is applicable for RAID 10, RAID 50, and RAID 60. The minimum permissible spanlength value is 2for RAID 10, 3for RAID 50 and 4for RAID 60. The number of array disks for creating virtual disks should not be a prime number and should be divisible by the specified spanlength.**	Mandatory. See Creating Virtual Disks for specific usage information.
-sz or size	<number>	Sets the maximum size on the virtual disk in MB or GB if the size is not provided. The default size is in MB. If GB follows the number, the size is expressed in GB.	Optional. See Creating Virtual Disks for specific usage information.

Option	Valid Arguments	Short Description	Mandatory or Optional
`-ssz or stripesize`	*<number>*	Sets the stripe size on the virtual disk in KB. **NOTE: When creating virtual disks, do not specify the units for chunk (stripe) size. The units are always listed in KB.**	Optional. See Creating Virtual Disks for specific usage information.
`-vd or vdisk`	NA	Displays the virtual disks under all of the controllers along with the physical array disks that make up the virtual disks.	See Enumerating Virtual Disks for specific usage information.
	<valid virtual disk ID number>	Displays the specified virtual disk.	Optional. See Enumerating Virtual Disks for specific usage information.
`-ver or version`	NA	Displays the version number of the utility.	Optional. See Miscellaneous Options for specific usage information.
`-wp or writepolicy`	`wb, wt, wc, nwc, fwb`	Sets the write policy for a virtual disk. The valid arguments are: `wb` (writeback caching), `wt` (write-through caching), `wc` (write-caching), `nwc` (no-write-caching), and `fwb` (force-write-back).	Optional. See Miscellaneous Options for specific usage information.

RAID Configuration Utility Options And Arguments

The following tables document valid options, parameters, and arguments along with a description of the expected behavior of each option. Options, parameters, and pre-defined arguments are case-sensitive and entered in lowercase, unless stated otherwise. The information is grouped by task in the following sections:

- General Help
- Enumerating RAID Controllers
- Setting Environment Variables
- Importing and Clearing Foreign Configurations
- Resetting The Controller
- Enabling And Disabling Persistent Dedicated Hot Spares
- Assigning, Unassigning, And Listing Global Hot Spares
- Setting And Displaying The PCIe Link Speed
- Setting Boot Mode
- Configuring Auto Import
- Creating Virtual Disks
- Initializing Virtual Disks
- Enumerating Virtual Disks
- Deleting Virtual Disks
- Setting A Virtual Disk As Bootable Virtual Disk
- Blinking And Unblinking Virtual Disks

- Setting Virtual Disk Name
- Replacing Physical Disk Of A Virtual Disk
- Consistency Check For Virtual Disk
- Enumerating Array Disks
- Blinking And Unblinking Array Disks
- Configuring Array Disk as RAID
- Configuring Physical Disk State
- Configuring Physical Disk Rebuild
- Erasing Encrypted Physical Disk
- RAID Replication Options
- Miscellaneous Options
- Increasing Virtual Disk Size
- Discarding Preserved Cache
- Displaying Foreign Key Ids
- Creating Encryption Key
- Changing Encryption Key
- Deleting Encryption Key
- Importing Secured Foreign Configurations
- Creating Virtual Disks

General Help

The following table lists the RAIDCFG general help options.

Table 333. General Help

Option	Parameters	Valid Arguments	Description

`No option-h-?or/?`	NA	NA	Displays general usage information for the utility. The usage information consists of a comprehensive list of valid options, parameters, and arguments. This option is optional and can be added to the command line in any order.
			
			Example:
			
			`A:>raidcfg -h`
			
			`RAIDCFG v5`
			
			`Copyright (c) 2002-2014 Dell Inc.`
			
			`[raidcfg]`
			
			`Help: options in <> are mandatory and options in [] are optional and`

Option	Parameters	Valid Arguments	Description
			can be in any order after mandatory ones. raidcfg -h Provides users with general help options that may be used with this utility.

Enumerating RAID Controllers

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for enumerating RAID controllers.

Table 334. Enumerating RAID Controllers

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
-ctrl or controller	NA	NA	Lists all the RAID controllers on the host system, along with select property information. This option is mandatory Example: raidcfg -ctrl Controller_ID/Slot_ID: 4 Controller_PCI_ID: 9:0:0 Controller_Name: PERC H710P Adapter Channels: 2 No.of Virtual_Disks: 17 Array_Disks: 0:0:1,0:1:1,0:2:1,0:3:1,0:4:1,0:5:1, 0:6:1, 0:7:1 Persistent Hot Spare: Disabled Firmware Version: 21.2.0-007 Controller_Boot_Mode: 2 (Headless continue on error) Enable_Auto_Import: No T10 Protection Info Capable: No RAIDCFG Command successful!
	-c or controllerid	*<valid controller ID number>*	Displays the properties for the RAID controller with the specified controller ID. This option combination is mandatory. Example: raidcfg -ctrl -c=31 Controller_ID/Slot_ID: 31 Controller_PCI_ID: 7:0:0 Controller_Name: PERC FD33xS Channels: 1 No.of Virtual_Disks: 1 Array_Disks: 0:0:1,0:2:1,0:3:1,0:4:1,0:7:1,0:8:1,0:10:1,0:12:1,0:14:1,0:15:1 Persistent Hot Spare: Disabled Firmware Version: 25.2.2-0004 Preserved Cache: Not Available Controller_Boot_Mode: 1 (BIOS continue on error) Enable_Auto_Import: Yes

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
			T10 Protection Info Capable: Yes Encryption Capable: Yes Encryption Key Present: Yes RAIDCFG Command successful!

Creating Virtual Disks

The following table lists the RAIDCFG options, parameters, and predefined arguments for creating virtual disks.

NOTE: If you create a virtual disk on Windows PE, reboot the system.

Table 335. Creating Virtual Disks

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
-ctrl -ac=cvd -c=id -ad= ch:targ,ch:targ, ... [or ch:targ:encl,...] or controller action= createvdisk controllerid= id adisk= channel:target: lun,... channel:target: lun,... [or channel:target: enclosure,...]	NA	NA	Creates a virtual disk comprising the properties supplied. This option combination is mandatory. **NOTE: Create a bootable virtual disk only from the disk drives of slot 0-3 of the system.** For SCSI controllers, the value of LUN should always be 0. For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure. Example: A:>raidcfg -ctrl -ac=cvd -c=2 -ad=1:4,1:8 -r=1 -ssz=32 -cp=d -rp=nra -wp=wt -fd=1:1 RAIDCFG Command successful!
	-cp or cachepolicy	d or e	Valid arguments for disk cache policy are: · d — Disable · e — Enable The -cp option is optional and can be added to the command line in any order after the mandatory option combination.
	-fd or failoverdrive	ch:targ, ch:targ, ... or ch:targ:lun,... or ch:targ:enc channel:target, or channel:target:l un, or channel:target: enclosure	Sets the failover drive for the virtual disk. The -fd option is optional and can be added to the command line in any order after the mandatory option combination.

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
			NOTE: From DTK 2.4 onwards, the -fd option creates dedicated hot spares instead of global hot spares. For information about setting global hot spares, see Assigning, Unassigning, And Listing Global Hot Spares. For SCSI controllers, the value of LUN should always be 0. For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.
	`-r or -raid`	0, 1, 5, 6, 10, 50, 60	Sets the RAID type or level for the virtual disk. **NOTE: If this option is not specified for any RAID controller, RAID 0 is taken as the default.** The valid arguments are: • 0 — RAID 0 uses data striping, which is writing data in equal-sized segments across the array disks. RAID 0 does not provide data redundancy. • 1 — RAID 1 is the simplest form of maintaining redundant data. In RAID 1, data is mirrored or duplicated on one or more drives. • 5 — RAID 5 provides data redundancy by using data striping in combination with parity information. Rather than dedicating a drive to parity, the parity information is striped across all disks in the array. • 6 — RAID 6 is an extension of RAID 5 and uses extra parity block. It uses block-level striping with two parity blocks distributed across all member disks. RAID 6 provides protection against double disk failures and failures while a single disk is rebuilding. If there is only one array, RAID 6 may be a better option than a hot spare disk. • 10 — RAID 10 is a stripe of mirrors. Multiple RAID 1 mirrors are created, and a RAID 0 stripe is created over RAID 1 mirrors. • 50 — RAID 50 is a dual-level array that uses multiple RAID 5 sets in a single array. A single hard drive failure can occur in each of the RAID 5 without any loss of data on the entire array. Although the RAID 50 has increased write performance, when a hard drive fails and reconstruction takes place, performance decreases, data/program access is slower, and transfer speeds on the array are affected. • 60 — RAID 60 is a combination of RAID 6 and RAID 0. A RAID 0 array is striped across RAID 6 elements. It requires at least 8 disks.
`-ctrl -ac=cvd -c=id -ad= ch:targ,ch:targ, ... [or ch:targ:encl,...]`	`-rp or readpolicy`	ra, ara, nra, rc, nrc	**CAUTION: If the controller is changed from SCSI to RAID mode, expect data loss to occur. Back up any data you want to save before changing the modes.**

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

or
 	
`controller action= createvdisk controllerid= id adisk= channel:target: lun, channel:target: lun,...`
 	
`[or channel:target: enclosure,...]`
			Sets the SCSI read policy for the virtual disk. Specify the SCSI read policy for the logical drive. The valid arguments are:
			• **ra** — (read-ahead) The controller reads sequential sectors of the disk when seeking data.
			• **ara** — (Adaptive Read-Ahead) The controller initiates read-ahead only if the two most recent read requests accessed sequential sectors of the disk. If subsequent read requests access random sectors of the disk, the controller reverts to No-Read-Ahead policy. The controller continues to evaluate whether read requests are accessing sequential sectors of the disk and can initiate read-ahead if necessary.
			• **nra** — (No-Read-Ahead) The controller does not read sequential sectors of the disk when seeking data.
			NOTE: The ra, ara, and nra options are supported on the following RAID controllers only:
			• PERC 5/E Adapter, PERC 5/I Integrated, PERC 5/i Adapter
			• PERC 6/i Integrated, PERC 6/i Adapter, PERC 6/E Adapter
			• rc — (Read-Caching) Enables read caching.
			• nrc — (No-Read-Caching) Disables read caching.

`-ctrl -ac=cvd -c=id -ad= ch:targ,ch:targ, ... [or ch:targ:encl,...]`
 	
or
 	
`controller action= createvdisk controllerid= id adisk= channel:target: lun,... channel:target: lun,...`
 	
`[or channel:target: enclosure,...]`
	`-sp or spanlength`	*<number>*	Creates a virtual disk comprised of the properties supplied. The `-sp` option is optional and can be added to the command line in any order after the mandatory option combination.
			NOTE: Spanlength is applicable only for RAID 50 and RAID 60. The minimum permissible spanlength value for RAID 50 is 3 and for RAID 60 is 4. The number of array disks for creating a virtual disk should not be a prime number and should be divisible by the specified spanlength.
			NOTE: For creating RAID 10, the PERC 9 firmware suggests the layout (number of array disks) with uneven span (spans with unequal number of array disks), though in a span the number of disks remain even. For example, for 32 disks, RAID 10 is created with all the disks in one span and for 34 disks, RAID 10 is created with 16 disks in one span and 18 disks in the other span.
			For SCSI controllers, the value of LUN should always be 0.

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
			For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.

`-ctrl -ac=cvd -c=id -ad= ch:targ,ch:targ, ... [or ch:targ:encl,...]`
or
`controller action= createvdisk controllerid= id adisk= channel:target: lun, channel:target: lun,...`
`[or channel:target: enclosure,...]`
	`-ssz or stripesize`	*<number>*	Sets the stripe size for the virtual disk. The stripe size is the amount of array disk space used on each array disk included in the stripe. A valid argument is a number that is less than the size of the virtual disk. The `-ssz`option is optional and can be added to the command line in any order after the mandatory option combination. However, do not specify a unit for stripe size when creating virtual disks. The unit is always displayed in KB.
			For SCSI controllers, the value of LUN should always be 0.
			For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.

`-ctrl -ac=cvd -c=id -ad= ch:targ,ch:targ , ... [or ch:targ:encl,...]`
or
`controller action= createvdisk controllerid= id adisk= channel:target: lun, channel:target: lun,... [or channel:target: enclosure,..`
	`-str or strict`	*<number>*	Strict (-str parameter) is the percentage of expected array disk utilization.
			Example:
			`A:> raidcfg -ctrl -ac= cvd -c=0 -ad=0:0,0:1 - r=1 -str=20`
			If the unused portion of an array disk is greater than the mentioned percentage, raidcfg aborts.
			For SCSI controllers, the value of **LUN** should always be 0.
			For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.

`-ctrl -ac=cvd -c=id -ad= ch:targ,ch:targ, ... [or ch:targ:encl,...]`
or
`controller action= createvdisk controllerid= id adisk= channel:target:`
	`-sz or -size`	*<number>*	Sets the maximum size of the virtual disk in MB or GB. A valid argument is a number representing the maximum size for the virtual disk. The `-sz`option is optional and can be the added to the command line in any order after the mandatory option combination.
			The minimum virtual disk size that you can create for various controllers is as follows:
			• For PERC 5 controllers:
			  • RAID 0: 100 MB
			  • RAID 1: 100 MB
			  • RAID 5: 100 MB
			• For PERC 6 controllers:

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
lun,... channel:target: lun,... [or channel:target: enclosure,...]			• RAID 0: 100 MB • RAID 1: 100 MB • RAID 5: 100 MB • RAID 6: 100 MB • RAID 60: 100 MB • For PERC 7, PERC 8, and PERC 9 controllers: • RAID 0: 100 MB • RAID 1: 100 MB • RAID 5: 100 MB • RAID 6: 100 MB • RAID 10: 100 MB • RAID 50: 100 MB • RAID 60: 100 MB • Software RAID controllers: • RAID 0: 100 MB • RAID 1: 100 MB • RAID 5: 100 MB • RAID 10: 100 MB **NOTE: If this option is not provided, RAIDCFG determines the maximum virtual disk size and creates it.**
-ctrl -ac=cvd -c=id -ad= ch:targ,ch:targ, ... [or ch:targ:encl,...] or controller action= createvdisk controllerid= id adisk= channel:target: lun,... channel:target: lun,... [or channel:target: enclosure,...]	-vdpi or vdiskprotectionin fo	0,1	Creates a virtual disk with the T10 Protection Information (PI) feature enabled. **NOTE: This option is supported only on PERC 9 controllers.** Example: A:>raidcfg -ctrl -ac=cvd -c=2 -ad=1:4,1:8 -vdpi=1 RAIDCFG Command successful!
	-wp or writepolicy	wb, wt, wc, nwc, fwb	Sets the write policy for the virtual disk. The valid arguments are: • **wb** — Write-Back caching sets the controller to send a write-request completion signal as soon as the data is in the controller cache but has not yet been written to disk. • **wt** — Write-Through caching sets the controller to send a write-request completion signal only after the data is written to the disk.

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
			NOTE: The wb and wt options are supported on the following RAID controllers only: • PERC 5/E Adapter, PERC 5/I Integrated, PERC 5/i Adapter • PERC 6/i Integrated, PERC 6/i Adapter, PERC 6/E Adapter • PERC 7, PERC 8, and PERC 9 • **wc** — Write-Caching sets the controller to send a write-request completion signal only after the data is written to the disk. • **nwc** — No-Write-Caching specifies that the controller does not send a write-request completion signal after the data is written to the disk. • **fwb** — Force write-back caching, enables the write cache regardless of whether the controller has a battery. If the controller does not have a battery and force write-back caching is used, data loss may occur in the event of a power failure **NOTE: The `-wp` option is optional and can be added to the command line in any order after the mandatory option combination.** For SCSI controllers, the value of LUN should always be 0. For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.

	`-sf or secureflag`	0, 1	Creates a secured virtual disk on controllers with encryption capability and encryption key.
			Example:
			`A:>raidcfg -ctrl -ac=cvd -c=2 -ad=1:4,1:8 -sf=1`
			`RAIDCFG Command successful!`

Enumerating Array Disks

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for enumerating array disks (hard-drives).

NOTE: You can also use `pdisk` or `-pd` instead of `adisk` or `-ad` to specify an array disk.

Table 336. Enumerating Array Disks (Hard Drives)

Mandatory Options and Arguments	Optional Parameters	Valid Parameters/ Arguments	Description
`-ad -c=id` or `adisk controllerid=id`	NA	NA	Lists all the array disks attached to the specified RAID controller. This option combination is mandatory.

Mandatory Options and Arguments	Optional Parameters	Valid Parameters/ Arguments	Description

			NOTE: The following example displays the output of a Series 7 controller.
			NOTE: The software controller does not display the `NegSpeed`, `CapSpeed`, `Certified` and `Supported` parameters.
			Example:
			`A:>raidcfg -ad -c=2`
			`Controller: PERC H710P Adapter`
			`****** Physical Drive ******`
			`Vendor: DELL(tm)`
			`Model: ST3300657SS`
			`Protocol: SAS`
			`Media: HDD`
			`NegSpeed: 6144 Mbps`
			`CapSpeed: 6144 Mbps`
			`Certified: YES`
			`Supported: YES`
			`Location: 0:7:1`
			`Size: 285568 MB (278 GB)`
			`Avail: 285568 MB (278 GB)`
			`PowerState: Spun Up`
			`SMARTState: No Error`
			`DiskState: Ready`
			`Encryption Capable: No`
			`Secured: Not Applicable`
			`Sector Size: 512B`
			`T10 Protection Info Capable: No`
			`****** Physical Drive ******`
			`Vendor: DELL`
			`Model: ST500NM0011`
			`Protocol: SATA`
			`Media: HDD`
			`NegSpeed: 3072 Mbps`
			`CapSpeed: 3072 Mbps`
			`Certified: YES`
			`Supported: YES`
			`Location: 0:4:1`
			`Size: 476416 MB (465 GB)`
			`Avail: 0 MB`
			`PowerState: Spun Up`
			`SMARTState: No Error`
			`DiskState: Online`
			`Encryption Capable: No`
			`Secured: Not Applicable`
			`Sector Size: 512B`
			`T10 Protection Info Capable: No`
			`****** Physical Drive ******`
			`Vendor: DELL`
			`Model: SAMSUNG HE253GJ`
			`Protocol: SATA`
			`Media: HDD`
			`NegSpeed: 3072 Mbps`
			`CapSpeed: 3072 Mbps`
			`Certified: YES`
			`Supported: YES`
			`Location: 0:7:1`
			`Size: 237824 MB (232 GB)`

Mandatory Options and Arguments	Optional Parameters	Valid Parameters/ Arguments	Description
			Avail: 0 MB PowerState: Spun Up SMARTState: No Error DiskState: Online Encryption Capable: No Secured: Not Applicable Sector Size: 512B T10 Protection Info Capable: No RAIDCFG Command successful!
	-vd=id or vdisk=id		Lists the array disks that make up the virtual disk on the specified RAID controller. This option combination is mandatory. Example: A:>raidcfg -ad -c=4 -vd=0 Controller: PERC H710P Adapter ****** Physical Drive ******Drive Vendor: DELL (tm) Model: ST3450757SS Protocol: SAS Media: HDD MedSpeed: 6144 Mbps CapSpeed: 6144 Mbps Certified: YES Supported: YES Location: 0:0:1 Size: 428672 MB (418 GB) Avail: 0 MB PowerState: Spun Up SMARTState: No Error DiskState: Online Encryption Capable: Yes Secured: No Sector Size: 512B T10 Protection Info Capable: No RAIDCFG Command successful!
-ad -c=id or adisk controllerid=id	-ad= ch:targ,ch:targ,... adisk= channel:tar get, channel:tar get,...		Displays information about the specified array disk. This option combination is mandatory. Example: A:>raidcfg -ad -c=4 -ad= 0:0:1 ****** Physical Drive ****** Vendor: DELL(tm) Model: ST3450757SS Protocol: SAS Media: HDD MegSpeed: 6144 Mbps CapSpeed: 6144 Mbps Certified: YES Supported: YES Location: 0:0:1 Size: 428672 MB (418 GB) Avail: 0 MB PowerState: Spun Up SMARTState: No Error DiskState: Online

Mandatory Options and Arguments	Optional Parameters	Valid Parameters/ Arguments	Description
			Encryption Capable: Yes Secured: No Sector Size: 512 MB T10 Protection Info Capable: No RAIDCFG Command successful!

Blinking And Unblinking Array Disks

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for blinking and unblinking array disks (hard drives).

NOTE: You can also use `pdisk` or `-pd` instead of `adisk` or `-ad` to specify an array disk.

Table 337. Blinking And Unblinking Array Disks

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
-ad -ad= ch:targ,ch:targ , ... -ac=blink -c=id or adisk adisk= channel:target , channel:target ,.. -ac=blink controllerid= id vdisk=id	NA	NA	Blinks the specified physical disks on the specified controller. Example: A:>raidcfg -ad -ad=0:0:1 -ac=blink -c=4 RAIDCFG Command successful!
-ad -ad= ch:targ,ch:targ , ... -ac= unblink -c=id or adisk adisk= channel:target , channel:target ,.. -ac= unblink controllerid= id vdisk=id	NA	NA	Unblinks the specified physical disks on the specified controller. Example: A:>raidcfg -ad -ad=0:0:1 -ac=unblink -c=4 RAIDCFG Command successful!

Enumerating Virtual Disks

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for enumerating virtual disks.

Table 338. Enumerating Virtual Disks

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
–vd or vdisk	NA	NA	Lists all the virtual disks for each controller along with the array disks that make up each virtual disk. This option is mandatory.

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

			Example:
			
			`A:>raidcfg -vd`
			`Controller: PERC H710P Adapter`
			`VDisk ID: 0`
			`Virtual Disk Name: Virtual Disk 0`
			`Size: 857344 MB (837 GB)`
			`Type: RAID 0`
			`Read Policy: Adaptive Read Ahead`
			`Write Policy: Write Back`
			`Cache Policy: Disabled`
			`Stripe Size: 64`
			`Drives: 0:0:1,0:1:1`
			`BootVD: No`
			`T10 Protection Info: Disabled`
			`RAIDCFG Command successful!`

`-vd or vdisk`	`-c or controller id`	*<valid controller ID number>*	Lists all the virtual disks under the indicated controllers. Each virtual disk is displayed with the physical disk that comprises it. The `-c` option is optional and can be added to the command line in any order after the mandatory option.
			
			Example:
			
			`A:>raidcfg -vd -c=4`
			`Controller: PERC H710P Adapter`
			`VDisk ID: 0`
			`Virtual Disk Name: Virtual Disk 0`
			`Size: 857344 MB (837 GB)`
			`Type: RAID 0`
			`Read Policy: Adaptive Read Ahead`
			`Write Policy: Write Back`
			`Cache Policy: Disabled`
			`Stripe Size: 64`
			`Drives: 0:0:1,0:1:1`
			`BootVD: No`
			`T10 Protection Info: Disabled`
			
			`RAIDCFG Command successful!`

`-vd -c=id` or `vdisk controllerid= id`	`-vd or vdisk`	<valid virtual disk ID number>	Displays details about a single virtual disk under the indicated controller. The **-vd -c**= id option combination is mandatory. The second **-vd** option is optional and can be added to the command line in any order after the mandatory option combination.
			
			Example:
			
			`A:>raidcfg -vd -c=2 -vd=0`
			`Controller: PERC H710P Adapter`
			`VDisk ID: 0`
			`virtual Disk Name: Virtual Disk 0`
			`Size: 857344 MB (837 GB)`
			`Type: RAID 0`
			`Read Policy: Adaptive Read Ahead`
			`Write Policy: Write Back`
			`Cache Policy: Disabled`
			`Stripe Size: 64`
			`Drives: 0:0:1,0:1:1`
			`BootVD: No`
			`T10 Protection Info: Disabled`
			
			`RAIDCFG Command successful!`

Deleting Virtual Disks

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for deleting virtual disks.

Table 339. Deleting Virtual Disks

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-vd -ac=dvd - c=id`
 	
or
 	
`vdisk action=deletevdisk controllerid=id`
	NA	NA	Deletes all virtual disks on the indicated controller. This option combination is mandatory.
			
			Example:
			
			`A:>raidcfg -vd -ac=dvd -c=2`
			
			`RAIDCFG Command successful!`

`-vd -ac=dvd - c=id`
 	
or
 	
`vdisk action=deletevdisk controllerid=id`
	`-vd or vdisk`	*<valid virtual disk ID number>*	Deletes the indicated virtual disk on the indicated controller. The `-vd- ac=dvd -c =id` option combination is mandatory. The second `-vd` option is optional and can be added to the command line in any order after the mandatory option.
			
			Example:
			
			`A:>raidcfg -vd -ac=dvd -c=2 -vd=0`
			
			`RAIDCFG Command successful!`

NOTE: When virtual disks are created, the RAID controller starts the background initialization operation. Virtual disks cannot be deleted until this operation completes.

NOTE: If the raid.ini file contains the [Reset] section, then the RAIDCFG utility removes all the hot spares (dedicated and global) and virtual disks on the specified RAID controllers in the system.

Increasing Virtual Disk Size

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for increasing the virtual disk size of the controller.

Table 340. Increasing Virtual Disk Size

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`-vd -c=id -vd=vdid -ac=evs -szinper=%` or `vdisk controllerid=id vdisk=vdid action=expandvdsize sizeinpercent=%`	NA	NA	Increases the size of the virtual disk by the specified percentage. Example: `A:>raidcfg -vd -c=2 -vd=2 -ac=evs -szinper=25`

Setting A Virtual Disk As Bootable Virtual Disk

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for setting a virtual disk as a bootable virtual disk.

Table 341. Setting A Virtual Disk As Bootable Virtual Disk

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-vd -ac=sbf -c=id` or `vdisk action= setbootflag controllerid= id`	`-vd` or `vdisk`	*<valid virtual disk ID number>*	Sets the specified virtual disk as bootable virtual disk on the specified controller.
			
			Example:
			
			`A:>raidcfg -vd -ac=sbf -c=2 -vd=0`
			`RAIDCFG Command successful!`

Blinking And Unblinking Virtual Disks

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for blinking or unblinking a physical disk associated with a virtual disk.

Table 342. Blinking And Unblinking Virtual Disks

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-vd -vd=id ac=blink -c=id` or `vdisk vdisk=id action=blink controllerid=id`	NA	NA	Blinks the physical disks associated with the specified virtual disk on the specified controller.
			
			Example:
			
			`A:>raidcfg -vd -vd=2 -ac=blink -c=2`
			`RAIDCFG Command successful!`

`-vd -vd=id ac=unblink -c=id` or `vdisk vdisk=id action=blink controllerid=id`	NA	NA	Unblinks the physical disks associated with the specified virtual disk on the specified controller.
			
			Example:
			
			`A:>raidcfg -vd -vd=2 -ac=blink -c=2`
			`RAIDCFG Command successful!`

Setting Virtual Disk Name

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for setting the name of a virtual disk on a controller.

Table 343. Setting Virtual Disk Name

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!`

Setting Environment Variables

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for setting the CLI environment.

Table 344. Setting Environment

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-se -envn=<string>` `-envc=<function>`
 	
or
 	
`setenvironment envname=<string> envcommand=<function>`
	NA	NA	Sets a user-defined environment variable to the value returned from the `getcontrollerslots` function call. This option combination is mandatory.
			
			Example:
			
			`A:>raidcfg -se -envn=CNTRL - envc=getcontrollerslots`
			`CNTRL=0 1 2`
			
			`RAIDCFG Command successful!`

`-se -envn=<string>`
 	
`-envc=<function>`
 	
or
 	
`setenvironment envname=<string>`
 	
`envcommand=<function>`
	`-f` or `filename`	`<filename>`	Captures the environment output to the given filename. This option either appends the information to an existing file or creates a new file.

`-se -envn=<string>`
 	
`- envc=<function> - c=id`
 	
or
 	
`setenvironment envname=<string>`
 	
`envcommand=<function>`
 	
`controllerid=id`
	NA	NA	Sets a user-defined environment variable to the value returned from the `getfirmware, getcontrollertype, getadisks, getadiskcount, getfreeadisks,getfreeadiskcount, getfreeadisksize, or gethotspares` function call. This option combination is mandatory.
			
			Example:
			
			`A:>raidcfg -se -envn=FIRMWARE -envc=getfirmware -c=2`
			`FIRMWARE=531T`
			
			`RAIDCFG Command successful!`

Function Calls of Setenvironment Option

The following table lists the function calls of the setenvironment option.

Table 345. Function Calls of the setenvironment Option

Function Call	Description

`getfirmware`	Returns the firmware version of the specified controllers.
	Example:
	`A:>raidcfg -se -envn=FIRMWARE -envc= getfirmware -c=2`
	`FIRMWARE=531T`
	`RAIDCFG Command successful!`

`getcontrollertype`	Returns LSI for LSI controllers and ADAP for Adaptec controllers.
	Example:
	`A:>raidcfg -se -envn=CONTROLLERTYPE -envc= getcontrollertype -c=2`
	`CONTROLLERTYPE=LSI`
	`RAIDCFG Command successful!`

`getadisks`	Returns the array disks attached to the controller.
	Example:
	`A:>raidcfg -se -envn=ADISKS -envc=getadisks -c=2`
	`ADISKS=0:0:1,0:1:1,0:2:1`
	`RAIDCFG Command successful!`

`getfreeadiskcount`	Returns the number of free array disks found in the specified controller.
	Example:
	`A:>raidcfg -se -envn=FREEADISKCOUNT -envc= getfreeadiskcount -c=2`
	`FREEADISKCOUNT=2`
	`RAIDCFG Command successful!`

`getfreeadisksize`	Returns the total size of the free array disks in megabytes.
	Example:
	`A:>raidcfg -se -envn=FREEADISKSIZE -envc= getfreeadisksize -c=2`
	`FREEADISKSIZE=15346`
	`RAIDCFG Command successful!`

`gethotspares`	Returns the global hot spares (global failover disks) found on the specified controller.

Function Call	Description

	Example:
	`A:>raidcfg -se -envn=HOTSPARES -envc= gethotspares -c=2`
	`HOTSPARES=1:8:1,1:9:1`
	`RAIDCFG Command successful!`

`getfreeadisks`	Returns the free array disks.
	`A:>raidcfg -se -envn=GETFREEADISKS -envc= getfreeadisks -c=2`
	`GETFREEADISKS=0:3:1,0:4:1`
	`RAIDCFG Command successful!`

`getadiskcount`	Returns the total number of array disks.
	`A:>raidcfg -se -envn=GETADISKCOUNT -envc= getadiskcount -c=2`
	`GETADISKCOUNT=1`
	`RAIDCFG Command successful!`

RAID Replication Options

The following table lists the RAID replication options.

Table 346. RAID Replication Options

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`-i`	NA	<filename>	Reads the RAID configuration information from the given **.ini** filename and creates the **RAID** configurations on the specified controllers. This option is mandatory. Example: `A:> raidcfg -i=\tmp\raid.ini`

`-o`	NA	<filename>	Reads the RAID configurations from all available controllers and writes these configurations in the raid.ini file under the /tmp directory (in Linux systems). This option is mandatory.
			Example:
			`A:> raidcfg -o=\tmp\raid.ini`
			`The contents of the raid.ini file are:`
			`[vdisk0]`
			`controllerid=0`
			`size=123456`
			`raid=5`
			`readpolicy=ra`
			`writepolicy=wt`

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
			stripesize=32 cachepolicy=d adisk=0:0:1,0:1:1,0:2:1 [vdisk1] controllerid=0 size=65345 raid=1 readpolicy=ra writepolicy=wt stripesize=64 cachepolicy=d adisk=0:3:1,0:4:1 **NOTE: If the controller uses global hot spares, the raid.ini file contains the following section:** [GlobalHotspare0] controllerid=0 failoverdrive=0:8:0

Assigning, Unassigning, And Listing Global Hot Spares

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for assigning and unassigning global hot spares.

Table 347. Assigning, Unassigning, and Listing Global Hot Spares

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
-ctrl -ac=sghs -c=id -ad|-pd= ch:targ:encl or controller action=setglobalhotspare controllerid=id adisk| pdisk=channel:target:enclosure	NA	NA	Assigns the specified disk as a global hot spare on the controller. You can assign only one disk at a time. **NOTE: The parameter, `force`, is optional and is used to avoid the warning messages while assigning the disk as global hot spare. This parameter is supported only on PERC 9 controllers.** **NOTE: Assign hot spare for a bootable virtual disk only from the disk drives of slot 0-3 of the system.** Example: A:>raidcfg -ctrl -ac=sghs -c=2 -ad=0:1 -force RAIDCFG Command successful!
-ad|-pd -ac=lghs -c=id or adisk| pdisk -action=listglobal	NA	NA	Displays the array (physical) disks used for global hot spare for the specified controller.

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`hotspare controllerid=id`			Example:
			`A:>raidcfg -ad -ac=lghs -c=2`
			`RAIDCFG Command successful!`

`-ctrl –ac=rghs -c=id -ad|-pd= ch:targ:encl` or `controller action=removeglobalhotspare controllerid=id adisk| pdisk=channel:target:enclosure`	NA	NA	Unassigns all the specified global hot spares to a disk on the specified controller.
			Example:
			`A:>raidcfg -ctrl -ac=rghs -c=2-ad=0:1,0:2`
			`RAIDCFG Command successful!`

Importing And Clearing Foreign Configurations

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for foreign configurations.

Table 348. RAIDCFG Options for Foreign Configurations

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-ctrl -c=id -ac=fgnimp`
or
`controller controllerid=idaction=foreignimport`
	NA	NA	Imports the foreign configuration detected in the selected controller. This feature is supported on PERC 5 and later controllers and is not supported on SAS controllers.
			If you use this argument on a controller that does not have a foreign configuration, the `No Foreign configuration present in the controller` message is displayed.
			NOTE: For importing secured foreign configuration, use `importsecureforeignconfig` or `isfc`. For more details, see Importing Secured Foreign Configurations.
			Example:
			`A:>raidcfg -ctrl -c=2 -ac=fgnimp`

`-ctrl -c=id -ac=fgnclr`
or
`controllercontrollerid=id foreignclear`
	NA	NA	Clears the foreign configuration detected in the selected controller. This feature is supported on PERC 5 and later controllers and is not supported on SAS controllers..
			If you use this argument on a controller that does not have a foreign configuration, the `No Foreign configuration present in the controller` message is displayed.

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
			NOTE: For clearing secured foreign configuration, use `instantsecureerase` or `insecerase`. For more details, see Erasing Encrypted Physical Disk. Example: `A:>raidcfg -ctrl -c=2 -ac=fgnclr`

`-ctrl -c=id`
`-ac=fgnrvr`
or
`controller controllerid=id`
`action=foreignrecover`
	NA	NA	Recovers the foreign configuration detected in the selected controller. This feature is supported on PERC 5 and later controllers and is not supported on SAS controllers.
			If you use this argument on a controller that does not have a foreign configuration, the `No Foreign configuration present in the controller` message is displayed.
			Example:
			`A:>raidcfg -ctrl -c=2 -ac=fgnrvr`

Importing Secured Foreign Configuration

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for importing secured foreign configuration of the virtual disks.

Table 349. RAIDCFG Options for Importing Secured Foreign Configuration

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-ctrl -c=id -ac=isfc -pp=passphrase`
or
`controller controllerid=id action=importsecureforeignconfig passphrase=passphrase`
	NA	NA	Imports the foreign configuration of the virtual disks secured with the specified passphrase.
			Example:
			`A:>raidcfg -ctrl -c=2 -ac=isfc -pp=Dell_123`

Displaying Foreign Key Ids

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for displaying the foreign key ids of the controller.

Table 350. Displaying Foreign Key Ids

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`--ctrl -c=id -ac=gfki`
 	
or
`controller controllerid=id action=getforeignkeyids`
	NA	NA	Displays the foreign key ids present on the specified controller.
			
			Example:
			
			`A:>raidcfg -ctrl -c=2 -ac=gfki`
			`Controller: PERC H710P Mini`
			`******** Foreign Key IDs ********`
			`Disk Location: 0:7:1`
			`Foreign Key ID: secure`
			
			`RAIDCFG Command successful!`

Creating Encryption Key

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for creating encryption key for the controller.

Table 351. Creating Encryption Key

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-ctrl -c=id -ac=csk -pp=passphrase -kid=key`
 	
or
`controller controllerid=id action=createsecuritykey passphrase=passphrase keyid=key`
	NA	NA	Creates encryption key for the encryption-capable controller.
			
			Example:
			
			`A:>raidcfg -ctrl -c=2 -ac=csk -pp=Dell_123 kid=Dell_321`

Changing Encryption Key

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for changing the encryption key of the controller.

Table 352. Changing Encryption Key

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`-ctrl -c=id -ac=chsk -pp=passphrase -kid=key -opp=passphrase` or	NA	NA	Changes the encryption key of the encryption-capable controller. Example: `A:>raidcfg -ctrl -c=2 -ac=chsk -pp=Dell_123 kid=Dell_321 -opp=Dell_abc`

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
controller controllerid=id action=changesecurity key passphrase=passphrase keyid=key oldpassphrase=passphrase			

Deleting Encryption Key

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for deleting the encryption key of a controller.

Table 353. Deleting Encryption Key

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
-ctrl -c=id -ac=dsk or controller controllerid=id action=deletesecurity key	NA	NA	Deletes the encryption key of the encryption-capable controller. Example: A:>raidcfg -ctrl -c=2 -ac=dsk

Configuring Physical Disk Rebuild

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for configuring the rebuild of the physical disks associated with a virtual disk.

Table 354. Configuring the Disk Rebuild

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
-vd -ac=rbd -ad|-pd= ch:targ:encl -c=id or vdisk action=rebuild adisk| pdisk=channel:target:enclosure controllerid=id	NA	NA	Rebuilds the physical disk associated with a specified virtual disk. Example: A:>raidcfg -vd -ac=rbd -ad=0:1 -c=2
-vd -ac=crbd -ad|-pd=	NA	NA	Cancels the rebuild of the physical disk associated with a specified virtual disk.

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
ch:targ:encl -c=id or vdisk action=cancelrebuild adisk|pdisk=channel:target:enclosure controllerid=id			Example: A:>raidcfg -vd -ac=crbd -ad=0:1 -c=2

Configuring Array Disk As RAID

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for configuring the array disk as RAID.

Table 355. Configuring Array Disk as RAID

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
-ad -ac=ctr -ad|-pd= ch:targ:encl -c=id or vdisk action=converttoraid adisk|pdisk=channel:target:enclosure controllerid=id	NA	NA	Configures the array disk as RAID. Example: A:>raidcfg -ad -ac=ctr -ad=0:1 -c=2
-ad -ac=ctnr -ad|-pd= ch:targ:encl -c=id or vdisk action=convertontonraid adisk|pdisk=channel:target:enclosure controllerid=id	NA	NA	Configures the array disk as JBOD. Example: A:>raidcfg -ad -ac=ctnr -ad=0:1 -c=2

Configuring Physical Disk State

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for configuring the physical disk state to online or offline.

CAUTION: Setting a physical disk online or offline may result in data loss. Either complete an automatic rebuild of the physical disk or initiate a consistency check of the virtual disk after an online task completes.

Table 356. Configuring Physical Disk State

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-ad -ac=online -ad|-pd= ch:targ:encl -c=id`
 	
or
`adisk action=online adisk| pdisk=channel:target:enclosure controllerid=id`
	NA	NA	Sets the array disk state to online.
			
			Example:
			
			`A:>raidcfg -ad -ac=online -ad=0:1 -c=2`

`-ad -ac=offline -ad|-pd= ch:targ:encl -c=id`
 	
or
`adisk action=offline adisk| pdisk=channel:target:enclosure controllerid=id`
	NA	NA	Cancels the rebuild of the physical disk associated with a specified virtual disk.
			
			Example:
			
			`A:>raidcfg -ad -ac=offline -ad=0:1 -c=2`

Replacing Physical Disk Of A Virtual Disk

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for replacing the physical disk of a virtual disk with a ready state disk.

Table 357. Replacing Physical Disk Of A Virtual Disk

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-vd -ac=replacepd -vd=id ch:targ:encl -c=id`
 	
or
`vdisk action=replacepdisk adisk| pdisk=channel:target:enclosure controllerid=id`
	NA	NA	Replaces the physical disk of a virtual disk by a ready state disk, whose size is greater than or equal to the size of the physical disk.
			
			Example:
			
			`A:>raidcfg -vd -ac=replacepd -vd=2 -c=2 -src=0:1 -dest=0:1`

Consistency check for virtual disk

The following table lists the RAIDCFG options, parameters, and predefined arguments for a consistency check for a virtual disk.

Table 358. Consistency Check For Virtual Disk

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`-vd -c=id -vd=id -ac=cc` or `vdisk controllerid=id vdisk=id action=consistencycheck`	NA	NA	Check consistency for a specified virtual disk. Example: `A:>raidcfg -vd -c=2 -vd=2 -ac=cc`
`-vd -c=id -vd=id -ac=ccc` or `vdisk controllerid=id vdisk=id action=cancelconsistencycheck`	NA	NA	Cancels the consistency check for the specified virtual disk. Example: `A:>raidcfg -vd -c=2 -vd=2 -ac=ccc`

NOTE: Consistency check command is not applicable when `RAID=0`.

Erasing Encrypted Physical Disk

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for erasing encrypted physical disks.

Table 359. Erasing Encrypted Physical Disk

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`-ad -ad | –pd= ch:targ: encl,ch:targ:encl ,... - ac=insecerase -c=id`
 	
or
 	
`adisk adisk | pdisk= channel:target:enclosure , channel:target:enclosure ,... action=instantsecureerase controllerid= id`
	NA	NA	Erases the encrypted physical disk that is in ready or foreign disk state.
			
			Example:
			
			`A:>raidcfg -ad -ad=0:1,0:2 -ac=insecerase -c=2`

Discarding Preserved Cache

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for discarding the preserved cache on the controller.

Table 360. Discarding Preserved Cache

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`--ctrl -c=id -ac=dpc -force`
 	
or
`controller controllerid=id action=discardPreservedCache – force`
	NA	NA	Discards the preserved cache on the controller.
			
			Example:
			`A:>raidcfg -ctrl -c=2 -ac=dpc -force`
			`RAIDCFG Command successful!`

`--ctrl -c=id -ac=dpc -force -igncfg`
 	
or
`controller controllerid=id action=discardPreservedCache – force -ignoreconfig`
	NA	NA	Discards the preserved cache on the controller ignoring the foreign configuration.
			
			Example:
			`A:>raidcfg -ctrl -c=2 -ac=dpc -force -igncfg`
			`RAIDCFG Command successful!`

Initializing Virtual Disks

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for initializing selected virtual disks.

Table 361. Initializing Virtual Disks

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`-vd -c=id -vd=id -ac=fi` or `vdisk controllerid=id vdisk=id action=fastinit`	NA	NA	Initializes the selected virtual disk in the selected controller with the fastinit command. This feature is supported on PERC 5 and later controllers and is not supported on SAS controllers. Using the **fastinit** command on unsupported controllers returns an error. Example: `A:>raidcfg -vd -c=2 -vd=2 -ac=fi`
`-vd -c=id -vd=id -ac=sli` or `vdisk controllerid=id`	NA	NA	Initializes the selected virtual disk in the selected controller with the slowinit command. This feature is supported on PERC 5 and later controllers and is not

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`vdisk=id action=slowinit`			supported on SAS controllers. Using the slowinit command on unsupported controllers returns an error. Example: `A:>raidcfg -vd -c=2 -vd=2 -ac=sli`
`-vd -c=id -vd=id -ac=ci` or `vdisk controllerid=id vdisk=id action=cancelinit`	NA	NA	Cancels the initialization of the virtual disk with the cancelinit command. This feature is supported on PERC 5 and later controllers and is not supported on SAS controllers. Using the cancelinit command on unsupported controllers returns an error.. Example: `A:>raidcfg -vd -c=2 -vd=2 -ac=ci`

Resetting The Controller

The following table lists the RAIDCFG options, parameters, and predefined arguments for resetting the controller.

Table 362. Resetting The Controller

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`-ctrl -c=id -ac=rst` or `controller controllerid=id action=reset`	NA	NA	Resets the specified controller. Example: `A:>raidcfg -ctrl -c=2 -ac=rst`
`-ctrl -c=id -ac=rst -force` or `-controller -controllerid=id -action=reset`	`force`	NA	The parameter `force`, is optional. This option is used to reset or delete the BootVD in Post operating system.

Enabling And Disabling Persistent Dedicated Hot Spares

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for enabling and disabling dedicated hot spares.

Table 363. Enabling And Disabling Persistent Dedicated Hot Spares

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`--ctrl -c=id -ac=ephs` or	NA	NA	Assigns the slot corresponding to the hot spare drive as persistent. Any drive in the slot functions as a hot spare if the drive is qualified to be a hot spare.

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`controller controllerid=id action=enableperistenthotspare`			**NOTE: Assign hot spare for a bootable virtual disk only from the disk drives of slot 0-3 of the system.**
			Example:
			`A:>raidcfg -ctrl -ac=ephs -c=2`
			`RAIDCFG Command successful!`

`--ctrl -c=id -ac=dphs`
or
`controller controllerid=id action=disablepersistenthotspare`
	NA	NA	Disables the persistent slot corresponding to the hot spare drive. If the drive is removed from the slot and any drive is inserted, the slot stops functioning as a hot spare. You must manually assign the drive as a hot spare again.
			Example:
			`A:>raidcfg -ctrl -ac=dphs -c=2`
			`RAIDCFG Command successful!`

Setting And Displaying The PCIe Link Speed

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for setting and displaying the Peripheral Component Interconnect Express (PCIe) link speed of the controller.

Table 364. Setting and Displaying the PCIe Link Speed

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

`--ctrl -c=id -ac=spciels -spd=<2 | 3>`
or
`controller controllerid=id action=setpcielinkspeed speed=<2 | 3>`
	NA	NA	Sets the PCIe link speed of the controller to PCIe Generation 2 or 3.
			NOTE: Reboot the system to apply the setting.
			Example:
			`A:>raidcfg -ctrl -c=2 -ac=spciels -spd=2`
			`RAIDCFG Command successful!`

`--ctrl -c=id -ac=gpciels`
or
`controller controllerid=id action=getpcielinkspeed`
	NA	NA	Displays the PCIe link speed of the controller.
			Example:
			`A:>raidcfg -ctrl  -c=2 -ac=gpciels`
			`RAIDCFG Command successful!`

Supported Controllers And Firmware Versions For PCIe Link Speed

The following table lists the controllers and minimum supported firmware versions for PCIe link speed.

Table 365. Supported Controllers And Firmware Versions For PCIe Link Speed

Controllers	Component	Minimum Supported Versions
PERC H710	H710 Adapter	21.2.0-0007
	H710 Mini Monolithic	21.2.0-0007
PERC H710P	H710P Adapter	21.2.0-0007
	H710P Mini Monolithic	21.2.0-0007
PERC H810	H810 Adapter	21.2.0-0007

Setting Boot Mode

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for setting the boot mode of the controller.

Table 366. Setting Boot mode

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`-ctrl -c=id -ac=sbm –bm=<0|1|2>` or `controller controllerid=id action=setbootmode bootmode=<0|1|2>`	NA	NA	Sets the boot mode of the controller to any of the following during the system start or reboot: • Stop on error (0) • Continue on error (1) • Continue headless on error (2) Example: `A:>raidcfg -ctrl -c=2 -ac=sbm -bm=0`

Configuring Auto Import

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for configuring the auto import property of the controller.

Table 367. Configuring Auto Import

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`-ctrl -c=id -ac=eai –ai=<0|1>` or `controller controllerid=id action=enableauto`	NA	NA	Sets the auto import property of the controller to 1 (enables the auto import property to automatically import the foreign configuration) or 0 (disables the auto import property).

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description
`import autoimport=<0|1>`			Example: `A:>raidcfg -ctrl -c=2 -ac=eai -ai=0`

Miscellaneous Options

The following table lists all other RAIDCFG options, parameters, and pre-defined arguments.

Table 368. Miscellaneous Optional Parameters

Mandatory Options and Arguments	Optional Parameters	Valid Parameters Arguments	Description

any option	`-l or logfile`	*<filename>*	Logs command line output to a file. The utility either appends the information to an existing log file or creates a new file. The log file contains the same information as standard output. This option is optional and can be added to the command line in any order after the mandatory options have been added.
			
			Example:
			`A:>raidcfg -ctrl -l=log.txt`
			`Controller_ID/Slot_ID: 0`
			`Controller_PCI_ID: 4:2:1`
			`Controller_Name: Dell PERC 6/E`
			`Channels: 2`
			`Virtual_Disks: 0`
			`Firmware Version: V2.8-0[6064]`
			`RAIDCFG Command successful!`

	`-si or silent`	NA	Does not display any information on the terminal console. This option is optional and can be added to the command line in any order after any mandatory options have been added. Example: `A:>raidcfg -ctrl -si`

	`-ver or version`	NA	Displays the version number of the RAIDCFG utility. This option is optional and can be added to the command line in any order after any mandatory options have been added.
			
			Example:
			`A:>raidcfg -ver`
			`RAIDCFG V4.4`
			`Copyright (c) 2002-2014 Dell Inc.`
			`RAIDCFG Command successful!`

Quick Reference To RAIDCFG Commands

The following table lists the basic RAIDCFG commands.

Table 369. Quick Reference To RAIDCFG Commands

Purpose	Command	Description

To list all the RAID controllers in a system	`raidcfg -ctrl`	Lists all the RAID controllers in the system.
		
		Record the slot ID of the controllers for later reference.
		
		Example:
		
		`A:>raidcfg -ctrl -ac=sghs -c=2 -ad=0:1`
		
		`RAIDCFG Command successful!`

To list all the disks attached to a particular controller	`raidcfg adisk -c=slotid`	Lists all the disks attached to the controller. The slot ID is obtained from the first command. Record the drive location of the disks for later reference.
To create a virtual disk with all the default settings	`raidcfg -ctrl -ac=cvd -c=slotid -ad= x:y,x:y,...`	Creates a virtual disk of maximum available size for type RAID 0. RAID 0 is the default. The slot ID in `<-c=slotid>` and the array disks in `<-ad=...>` are obtained from the first two commands.
To create a virtual disk of a certain size with all the default settings	`raidcfg -ctrl -ac=cvd -c=slotid -ad= x:y,x:y,... -sz=5GB`	Creates a virtual disk of 5 GB size for type RAID 0. RAID 0 is the default. The slot ID in `<-c=slotid>` and the array disks in `<-ad=...>` are obtained from the first two commands.
To create a virtual disk of a certain size and make it RAID 1	`raidcfg -ctrl -ac=cvd -c=slotid -ad= x:y,x:y -sz=5GB -r=1`	Creates a virtual disk of 5 GB size for type RAID 1. The slot ID in `<-c=slotid>` and the array disks in `<-ad=...>` are obtained from the first two commands.
To create a virtual disk of a certain size and make it RAID 5	`raidcfg -ctrl -ac=cvd -c=slotid -ad= x:y,x:y,x:y,... -sz=5GB -r=5`	Creates a virtual disk of 5 GB size for type RAID 5. The slot ID in `<-c=slotid>` and the array disks in `<-ad=...>` are obtained from the first two commands.
To create a virtual disk of a certain size and make it RAID 1 with a hot spare	`raidcfg -ctrl -ac=cvd -c=slotid -ad= x:y,x:y -sz=5GB -r=1 -fd=x:y`	Creates a virtual disk of 5 GB size for type RAID 1. The slot ID in `<-c=slotid>` and the array disks in `<-ad=...>` are obtained from the first two commands. The option <-fd> stands for failover drive and requires the drive location of the drive you want the dedicated hot spare to be in. The drive location is obtained from the second command.
To create a virtual disk of RAID 10	`raidcfg -ctrl -ac=cvd -c=slotid -ad= x:y,x:y,x:y,x:y -r=10`	Creates a virtual disk of max size for type RAID 10. The slot ID in `<-c=slotid>` and the array disks in `<-ad=...>` are obtained from the first two commands. The drive location is obtained from the second command.

Purpose	Command	Description
To create a virtual disk of RAID 50	`raidcfg -ctrl -ac=cvd -c=slotid -ad= x:y,x:y,x:y,x:y ,x:y,x :y -r=50 -sp=x`	Creates a virtual disk of maximum size for type RAID 50. The slot ID in `<-c=slotid>` and the array disks in `<-ad=...>` are obtained from the first two commands. The drive location is obtained from the second command.
To create a virtual disk of RAID 6	`raidcfg -ctrl -ac=cvd -c=slotid -ad= x:y,x:y,x:y,x:y ,x:y,x :y -r=6 -sp=x`	Creates a virtual disk of maximum size for type RAID 6. The slot ID in `<-c=slotid>` and the array disks in `<-ad=...>` are obtained from the first two commands. The drive location is obtained from the second command. **NOTE: The minimum number of drives required to create a virtual disk of RAID 6 is 4.**
To create a virtual disk of RAID 60	`raidcfg -ctrl -ac=cvd -c=slotid -ad= x:y,x:y,x:y,x:y ,x:y,x :y -r=60 -sp=x`	Creates a virtual disk of maximum size for type RAID 60. The slot ID in `<-c=slotid>` and the array disks in `<-ad=...>` are obtained from the first two commands. The drive location is obtained from the second command. **NOTE: The minimum number of drives required to create a virtual disk of RAID 60 is 8.**
To view all the virtual disks in a system	`raidcfg vdisk`	Lists the virtual disks on a system for all RAID controllers.
To view all the virtual disks for a specific controller	`raidcfg vdisk -c=slotid`	Lists all the virtual disks on a specific controller. The slot ID in `<-c=slotid>` is obtained from the first commands.
To delete a specific virtual disk on a controller	`raidcfg vdisk -ac=dvd -c=slotid -vd= vdiskid`	Deletes a specific virtual disk on a controller. The slot ID in `<-c=slotid>` is obtained from the first command and the vdiskid in `<-vd=vdiskid>` is obtained from command 10.

6

UPINIT

The UPINIT utility allows to create a utility partition (UP) on a hard drive, format the partition, and extract the partition contents onto the disk.

Topics:

- Features
- Creating A Partition Using UPINIT
- UPINIT Dependencies
- UPINIT Options And Arguments

Features

The UPINIT utility:

- Displays help and usage information.
- Returns specific error codes and messages.

NOTE: In Microsoft Windows Preinstallation Environment (Windows PE), you can find the UPINIT utility in \DELL\TOOLKIT \TEMPLATES\SCRIPTS. In Linux, you can find it in /opt/dell/toolkit/templates/scripts

Creating A Partition Using UPINIT

The size of the virtual disk where a utility partition is to be created must be a minimum of 8 GB.

UPINIT performs the following steps:

- Ensures that the UP image file is present and readable.
- Ensures that no partitions are present on the target disk.
- Creates a utility partition of type Dell Utility (DE). If there is an existing UP, UPINIT does not create a new one. It only updates the existing UP. If no UP is found, UPINIT exits.
- Updates the boot sector with the UP boot sector image. If required, it updates the master boot record as well.
- Mounts the partition.
- Uncompresses the UP file onto the UP image.
- Unmounts the partition.

NOTE: On Windows PE, UPINIT runs as a batch file. In Linux, it runs as a shell script that uses standard Linux commands to accomplish the same tasks as done by the Windows PE UPINIT utility. Both command lines are identical and the output of the two utilities are identical when the same image is used.

UPINIT Dependencies

On systems running Linux, UPINIT looks for the following files:

- **mbr** file in the **dell/drmk** directory
- **sysdrmk** in the **dell/toolkit/bin directory**

On systems running Windows, UPINIT looks for the following files:

- **createup.cfg** , **mountup.cfg** , **umountup.cfg** , and **listup.cfg** in the **DELL\TOOLKIT\TEMPLATE\SCRIPTS** directory
- **sysdrmk.exe** in the **DELL\TOOLKIT\TOOLS** directory

UPINIT Options And Arguments

Table below lists the valid options and arguments for the UPINIT utility.

Table 370. UPINIT Options and Arguments

Option	Valid Arguments	Description

none	none	If no options are given, the tool outputs usage information. The usage information is printed in the format shown below.
		
		Example 1:
		
		`A:>upinit`
		
		`upinit version 1.0`
		`© 2012 Dell Inc. All rights reserved`
		`upinit.sh --disk|-d=disk --size|-s=`
		`size --file|-f=file`
		`[--overwrite|-o] [--help|-h]`
		`--help or -h prints help.`
		`--disk or -d disk device on which to`
		`create the Dell Utility Partition.`
		`--size or -s Size in MB for the Dell`
		`Utility Partition.`
		`--file or -f filename of Dell Utility`
		`Partition Image File.`
		`--overwrite or -o Installs the Dell`
		`Utility partition over an existing`
		`one.`
		
		Example 2:
		
		`upinit --disk=/dev/sda --size=32 --`
		`file=upimg.bin`
		`In the example, upinit creates a Dell`
		`Utility Partition of size 32 MB on`
		`/dev/sda using upimg.bin file.`
		
		NOTE: The --overwrite option should be used for upgrading/ downgrading purposes. The --size option is not required when using the --overwrite option because the --overwrite option does not resize an existing Dell Utility Partition. If any partitions exist, they are deleted.

-h	none	This function command requires an argument that matches a valid option. If the argument matches a valid option, that option's usage information is displayed. This option cannot be used with other options.
		
		Windows PE Example:
		
		`upinit version 1.0`
		
		Copyright (c) 2002-2012 Dell Inc.
		`This utility creates a utility partition for your system. This utility requires a Utility Partition image file (`**`upimg.bin`**`) which can be found under` **`/opt/dell/toolkit/systems`** `folder in the Deployment Toolkit ISO. For more`

Option	Valid Arguments	Description
		information, please consult the Deployment Toolkit Documentation. Usage: upinit.bat [--overwrite] --disk=ID or -d=ID --size=size or -s=size --file=file or -f=file --help or -h prints usage. --disk or -d ID of the disk on which to create the Dell Utility Partition. --size or -s Size in MB for the Dell Utility Partition. --file or -f Filename of the Dell Utility Partition Image File. --overwrite or -o Overwrites an existing Dell Utility Partition. Example: upinit --disk=0 --size=32 --file= upimg.bin In the example, upinit creates a Dell Utility Partition of size 32 MB using the **upimg.bin** image file. The **--overwrite** option should be used for upgrading/downgrading purposes. The **--size** option is not required when using the **--overwrite** option because the **--overwrite** option does not resize an existing Dell Utility Partition. If any partitions exist, they are not deleted. Linux Example: upinit version 1.0 **Copyright (c) 2002-2012 Dell Inc.** This utility creates a utility partition for your system. This utility requires a Utility Partition image file (upimg.bin) which can be found under /opt/dell/toolkit/systems folder in the Deployment Toolkit ISO. For more information, please consult the Deployment Toolkit Documentation. Usage: upinit.sh --disk|-d=disk --size|-s= size --file|-f=file [--overwrite|-o] [--help|-h] --help or -h prints help. --disk or -d disk device on which to create the Dell Utility Partition. --size or -s Size in MB for the Dell Utility Partition. --file or -f filename of Dell Utility Partition Image File. --overwrite or -o Installs the Dell Utility partition over an existing one. Example: upinit --disk=/dev/sda --size=32 --file=upimg.bin In the example, upinit creates a Dell Utility Partition of size 32 MB on **/dev/sda** using the **upimg.bin** file.

Option	Valid Arguments	Description
		The **--overwrite** option should be used for upgrading/downgrading purposes. The **--size** option is not required when using the **--overwrite** option because the **--overwrite** option does not resize an existing Dell Utility Partition. If any partitions exist, they are not deleted.

`disk`	integer, required (Windows) string, required (Linux)	Specifies the disk on which to create a utility partition. This disk is checked to ensure that there are no existing partitions. Utility exits with an error if the disk has partitions other than a utility partition.
		
		Use option **--overwrite** to overwrite an existing utility partition.
		
		Example:
		
		`A:>upinit --disk=0 --size=32 --file= c:\upimage.bin (WinPE Example)`
		
		`# upinit --disk=/dev/hda --size=32 -- file=/home/BIN/upimage.bin (Linux Example)`

`size`	integer, required	The size of the utility partition to create. The created utility is at least the size specified by size and be as close to actual size as drive geometry allows. Example : `A:>upinit --disk=0 --size=32 --file= c:\upimage.bin`
`file`	string, required	Specifies a file that is decompressed onto the utility partition. This file is checked for existence and availability before any partitions are created on the disk. If the file is not specified, the utility simply create the utility partition, format it, and exits. The user has to mount and populate the utility partition. It is very unlikely that the user do NOT specify the utility partition format. Example: `A:>upinit --disk=0 --size=32 --file= c:\upimage.bin`
`--overwrite`	string, optional	Overwrites an existing utility partition. It does not create a new partition or delete an existing partition.

7

Messages And Codes

This section documents the error messages and codes used in Dell OpenManage Deployment Toolkit (DTK).

Topics:

- SYSCFG Error Codes And Messages
- UPINIT Common Error Codes And Messages
- UPINIT Linux-Specific Error Codes And Messages
- UPINIT Windows PE Specific Error Codes And Messages
- RAIDCFG Error Codes And Messages
- RACADM Firmware Error Codes And Messages
- RACADM Utility Error Codes And Messages

SYSCFG Error Codes And Messages

The SYSCFG utility checks your commands for correct syntax and valid input. When you enter a command, a message is displayed stating the results of the command.

Failure Messages

The SYSCFG utility failure messages provide error codes to help diagnose why some commands do not succeed. The following table lists SYSCFG error codes and messages.

Table 371. SYSCFG Error Codes and Messages

Error Code	Message
0	Success
1	Attempt to read write-only parameter.
2	Password cannot exceed 16 characters.
3	A BMC was either not detected or is not supported.
4	This username is already in use. Enter a unique username.
5	Access mode not supported.
6	Cannot return number of requested data bytes.
7	User ID 1 cannot be assigned a username.
8	Cannot execute duplicated request.
9	There was an error clearing the SEL.
10	Clear SEL cannot be accompanied with any other option.

Error Code	Message
11	racreset cannot be accompanied with any other option.
12	Cannot execute command. Command, or request parameter(s), not supported in present state.
13	Command not supported on given channel.
14	The community string may only contain printable ASCII characters.
15	Destination unavailable. Cannot deliver request to selected destination.
16	Cannot execute command. Insufficient privilege level.
17	Command illegal for specified sensor or record type.
18	Invalid commstring value.
19	Hardware subsystem error. Invalid data field in Request.
20	Invalid destination IP address.
21	The GUID is invalid.
22	Invalid gateway.
23	Invalid hostname.
24	Invalid IP address.
25	Invalid DNS IP address.
26	Invalid sub net mask.
27	Invalid value for PEF. PEF value should be between 1 and 16.
28	Reservation Canceled or Invalid Reservation ID.
29	Invalid Time to live value.
30	Invalid VLANID value.
31	Invalid Command. Used to indicate an unrecognized or unsupported command.
32	Command invalid for given LUN.
33	Load defaults cannot be accompanied with any other option.
34	There was an error loading the defaults.
35	Node Busy. Command could not be processed because command processing resources are temporarily unavailable.
36	Out of space. Command could not be completed because of a lack of storage space required to execute the given command operation.
37	This parameter is not supported.
38	Parameter out of range. One or more parameters in the data field of the Request are out of range.
39	The password may only contain printable ASCII characters.
40	Password test failed.
41	Requested data length invalid.

Error Code	Message
42	Requested data field length limit exceeded.
43	Requested Sensor, data, or record not present.
44	Request data truncated.
45	Command response could not be provided.
46	Command response could not be provided. BMC initialization or initialization agent in progress.
47	Command response could not be provided. Device in firmware update mode.
48	Command response could not be provided. SDR Repository in update mode.
49	Cannot execute command, SEL erase in progress.
50	Attempt to set the 'set in progress' value when not in the 'set in complete' state.
51	The SOL character ’accumulate interval’ is invalid.
52	The SOL character ’send threshold’ is invalid.
53	The SOL ’retry interval’ is invalid.
54	Command completed successfully.
55	Time-out while processing command. Response unavailable.
56	Unspecified error.
57	The password may only contain printable ASCII characters.
58	Username cannot exceed 16 characters.
59	Invalid VLANID value. Enter in ’dddd’ format.
60	Attempt to write read-only parameter.
61	BMC is busy.
62	Response data did not return successfully.
63	BMC time out error.
64	Option requires an argument.
65	The asset tag for this system is not available.
66	The asset tag cannot be more than 10 characters long.
67	The required BIOS interfaces cannot be found on this system.
68	The BIOS version information is not available.
69	There is not enough free system memory to complete the BIOS update.
70	The BIOS update file version is a different version class (A00, X00) than the current system BIOS. Use the --force option to use this BIOS image.
71	The BIOS update file version is older than the current system bios. Use the --force option to use this BIOS image.

Error Code	Message
72	The BIOS update file version is identical to the current system bios. Use the --force option to use this BIOS image.
73	The sequence list must be a comma-separated numerical list of valid unique boot device numbers (ex: 2, 1, 3).
74	The sequence list must be a comma-separated list of valid unique device names (ex: nic.emb.1, hdd.emb.1) or a comma-separated numerical list of valid unique boot device numbers (ex: 2, 1, 3).
75	There was an error setting the sequence.
76	The list is not formatted correctly. See the help for more details.
77	The size of returned buffer is larger than the size of allocated buffer.
78	There was a problem getting the state byte.
79	The state byte is not available on this system.
80	There was a problem setting the state byte.
81	The state byte must be a value between 0 and 255 decimal.
82	The CPU information is not available.
83	The dependent option required for this subcommand is missing in the command line.
84	Duplicate sub command has been entered.
85	The script file does contain not a valid DTK environment script signature.
86	The format of the environment variable is incorrect.
87	The --envar option can only be used for a single option.
88	The --envar option can only be used for report operations.
89	The individual sub commands should be specified for the -s option.
90	Getting external serial connector settings failed.
91	Setting external serial connector settings failed.
92	There was an error opening the file.
93	File does not have write permission.
94	The file contains invalid options.
95	The replication information does not match for this system.
96	There can only be one section in the input file.
97	Bad ini file, the section cannot be found.
98	The format of the bios image file is incorrect.
99	Report operations and set operations must be separate.
100	Help is not available for the option.
101	The -x (--hex) option can only be used with -b or -r.

Error Code	Message
102	Input file not found.
103	Input file cannot be read.
104	Invalid argument for option.
105	Function table lookup error.
106	The machine ID was not found in the file.
107	The system memory information is not available.
108	Mode can only be used with the --pci option.
109	The device name or index must be present in the boot order.
110	The output file could not be opened. Please make sure the path exists and the media is not write protected.
111	Could not write to output file, disk may be full.
112	The current password must be supplied with a new password using --oldsyspwd.
113	The current password must be supplied with a new password using --oldsetuppwd.
114	The current password can only be supplied when setting a new password.
115	Actions are not allowed for this filter. Only alerts are allowed.
116	There was an error getting the option.
117	The option is not available or cannot be configured through software.
118	There was an error setting the option.
119	The -n (--namefile) option can only be used with - -pci.
120	The password may only contain alphanumeric characters.
121	The BIOS passwords have been disabled via jumper.
122	The password length must be between 1 and 32.
123	This password is locked and can only be unlocked by the admin user.
124	There was an error setting the password.
125	The LCD string length must be between 1 and %s.
126	The LCD string may only contain alphanumeric characters.
127	There was an error setting the LCD string.
128	The second channel can only be set if the RAID controller is set to RAID.
129	The set operation requires sub commands.
130	The service tag for this system is not available.
131	The system ID value is not available.
132	The system information string is not available.
133	A system error has occurred.

Error Code	Message
134	Usage error.
135	The uuid information is not present on this system
136	Version cannot be accompanied with any other option.
137	The self-identify blinker timer should be set to 0..255 second(s).
138	Encrypt key is too long.
139	Encrypt key is invalid, accepted characters are 0 to 9 or A to F.
140	Parameter has been temporarily disabled due to a dependency on other settings.
141	The old password supplied is incorrect. The new password will not be set. Please try again.
142	Cannot stat /etc/omreg.cfg file. Please ensure /etc/omreg.cfg file is present and is valid for your environment. You can copy this file from the DTK iso.
143	Getting nicselection settings failed.
144	HAPI Driver Load Error.
145	Filter action power reduction is only supported for the system power warn/ fail filters.
146	TPM/TCM Clear settings requires setup password.
147	There is currently no TPM/TCM Clear request pending.
148	Password is not required for retrieving the '%s' options.
149	Setup password is required for setting the '%s' options.
150	Invalid Password override.
151	Invalid TPM/TCM set option.
152	There was an error setting the TPM/TCM option.
153	There is no setup password installed on this system.
154	The setup password supplied is incorrect. Please try again.
155	Profile should be custom for setting cpupowermode, memorypowermode and fanmode.
156	There was an error setting the Power Option.
157	The power cap value entered is out of range. Please try again.
158	The power cap value entered must be between 0 to 100 if unit is percent.
159	Invalid IPv6 address. The IPv6 address cannot be link-local or multicast.
160	Invalid IPv6 address. The IPv6 address specified has incorrect address format.
161	Invalid IPv6 address. The gateway address specified has incorrect address format.

Error Code	Message
162	Invalid IPv6 address. The Primary DNS server address specified has incorrect address format.
163	Invalid IPv6 address. The Secondary DNS server address specified has incorrect address format.
164	Invalid IPv6 address. The gateway address specified is invalid.
165	Invalid configuration. Attempting to apply IPv6 configuration on a non supported platform.
166	Invalid IPv6 configuration. Attempt to set DNS server address manually while DNS address source is set to auto.
167	Invalid IPv6 configuration. Attempt to set IPv6 address manually while IPv6 address source is set to auto.
168	Invalid IPv6 configuration. Attempting to apply IPv6 configuration without loading IPv6 stack.
169	Invalid IPv4 configuration. Attempting to apply IPv4 configuration with IPv4 disabled.
170	Invalid IPv6 configuration. Ipv6 address cannot be specified without specifying prefix-length.
171	Invalid IPv6 configuration. dnssrcv6 cannot be set to auto when ipsrcv6 is set to manual.
172	Error while executing IPMI Set command.
173	Error while executing IPMI Get command.
174	Error during Trap Alert.
175	Unspecified error.
176	Getting LCD settings failed.
177	Invalid configuration. Attempting to set cap when capenable is set to disable.
178	Invalid configuration. Attempting to set cap when hardware does not support setting.
179	Invalid Configuration Option.
180	Cannot execute command. Parameter is illegal because command sub-function has been disabled or is unavailable.
181	Failed to report the removable flash media redundancy status.
182	Failed to report the Internal SD Module status.
183	Error locating the Virtual Media Key on the Modular system.
184	Error in setting the redundancy option for the Internal SD Modules.
185	Error in retrieving the redundancy option for the Internal SD Modules.
186	Error in setting the redundancy option on Modular systems for the Internal SD Modules.

Error Code	Message
187	Error in retrieving the vFlash option.
188	Error in setting the vFlash option.
189	The set operation failed due to dependency.
190	The set operation failed because attribute is forced to a value.
191	Cannot disable this OrderedList’s entries.
192	The set operation failed because system is busy now . Try again later.
193	New value for the token not valid.
194	Token not found.
195	The set operation failed because System Services and/or CSIOR disabled.
196	The set operation failed due to pending System Password changes.
197	The set operation failed due to Password verification failure.
198	The set operation failed due to previously scheduled job.
199	The set operation failed because attribute is suppressed.
200	The set operation failed due to Generic failure.
201	XML path context creation failed.
202	Unable to parse XML.
203	Unable to connect data manager.
204	'root' privileges required to execute this application.
205	Invalid alert destination.
206	The set operation failed due to unspecified error.
207	Incorrect syntax for help. For more information about a particular command, use the option '-h or --help' followed by the command name. Example: %s -h --asset
208	System is busy now.Try again later.
209	The dependent option '%s' required for this subcommand should be 'enable'.
210	Some of the BIOS/IPMI tokens are ignored. See the log file (dtk.log) for more information.
211	Unsupported file name extension.Supported file name extension is XML
212	Unsupported file name extension.Supported file name extensions are .ini, .log, .bat, .ids, .lst, and .txt.

Failures And Solutions

The following table lists the common SYSCFG failures and their solutions.

Table 372. SYSCFG Failures and Solutions

Failure Messages	Solutions
Generic failure.	Indicates iDRAC is in bad state. Reboot iDRAC.
New value not valid.	Make sure the changed value is valid.
Cannot disable this orderedList's entries.	BIOS does not support enabling or disabling of a particular boot order object.
System busy, try again later.	Retry as iDRAC is busy with internal processing.
Unable to connect iDRAC data manager.	Start data manager service using `srvadmin_services` (specific to Linux).
System Services and/or CSIOR disabled.	Enable CSIOR from <F2> screen.

UPINIT Common Error Codes And Messages

The UPINIT utility checks your commands for correct syntax. When you enter a command, a message is displayed stating the results of the command.

Failure Messages

The UPINIT utility failure messages provide error codes to help diagnose why some commands do not succeed. Table below lists error codes and messages common to Linux and Microsoft Windows PE environments.

Table 373. UPINIT Common Error Codes and Messages

Error Code	Message
0	`Dell Utility Partition created successfully.`
1	`Error: Disk ID not specified.`
2	`Error: SIZE not specified.`
3	`Error: Utility Partition Image file not specified.`
4	`Error: DRMK Path not specified.`
5	`Error: Dell Utility Partition already exits. Please use --overwrite option to upgrade or overwrite.`
6	`Error: Partitions exists. Please clear all the partitions before running upinit.sh.`
7	`Error: DOS file(s) not found at the specified path.`
8	`Error: UP IMAGE not found at the specified location.`
9	`Error: format failed.`
10	`Error: Invalid size. Size should be a number between 32 and 2000.`
11	`Error: sysdrmk failed.`
12	`System Error.`
13	`Error: Invalid Argument: <argument>`

Error Code	Message
14	Error: Unzip failed.

UPINIT Linux-Specific Error Codes And Messages

The list of error codes and messages are specific to the Linux environment.

Table 374. UPINIT Linux-Specific Error Codes and Messages

Error Code	Message
31	Error: Invalid disk specified.
32	Error: Mount failed.
33	Cannot create mount point <mount point>.File exists
34	Error: fdisk failed.

UPINIT Windows PE Specific Error Codes And Messages

The list of error codes and messages below are specific to the Windows PE environment.

Table 375. UPINIT Windows PE-Specific Error Codes and Messages

Error Code	Message
31	Error: DISKPART failed.
32	Error: DISKPART command file not found.

RAIDCFG Error Codes And Messages

The RAIDCFG utility checks your commands for correct syntax when you enter them. When you enter a command, a message displays stating the results of the command.

Failure Messages

The RAIDCFG utility failure messages provide error codes to help diagnose why some commands do not succeed. See table below for a list of the error codes and the associated messages.

Table 376. RAIDCFG Error Codes and Messages

Error Code	Message
0	RAIDCFG Command successful!
1	Error! Incorrect Syntax.
2	Failure!
3	Illegal operation

Error Code	Message
4	Unsupported operation
5	Device not found.
6	Format boot drive illegal
7	Buffer too small.
8	Virtual Disk contains boot partition. Use force option to delete.
9	Init boot drive failed.
10	Format boot drive failed.
11	Cannot write boot drive.
12	Unsupported RAID value.
13	Invalid RAID configuration.
14	Span depth not in range.
15	RAID 1 failed.
16	Exactly 2 array disks are required to create a RAID 1 virtual disk.
17	Unsupported stripe size value.
18	RAID 5 only.
19	RAID 5 error.
20	A minimum of 3 array disks are required to create a RAID 5 virtual disk.
21	RAID 0 failed.
22	RAID 10 failed.
23	RAID 50 failed.
24	RAID 5 not supported.
25	RAID 50 not supported.
26	Size too small for given RAID type.
27	Wrong number of disks for RAID 1- concatenated.
28	Insufficient space to mirror disks.
29	Create Mirror not supported.
30	Disk in use.
31	Disk Lock operation failed.
32	Disk locked.
33	Disk Unlock operation failed.
34	Disk Unlocked.
35	Disk failed on rebuild.
36	Hot Spare not free.
37	Disk Diagnostic failed.

Error Code	Message
38	Disk Rebuild failed.
39	Disk Format failed.
40	Cancel of Disk Diagnostic failed.
41	Cancel of Disk Rebuild failed.
42	Cancel of Disk Format failed
43	Assign Hot Spare failed
44	Disk too Small for Hot Spare.
45	Unassign Hot Spare failed.
46	Prepare Disk for Removal failed.
47	Disk Online failed.
48	Disk Offline failed.
49	UnMount Operation failed.
50	Mount Operation failed.
51	Cannot Format Array Disk.
52	Bad chunk size.
53	Invalid disk.
54	Virtual disk not found.
55	Virtual disk locked.
56	Drive in use.
57	Reached maximum physical size.
58	Reached maximum count of virtual disks.
59	There is not enough free space on the array disk(s) to allow the operation to complete; the size of the virtual disk is too large; or communication to the array disk(s) has been lost.
60	Select the array disks that are part of a similar type of virtual disk (T10 protection and encryption capability) or the array disks that are not part of any virtual disks.
61	Invalid Parameter
62	Failed drive cannot be added.
63	The controller cannot support the number of array disks that you have selected. Choose a smaller number.
64	Delete virtual disk failed. Controller busy.
65	Delete virtual disk failed.
66	Create virtual disk failed.
67	Create virtual disk failed. Controller busy.

Error Code	Message
68	Create virtual disk failed. Failed to map virtual disk to operating system disk.
69	Create virtual disk failed. Failed to map virtual disk to operating system disk.
70	Virtual disk initialization failed.
71	Virtual disk initialization failed. Controller busy.
72	Virtual disk reconstruction failed. Controller busy.
73	Virtual disk resynching failed. Controller busy.
74	Flush Virtual disk's cache failed on controller.
75	Virtual disk partition specified not found.
76	Unsupported cache policy value.
77	Unsupported write policy value.
78	Unsupported read policy value.
79	Cancel initialization on virtual disk failed.
80	Cancel reconstruction on virtual disk failed.
81	Cancel resynchronization on virtual disk failed.
82	The maximum number of virtual disks that can be created has been reached.
83	The new virtual disk must use only the remaining free space on the array disks used in the last virtual disk you created. Select all array disks that are used in the last virtual disk you created.
84	You have selected an array disk that is in a degraded or failed state. Choose another array disk.
85	Delete the last created virtual disk first.
86	Virtual disk initialized for use and no override requested.
87	Virtual disk type requested is invalid for the attempted operation.
88	Virtual disk Move operation failed. Cannot rename, virtual disk is already in use.
89	Failover invalid.
90	Virtual disk resynching.
91	Virtual disk resynch failed.
92	Virtual disk reconstruct failed.
93	Cannot format a virtual disk that contains a boot or system partition.
94	Cannot initialize a virtual disk that contains a boot or system partition.
95	Virtual disk Copy failed.
96	Virtual disk mirror set required.
97	Virtual disk Create - Read-only failed.

Error Code	Message
98	Virtual disk Create - Read-write failed.
99	Virtual disk - Clear-to-zero failed.
100	Virtual Disk Requires Non Multilevel.
101	Virtual Disk Promote Operation failed.
102	Specified virtual disk has no drive letter assigned to it.
103	Cannot expose virtual disk.
104	Cannot reconfigure virtual disk.
105	Cannot stop the reconfiguration of the virtual disk.
106	SMART report count not supported.
107	Operations on hidden virtual disks are not allowed.
108	Virtual disk is in use.
109	The virtual disk is in use. It cannot be reconfigured at this time.
110	Virtual disk operation is temporarily unavailable. Initialization in progress.
111	Virtual disk operation is temporarily unavailable. Reconstruction in progress.
112	Virtual disk operation is temporarily unavailable. Rebuild in progress.
113	Virtual disk operation is temporarily unavailable. Check consistency in progress.
114	Specified virtual disk too small.
115	Virtual disk operation not supported. Size too small.
116	Operation is temporarily unavailable. Space in use.
117	Cannot reconfigure to the given RAID level.
118	Cannot reconfigure from current RAID level to the given RAID level.
119	One of the array disks selected for the virtual disk is already in use.
120	Virtual disk operation not supported. Cannot use non-RAID disk.
121	Controller Read Configuration failed.
122	Controller Write Configuration failed.
123	Controller cache flush failed.
124	Enable alarm on controller failed.
125	Disable alarm on controller failed.
126	Quiet alarm on controller failed.
127	Controller failed to perform the task.
128	Specified bus not found for controller.
129	Call to set cache mode on the controller failed.

Error Code	Message
130	Unexpected controller error.
131	Controller out of memory.
132	Invalid controller state.
133	Controller failed.
134	Controller busy.
135	Controller does not exist.
136	Controller name is invalid.
137	Controller is iterated.
138	Rename of virtual disk was not successful.
139	The controller was not able to erase the file system from the specified virtual disk.
140	The controller was not able to add space to the specified concatenation set.
141	The controller was not able to get the status of the specified mirror set.
142	The controller was not able to set the requested failover space.
143	The controller cannot get the failover space information.
144	Controller cannot unmirror the specified virtual disk.
145	The controller could not split the specified virtual disk.
146	The controller could not lock the specified virtual disk.
147	Controller IO paused.
148	No controller parameter support.
149	Controller does not recognize parameter symbol.
150	Controller Battery Recondition failed.
151	Controller Get disk signature failed.
152	Controller Read Flags failed.
153	Controller Set Flags failed.
154	Controller Remove Snap Shot failed.
155	Controller not supported.
156	Controller device initialization failure.
157	Partner controller already opened readwrite.
158	No partner controller found.
159	The virtual disk is not valid for requested operation.
160	Cannot communicate with controller.
161	Set operation failed.
162	Operation to update error count of SMART device has failed.

Error Code	Message
163	Operation to clear error count of SMART device has failed.
164	Driver could not execute.
165	Cannot delete virtual disk.
166	Cannot set temperature probe. Invalid value entered.
167	Cannot set enclosure tag. Invalid value entered.
168	Cannot set enclosure alarm.
169	Temperature probe value out of range.
170	Cannot set cache mode.
172	Data will be lost on the secondary disk and a reboot will be forced.
173	Cluster Services (MSCS) is running. Deleting a virtual disk that contains a cluster resource can result in unpredictable errors or system hangs (quorum disk). You should shut down cluster services before deleting cluster resources. Are you sure you want to proceed?
174	Cannot perform Create Virtual Disk or Delete Virtual Disk while the other server in a cluster is online. Please shut one of the servers down and retry the operation.
176	Invalid array disks or failover drives selected for reconfigure/create operation. Please make sure that all array disks and failover drives associated with the virtual disk are selected.
177	The maximum number of partitions have already been created on one of the selected array disk(s). Each array disk can hold portions (partitions) of up to 10 virtual disks. This virtual disk cannot be created because one or more array disk(s) have reached the partition limit.
178	The virtual disk is in use. Please close any applications that use the virtual disk and unmount any file systems that reside on the virtual disk.
179	The firmware version is not supported. Please update the firmware from http://support.dell.com.
180	The specified device does not have enough free space to be used as failover space for the specified virtual disk.
181	The operation failed. Please rescan the controller and retry the operation.
182	The operation cannot be performed while a task is running on the specified virtual disk.
183	The specified virtual disk has no dead disk segments.
184	The operation cannot be performed at this time. The firmware can recondition a battery that has a Degraded or Power Low state. The firmware will not recondition a battery that is functioning normally or that has a Ready, Failed or Missing state.
185	The version of the controller firmware installed on your system does not support this operation.
186	There are no disks of the correct type available to be assigned as a hot spare.

Error Code	Message
187	There are no disks of sufficient size available to be assigned as a hot spare.
188	There are no disks of the correct type and sufficient size available to be assigned as a hot spare.
189	The Create Virtual Disk task was successful but the operating system may not be aware of the new virtual disk.
191	The import of foreign configurations is complete. Some configurations could not be imported.
192	Enable alarm command failed. The enclosure processor is busy or a firmware download is in progress.
193	Disable alarm command failed. The enclosure processor is busy or a firmware download is in progress.
194	Quiet alarm command failed. The enclosure processor is busy or a firmware download is in progress.
195	An error occurred while resetting a temperature probe.
200	No array disks found!
201	Invalid Virtual Disk ID!
202	RAID Type & Size are required to create a virtual disk. Ensure that the RAID type and the size are correct.
203	Invalid Environment command!
204	File is not writable!
205	Setting Environment Variable Command failed!
206	Filename is not provided!
207	Invalid Strict option! Please provide a valid number between 1 and 100.
208	Span depth is not needed for this RAID type.
209	Array disk(s) cannot be part of virtual disk(s) and also be hotspares.
210	Cannot have silent and logfile switch with the same command.
211	Invalid array disk(s)!
212	Invalid failover disk(s)!
213	Creation of a virtual disk on this RAID controller requires the use of the entire disk space of the array disks. The size or - sz parameter is not needed.
214	Invalid size given! size=max or -sz=max is not supported for this RAID controller.
215	The value given for envname or -envn is null or too long.
216	Invalid virtual disk size!
217	The strict option provided failed! Virtual disk is not created.

Error Code	Message
218	Unable to determine optimum size for Virtual disk. Ensure that the array disks are of the same protocol (i.e. SAS, SATA, SCSI). If there is a mismatch of the array disks then the RAIDCFG will not be able to determine the optimum size. In addition, also ensure that there is drive size available for the specified virtual disk.
219	One or more array disks selected to create virtual disk or hotspare doesn't have enough disk space. Please make sure that all the array disks and failover drives selected have enough free space.
220	The number of array disks provided is incorrect for the requested RAID Type! RAID 1 requires exactly 2 array disks, RAID 5 requires at least 3 array disks, RAID 10 requires at least 4 array disks and RAID 50 requires at least 6 array disks.
221	No free array disks found!
222	No global failover disks found!
223	One or more array disks selected for the virtual disk has foreign configuration.
224	Error in opening the file.
225	SAS 5/IR, SAS 6/IR, H200 and SW RAID requires atleast two physical disks to create RAID 0 or RAID 1.
226	No Foreign configuration present in the controller.
227	The virtual disk cannot be created on the physical disks you selected. Possible reasons include:unsupported mix of SAS and SATA protocol type disks, unsupported mix of SSD and HDD media disks.
228	Unsupported array disks selected for VD creation.
229	Setting stripe size is not supported in this controller.
230	Invalid VirtualDisk(VD) name specified. VD name can have alphanumeric characters [A-Z,a-z,0-9,_,-] only. Also, VD name size must be less than or equal to 15 characters
231	Error occurred while setting virtual disk as boot disk.
232	Error occurred while setting name for virtual disk.
233	Couldn't get boot virtual disk.
234	PCIe Link Speed could not be set for the RAID controller. Please check if the controller has the capability to set/change its PCIe link speed.
235	PCIe Link Speed can be set to either 2 or 3 i.e. PCIe Generation 2.0 or 3.0.
236	PCIe Link Speed could not be retrieved for this RAID controller.Please check if the controller has the PCIe link speed capability.
237	Please reset the controller before doing any further operation.
238	Boot Mode can be set to 0 (BIOS stop on error), 1 (BIOS continue on error), 2 (Headless continue on error)
239	Boot Mode could not be set for the RAID controller.

Error Code	Message
240	Enable Auto Import can be set to 0 (No) or 1 (Yes).
241	Cannot discard the preserved cache because a foreign configuration is present on the controller. Use '-ignoreconfig' or '-igncfg' to discard the cache.
1000	Enable Auto Import property could not be set for the RAID controller.
1001	Invalid array disk list.
1002	Source or destination disk is in invalid state. Make sure that the source disk is in online state, destination disk is in ready state, and the size of the destination disk is greater than or equal to the size of the source disk.
1003	Operation not allowed. Cannot set the array disk state to online.
1004	Operation not allowed. Cannot set the array disk state to offline.
1005	Invalid encrypted array disk list for the instant secure erase operation.
1006	Sector drives 512B and 4KB must not be combined while creating a virtual disk.
1007	Hot spare sector size for the virtual disk is not matching.
1008	sectorsize parameter is not found.
1009	Warning! Cannot assign global hotspare. Input array disk can act as a hotspare only for virtual disks with matching sector size (4KB or 512B) and supported T10 PI capability. Use "-force" option to discard the warning.
1010	Force option is invalid for this operation on the specified controller.
1011	Input values for vdiskprotectioninfo and vdpi are 1 and 0.
1012	vdiskprotectioninfo or vdpi option is not available on the controller.
1013	Input array disks or hotspares are not PI-capable.
1014	Creation of RAID 10 virtual disk with Uneven Span failed.
1015	Spanlength is not required for creating a RAID10 virtual disk on this controller.
1016	Unsupported operation. RAID 6 and RAID 60 virtual disks which are T10 PI enabled do not support Slow Initialize.
1017	Operation is not supported. The specified controller does not have encryption capability.
1018	Operation is not supported. Encryption key is not present on the specified controller.
1019	The specified array disks or hotspares do not have encryption capability.
1020	The specified controller does not have a locked foreign configuration.
1021	Invalid passphrase.
1022	Input values for secureflag and sf are 1 and 0.
1023	Unsupported operation. Preserved cache is not present on the controller.

Error Code	Message
1024	Invalide Key Id
1025	Encryption key is already set for the controller.
1026	Cannot delete the encryption key because secure virtual disk is present.
1027	The passphrase is invalid or old.
1028	Cannot increase the virtual disk size due to lack of free space or due to the presence of partial virtual disks on the same set of array disks.
1029	The percentage value of virtual disk size must be in the range 1-100.
1030	Error! Cannot discard the preserved cache. Use '-force' option to discard the cache.
1031	Cannot create a new virtual disk because preserved cache is present on the controller. To clear the cache, either import the related virtual disks or discard the cache.
1032	Unsupported RAID value. The expand virtual disk size operation is allowed only on RAID-0, RAID-1, RAID-5, and RAID-6.
1033	Unsupported file type. Supported file types are .ini, .log, and .txt.

RACADM Firmware Error Codes And Messages

Table below lists RACADM firmware error codes and messages.

Table 377. RACADM Firmware Error Codes and Messages

Error Code	Message
1	UNKNOWN COMMAND.
2	OUTPUT ERROR
3	TOO FEW ARGUMENTS
4	UNKNOWN PARAMETER
5	CAN'T LOCK RESOURCE
6	RESOURCE LOCKED
7	USER NOT IN DATABASE
8	WRONG PASSWORD
9	LOGIN INCORRECT
10	NOT ACCESSIBLE VIA TELNET CONNECTION
11	ACCESS DENIED
12	INVALID ARGUMENT
13	INVALID GROUP NAME
14	USER DATABASE FULL
15	CAN'T CHANGE FACTORY DEFAULT

Error Code	Message
16	USER ALREADY IN DATABASE
17	CLOSING TELNET CONNECTION
18	USER DATABASE NOT INITIALIZED
19	INVALID COMMAND SHELL CALL
20	INVALID INPUT FILE
21	TFTP ERROR
22	PCI ERROR
23	SERVER IS IN GRAPHICS MODE
24	SYSTEM DATE AND TIME NOT SET
25	OUT OF MEMORY
26	ACCESS LOCKED
27	PAGING ERROR
28	PAGING ALREADY IN PROGRESS
29	ERROR ACCESSING DEVICE
30	WRONG NUMBER OF ARGUMENTS
31	NO SCREEN FOR ASR STORED
32	CAN'T ADD HISTORY MONITOR
33	INVALID IDENTIFIER
34	CANNOT WRITE TO FLASH
35	FIRMWARE FILE INVALID
36	CANNOT READ REGISTER
37	CANNOT UNLOCK RESOURCE
38	TIME OUT
39	SERVER IN TEXT MODE
40	WRONG GRAPHICS MODE
41	CONFIG SPACE LOCKED
42	MASTER LOCKED
43	ASB BUS LOCKED
44	HISTORY MONITORS NOT YET AVAILABLE
45	NO VALID VALUE FOR THIS FIELD
46	DIAGNOSTIC TASK ERROR
47	DIAGNOSTIC TASK IS ALREADY RUNNING
48	NO DIAGNOSTIC TASK RUNNING
49	READ ONLY

Error Code	Message
50	SNARFING IS NOT AVAILABLE
51	TEXT RESOLUTION OF SERVER CHANGED
52	MODULE NOT LOADED
53	IPMI ERROR
54	ERROR IN DIAGNOSTIC FUNCTION

RACADM Utility Error Codes And Messages

Table below lists RACADM utility error codes and messages.

Table 378. RACADM Error Codes and Messages

Error Code	Message
513	An unknown failure occurred.
514	Librac library not initialized.
515	An invalid parameter was passed into function.
516	Invalid DRSTYPE specified.
517	Librac library already initialized.
518	Invalid transport type specified.
519	Invalid library user.
520	A connection to the RAC controller could not be established.
521	Failed to perform read operation with RAC controller.
522	Failed to perform write operation with RAC controller.
523	Invalid message ID.
524	Invalid message type.
525	Invalid response message.
526	Specified user buffer is too small to hold data.
527	Authentication failed - Invalid user name or password.
528	Invalid CHAP protocol response encountered.
529	CHAP buffer too small.
530	Timeout occurred.
531	Insufficient user privileges to perform operation.
532	TFTP write error encountered.
533	TFTP read error encountered.
534	TFTP local file write error encountered.
535	TFTP local file read error encountered.

Error Code	Message
536	TFTP write request failed.
537	TFTP read request failed.
538	Failed to open file.
539	Failed to load socket library.
540	Invalid socket library.
541	Unable to resolve HostName.
542	Failed to create socket.
543	Socket read operation failed.
544	Socket write operation failed.
545	Failed to create SSL context object.
546	Failed to create SSL BIO object.
547	Unable to create SSL socket connection.
548	Failed to initialize socket.
549	Failed to login to RAC successfully.
550	Invalid session ID specified.
551	Failed to logout from RAC successfully.
552	Command execution failed.
553	FTP Get operation failed.
554	FTP Put operation failed.
555	Failed to initialize FTP interface.
556	Failed to load SSL library.
557	Failed to initialize librac library.
558	Invalid session ID.
559	SpcmpObjectName failed.
560	SpcmpObjectIdGet failed.
561	SpcmpObjectIdSet failed.
562	Failed to send SPCMP message to RAC.
563	Invalid transport session info.
564	LAN Proxy error - please make sure your proxy settings are configured correctly.
565	RAC service not currently installed.
566	RAC service is not started.
567	RAC service is starting.
568	RAC controller not present.

Error Code	Message
569	RAC controller is currently resetting.

8

BMC Platform Events Filter Alert Messages

All possible Platform Event Filter (PEF) Alert Messages along with a description of each event are listed in the table below

Table 379. BMC PEF Alert Events

Event	Description
Fan Probe Failure	The fan is running too slow or not at all.
Voltage Probe Failure	The voltage is too low for proper operation.
Discrete Voltage Probe Failure	The voltage is too low for proper operation.
Temperature Probe Warning	The temperature is approaching excessively high or low limits.
Temperature Probe Failure	The temperature is either too high or too low for proper operation.
Chassis Intrusion Detected	The system chassis has been opened.
Redundancy (PS or Fan) Degraded	Redundancy for the fans and/or power supplies has been reduced.
Redundancy (PS or Fan) Lost	No redundancy remains for the system's fans and/or power supplies.
Processor Warning	A processor is running at less than peak performance or speed.
Processor Failure	A processor has failed.
PPS/VRM/DCtoDC Warning	The power supply, voltage regulator module, or DC-to-DC converter is pending a failure condition.
Power Supply/VRM/D2D Failure	The power supply, voltage regulator module, or DC-to-DC converter has failed.
Hardware log is full or emptied	Either an empty or a full hardware log requires administrator attention.
Automatic System Recovery	The system is hung or is not responding and is taking an action configured by Automatic System Recovery.
System Power Probe Warning	The system is setting actions when a power consumption probe detects a warning value.
System Power Probe Failure	The system is setting actions when a power consumption probe detects a failure value.

9

Sample File Formats

This appendix lists the sample SYSCFG utility .ini, RAIDCFG utility .ini, and the RACADM utility .ini files.

Topics:

- Sample SYSCFG Utility .ini File Format
- Sample RAIDCFG Utility .ini File Format
- Sample RACADM Utility .ini File Format

Sample SYSCFG Utility .ini File Format

```
[syscfg]
;SystemModelName=poweredge r620
;SystemBiosVersion=0.3.16
;SystemServiceTag=MDN2345
;SystemManufacturer=dell inc.
;SysMfrContactInfo=www.dell.com
;SysMemSize=4.0 gb
;SysMemType=ecc ddr3
;SysMemSpeed=1067 mhz
;SysMemVolt=1.35v
;VideoMem=16 mb
MemTest=enable
MemOpMode=adveccmode
;NodeInterleave=disable
SerialDbgOut=disable
LogicalProc=enable
QpiSpeed=maxdatarate
ProcVirtualization=enable
ProcAdjCacheLine=enable
ProcHwPrefetcher=enable
DcuStreamerPrefetcher=enable
DcuIpPrefetcher=enable
ProcExecuteDisable=enable
ProcCores=all
;Proc64bit=yes
;ProcCoreSpeed=2.30 ghz
;Proc1Id=06-2d-2
;Proc1Brand=[genuine intel(r) cpu @ 2.30ghz
]
;Proc1L2Cache=8x256 kb
;Proc1L3Cache=20 mb
;Proc1NumCores=8
EmbSata=ahcimode
;SataPortE=auto
;SataPortEModel=unknown
;SataPortEDriveType=unknown device
;SataPortECapacity=n/a
;SataPortF=auto
;SataPortFModel=unknown
;SataPortFDriveType=unknown device
;SataPortFCapacity=n/a
BootMode=bios
BootSeqRetry=disable
```

```
IntegratedRaid=enable
UsbPorts=allon
InternalUsb=on
IntegratedNetwork1=enable
OsWatchdogTimer=disable
IoatEngine=disable
;EmbVideo=enable
SriovGlobalEnable=disable
SerialComm=onnoconredir
SerialPortAddress=serial1com1serial2com2
ExtSerialConnector=serial1
FailSafeBaud=115200
ConTermType=vt100vt220
RedirAfterBoot=enable
SysProfile=perfperwattoptimizeddapc
;ProcPwrPerf=sysdbpm
;MemFrequency=maxperf
;ProcTurboMode=enable
;ProcC1E=enable
;ProcCStates=enable
;MemPatrolScrub=standard
;MemRefreshRate=1x
;MemVolt=autovolt
;AesNi=enable
PasswordStatus=unlocked
TpmSecurity=off
;TpmActivation=nochange
;TpmClear=no
;IntelTxt=off
LocalBiosUpdateSupport=enable
PwrButton=enable
NmiButton=enable
AcPwrRcvry=last
AcPwrRcvryDelay=immediate
;AcPwrRcvryUserDelay=60
AssetTag=
NumLock=on
ReportKbdErr=report
ErrPrompt=enable
Characterization=enable
BootSeq=Floppy.iDRACVirtual.1-
1,Optical.iDRACVirtual.1-1
;UefiBootSeq=NIC.Integrated.1-1-1,NIC.Integrated.1-2-
1,NIC.Integrated.1-3-1,NIC.Integrated.1-4-
1,Optical.iDRACVirtual.1-1,Floppy.iDRACVirtual.1-1
OneTimeBootMode=disable
;OneTimeBootSeqDev=floppy.idracvirtual.1-1
;OneTimeUefiBootSeqDev=nic.integrated.1-1-1
Slot1=enable
Slot2=enable
Slot3=enable
extserial=com1
lancfgparams
alertdest=1
destipaddr=0.0.0.0
lancfgparams
alertdest=2
destipaddr=0.0.0.0
lancfgparams
alertdest=3
destipaddr=0.0.0.0
lancfgparams
alertdest=4
destipaddr=0.0.0.0
commstring=public
;gateway=10.94.132.1
;ipaddress=10.94.132.131
```

```
ipaddrsrc=dhcp
nicselection=dedicated
autoneg=enable
dnsserver1=0.0.0.0
dnsserver2=0.0.0.0
dnsdhcp=disable
dnsracname=idrac
dnsregisterrac=disable
domainname=
domainnamednsdhcp=disable
fullduplex=enable
speed=100Mbps
;subnetmask=255.255.255.0
vlanid=1
vlanpriority=0
vlantag=disable
lancfgparamsv6
;dnssrcv6=static
;gatewayv6=::
;ipv6address1=::
ipv6=disable
;ipaddrv6=::
;ipsrcv6=auto
;linklocaladdrv6=::
;prefixlengthv6=0
;dnsserver1v6=::
;dnsserver2v6=::
;ipv6address2=::
lanchannelaccess
ipmioverlan=alwaysavail
channelprivlmt=administrator
pefalerting=disable
lanuseraccess
userid=2
usrprivlmt=administrator
lanuseraccess
userid=3
usrprivlmt=noaccess
lanuseraccess
userid=4
usrprivlmt=noaccess
lanuseraccess
userid=5
usrprivlmt=noaccess
lanuseraccess
userid=6
usrprivlmt=noaccess
lanuseraccess
userid=7
usrprivlmt=noaccess
lanuseraccess
userid=8
usrprivlmt=noaccess
lanuseraccess
userid=9
usrprivlmt=noaccess
lanuseraccess
userid=10
usrprivlmt=noaccess
lanuseraccess
userid=11
usrprivlmt=noaccess
lanuseraccess
userid=12
usrprivlmt=noaccess
lanuseraccess
userid=13
```

```
usrprivlmt=noaccess
lanuseraccess
userid=14
usrprivlmt=noaccess
lanuseraccess
userid=15
usrprivlmt=noaccess
lanuseraccess
userid=16
usrprivlmt=noaccess
lcd=servicetag
nmibutton=enable
pefcfgparams
alertpolnum=1
alertpolstatus=disable
pefcfgparams
alertpolnum=2
alertpolstatus=disable
pefcfgparams
alertpolnum=3
alertpolstatus=disable
pefcfgparams
alertpolnum=4
alertpolstatus=disable
pefcfgparams
filter=fanfail
filteralert=enable
filteraction=none
pefcfgparams
filter=discretevoltfail
filteralert=enable
filteraction=none
pefcfgparams
filter=tempwarn
filteralert=enable
filteraction=none
pefcfgparams
filter=tempfail
filteralert=enable
filteraction=none
pefcfgparams
filter=intrusion
filteralert=enable
filteraction=none
pefcfgparams
filter=redundegraded
filteralert=enable
filteraction=none
pefcfgparams
filter=redunlost
filteralert=enable
filteraction=none
pefcfgparams
filter=procwarn
filteralert=enable
filteraction=none
pefcfgparams
filter=procfail
filteralert=enable
filteraction=none
pefcfgparams
filter=powerwarn
filteralert=enable
filteraction=none
pefcfgparams
filter=powerfail
filteralert=enable
```

```
filteraction=none
pefcfgparams
filter=hardwarelogfail
filteralert=enable
pefcfgparams
filter=autorecovery
filteralert=enable
pefcfgparams
filter=procabsent
filteralert=enable
filteraction=none
pefcfgparams
filter=powerabsent
filteralert=enable
filteraction=none
pefcfgparams
filter=batterywarn
filteralert=enable
filteraction=none
pefcfgparams
filter=batteryfail
filteralert=enable
filteraction=none
pefcfgparams
filter=systempowerwarn
filteralert=enable
filteraction=none
pefcfgparams
filter=systempowerfail
filteralert=enable
filteraction=none
pefcfgparams
filter=discretesdcardfail
filteralert=enable
filteraction=none
pefcfgparams
filter=discretesdcardpresent
filteralert=enable
filteraction=none
pefcfgparams
filter=discretesdcardwarn
filteralert=enable
filteraction=none
pefcfgparams
filter=ripsfail
filteralert=enable
filteraction=none
pefcfgparams
filter=ripsoffline
filteralert=enable
filteraction=none
pefcfgparams
filter=ripsredundancylost
filteralert=enable
filteraction=none
hostname=
powerbutton=enable
serialcfgparams
connectionmode=basic
msgcommbitrate=19200
msgcommflowctrl=noflowctrl
tmcfgdelctrl=del
tmcfgechoctrl=echo
tmcfghandshakectrl=enable
tmcfginputnewlineseq=cr
tmcfglineediting=enable
tmcfgnewlineseq=crlf
```

```
serialchannelaccess
ipmioverserial=alwaysavail
channelprivlmt=administrator
serialuseraccess
userid=2
usrprivlmt=administrator
serialuseraccess
userid=3
usrprivlmt=noaccess
serialuseraccess
userid=4
usrprivlmt=noaccess
serialuseraccess
userid=5
usrprivlmt=noaccess
serialuseraccess
userid=6
usrprivlmt=noaccess
serialuseraccess
userid=7
usrprivlmt=noaccess
serialuseraccess
userid=8
usrprivlmt=noaccess
serialuseraccess
userid=9
usrprivlmt=noaccess
serialuseraccess
userid=10
usrprivlmt=noaccess
serialuseraccess
userid=11
usrprivlmt=noaccess
serialuseraccess
userid=12
usrprivlmt=noaccess
serialuseraccess
userid=13
usrprivlmt=noaccess
serialuseraccess
userid=14
usrprivlmt=noaccess
serialuseraccess
userid=15
usrprivlmt=noaccess
serialuseraccess
userid=16
usrprivlmt=noaccess
solaction
userid=2
action=enable
solaction
userid=3
action=disable
solaction
userid=4
action=disable
solaction
userid=5
action=disable
solaction
userid=6
action=disable
solaction
userid=7
action=disable
solaction
```

```
userid=8
action=disable
solaction
userid=9
action=disable
solaction
userid=10
action=disable
solaction
userid=11
action=disable
solaction
userid=12
action=disable
solaction
userid=13
action=disable
solaction
userid=14
action=disable
solaction
userid=15
action=disable
solaction
userid=16
action=disable
solcfgparams
solbitrate=115200
solcharaccuminterval=10
solcharsendthreshold=255
solenable=enable
solprivlevel=administrator
sysid=04CE
sysname=PowerEdge R620
useraction
userid=2
action=enable
useraction
userid=3
action=disable
useraction
userid=4
action=disable
useraction
userid=5
action=disable
useraction
userid=6
action=disable
useraction
userid=7
action=disable
useraction
userid=8
action=disable
useraction
userid=9
action=disable
useraction
userid=10
action=disable
useraction
userid=11
action=disable
useraction
userid=12
action=disable
```

```
useraction
userid=13
action=disable
useraction
userid=14
action=disable
useraction
userid=15
action=disable
useraction
userid=16
action=disable
username
userid=2
name=root
username
userid=3
name=NULL
username
userid=4
name=NULL
username
userid=5
name=NULL
username
userid=6
name=NULL
username
userid=7
name=NULL
username
userid=8
name=NULL
username
userid=9
name=NULL
username
userid=10
name=NULL
username
userid=11
name=NULL
username
userid=12
name=NULL
username
userid=13
name=NULL
username
userid=14
name=NULL
username
userid=15
name=NULL
username
userid=16
name=NULL
;uuid=44454C4C4400104E8032CDC04F333435
virtualmedia=auto
```

Sample RAIDCFG Utility .ini File Format

```
[Reset]
controllerid=1,2,3,6
[vdisk0]
controllerid=4
```

```
size=139392
raid=1
readpolicy=ra
writepolicy=wb
stripesize=64
cachepolicy=d
adisk=0:1:1,0:0:1
[vdisk1]
controllerid=4
size=139392
raid=1
readpolicy=ra
writepolicy=wb
stripesize=64
cachepolicy=c
adisk=0:3:1,0:2:1
[vdisk2]
controllerid=2
size=278784
raid=0
readpolicy=ra
writepolicy=wb
stripesize=64
cachepolicy=d
adisk=0:5:1,0:4:1
failoverdrive=0:9:1
[vdisk3]
controllerid=4
size=278784
raid=5
readpolicy=ra
writepolicy=wb
stripesize=64
cachepolicy=c
adisk=0:8:1,0:7:1,0:6:1
[GlobalHotspare0]
controllerid=0
failoverdrive=0:8:0
```

Sample RACADM Utility .ini File Format

```
[idRacInfo]
#idRacType=0x05
#idRacProductInfo=Dell Remote Access Controller 5
#idRacDescriptionInfo=This system component provides
a complete set of #remote management functions for
Dell PowerEdge servers.
#idRacVersionInfo=1.20 (Build 01.17)
idRacName=DRAC 5
idRacMisc=
[cfgLanNetworking]
cfgNicEnable=1
cfgNicIpAddress=10.98.8.121
cfgNicNetmask=255.255.255.0
cfgNicGateway=192.168.0.1
cfgNicUseDhcp=0
#cfgNicMacAddress=00:11:43:34:5f:4a
cfgDNSServersFromDHCP=0
cfgDNSServer1=192.168.0.5
cfgDNSServer2=192.168.0.6
cfgDNSRegisterRac=0
cfgDNSRacName=RAC-HHS7C1S
cfgDNSDomainNameFromDHCP=0
cfgDNSDomainName=MYDOMAIN
[cfgCurrentLanNetworking]
#cfgNicCurrentIpAddress=10.98.8.121
```

```
#cfgNicCurrentNetmask=255.255.255.0
#cfgNicCurrentGateway=192.168.0.1
#cfgNicCurrentDhcpWasUsed=0
#cfgDNSCurrentDhcpWasUsed=0
#cfgDNSCurrentServer1=192.168.0.5
#cfgDNSCurrentServer2=192.168.0.6
#cfgDNSCurrentDomainName=MYDOMAIN
[cfgRemoteHosts]
cfgRhostsSmtpEmailEnable=1
cfgRhostsFwUpdateTftpEnable=1
cfgRhostsSmtpServerIpAddr=127.0.0.1
cfgRhostsFwUpdateIpAddr=192.168.0.4
cfgRhostsFwUpdatePath=
[cfgUserAdmin]
#cfgUserAdminIndex=1
cfgUserAdminUserName=root
#cfgUserAdminPassword=
cfgUserAdminPrivilege=0
cfgUserAdminAlertFilterRacEventMask=0x300000
cfgUserAdminAlertFilterSysEventMask=0x77777
cfgUserAdminEmailEnable=0
cfgUserAdminEmailAddress=
cfgUserAdminEmailCustomMsg=
[cfgSessionManagement]
cfgSsnMgtMaxSessions=0x4
cfgSsnMgtMaxSessionsPerUser=0x4
[cfgSerial]
cfgSerialBaudRate=115200
cfgSerialConsoleEnable=0
cfgSerialConsoleQuitKey=<CR>~.
cfgSerialConsoleIdleTimeout=0x12c
cfgSerialConsoleShellType=0x2
cfgSerialConsoleNoAuth=0
cfgSerialConsoleCommand=
cfgSerialTelnetEnable=0
cfgSerialCom2RedirEnable=1
cfgSerialTelnet7fIsBackspace=0
[cfgNetTuning]
cfgNetTuningNicMtu=0x5dc
cfgNetTuningIpTtl=0x40
cfgNetTuningTcpSrttBase=0x0
cfgNetTuningTcpSrttDflt=0x6
cfgNetTuningTcpReXmtMin=0x2
cfgNetTuningTcpReXmtMax=0x80
cfgNetTuningIpSubnetsAreLocal=0x1
cfgNetTuningIpReassTtl=0x3c
cfgNetTuningTcpMsl=0x3c
cfgNetTuningNicAutoneg=1
cfgNetTuningNic100MB=1
cfgNetTuningNicFullDuplex=1
[cfgOobSnmp]
cfgOobSnmpTrapsEnable=1
cfgOobSnmpAgentEnable=1
cfgOobSnmpAgentCommunity=public
[cfgRacTuning]
cfgRacTuneFwUpdateResetDelay=0x46
cfgRacTuneD3debugEnable=1
cfgRacTuneRemoteRacadmEnable=1
cfgRacTuneHostCom2BaudRate=57600
cfgRacTuneHttpPort=0x50
cfgRacTuneHttpsPort=0x1bb
cfgRacTuneTelnetPort=0x17
cfgRacTuneConRedirPort=0x170c
[ifcRacManagedNodeOs]
ifcRacMnOsHostname=(none)
ifcRacMnOsOsName=Linux 2.4.21-20.ELIhugemem
ifcRacMnOsOsType=0x2
```

```
[cfgRacSecurity]
cfgRacSecCsrKeySize=0x400
cfgRacSecCsrCommonName=
cfgRacSecCsrOrganizationName=
cfgRacSecCsrOrganizationUnit=
cfgRacSecCsrLocalityName=
cfgRacSecCsrStateName=
cfgRacSecCsrCountryCode=
cfgRacSecCsrEmailAddr=
[cfgRacVirtual]
cfgVirAtapiSvrPort=0xe54
cfgVirMediaDisable=0
cfgFloppyEmulation=0
[cfgActiveDirectory]
cfgADRacDomain=
cfgADRacName=
cfgADEnable=0
cfgADAuthTimeout=0x78
cfgADRootDomain=
```