

Dell EMC OpenManage Deployment Toolkit

Version 6.3

Command Line Interface Reference Guide

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.

Chapter 1: Introduction.....	7
DTK Deprecation Message.....	7
What is new in this release.....	7
SYSCFG equivalent RACADM commands.....	8
Supported Systems.....	11
Supported operating systems.....	11
Toolkit Utilities.....	12
System Configuration Utility.....	12
RAID Configuration Utility.....	12
RAC Configuration Utility.....	12
Disk Partitioning Utility.....	12
Replication Of DTK Utilities.....	12
File Format.....	13
SYSCFG Replication Rules.....	13
RAID Replication.....	13
RACADM Replication.....	13
Other Documents You May Need.....	13
Accessing documents from the Dell EMC support site.....	14
Contacting Dell.....	14
 Chapter 2: Command Syntax Overview.....	 16
DTK Utilities General Usage.....	16
Command Line Syntax.....	17
Case Sensitivity.....	18
Command Line Option Delimiters.....	18
Other Delimiters.....	18
Read And Write Commands.....	19
File Input And Output Commands.....	19
Log Files.....	20
Help Option.....	20
Error Checking And Error Messages.....	20
 Chapter 3: DTK Seamless package.....	 21
Seamless package — Downloading and Installing.....	21
 Chapter 4: SYSCFG.....	 23
Features.....	23
SYSCFG General Options.....	23
No Option.....	24
envar.....	24
h or help.....	24
i or infile.....	25
ix or inxmlfile.....	25
l or logfile.....	26

o or outfile.....	26
ox or outxmlfile.....	26
ovrwt.....	27
px or pendingxmlfile.....	27
s.....	27
version.....	27
SYSCFG For BIOS Configuration.....	28
SYSCFG BIOS commands.....	28
BIOS Option Settings.....	35
Boot Settings.....	38
Integrated Devices.....	39
Network Settings.....	50
Memory Settings.....	53
Miscellaneous Settings.....	58
One-Time Boot.....	62
Processor Settings.....	64
SATA Settings.....	75
Serial Communication.....	88
Slot Disablement.....	90
System Information.....	91
System Profile Settings.....	93
System Security.....	98
UEFI Boot Settings.....	108
DTKTORACADM.....	108
SYSCFG Options On PowerEdge Systems Prior To PowerEdge YX2X Systems.....	112
Sub Options And Arguments For power Option.....	126
Sub Options And Arguments For tcm Option.....	128
Sub Options And Arguments For tpm Option.....	129
SYSCFG For BMC And Remote Access Controller Configuration.....	130
bmcversion.....	131
chassistype.....	131
clearsel.....	131
controlpanelaccess.....	132
deviceguid.....	132
encryptkey.....	132
identify.....	133
idracversion.....	133
kvmstatusonlcd.....	134
lancfgparams.....	134
lanchannelaccess.....	137
lanchannelinfo.....	138
lanuseraccess.....	138
loaddefaults.....	138
nextboot.....	139
nmibutton.....	139
passwordaction.....	140
pefcfgparams.....	140
powerbutton.....	143
powerctl.....	144
racreset.....	144

serialcfgparams.....	144
serialchannelaccess.....	146
serialchannelinfo.....	146
serialuseraccess.....	147
solaction.....	148
solcfgparams.....	148
ssninfo.....	149
useraction.....	150
username.....	150
version.....	151
virtualmedia.....	151
SYSCFG For State Configuration.....	151
SYSCFG Options For State Configuration.....	151
SYSCFG for System Configuration.....	152
Options For System Configuration.....	152
SYSCFG For IPv6 Configuration.....	158
PCI Reporting.....	159
Environment Variable File.....	159

Chapter 5: RAIDCFG..... 160

Features.....	160
Supported RAID Controllers.....	160
RAIDCFG Options And Arguments.....	160
RAID Configuration Utility Options And Arguments.....	168
General Help.....	169
Enumerating RAID Controllers.....	169
Creating Virtual Disks.....	170
Enumerating Array Disks.....	176
Blinking And Unblinking Array Disks.....	178
Enumerating Virtual Disks.....	179
Deleting Virtual Disks.....	180
Increasing Virtual Disk Size.....	181
Setting A Virtual Disk As Bootable Virtual Disk.....	181
Blinking And Unblinking Virtual Disks.....	182
Setting Virtual Disk Name.....	182
Setting Environment Variables.....	182
RAID Replication Options.....	185
Assigning, Unassigning, And Listing Global Hot Spares.....	186
Importing And Clearing Foreign Configurations.....	187
Importing Secured Foreign Configuration.....	188
Displaying Foreign Key Ids.....	189
Creating Encryption Key.....	189
Changing Encryption Key.....	189
Deleting Encryption Key.....	190
Configuring Physical Disk Rebuild.....	190
Configuring Array Disk As RAID	191
Configuring Physical Disk State.....	191
Replacing Physical Disk Of A Virtual Disk.....	192
Consistency check for virtual disk.....	192
Erasing Encrypted Physical Disk.....	193

Discarding Preserved Cache.....	193
Initializing Virtual Disks.....	194
Resetting The Controller.....	195
Enabling And Disabling Persistent Dedicated Hot Spares.....	195
Setting And Displaying The PCIe Link Speed.....	196
Setting Boot Mode	197
Configuring Auto Import	197
Miscellaneous Options.....	197
Quick Reference To RAIDCFG Commands.....	198
Chapter 6: UPINIT.....	201
Features.....	201
Creating A Partition Using UPINIT.....	201
UPINIT Dependencies.....	201
UPINIT Options And Arguments.....	202
Chapter 7: Messages And Codes.....	205
SYSCFG Error Codes And Messages.....	205
Failure Messages.....	205
Failures And Solutions.....	212
UPINIT Common Error Codes And Messages.....	212
Failure Messages.....	212
UPINIT Linux-Specific Error Codes And Messages.....	213
UPINIT Windows PE Specific Error Codes And Messages.....	213
RAIDCFG Error Codes And Messages.....	213
Failure Messages.....	213
RACADM Firmware Error Codes And Messages.....	222
RACADM Utility Error Codes And Messages.....	224
Chapter 8: BMC Platform Events Filter Alert Messages.....	226
Chapter 9: Sample File Formats.....	227
Sample SYSCFG Utility .ini File Format.....	227
Sample RAIDCFG Utility .ini File Format.....	234
Sample RACADM Utility .ini File Format.....	234
Appendix A: Identifying the series of your Dell EMC PowerEdge servers.....	237

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

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

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

It is recommended to use the RACADM Command Line (CLI) as a replacement for the RAIDCFG and SYSCFG utilities. For more information about downloading RACADM, see the latest Integrated Dell Remote Access Controller Command Line Interface Reference Guide at [iDRAC Manuals](#).

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

What is new in this release

The new features for this release include:

- Added support for the following operating systems:
 - Microsoft Windows Server 2019 Essentials, Standard, and Datacenter editions.
 - Red Hat Enterprise Linux 7.6 operating system.
- Added support for below Network Cards:
 - Emulex LightPulse LPe35002-M2 2-Port 32Gb Fibre Channel Adapter
 - Emulex LightPulse LPe35002-M2 2-Port 32Gb Fibre Channel Adapter
 - Broadcom 57414 Dual Port 25GbE SFP28 OCP Mezzanine Adapter
 - Mellanox ConnectX-6 Single Port HDR100 QSFP56 PCIE Adapter
 - Mellanox ConnectX-6 Single Port HDR100 QSFP56 PCIE Adapter
 - Mellanox ConnectX-6 Single Port HDR QSFP56 PCIE Adapter

- o Mellanox ConnectX-6 Single Port HDR QSFP56 PCIE Adapter

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 --dnshcp	iDRAC.IPv4.DNSFromDHCP
	lcp --domainname	iDRAC.NIC.DNSDomainName
	lcp --dnsrcname	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.MACAddress
	--nicselecionfailover	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

Table 1. SYSCFG equivalent RACADM commands (continued)

Group	SYSCFG Commands	Equivalent RACADM Commands
	--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
	--SetBootOrderFqddn	BIOS.BiosBootSettings.SetBootOrderFqddn
	--SetLegacyHddOrderFqddn	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
Miscellaneous Settings	--AssetTag	BIOS.MiscSettings.AssetTag
	--ErrPrompt	BIOS.MiscSettings.ErrPrompt
	--NumLock	BIOS.MiscSettings.NumLock
	--ForceInt10	BIOS.MiscSettings.ForceInt10
	--insystemcharacterization	BIOS.MiscSettings.InSystemCharacterization
Processor Settings	--DculpPrefetcher	BIOS.ProcSettings.DculpPrefetcher
	--DcuStreamerPrefetcher	BIOS.ProcSettings.DcuStreamerPrefetcher
	--LogicalProc	BIOS.ProcSettings.LogicalProc
	--ProcExecuteDisable	BIOS.ProcSettings.ProcExecuteDisable
	--ProcHwPrefetcher	BIOS.ProcSettings.ProcHwPrefetcher
	--ProcVirtualization	BIOS.ProcSettings.ProcVirtualization
	--RtidSetting	BIOS.ProcSettings.RtidSetting

Table 1. SYSCFG equivalent RACADM commands (continued)

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
	--procadj cacheline	BIOS.procsettings.ProcAdjCacheLine
	--procbusspeed	BIOS.procsettings.ProcBusSpeed
	--proccorespeed	BIOS.procsettings.ProcCoreSpeed
	--qpispeed	BIOS.procsettings.QpiSpeed
	--proconfigtdp	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

Table 1. SYSCFG equivalent RACADM commands (continued)

Group	SYSCFG Commands	Equivalent RACADM Commands
	--sataportg	BIOS.SataSettings.SataPortG
	--sataportgmodel	BIOS.SataSettings.SataPortGModel
	--sataportgdrivetype	BIOS.SataSettings.SataPortGDriveType
	--sataportgcapacity	BIOS.SataSettings.SataPortGCapacity
	--sataportth	BIOS.SataSettings.SataPortH
	--sataportthmodel	BIOS.SataSettings.SataPortHModel
	--sataportthdrivetype	BIOS.SataSettings.SataPortHDriveType
	--sataportthcapacity	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
	--sataportjdrivetype	BIOS.SataSettings.SataPortJDriveType
	--sataportjcapacity	BIOS.SataSettings.SataPortJCapacity
Serial Communication	--ConTermType	BIOS.SerialCommSettings.ConTermType
	--ExtSerialConnector	BIOS.SerialCommSettings.ExtSerialConnector
	--FailSafeBaud	BIOS.SerialCommSettings.FailSafeBaud
	--RedirAfterBoot	BIOS.SerialCommSettings.RedirAfterBoot
Slot Disablement	--Slotn	BIOS.SlotDisablement.Slotn
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) and Windows PE 5.1 (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 2016 Foundation, Essentials, and Standard editions
- Microsoft Windows Server 2019 Essentials, Standard, and Datacenter editions

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

- SUSE Linux Enterprise Server 15 (64-bit)
- Red Hat Enterprise Linux 7.6 (64-bit)
- Red Hat Enterprise Linux 6.10 (64-bit)

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

- SUSE Linux Enterprise Server 15 (64-bit)
- Red Hat Enterprise Linux 7.6 (64-bit)
- Red Hat Enterprise Linux 6.10 (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 Server 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 in one of the following ways:

- Using the following links:
 - For Dell EMC Enterprise Systems Management, Dell EMC Remote Enterprise Systems Management, and Dell EMC Virtualization Solutions documents — <https://www.dell.com/esmmanuals>
 - For Dell EMC OpenManage documents — <https://www.dell.com/openmanagemanuals>
 - For iDRAC documents — <https://www.dell.com/idracmanuals>
 - For Dell EMC OpenManage Connections Enterprise Systems Management documents — <https://www.dell.com/OMConnectionsEnterpriseSystemsManagement>
 - For Dell EMC Serviceability Tools documents — <https://www.dell.com/serviceabilitytools>
- From the Dell EMC Support site:
 1. Go to <https://www.dell.com/support>.
 2. Click **Browse all products**.
 3. From **All products** page, click **Software**, and then click the required link from the following:
 - **Analytics**
 - **Client Systems Management**
 - **Enterprise Applications**
 - **Enterprise Systems Management**
 - **Mainframe**
 - **Operating Systems**
 - **Public Sector Solutions**
 - **Serviceability Tools**
 - **Support**
 - **Utilities**
 - **Virtualization Solutions**
 4. To view a document, click the required product and then click the required version.

Using search engines:

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

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.

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	<pre>syscfg --option1=[arg1] ... --optionX=[argX]</pre> or <pre>syscfg bmcoption1 --bmcsuboption1=[arg1]...--bmcsuboptionX=argX]</pre>
RAIDCFG	<pre>raidcfg [mandatory options] <optional arguments></pre>
RACADM	<pre>racadm <options> <subcommand> <subcommand_options></pre> 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: <pre>upinit --disk=0 --size=32 --file=t:\upimage.bin</pre> For Linux: <pre>upinit --disk=/dev/sda --size=32 --file=/tmp/upimage.bin</pre>

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	<code>syscfg --option1 --option2</code>	<code>syscfg --asset --floppy</code>
invalid	<code>syscfg --option1=argument --option2 --option3</code>	<code>syscfg --asset=R910 --floppy --bootseq</code>
valid	<code>syscfg -o=filename --option1 --option2</code>	<code>syscfg -o=/tmp/myfile.txt --floppy --bootseq</code>
valid	<code>syscfg -l=filename --option1 --option2</code>	<code>syscfg -l=/tmp/myfile.txt --floppy --bootseq</code>
invalid	<code>syscfg -i=filename --option1 --option2</code>	<code>syscfg -i=/tmp/myfile.txt --floppy --bootseq</code>
valid	<code>syscfg --option=argument bmcoption --option1= argument</code>	<code>syscfg --embnic=on pcp --hostname=webserver</code>

 **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)	<code>syscfg --option=argument1 argument2</code>	considers <code>argument1</code> and <code>argument2</code> as two arguments.

Table 5. Other delimiters (continued)

Delimiter	Example	Description
A string surrounded by double quotation marks regardless of the white space contained within, is interpreted as a single SYSCFG argument.	<code>syscfg --option="argument1 argument2"</code>	considers argument1 and argument2 a single argument.
A double quotation mark preceded by a backslash (\) is interpreted as a literal double quotation mark (").	<code>syscfg --option="\ "argument"</code>	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 quotation mark, then one backslash (\) is taken for every pair of backslashes (\\), and the double quotation mark (") is interpreted as a string delimiter.	<code>syscfg --option="\ \"argument"</code>	considers \ and argument as two arguments.
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.	<code>syscfg --option="\\ \"argument"</code>	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	<code>syscfg --option1 --option2</code>
valid	<code>syscfg --option1=arg --option2=arg</code>
invalid	<code>syscfg --option1=arg --option2</code>

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](#).

DTK Seamless package

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

Topics:

- [Seamless package — Downloading and Installing](#)

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.

# 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.

**i 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

**i 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.

 **NOTE:** The SYSCFG arguments are applicable to some generations. Run the help `Syscfg -h` to view the list of arguments supported.

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

## h or help

Table 9. SYSCFG General — h or help

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | none or <valid option name>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Description     | <p>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.</p> |

**Table 9. SYSCFG General — h or help (continued)**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg -h lanchannelaccess lanchannelaccess: Reports LAN channel access information.</pre> <p>Sub-options:</p> <pre>pefalerting: Enable or disable PEF (Platform Event Filter)alerting.</pre> <p>Arguments: enable   disable</p> <pre>ipmioverlan: Enable or disable IPMI over LAN access.</pre> <p>Arguments: disable   alwaysavail</p> <pre>channelprivlmt: Sets the maximum privilege level that can be accepted on the LAN channel.</pre> <p>Arguments: user   operator   administrator</p> |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## i or infile

**Table 10. SYSCFG General — i or infile**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <filename>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Description</b>     | <p>Directs the SYSCFG utility to take input from the <b>.ini</b> 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.</p> <p>Example:</p> <pre>A:&gt;syscfg -i &lt;filename&gt;.ini</pre> |

## ix or inxmlfile

**Table 11. SYSCFG General — ix or inxmlfile**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <filename>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>     | <p>Directs the SYSCFG utility to receive input from the <b>xml</b> 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</p> |

**Table 11. SYSCFG General — ix or inxmlfile (continued)**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>option is dependent on any other option, they are applied in the order in which they appear in the xml file.</p> <p>Example:</p> <pre>A:&gt;syscfg --ix filename.xml</pre> <p><b>NOTE:</b> 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 <i>Integrated Dell Remote Access Controller 8 (iDRAC8) RACADM Command Line Interface Reference Guide</i> and <i>Dell Lifecycle Controller-Remote Services Quick Start Guide</i> respectively available at <a href="http://dell.com/support/manuals">dell.com/support/manuals</a>.</p> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## I or logfile

**Table 12. SYSCFG General — I or logfile**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <filename>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>     | <p>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 <a href="#">Log Files</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg -l logfile --option=&lt;filename&gt;</pre> |

## o or outfile

**Table 13. SYSCFG General — o or outfile**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <filename>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>     | <p>Prints all replicable options to the specified filename. The format of the output is in the <b>.ini</b> 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.</p> <p>Example:</p> <pre>A:&gt;syscfg -o &lt;filename&gt;.ini</pre> |

## ox or outxmlfile

**Table 14. SYSCFG General — ox or outxmlfile**

|                        |                                                    |
|------------------------|----------------------------------------------------|
| <b>Valid Arguments</b> | <filename>                                         |
| <b>Description</b>     | Prints all BIOS options to the specified xml file. |

**Table 14. SYSCFG General — ox or outxmlfile (continued)**

|  |                                                           |
|--|-----------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --ox filename.ini</pre> |
|--|-----------------------------------------------------------|

## ovrwt

**Table 15. SYSCFG General — ovrwt**

|                        |                                                                                                                                                                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | NA                                                                                                                                                                                                                                                                           |
| <b>Description</b>     | <p>Used with the <b>-o</b> option to cause the output file to be overwritten if a file of the same name already exists. This option cannot be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg -o=filename.ini --ovrwt</pre> <p>The file filename has been overwritten.</p> |

## px or pendingxmlfile

**Table 16. SYSCFG General — px or pendingxmlfile**

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <filename>                                                                                                                    |
| <b>Description</b>     | <p>Prints all the pending BIOS options to a specified xml file.</p> <p>Example:</p> <pre>A:&gt;syscfg --px filename.xml</pre> |

## S

**Table 17. SYSCFG General — s**

|                        |                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <string>                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>     | <p>Prints the variable name and the assigned value to the console. This option when used with <b>--envar</b>, picks up the environment variable data and stores it in a file. This file can be called from a script. For more information, see <a href="#">envar</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg -s ENVNAME --svctag svctag=SERVICE ENVNAME=SERVICE</pre> |

## version

**Table 18. SYSCFG General version**

|                        |                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | NA                                                                                                                 |
| <b>Description</b>     | <p>Displays the version information, current time, and date for the utility. This option cannot be replicated.</p> |

**Table 18. SYSCFG General version (continued)**

|  |                                                                                                                                                          |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Example:<br><br><pre>A:&gt;syscfg --version syscfg Version 4.4 P01(Windows - Jan 29 2014,16:48:48)</pre><br><pre>Copyright (c) 2002-2014 Dell Inc.</pre> |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|

## 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 YX2X, options and arguments are case-sensitive.
  - NOTE:** The naming format of Dell PowerEdge systems is yyyy; 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 YX2X 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 YX2X generation of PowerEdge systems are backward compatible and support legacy arguments **enable** and **disable**. However, it is recommended to use **enabled** and **disabled** on YX2X 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](http://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](http://dell.com/openmanagemanuals.com).

- NOTE:** The SYSCFG arguments are applicable to some generations. Run the help `Syscfg -h` to view the list of arguments supported.

**Table 19. BIOS options with equivalent RACADM options**

| Group                | Option on YX2X and Later systems | Option on Systems Prior to YX2X Systems | Equivalent RACADM Option                                      |
|----------------------|----------------------------------|-----------------------------------------|---------------------------------------------------------------|
| BIOS Option Settings | --BootSeq<br>--HddSeq            | --bootseq<br>--devseq                   | BIOS.BiosBootSettings.BootSeq<br>BIOS.BiosBootSettings.HddSeq |

**Table 19. BIOS options with equivalent RACADM options (continued)**

| Group              | Option on YX2X and Later systems | Option on Systems Prior to YX2X Systems | Equivalent RACADM Option                        |
|--------------------|----------------------------------|-----------------------------------------|-------------------------------------------------|
| Boot Settings      | --BootMode                       | --bootmode                              | BIOS.BiosBootSettings.BootMode                  |
|                    | --BootSeqRetry                   | --bootseqretry                          | BIOS.BiosBootSettings.BootSeqRetry              |
|                    | --HddFailover                    | --hddfailover                           | BIOS.BiosBootSettings.HddFailover               |
|                    | --SetBootOrderFqddn              | N/A                                     | BIOS.BiosBootSettings.SetBootOrderFqddn         |
|                    | --SetLegacyHddOrderFqddn         | N/A                                     | BIOS.BiosBootSettings.SetLegacyHddOrderFqddn    |
| 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           |
|                    | --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                    | N/A                                     | N/A                                             |
|                    | --InternalSdCardPrimaryCard      | N/A                                     | N/A                                             |
|                    | --CurrentEmbVideoState           | N/A                                     | N/A                                             |
|                    | IscsiDev1ConnChapType            | N/A                                     |                                                 |
|                    | IscsiDev1ConnDhcpEnDis           | N/A                                     |                                                 |
|                    | IscsiDev1ConnEnDis               | N/A                                     |                                                 |
|                    | IscsiDev1ConnInterface           | N/A                                     |                                                 |
|                    | IscsiDev1ConnProtocol            | N/A                                     |                                                 |
|                    | IscsiDev1ConnTimeout             | N/A                                     |                                                 |
|                    | IscsiDev1ConnVlanEnDis           | N/A                                     |                                                 |
|                    | IscsiDev1ConnVlanId              | N/A                                     |                                                 |
|                    | IscsiDev1ConnAuth                | N/A                                     | N/A                                             |
| Memory Settings    | --CorrEccSmi                     | N/A                                     | N/A                                             |
|                    | --DynamicCoreAllocation          | N/A                                     | N/A                                             |

**Table 19. BIOS options with equivalent RACADM options (continued)**

| Group                  | Option on YX2X and Later systems | Option on Systems Prior to YX2X Systems | Equivalent RACADM Option                    |
|------------------------|----------------------------------|-----------------------------------------|---------------------------------------------|
|                        | --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                |
|                        | --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                   | N/A                                     | N/A                                         |
|                        | RedundantOsLocation              | 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                     | N/A                                     | BIOS.MiscSettings.ForceInt10                |
|                        | --InSystemCharacterization       | N/A                                     | BIOS.MiscSettings.InSystemCharacterization  |
|                        | --ReportKbdErr                   | --rptkeyerr                             | BIOS.MiscSettings.ReportKbdErr              |
|                        | DellAutoDiscovery                | N/A                                     |                                             |
|                        | DellWyseP25BIOSAccess            | N/A                                     |                                             |
| Network Settings       | --PxeDevnEnDis                   | N/A                                     | BIOS.NetworkSettings.PxeDevnEnDis           |
|                        | HttpDevnInterface                | N/A                                     |                                             |
|                        | HttpDevnProtocol                 | N/A                                     |                                             |
|                        | HttpDevnVlanEnDis                | N/A                                     |                                             |
|                        | HttpDevnVlanId                   | N/A                                     |                                             |
|                        | --PxeDevnInterface               | N/A                                     | BIOS.PxeDevice1Settings.PxeDevnProtocol     |
|                        | --PxeDevnProtocol                | N/A                                     | BIOS.PxeDevice1Settings.PxeDevnProtocol     |
|                        | --PxeDevnVlanEnDis               | N/A                                     | BIOS.PxeDevice1Settings.PxeDevnVlanEnDis    |
|                        | --PxeDevnVlanId                  | N/A                                     | BIOS.PxeDevice1Settings.PxeDevnVlanId       |
|                        | --PxeDevnVlanPriority            | N/A                                     | BIOS.PxeDevice1Settings.PxeDevnVlanPriority |

**Table 19. BIOS options with equivalent RACADM options (continued)**

| Group              | Option on YX2X and Later systems | Option on Systems Prior to YX2X Systems | Equivalent RACADM Option                |
|--------------------|----------------------------------|-----------------------------------------|-----------------------------------------|
| One-Time Boot      | --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         |
|                    | --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      |

**Table 19. BIOS options with equivalent RACADM options (continued)**

| Group         | Option on YX2X and Later systems | Option on Systems Prior to YX2X Systems | Equivalent RACADM Option               |
|---------------|----------------------------------|-----------------------------------------|----------------------------------------|
|               | --ProcVirtualization             | --virtualization                        | BIOS.ProcSettings.ProcVirtualization   |
|               | --QpiBandwidthPriority           | --qpiBandwidthpriority                  | BIOS.ProcSettings.QpiBandwidthPriority |
|               | --QpiSpeed                       | N/A                                     | BIOS.ProcSettings.QpiSpeed             |
|               | --RtidSetting                    | N/A                                     | BIOS.ProcSettings.RtidSetting          |
|               | --ProcnControlledTurbo           | N/A                                     | BIOS.ProcSettings.ProcnControlledTurbo |
|               | --ProcConfigTdp                  | N/A                                     | BIOS.ProcSettings.ProcConfigTdp        |
|               | --ProcX2Apic                     | 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            |
|               | --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       |

**Table 19. BIOS options with equivalent RACADM options (continued)**

| Group                   | Option on YX2X and Later systems | Option on Systems Prior to YX2X Systems | Equivalent RACADM Option                         |
|-------------------------|----------------------------------|-----------------------------------------|--------------------------------------------------|
|                         | --SataPortG                      | --sata6                                 | BIOS.SataSettings.SataPortG                      |
|                         | --SataPortGCapacity*             | N/A                                     | BIOS.SataSettings.SataPortGCapacity              |
|                         | --SataPortGDriveType*            | N/A                                     | BIOS.SataSettings.SataPortGDriveType             |
|                         | --SataPortGModel*                | N/A                                     | BIOS.SataSettings.SataPortGModel                 |
|                         | --SataPortH                      | --sata7                                 | BIOS.SataSettings.SataPortH                      |
|                         | --SataPortHCapacity*             | N/A                                     | BIOS.SataSettings.SataPortHCapacity              |
|                         | --SataPortHDriveType*            | N/A                                     | BIOS.SataSettings.SataPortHDriveType             |
|                         | --SataPortHModel*                | N/A                                     | BIOS.SataSettings.SataPortHModel                 |
|                         | --SataPortI                      | N/A                                     | BIOS.SataSettings.SataPortI                      |
|                         | --SataPortICapacity              | N/A                                     | BIOS.SataSettings.SataPortICapacity              |
|                         | --SataPortIDriveType             | N/A                                     | BIOS.SataSettings.SataPortIDriveType             |
|                         | --SataPortIModel                 | N/A                                     | BIOS.SataSettings.SataPortIModel                 |
|                         | --SataPortJ                      | N/A                                     | BIOS.SataSettings.SataPortJ                      |
|                         | --SataPortJCapacity              | N/A                                     | BIOS.SataSettings.SataPortJCapacity              |
|                         | --SataPortJDriveType             | N/A                                     | BIOS.SataSettings.SataPortJDriveType             |
|                         | --SataPortJModel                 | N/A                                     | BIOS.SataSettings.SataPortJModel                 |
|                         | --SecurityFreezeLock             | N/A                                     | BIOS.SataSettings.SecurityFreezeLock             |
| Serial Communication    | --ConTermType                    | --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        | --Slotn                          | N/A                                     | BIOS.SlotDisablement.Slotn                       |
|                         | SlotnBif                         | N/A                                     | N/A                                              |
| 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*               | N/A                                     | N/A                                              |
|                         | --UefiComplianceVersion          | 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           |

**Table 19. BIOS options with equivalent RACADM options (continued)**

| Group           | Option on YX2X and Later systems | Option on Systems Prior to YX2X Systems | Equivalent RACADM Option                      |
|-----------------|----------------------------------|-----------------------------------------|-----------------------------------------------|
|                 | --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           | N/A                                     | BIOS.SysProfileSettings.EnergyEfficientTurbo  |
|                 | --ProcnTurboCoreNum              | N/A                                     | N/A                                           |
|                 | --EnergyPerformanceBias          |                                         | BIOS.SysProfileSettings.EnergyPerformanceBias |
|                 | --UncoreFrequency                |                                         | 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                  | --tcmactivation                         | BIOS.SysSecurity.TcmActivation                |
|                 | --TcmClear                       | --tcmclear                              | BIOS.SysSecurity.TcmClear                     |
|                 | --TcmSecurity                    | --tcmsecurity                           | BIOS.SysSecurity.TcmSecurity                  |
|                 | --TpmActivation                  | --tpmactivation                         | BIOS.SysSecurity.TpmActivation                |
|                 | --TpmClear                       | --tpmclear                              | BIOS.SysSecurity.TpmClear                     |
|                 | --TpmSecurity                    | --tpmsecurity                           | BIOS.SysSecurity.TpmSecurity                  |
|                 | --TpmStatus                      | N/A                                     | BIOS.SysSecurity.TPMStatus                    |
|                 | --TpmInfo                        | N/A                                     | N/A                                           |
|                 | --TpmCommand                     | N/A                                     | BIOS.SysSecurity.TpmCommand                   |
|                 | --UefiVariableAccess             | N/A                                     | N/A                                           |
|                 | --SecureBoot                     | N/A                                     | BIOS.SysSecurity.SecureBoot                   |
|                 | --SecureBootPolicy               | N/A                                     | N/A                                           |

**Table 19. BIOS options with equivalent RACADM options (continued)**

| Group              | Option on YX2X and Later systems      | Option on Systems Prior to YX2X Systems | Equivalent RACADM Option          |
|--------------------|---------------------------------------|-----------------------------------------|-----------------------------------|
|                    | <a href="#">SecureBootMode</a>        | N/A                                     | N/A                               |
|                    | <a href="#">TpmPpiBypassClear</a>     | N/A                                     | N/A                               |
|                    | <a href="#">TpmPpiBypassProvision</a> | N/A                                     | N/A                               |
| UEFI Boot Settings | <a href="#">--UefiBootSeq</a>         | 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**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: numerical list separated by commas or list of device names separated by commas</li> <li>On YX2X and later systems: list of device names separated by commas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>     | <p>Enables, disables, and orders the devices in a boot order list. Only the devices present on the system are listed in the boot sequence.</p> <p> <b>NOTE:</b> Only the devices listed in the bootseq are enabled.</p> <p>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.</p> <p>Some systems also allow the boot order to be expressed as a list of device names. Device names are formatted as a <i>name.location.instance</i> string, where <i>name</i> is the name of the device, <i>location</i> is either <b>slot</b> or <b>embedded (emb)</b>, and <i>instance</i> 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.</p> |

**Table 20. SYSCFG Options Supported BootSeq or bootseq (continued)**

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

**Table 20. SYSCFG Options Supported BootSeq or bootseq (continued)**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Example 2:</p> <pre>#syscfg --bootseq=nic.emb.1,virtual.slot.1</pre> <p>The following devices are set in the boot sequence:</p> <pre>Device 4:* nic.emb.1 - IBA GE Slot 0638 v</pre> <pre>Device 5:* virtual.slot.1 - VIRTUALCDROM DRIVE</pre> <pre>Device 2: cdrom.emb.0 - IDE CD-ROM device</pre> <pre>Device 3: hdd.emb.0 - Hard drive C:</pre> <pre>Device 1: floppy.emb.0 - Diskette drive A:</pre> <p> <b>NOTE:</b> The asterisk indicates that the device is enabled in the BIOS.</p> |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## HddSeq or devseq

**Table 21. SYSCFG Options Supported — HddSeq or devseq**

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Valid Arguments</b></p> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: numerical list separated by commas or list of device names separated by commas</li> <li>On YX2X and later systems: list of device names separated by commas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><b>Description</b></p>     | <p>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 <code>bootmode</code> is set to <code>Bios</code> and has no effect when <code>bootmode</code> is set to <code>Uefi</code>.</p> <p>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 <i>name.location.instance</i> string, where <i>name</i> is the <i>name</i> of the device, <i>location</i> is either <b>slot</b> or <b>embedded (emb)</b>, and <i>instance</i> 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.</p> <p>Example 1:</p> <pre>A:&gt;syscfg --devseq</pre> <p>The following devices are set in the disk device sequence:</p> <pre>Device 1:* hdd.emb.0 - System BIOS boot devices</pre> <pre>Device 2:* scsiraid.slot.3 - PERC 5/E Adapter(bus 02 dev 02)</pre> <pre>Device 3:* usbkey.slot.0 - Hard-disk-emulated USB flash drive</pre> |

**Table 21. SYSCFG Options Supported — HddSeq or devseq (continued)**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Example 2:</p> <pre>A:&gt;syscfg --devseq= hdd.emb.1,scsiraid.emb.1</pre> <p>The following devices are set in the disk device sequence:</p> <p>Device 1:* hdd.emb.0 - System BIOS boot devices</p> <p>Device 2:* scsiraid.emb.1 - AIC-7899, A:00 Seagate</p> <p> <b>NOTE:</b> The asterisk indicates that the device is enabled in the BIOS.</p> |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Boot Settings

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

### BootMode or bootmode

**Table 22. BootMode or bootmode**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: uefi, bios</li> <li>On YX2X and later systems: Uefi, Bios</li> </ul>                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>     | <p>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.</p> <p> <b>NOTE:</b> If boot mode is modified, reboot the system before executing the OS installation scripts.</p> <p>Example:</p> <pre>A:&gt;syscfg --bootmode=uefi</pre> <pre>bootmode=uefi</pre> |

### BootSeqRetry or bootseqretry

**Table 23. BootSeqRetry or bootseqretry**

|                        |                                                                                                                                                                                                                                                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                                                                                               |
| <b>Description</b>     | <p>Enables or disables the boot sequence retry feature. When set to <b>enable</b>, 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.</p> <pre>A:&gt;syscfg --bootseqretry=enable</pre> <pre>bootseqretry=enable</pre> |

## HddFailover or hddfailover

Table 24. HddFailover or hddfailover

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: off, on</li><li>On YX2X and later systems: Enabled, Disabled</li></ul>                                                                                                                                                                                                                                                                                                  |
| Description     | <p>off</p> <p>Specifies the device in the <b>Hard Disk Drive Sequence</b> menu that has not been attempted in the boot sequence. When set to <b>on</b>, all devices are attempted in an order in which they are configured. When set to <b>off</b>, only the first device in the hard disk sequence is attempted. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --hddfailover=on</pre> <pre>hddfailover=on</pre> |

## SetBootOrderFqddn

Table 25. SetBootOrderFqddn

|                 |                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX3X: NA</li><li>On YX3X and later systems: &lt;string&gt;</li></ul>                                                                                                                                                                                                                                                    |
| Description     | <p>Displays the list of FQDDs representing the boot list to be applied on the next boot.</p> <p> <b>NOTE:</b> The value of <i>n</i> in SetBootOrderFqddn can be 1–16.</p> <p>Example:</p> <pre>A:&gt;syscfg --SetBootOrderFqdd1=xxxx,yyy,zzzz</pre> <pre>SetBootOrderFqdd1=xxxx,yyy,zzzz</pre> |

## SetLegacyHddOrderFqddn

Table 26. SetLegacyHddOrderFqddn

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX3X: NA</li><li>On YX3X and later systems: &lt;string&gt;</li></ul>                                                                                                                                                                                                                                                                                     |
| Description     | <p>Displays the list of FQDDs representing the legacy hard-disk drive list to be applied on the next boot.</p> <p> <b>NOTE:</b> The value of <i>n</i> in SetLegacyHddOrderFqddn can be 1–16.</p> <p>Example:</p> <pre>A:&gt;syscfg --SetLegacyHddOrderFqdd1=xxxx,yyy,zzzz</pre> <pre>SetLegacyHddOrderFqdd1=xxxx,yyy,zzzz</pre> |

## 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 | <ul style="list-style-type: none"><li>On systems prior to YX2X: on, off, onnopxe, onwithiscsi</li><li>On YX2X and later systems: Enabled, EnabledPxe, EnablediScsi, Disabled</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                |
| Description     | <p>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 <b>onnopxe</b> argument is not supported on all systems.</p> <p>The <b>onwithiscsi</b> argument enables the embedded NIC to boot from the iSCSI server. The <b>embnic1</b> option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --embnic1=onnopxe</pre> <pre>embnic1=onnopxe</pre> |

## EmbNic1Nic2 or embnic1nic2

Table 28. EmbNic1Nic2 or embnic1nic2

|                 |                                                                                                                                                                                                          |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: enable, disable</li><li>On YX2X and later systems: Enabled, Disabled, DisabledOs</li></ul>                                               |
| Description     | <p>Enables or disables the operating system interface of the first and second embedded NIC controllers.</p> <p>Example:</p> <pre>A:&gt;syscfg --embnic1nic2=enable</pre> <pre>--embnic1nic2=enable</pre> |

## EmbNic2 or embnic2

Table 29. EmbNic2 or embnic2

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: on, off, onnopxe, onwithiscsi</li><li>On YX2X and later systems: Enabled, EnabledPxe, EnablediScsi, Disabled</li></ul>                                                                                                                                                                                                                                                                                                                            |
| Description     | <p>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 <b>onnopxe</b> argument is not supported on all systems.</p> <p>The <b>onwithiscsi</b> argument enables the embedded NIC to boot from the iSCSI server. The <b>embnic1</b> option can be replicated.</p> |

**Table 29. EmbNic2 or embnic2 (continued)**

|  |                                                                                      |
|--|--------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --embnic2=onnopxe</pre> <pre>embnic2=onnopxe</pre> |
|--|--------------------------------------------------------------------------------------|

## EmbNic3 or embnic3

**Table 30. EmbNic3 or embnic3**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: on, off, onnopxe, onwithiscsi</li> <li>On YX2X and later systems: Enabled, EnabledPxe, EnablediScsi, Disabled</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>     | <p>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 <b>onnopxe</b> argument is not supported on all systems.</p> <p>The <b>onwithiscsi</b> argument enables the embedded NIC to boot from the iSCSI server. The <b>embnic1</b> option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --embnic3=onnopxe</pre> <pre>embnic3=onnopxe</pre> |

## EmbNic3Nic4 or embnic3nic4

**Table 31. EmbNic3Nic4 or embnic3nic4**

|                        |                                                                                                                                                                                                          |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled, DisabledOs</li> </ul>                                            |
| <b>Description</b>     | <p>Enables or disables the operating system interface of the third and fourth embedded NIC controllers.</p> <p>Example:</p> <pre>A:&gt;syscfg --EmbNic3Nic4=enable</pre> <pre>--embnic3nic4=enable</pre> |

## EmbNic4 or embnic4

**Table 32. EmbNic4 or embnic4**

|                        |                                                                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: on, off, onnopxe, onwithiscsi</li> <li>On YX2X and later systems: Enabled, EnabledPxe, EnablediScsi, Disabled</li> </ul> |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Table 32. EmbNic4 or embnic4 (continued)**

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b> | <p>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 <b>onnopxe</b> argument is not supported on all systems. This option can be replicated.</p> <p>The <b>onwithiscsi</b> argument enables the embedded NIC to boot from the iSCSI server. The <b>embnic4</b> option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --embnic4=onnopxe</pre> <pre>embnic4=onnopxe</pre> |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## EmbVideo or embvideoctrl

**Table 33. EmbVideo or embvideoctrl**

|                        |                                                                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                          |
| <b>Description</b>     | <p>Enables or disables the BIOS support for the Embedded Video Controller</p> <p>Example:</p> <pre>A:&gt;syscfg --embvideoctrl=enable</pre> <pre>embvideoctrl=enable</pre> |

## IoatEngine or ioat

**Table 34. IoatEngine or ioat**

|                        |                                                                                                                                                                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                                                                               |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --ioat=enabled</pre> <pre>ioat=enabled</pre> |

## IntegratedNetwork1

**Table 35. IntegratedNetwork1**

|                        |                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Enabled, DisabledOs</li> </ul> |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|

**Table 35. IntegratedNetwork1 (continued)**

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b> | <p>Enables or disables Integrated Network 1.</p> <p><b>NOTE:</b> 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.</p> <p>Example:</p> <pre>A:&gt;syscfg --IntegratedNetwork1=Enabled</pre> <pre>IntegratedNetwork1=Enabled</pre> |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## IntegratedNetwork2

**Table 36. IntegratedNetwork2**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Enabled, DisabledOs</li> </ul>                                                                                                                                                                                                                                                                             |
| <b>Description</b>     | <p>Enables or disables Integrated Network 2.</p> <p><b>NOTE:</b> 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.</p> <p>Example:</p> <pre>A:&gt;syscfg --IntegratedNetwork2=Enabled</pre> <pre>IntegratedNetwork2=Enabled</pre> |

## IntegratedRaid or integratedraid

**Table 37. IntegratedRaid or integratedraid**

|                        |                                                                                                                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                            |
| <b>Description</b>     | <p>Enables or disables the integrated RAID controller. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --integratedraid=disable</pre> <pre>integratedraid=disable</pre> |

## IntegratedSas or integratedsas

**Table 38. IntegratedSas or integratedsas**

|                        |                                                                                             |
|------------------------|---------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> </ul> |
|------------------------|---------------------------------------------------------------------------------------------|

**Table 38. IntegratedSas or integrateddsas (continued)**

|                    |                                                                                                                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                            |
| <b>Description</b> | <p>Enables or disables the integrated SAS controller. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --integrateddsas=enable</pre> <pre>integrateddsas=enable</pre> |

## InternalSdCard or embsdcard

**Table 39. InternalSdCard or embsdcard**

|                        |                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: on, off</li> <li>On YX2X and later systems: On, Off</li> </ul>        |
| <b>Description</b>     | <p>Enables or disables the embedded SD card port.</p> <p>Example:</p> <pre>A:&gt;syscfg --embsdcard=off</pre> <pre>embsdcard=off</pre> |

## InternalSdCardRedundancy or embsdcardredundancy

**Table 40. InternalSdCardRedundancy or embsdcardredundancy**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: mirrormode, disable</li> <li>On YX2X and later systems: Mirror, Disabled</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>     | <p>Sets the internal SD card port redundancy to <b>Mirror</b> mode or <b>Disabled</b>.</p> <p>When set to <b>Mirror</b> 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.</p> <p>When set to <b>Disabled</b>, read-write operation occurs only on SD card 1.</p> <p> <b>NOTE:</b> On Blade systems, disable the vflash key to configure this option.</p> <p>Example:</p> <pre>A:&gt;syscfg --embsdcardredundancy=mirrormode</pre> <pre>embsdcardredundancy=mirrormode</pre> |

## InternalUsb or internalusb

**Table 41. InternalUsb or internalusb**

|                        |                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: off, on</li> <li>On YX2X and later systems: On, Off</li> </ul> |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|

**Table 41. InternalUsb or internalusb (continued)**

|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b> | <p>Turns the internal USB port on or off.</p> <p>Example:</p> <pre>A:&gt;syscfg --internalusb=on</pre> <pre>internalusb=on</pre> |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|

## InternalUsb1 or internalusbport1

**Table 42. InternalUsb1 or internalusbport1**

|                        |                                                                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: on, off</li> <li>On YX2X and later systems: On, Off</li> </ul>              |
| <b>Description</b>     | <p>Turns the internal USB port 1 on or off.</p> <p>Example:</p> <pre>A:&gt;syscfg --internalusbport1=on</pre> <pre>internalusbport1=on</pre> |

## InternalUsb2 or internalusbport2

**Table 43. InternalUsb2 or internalusbport2**

|                        |                                                                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: on, off</li> <li>On YX2X and later systems: On, Off</li> </ul>              |
| <b>Description</b>     | <p>Turns the internal USB port 2 on or off.</p> <p>Example:</p> <pre>A:&gt;syscfg --internalusbport2=on</pre> <pre>internalusbport2=on</pre> |

## OsWatchdogTimer or oswatchdogtimer

**Table 44. OsWatchdogTimer or oswatchdogtimer**

|                        |                                                                                                                                                                                                                                                                           |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                                                         |
| <b>Description</b>     | <p>Aids in the recovery of the operating system when the system stops responding. When this option is set to <b>enable</b>, the operating system is allowed to initialize the timer. When set to <b>disable</b> (the default), the timer has no effect on the system.</p> |

**Table 44. OsWatchdogTimer or oswatchdogtimer (continued)**

|  |                                                                                                    |
|--|----------------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --oswatchdogtimer=enable</pre> <pre>oswatchdogtimer=enable</pre> |
|--|----------------------------------------------------------------------------------------------------|

## SriovGlobalEnable or sriov

**Table 45. SriovGlobalEnable or sriov**

|                        |                                                                                                                                                                          |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                        |
| <b>Description</b>     | <p>Enables or disables support for Single Root I/O Virtualization (SR-IOV) devices.</p> <p>Example:</p> <pre>A:&gt;syscfg --sriov=disable</pre> <pre>sriov=disable</pre> |

## UsbPorts or usbports

**Table 46. UsbPorts or usbports**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, enablebackonly, disable</li> <li>On YX2X and later systems: AllOn, OnlyBackPortsOn, AllOff</li> </ul>                                                                                                                                                                                                                                                                 |
| <b>Description</b>     | <p>Enables or disables USB ports. When set to <b>enable</b>, it enables all user accessible USB ports. When set to <b>enablebackonly</b> or <b>OnlyBackPortsOn</b>, the front user-accessible ports are disabled. When set to <b>disable</b> or <b>AllOff</b>, both front and back user accessible ports are disabled. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --usbports=enable</pre> <pre>usbports=enable</pre> |

## MmioAbove4Gb

**Table 47. MmioAbove4Gb**

|                        |                                                                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                    |
| <b>Description</b>     | <p>This field helps in enabling support for PCIe devices that require large amount of memory. Enable this option only for 64-bit operating systems.</p> |

**Table 47. MmioAbove4Gb (continued)**

|  |                                                                                     |
|--|-------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --MmioAbove4Gb=Enabled MmioAbove4Gb=Enabled</pre> |
|--|-------------------------------------------------------------------------------------|

## Usb3Setting

**Table 48. Usb3Setting**

|                        |                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX3X: NA</li> <li>On YX3X and later systems: Auto, Enabled, Disabled</li> </ul>                                                                                                                                                                                                                             |
| <b>Description</b>     | <p>Enables or disables the USB 3.0 port.</p> <ul style="list-style-type: none"> <li>Auto — USB ports operate at USB 2.0 speed.</li> <li>Enabled — USB ports operates at USB 3.0 speed.</li> <li>Disabled — USB 3.0 host controller is disabled and the speed is set to USB 2.0.</li> </ul> <p>Example:</p> <pre>A:&gt;syscfg --Usb3Setting=Auto Usb3Setting=Auto</pre> |

## CurrentEmbVideoState

**Table 49. CurrentEmbVideoState**

|                        |                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: read-only</li> </ul>                                |
| <b>Description</b>     | <p>Displays the current state of the Embedded Video Controller.</p> <p>Example:</p> <pre>A:&gt;syscfg --CurrentEmbVideoState CurrentEmbVideoState=xxx</pre> |

## InternalSdCardPrimaryCard

**Table 50. InternalSdCardPrimaryCard**

|                        |                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX3X: NA</li> <li>On YX3X and later systems: SdCard1, SdCard2</li> </ul>                   |
| <b>Description</b>     | <p>Sets an internal SD card as the primary SD card.</p> <pre>A:&gt;syscfg --InternalSdCardPrimaryCard=SdCard1 InternalSdCardPrimaryCard=SdCard1</pre> |

## IscsiDev1ConnChapType

Table 51. IscsiDev1Con<n>ChapType

|                 |                                                                                                                                                                                                                                                                          |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX4X: NA</li><li>On YX4X systems: OneWay, Mutual</li></ul>                                                                                                                                                     |
| Description     | <p>Sets the Challenge Handshake Authentication Protocol (CHAP) type of the iSCSI connection. Where the value of <i>n</i> in IscsiDev1ConnChapType can be 1 or 2.</p> <p>Example:</p> <pre>A:&gt;syscfg --IscsiDev1Con1ChapType=Mutual IscsiDev1Con1ChapType=Mutual</pre> |

## IscsiDev1ConnDhcpEnDis

Table 52. IscsiDev1ConnDhcpEnDis

|                 |                                                                                                                                                                                                                                                                                 |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX4X: NA</li><li>On YX4X systems : Enabled, Disabled</li></ul>                                                                                                                                                        |
| Description     | <p>Enables or disables the Dynamic Host Configuration Protocol (DHCP) of the iSCSI connection. Where the value of <i>n</i> in IscsiDev1ConnDhcpEnDis can be 1 or 2.</p> <p>Example:</p> <pre>A:&gt;syscfg --IscsiDev1Con1DhcpEnDis=Enabled IscsiDev1Con1DhcpEnDis=Enabled</pre> |

## IscsiDev1ConnEnDis

Table 53. IscsiDev1ConnEnDis

|                 |                                                                                                                                                                                                                         |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX4X: NA</li><li>On YX4X systems: Enabled, Disabled</li></ul>                                                                                                 |
| Description     | <p>Sets the configuration of the iSCSI connection. Where the value of <i>n</i> in IscsiDev1ConnEnDis can be 1 or 2.</p> <p>Example:</p> <pre>A:&gt;syscfg --IscsiDev1Con1EnDis=Enabled IscsiDev1Con1EnDis=Enabled</pre> |

## IscsiDev1ConnInterface

Table 54. IscsiDev1ConnInterface

|                 |                                                                                                                                 |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX4X: NA</li><li>On YX4X systems: &lt;FQDD name&gt;</li></ul>         |
| Description     | <p>Displays the NIC interface of the iSCSI connection. Where the value of <i>n</i> in IscsiDev1ConnInterface can be 1 or 2.</p> |

**Table 54. IscsiDev1ConnInterface (continued)**

|  |                                                                                              |
|--|----------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --IscsiDev1Con1Interface IscsiDev1Con1Interface=XXXX</pre> |
|--|----------------------------------------------------------------------------------------------|

## IscsiDev1ConnProtocol

**Table 55. IscsiDev1ConnProtocol**

|                        |                                                                                                                                                                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: NA</li> <li>On YX4X systems: IPv4, IPv6</li> </ul>                                                                                                   |
| <b>Description</b>     | <p>Displays the IP used for the iSCSI connection. Where the value of <i>n</i> in IscsiDev1ConnProtocol can be 1 or 2.</p> <p>Example:</p> <pre>A:&gt;syscfg --IscsiDev1Con1Protocol IscsiDev1Con1Interface=IPv4</pre> |

## IscsiDev1ConnTimeout

**Table 56. IscsiDev1ConnTimeout**

|                        |                                                                                                                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: NA</li> <li>On YX4X systems: <i>&lt;integer&gt;</i></li> </ul>                                                                                    |
| <b>Description</b>     | <p>Sets the time-out of the iSCSI connection. Where the value of <i>n</i> in IscsiDev1ConnTimeout can be 1 or 2.</p> <p>Example:</p> <pre>A:&gt;syscfg --IscsiDev1Con1Timeout=XXXX IscsiDev1Con1Timeout=XXXX</pre> |

## IscsiDev1ConnVlanEnDis

**Table 57. IscsiDev1ConnVlanEnDis**

|                        |                                                                                                                                                                                                                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: NA</li> <li>On YX4X systems: Enabled, Disabled</li> </ul>                                                                                                                                            |
| <b>Description</b>     | <p>Enables or disables the virtual LAN (VLAN) configuration of the iSCSI connection. Where the value of <i>n</i> in IscsiDev1ConnVlanEnDis can be 1 or 2.</p> <p>Example:</p> <pre>A:&gt;syscfg --IscsiDev1Con1VlanEnDis=Enabled IscsiDev1Con1VlanEnDis=Enabled</pre> |

## IscsiDev1ConnVlanId

Table 58. IscsiDev1ConnVlanId

|                 |                                                                                                                                                                                                                             |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX4X: NA</li><li>On YX4X systems: &lt;integer&gt;</li></ul>                                                                                                       |
| Description     | <p>Displays the virtual LAN (VLAN) ID of the iSCSI connection. Where the value of <i>n</i> in IscsiDev1ConnVlanId can be 1 or 2.</p> <p>Example:</p> <pre>A:&gt;syscfg --IscsiDev1Con1VlanId IscsiDev1Con1VlanId=XXXX</pre> |

## IscsiDev1ConnAuth

Table 59. IscsiDev1ConnAuth

|                 |                                                                                                                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX4X: NA</li><li>On YX4X systems: None, Chap</li></ul>                                                                                                     |
| Description     | <p>Sets the authentication type of the iSCSI connection. Where the value of <i>n</i> in IscsiDev1ConnAuth can be 1 or 2.</p> <p>Example:</p> <pre>A:&gt;syscfg --IscsiDev1Con1Auth=None IscsiDev1Con1Auth=None</pre> |

## Network Settings

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

## PxeDevnEnDis

Table 60. PxeDevnEnDis

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: NA</li><li>On YX2X and later systems: Enabled, Disabled</li></ul>                                                                                                                                                                                                                                                                                                |
| Description     | <p>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.</p> <p> <b>NOTE:</b> The value of <i>n</i> in PxeDevnEnDis can be 1–4.</p> <p>Example:</p> <pre>A:&gt;syscfg --PxeDev1EnDis=Enabled PxeDev1EnDis=Enabled</pre> |

## PxeDev*n*Interface

Table 61. PxeDev*n*Interface

|                 |                                                                                                                                                                                                                                                                                          |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: NA</li><li>On YX2X and later systems: read-only</li></ul>                                                                                                                                                                |
| Description     | <p>Displays the NIC interface used for the PXE device.</p> <p> <b>NOTE:</b> The value of <i>n</i> in PxeDev<i>n</i>Interface can be 1–4.</p> <p>Example:</p> <pre>A:&gt;syscfg --PxeDev1Interface</pre> |

## PxeDev*n*Protocol

Table 62. PxeDev*n*Protocol

|                 |                                                                                                                                                                                                                                                                                    |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: NA</li><li>On YX2X and later systems: read-only</li></ul>                                                                                                                                                          |
| Description     | <p>Displays the IP version used for the PXE device.</p> <p> <b>NOTE:</b> The value of <i>n</i> in PxeDev<i>n</i>VlanId can be 1–4.</p> <p>Example:</p> <pre>A:&gt;syscfg --PxeDev1Protocol</pre> |

## PxeDev*n*VlanEnDis

Table 63. PxeDev*n*VlanEnDis

|                 |                                                                                                                                                                                                                                                                                                                                       |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: NA</li><li>On YX2X and later systems: Enabled, Disabled</li></ul>                                                                                                                                                                                                     |
| Description     | <p>Enables or disables the virtual LAN (VLAN) of the PXE device.</p> <p> <b>NOTE:</b> The value of <i>n</i> in PxeDev<i>n</i>VlanEnDis can be 1–4.</p> <p>Example:</p> <pre>A:&gt;syscfg --PxeDev1VlanEnDis=Enabled PxeDev1VlanEnDis=Enabled</pre> |

## PxeDev*n*VlanId

Table 64. PxeDev*n*VlanId

|                 |                                                                                                                                 |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: NA</li><li>On YX2X and later systems: &lt;integer&gt;</li></ul> |
| Description     | Sets the virtual LAN (VLAN) of the PXE device.                                                                                  |

**Table 64. PxeDev*n*VlanId (continued)**

|  |                                                                                                                                            |
|--|--------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>NOTE:</b> The value of <i>n</i> in PxeDev<i>n</i>VlanId can be 1–4.</p> <p>Example:</p> <pre>A:&gt;syscfg --PxeDev1VlanId=XXXX</pre> |
|--|--------------------------------------------------------------------------------------------------------------------------------------------|

## PxeDev*n*VlanPriority

**Table 65. PxeDev*n*VlanPriority**

|                        |                                                                                                                                                                                                                                          |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: &lt;integer&gt;</li> </ul>                                                                                                       |
| <b>Description</b>     | <p>Sets the virtual LAN (VLAN) priority of the PXE device.</p> <p><b>NOTE:</b> The value of <i>n</i> in PxeDev<i>n</i>VlanPriority can be 1–4.</p> <p>Example:</p> <pre>A:&gt;syscfg --PxeDev1VlanPriority=X PxeDev1VlanPriority=X</pre> |

## HttpDev*n*Interface

**Table 66. HttpDev*n*Interface**

|                        |                                                                                                                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: NA</li> <li>On YX4X systems: NIC.Integrated.1-1-1, NIC.Integrated.1-2-1, NIC.Integrated.1-3-1, NIC.Integrated.1-4-1</li> </ul>                                               |
| <b>Description</b>     | <p>The NIC interface used for HTTP device. The value of <i>n</i> in HttpDev<i>n</i>Interface can be from 1 to 4.</p> <p>Example:</p> <pre>A:&gt;syscfg --HttpDev1Interface=NIC.Integrated.1-2-1  HttpDev1Interface=NIC.Integrated.1-1-1</pre> |

## HttpDev*n*Protocol

**Table 67. HttpDev*n*Protocol**

|                        |                                                                                                                                                                                                                             |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: NA</li> <li>On YX4X systems: IPv4, IPv6</li> </ul>                                                                                                         |
| <b>Description</b>     | <p>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 <i>n</i> in HttpDev<i>n</i>Protocol can be from 1 to 4.</p> |

**Table 67. HttpDevnProtocol (continued)**

|  |                                                                                                  |
|--|--------------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --HttpDev2Protocol=IPv4</pre> <pre>HttpDev2Protocol=IPv4</pre> |
|--|--------------------------------------------------------------------------------------------------|

## HttpDevnVlanEnDis

**Table 68. HttpDevnVlanEnDis**

|                        |                                                                                                                                                                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: NA</li> <li>On YX4X systems: Enabled, Disabled</li> </ul>                                                                                                                                          |
| <b>Description</b>     | <p>Set the field to Enabled if your DNS or HTTP servers reside on a Virtual LAN (VLAN). The value of <i>n</i> in HttpDevnVlanEnDis can be from 1 to 4.</p> <p>Example:</p> <pre>A:&gt;syscfg --HttpDev3VlanEnDis=Enabled</pre> <pre>HttpDev3VlanEnDis=Enabled</pre> |

## HttpDevnVlanId

**Table 69. HttpDevnVlanId**

|                        |                                                                                                                                                                                                                                                          |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: NA</li> <li>On YX4X systems: Enabled, Disabled</li> </ul>                                                                                                                               |
| <b>Description</b>     | <p>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 <i>n</i> is from 1 to 4.</p> <p>Example:</p> <pre>A:&gt;syscfg --HttpDev2VlanId=Enabled</pre> |

## Memory Settings

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

## CorrEccSmi or memprefailurenotify

**Table 70. CorrEccSmi or memprefailurenotify**

|                        |                                                                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>    |
| <b>Description</b>     | <p>Enables or disables the Correctable ECC SMIs. When enabled, the SMIs report the Correctable ECC errors.</p> <p>This option can be replicated.</p> |

**Table 70. CorrEccSmi or memprefailurenotify (continued)**

|  |                                                                                            |
|--|--------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --CorrEccSmi=Enabled</pre> <pre>CorrEccSmi=Enabled</pre> |
|--|--------------------------------------------------------------------------------------------|

## DynamicCoreAllocation

**Table 71. DynamicCoreAllocation**

|                        |                                                                                                                                                                                                                                                               |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                                                          |
| <b>Description</b>     | <p>Enables or disables the operating system capability to maintain the logical processors in the idle state to reduce power consumption.</p> <p>Example:</p> <pre>A:&gt;syscfg --DynamicCoreAllocation=Enabled</pre> <pre>DynamicCoreAllocation=Enabled</pre> |

## MemOpMode or memoperatingmode

**Table 72. MemOpMode or memoperatingmode**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: optimizer, mirror, advancedecc</li> <li>On YX2X and later systems: OptimizerMode, SpareMode, MirrorMode, AdvEccMode, SpareWithAdvEccMode</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>     | <p>Selects the memory operating mode. This feature is active only if a valid memory configuration is detected. When <code>OptimizerMode</code> is enabled, the DRAM controllers operate independently in 64-bit mode and provide optimized memory performance. When <code>MirrorMode</code> is enabled, only half of the installed memory is reported as available to the operating system. When <code>AdvECCMode</code> 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 <code>SpareMode</code> is enabled, the memory size reported to the operating system does not include the spare portion.</p> <p>Example:</p> <pre>A:&gt;syscfg --memoperatingmode=optimizer</pre> <pre>memoperatingmode=optimizer</pre> |

## MemOpVoltage or dimmvoltage

**Table 73. MemOpVoltage or dimmvoltage**

|                        |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: auto, 1.5</li> </ul> |
|------------------------|---------------------------------------------------------------------------------------|

**Table 73. MemOpVoltage or dimmvoltage (continued)**

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>On YX2X and later systems: AutoVolt, Volt15V</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b> | <p>Sets the DIMM voltage selection. When set to <code>AutoVolt</code>(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.</p> <p> <b>NOTE:</b> Volt15V represents 1.5 Volt.</p> <p>Example:</p> <pre>A:&gt;syscfg --dimmvoltage=auto</pre> <pre>dimmvoltage=auto</pre> |

## MemTest or memtest

**Table 74. MemTest or memtest**

|                        |                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>     |
| <b>Description</b>     | <p>Enables or disables the <b>POST</b> extended memory test.</p> <p>Example:</p> <pre>A:&gt;syscfg --MemTest=Enabled</pre> <pre>MemTest=Enabled</pre> |

## NodeInterleave or nodeinterleave

**Table 75. NodeInterleave or nodeinterleave**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>     | <p>Enables node interleaving, if the system is configured with matching memory. If set to <code>disable</code> (default), the system supports Non-Uniform Memory (NUMA) architecture memory configurations. This field is active only if the memory configuration can support node interleaving.</p> <p> <b>NOTE:</b> The <code>nodeinterleave</code> option is same as <code>memintleave</code> option. For more information, see <a href="#">memintleave</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --nodeinterleave=enable</pre> <pre>nodeinterleave=enable</pre> |

## redmem

Table 76. redmem

|                        |                                                                                                                                                                                             |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | off, spare, mirror, DDDC                                                                                                                                                                    |
| <b>Description</b>     | <p>Allows selection of the required redundant memory mode, or disables redundant memory. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --redmem=off redmem=off</pre> |

## SerialDbgOut

Table 77. SerialDbgOut

|                        |                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to YX2X: NA</li><li>On YX2X and later systems: Enabled, Disabled</li></ul>               |
| <b>Description</b>     | <p>Enables or disables the RC/MRC Serial debug output.</p> <p>Example:</p> <pre>A:&gt;syscfg --SerialDbgOut=Enabled  SerialDbgOut=Enabled</pre> |

## SysMemSize or mem

Table 78. SysMemSize or mem

|                        |                                                                                                                                  |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to YX2X: read-only</li><li>On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the amount of main memory in the system.</p> <p>Example:</p> <pre>A:&gt;syscfg --mem  mem=500</pre>                  |

## SnoopMode or snoopfilter

Table 79. SnoopMode or snoopfilter

|                        |                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to YX2X: enable, disable</li><li>On YX2X and later systems: Enabled, Disabled</li></ul> |
| <b>Description</b>     | Enables or disables the snoop filter option from the system BIOS.                                                                              |

**Table 79. SnoopMode or snoopfilter (continued)**

|  |                                                                                            |
|--|--------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --snoopfilter=enable</pre> <pre>snoopfilter=enable</pre> |
|--|--------------------------------------------------------------------------------------------|

## SysMemSpeed

**Table 80. SysMemSpeed**

|                        |                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the clock frequency of the main memory.</p> <p>Example:</p> <pre>A:&gt;syscfg --SysMemSpeed</pre>                |

## SysMemType

**Table 81. SysMemType**

|                        |                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the type of main memory installed in the system.</p> <p>Example:</p> <pre>A:&gt;syscfg --SysMemType</pre>        |

## SysMemVolt

**Table 82. SysMemVolt**

|                        |                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the voltage of the main memory.</p> <p>Example:</p> <pre>A:&gt;syscfg --SysMemVolt</pre>                         |

## VideoMem

**Table 83. VideoMem**

|                        |                                                                                |
|------------------------|--------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> </ul> |
|------------------------|--------------------------------------------------------------------------------|

**Table 83. VideoMem (continued)**

|                    |                                                                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>On YX2X and later systems: read-only</li> </ul>                                                          |
| <b>Description</b> | <p>Displays the total amount of video memory available to the embedded video controller.</p> <p>Example:</p> <pre>A:&gt;syscfg --VideoMem</pre> |

## ClusterOnDie

**Table 84. ClusterOnDie**

|                        |                                                                                                                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                       |
| <b>Description</b>     | <p>Enables or disables the <b>Cluster On Die</b> option. When enabled, the feature enhances the performance of the system with two caching agents.</p> <pre>A:&gt;syscfg --ClusterOnDie=Enabled ClusterOnDie=Enabled</pre> |

## RedundantOsLocation

**Table 85. RedundantOsLocation**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: NA</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>     | <p>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.</p> <p><b>NOTE:</b> In order for the devices and slots listed below to show up as optional backup devices, their settings must be as shown:</p> <pre>SD Card Port -- On Internal USB Port -- On Embedded SATA -- anything other than Off PCIe Slot Disablement -- Enabled</pre> <p>Example:</p> <pre>A:&gt;syscfg --RedundantOsLocation</pre> |

## Miscellaneous Settings

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

### AssetTag or asset

**Table 86. AssetTag or asset**

|                        |                                                                                       |
|------------------------|---------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: read-only</li> </ul> |
|------------------------|---------------------------------------------------------------------------------------|

**Table 86. AssetTag or asset (continued)**

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>On YX2X and later systems: read-only</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b> | <p>Reports or sets the customer-programmable asset tag number for a system. This value can be replicated.</p> <p><b>NOTE:</b> 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 <a href="#">Command Line Option Delimiters</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --asset=&lt;ASSETTAG&gt;</pre> <pre>asset=ASSETTAG</pre> |

## ErrPrompt or f1f2promptonerror

**Table 87. ErrPrompt or f1f2promptonerror**

|                        |                                                                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                          |
| <b>Description</b>     | <p>Enables or disables the BIOS to prompt F1 or F2 error codes.</p> <p>Example:</p> <pre>A:&gt;syscfg --f1f2promptonerror=enable</pre> <pre>f1f2promptonerror=enable</pre> |

## InSystemCharacterization

**Table 88. InSystemCharacterization**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: FastBoot, OptimizedBoot, Disabled</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>     | <p>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 <code>FastBoot</code> option runs ISC and continues without applying ISC results until the next system restart. The <code>OptimizedBoot</code> option runs ISC and forces an immediate system restart to apply the results. If set to <code>Disabled</code>, ISC does not run.</p> <p>Example:</p> <pre>A:&gt;syscfg --InSystemCharacterization=FastBoot</pre> <pre>InSystemCharacterization=FastBoot</pre> |

## NumLock or numlock

Table 89. NumLock or numlock

|                 |                                                                                                                                                            |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: on, off</li><li>On YX2X and later systems: On, Off</li></ul>                               |
| Description     | <p>Turns the keyboard number lock on or off. This option is not replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --numlock=on</pre> <pre>numlock=on</pre> |

## ForceInt10

Table 90. ForceInt10

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX3X: NA</li><li>On YX3X and later systems: Enabled, Disabled</li></ul>                                                                                                                                                                                                                                                                                              |
| Description     | <p>Determines whether the system BIOS loads the legacy video (INT 10h) option ROM from the video controller or not. Set to <b>Enabled</b> if the operating system does not support UEFI video output standards.</p> <p><b>NOTE:</b> This field is supported only in UEFI boot mode. This field cannot be set to <b>Enabled</b> if UEFI SecureBoot is enabled.</p> <p>Example:</p> <pre>A:&gt;syscfg --ForceInt10=Enabled</pre> |

## InSystemCharacterization

Table 91. InSystemCharacterization

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: NA</li><li>On YX2X and later systems: FastBoot, OptimizedBoot, Disabled</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description     | <p>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 <b>FastBoot</b> option runs ISC and continues without applying ISC results until the next system restart. The <b>OptimizedBoot</b> option runs ISC and forces an immediate system restart to apply the results. If set to <b>Disabled</b>, ISC does not run.</p> <p>Example:</p> <pre>A:&gt;syscfg --InSystemCharacterization=FastBoot</pre> <pre>InSystemCharacterization=FastBoot</pre> |

## ReportKbdErr or rptkeyerr

Table 92. ReportKbdErr or rptkeyerr

|                 |                                                                                                                                                                                                    |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: enable, disable</li><li>On YX2X and later systems: Report, Noreport</li></ul>                                                      |
| Description     | <p>Enables or disables the BIOS to report keyboard errors during POST. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --rptkeyerr=disable</pre> <pre>rptkeyerr=disable</pre> |

## DellAutoDiscovery

Table 93. DellAutoDiscovery

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX4X: NA</li><li>On YX4X and later systems: PlatformDefault, AutoDiscovery, ManualControl</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Description     | <p>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.</p> <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --DellAutoDiscovery=PlatformDefault</pre> <pre>DellAutoDiscovery=AutoDiscovery</pre> |

## DellWyseP25BIOSAccess

Table 94. DellWyseP25BIOSAccess

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX4X: NA</li><li>On YX4X and later systems: Enabled, Disabled</li></ul>                                                                                                                                                                                                                                                                                                                     |
| Description     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --DellWyseP25BIOSAccess=Enabled</pre> <pre>DellWyseP25BIOSAccess=Enabled</pre> |

## One-Time Boot

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

### OneTimeBootMode

Table 95. OneTimeBootMode

|                 |                                                                                                                                                                                                                                                           |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: NA</li><li>On YX2X and later systems: Disabled, OneTimeBootSeq, OneTimeHddSeq, OneTimeUefiBootSeq, OneTimeCustomBootSeqStr, OneTimeCustomHddSeqStr, OneTimeCustomUefiBootSeqStr</li></ul> |
| Description     | <p>Allows to set the one-time boot sequence.</p> <p>Example:</p> <pre>A:&gt;syscfg --OneTimeBootMode=Disabled</pre> <pre>OneTimeBootMode=Disabled</pre>                                                                                                   |

### OneTimeBootSeqDev or nextboot

Table 96. OneTimeBootSeqDev or nextboot

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: <i>&lt;valid device name&gt;</i> (from the <b>bootseq</b> option device list)</li><li>On YX2X and later systems: numerical list separated by commas or list of device names separated by commas</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Description     | <p>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 <b>bootseq</b> option device list. Run the <b>bootseq</b> option to see a list of available device names. For more information, see <a href="#">--bootmode</a>. 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.</p> <p>Example:</p> <pre>A:&gt;syscfg --OneTimeBootSeqDev= 2,3,4,5,1,6</pre> <p>The following devices are set in the boot sequence:</p> <pre>Device 2:* usbcdrom.slot.1- USB CD-ROM device</pre> <pre>Device 3:* virtualcd.slot.1 - VIRTUAL CDROM</pre> <pre>Device 4:* hdd.emb.0 -Hard drive C:</pre> <pre>Device 5:* nic.emb.1 - MBA v2.5.12 Slot 0500</pre> <pre>Device 1:* virtualfloppy.slot.1 - VIRTUAL FLOPPY</pre> <pre>Device 6:* usbfloppy.slot.1 - USB Floppy device</pre> |

**Table 96. OneTimeBootSeqDev or nextboot (continued)**

|  |                                                                                                                                                               |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  <b>NOTE:</b> The asterisk indicates that the device is enabled in the BIOS. |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------|

## OneTimeHddSeqDev

**Table 97. OneTimeHddSeqDev**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: numerical list separated by commas or list of device names separated by commas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --OneTimeHddSeqDev= 2,3,4,5,1,6</pre> <p>The following devices are set in the boot sequence:</p> <pre>Device 2:* usbcdrom.slot.1- USB CD-ROM device</pre> <pre>Device 3:* virtualcd.slot.1 - VIRTUAL CDROM</pre> <pre>Device 4:* hdd.emb.0 -Hard drive C:</pre> <pre>Device 5:* nic.emb.1 - MBA v2.5.12 Slot 0500</pre> <pre>Device 1:* virtualfloppy.slot.1 - VIRTUAL FLOPPY</pre> <pre>Device 6:* usbfloppy.slot.1 - USB Floppy device</pre> <p> <b>NOTE:</b> The asterisk indicates that the device is enabled in the BIOS.</p> |

## OneTimeUefiBootSeqDev

**Table 98. OneTimeUefiBootSeqDev**

|                        |                                                                                                                                                                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: numerical list separated by commas or list of device names separated by commas</li> </ul>                                                    |
| <b>Description</b>     | <p>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.</p> |

**Table 98. OneTimeUefiBootSeqDev (continued)**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --OneTimeUefiBootSeqDev= 2,3,4,5,1,6</pre> <p>The following devices are set in the boot sequence:</p> <p>Device 2:* usbcdrom.slot.1- USB CD-ROM device</p> <p>Device 3:* virtualcd.slot.1 - VIRTUAL CDROM</p> <p>Device 4:* hdd.emb.0 -Hard drive C:</p> <p>Device 5:* nic.emb.1 - MBA v2.5.12 Slot 0500</p> <p>Device 1:* virtualfloppy.slot.1 - VIRTUAL FLOPPY</p> <p>Device 6:* usbfloppy.slot.1 - USB Floppy device</p> <p> <b>NOTE:</b> The asterisk indicates that the device is enabled in the BIOS.</p> |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Processor Settings

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

### DataReuse or datareuse

**Table 99. DataReuse or datareuse**

|                        |                                                                                                                                                                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X : enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                                                           |
| <b>Description</b>     | <p>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.</p> <pre>A:&gt;syscfg --datareuse=enable</pre> <pre>datareuse=enable</pre> |

## DculpPrefetcher

**Table 100. DculpPrefetcher**

|                        |                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul> |
| <b>Description</b>     | <p>Enables (default value) or disables DCU IP Prefetcher.</p>                                                                        |

**Table 100. DcuIpPrefetcher (continued)**

|  |                                                                                           |
|--|-------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --DcuIpPrefetcher=Enabled DcuIpPrefetcher=Enabled</pre> |
|--|-------------------------------------------------------------------------------------------|

## DcuStreamerPrefetcher or dcustreamerprefetcher

**Table 101. DcuStreamerPrefetcher or dcustreamerprefetcher**

|                        |                                                                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                      |
| <b>Description</b>     | <p>Enables or disables DCU Streamer Prefetcher. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --dcustreamerprefetcher=enable dcustreamerprefetcher=enable</pre> |

## LogicalProc or logicproc

**Table 102. LogicalProc or logicproc**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>     | <p>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).</p> <p>This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --logicproc=enable logicproc=enable</pre> |

## Proc1Brand

**Table 103. Proc1Brand**

|                        |                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the brand text provided by the processor manufacturer.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc1Brand</pre>  |

## Proc1Id

Table 104. Proc1Id

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the family, model, and stepping values of the processor.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc1Id</pre>    |

## Proc1L2Cache

Table 105. Proc1L2Cache

|                        |                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul>     |
| <b>Description</b>     | <p>Displays the amount of memory in the corresponding processor cache.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc1L2Cache</pre> |

## Proc1L3Cache

Table 106. Proc1L3Cache

|                        |                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul>     |
| <b>Description</b>     | <p>Displays the amount of memory in the corresponding processor cache.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc1L3Cache</pre> |

## Proc1NumCores

Table 107. Proc1NumCores

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the number of cores in the processor package.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc1NumCores</pre>         |

## Proc2Brand

Table 108. Proc2Brand

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the brand text provided by the processor manufacturer.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc2Brand</pre>   |

## Proc2Id

Table 109. Proc2Id

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the family, model, and stepping values of the processor.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc2Id</pre>    |

## Proc2L2Cache

Table 110. Proc2L2Cache

|                        |                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul>     |
| <b>Description</b>     | <p>Displays the amount of memory in the corresponding processor cache.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc2L2Cache</pre> |

## Proc2L3Cache

Table 111. Proc2L3Cache

|                        |                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul>     |
| <b>Description</b>     | <p>Displays the amount of memory in the corresponding processor cache.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc2L3Cache</pre> |

## Proc2NumCores

Table 112. Proc2NumCores

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the number of cores in the processor package.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc2NumCores</pre>         |

## Proc3Brand

Table 113. Proc3Brand

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the brand text provided by the processor manufacturer.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc3Brand</pre>   |

## Proc3Id

Table 114. Proc3Id

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the family, model, and stepping values of the processor.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc3Id</pre>    |

## Proc3L2Cache

Table 115. Proc3L2Cache

|                        |                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul>     |
| <b>Description</b>     | <p>Displays the amount of memory in the corresponding processor cache.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc3L2Cache</pre> |

## Proc3L3Cache

Table 116. Proc3L3Cache

|                        |                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul>     |
| <b>Description</b>     | <p>Displays the amount of memory in the corresponding processor cache.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc3L3Cache</pre> |

## Proc3NumCores

Table 117. Proc3NumCores

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the number of cores in the processor package.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc3NumCores</pre>         |

## Proc4Brand

Table 118. Proc4Brand

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the brand text provided by the processor manufacturer.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc4Brand</pre>   |

## Proc4Id

Table 119. Proc4Id

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the family, model, and stepping values of the processor.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc4Id</pre>    |

## Proc4L2Cache

Table 120. Proc4L2Cache

|                        |                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul>     |
| <b>Description</b>     | <p>Displays the amount of memory in the corresponding processor cache.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc4L2Cache</pre> |

## Proc4L3Cache

Table 121. Proc4L3Cache

|                        |                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul>     |
| <b>Description</b>     | <p>Displays the amount of memory in the corresponding processor cache.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc4L3Cache</pre> |

## Proc4NumCores

Table 122. Proc4NumCores

|                        |                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to YX2X: NA</li><li>• On YX2X and later systems: read-only</li></ul> |
| <b>Description</b>     | <p>Displays the number of cores in the processor package.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc4NumCores</pre>         |

## Proc64bit

Table 123. Proc64bit

|                        |                                                                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>• On systems prior to Dell's YX2X generation PowerEdge systems: NA</li><li>• On Dell's YX2X generation PowerEdge and later systems: Read-only</li></ul> |
| <b>Description</b>     | <p>Specifies if the installed processor supports 64-bit extensions or not.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc64bit</pre>                                                            |

## ProcAdjCacheLine or adjcacheprefetch

Table 124. ProcAdjCacheLine or adjcacheprefetch

|                        |                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X generation PowerEdge systems: Enable, Disable</li><li>On Dell's YX2X generation PowerEdge and later systems: Enabled, Disabled</li></ul>                                                                                                                                                                     |
| <b>Description</b>     | <p>When set to <b>Enabled</b> (default), the system is optimized for applications that require high utilization of sequential memory access. When set to <b>Disabled</b>, the system is optimized for applications that require high utilization of random memory access.</p> <p>Example:</p> <pre>A:&gt;syscfg --adjcacheprefetch=enable</pre> <pre>adjcacheprefetch=enable</pre> |

## ProcBusSpeed

Table 125. ProcBusSpeed

|                        |                                                                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X generation PowerEdge systems: NA</li><li>On Dell's YX2X generation PowerEdge and later systems: Read-only</li></ul> |
| <b>Description</b>     | <p>Displays the bus speed of the processor.</p> <p>Example:</p> <pre>A:&gt;syscfg --ProcBusSpeed</pre>                                                                                    |

## ProcCores or cpucore

Table 126. ProcCores or cpucore

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X generation PowerEdge systems: 1, 2, 4, 6, 8, 10, 12, 14, 16, all</li><li>On Dell's YX2X generation PowerEdge and later systems: single, all, dual, quad, 1, 2, 4, 6, 8, 10, 12, 14, 16, 18</li></ul>                                                                                                                                                                                                                    |
| <b>Description</b>     | <p>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.</p> <p>For example, if six-core CPU is installed, after setting to the highest value, 6, when you read the cpucore, it displays as all.</p> <p>Example:</p> <pre>A:&gt;syscfg --cpucore=1</pre> <pre>cpucore=1</pre> |

## ProcCoreSpeed

Table 127. ProcCoreSpeed

|                 |                                                                                                                                                                                           |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X generation PowerEdge systems: NA</li><li>On Dell's YX2X generation PowerEdge and later systems: Read-only</li></ul> |
| Description     | <p>Displays the clock speed of the processors.</p> <p>Example:</p> <pre>A:&gt;syscfg --ProcCoreSpeed</pre>                                                                                |

## ProcExecuteDisable or cpuxdsupport

Table 128. ProcExecuteDisable or cpuxdsupport

|                 |                                                                                                                                                                                                                |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X generation PowerEdge systems: enable, disable</li><li>On Dell's YX2X generation PowerEdge and later systems: Enabled, Disabled</li></ul> |
| Description     | <p>Enables or disables the Execute Disable Memory Protection Technology feature of the CPU.</p> <p>Example:</p> <pre>A:&gt;syscfg --cpuxdsupport=enable</pre> <pre>cpuxdsupport=enable</pre>                   |

## ProcHwPrefetcher or hwprefetcher

Table 129. ProcHwPrefetcher or hwprefetcher

|                 |                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: enable, disable</li><li>On Dell's YX2X and later systems: Enabled, Disabled</li></ul>                                                                                                                                                                                                                            |
| Description     | <p>Enables or disables the hardware prefetcher. Processor preempts what data might be needed next, when set to <b>enable</b>. When some data is found, it loads several steps in advance.</p> <p>Processor does not preempt, when set to <b>disable</b>.</p> <p>This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --hwprefetcher=enable</pre> <pre>hwprefetcher=enable</pre> |

## ProcVirtualization or virtualization

Table 130. ProcVirtualization or virtualization

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: enable, disable</li><li>On Dell's YX2X and later systems: Enabled, Disabled</li></ul>                                                                                                                                                                                                                                                                                  |
| Description     | <p>Enables or disables virtualization in the CPU. When set to <b>enable</b>, it enables the additional hardware capabilities from Virtualization technology in applicable <b>CPUs</b>.</p> <p>When set to <b>disable</b>, it disables the additional hardware capabilities from Virtualization technology.</p> <p>This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --virtualization=enable</pre> <pre>virtualization=enable</pre> |

## QpiBandwidthPriority or qpibandwidthpriority

Table 131. QpiBandwidthPriority or qpibandwidthpriority

|                 |                                                                                                                                                                                                                                                                                                                                 |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: compute, io</li><li>On Dell's YX2X and later systems: InputOutput, Compute</li></ul>                                                                                                                                                             |
| Description     | <p>Sets the bandwidth priority to <b>compute</b> or <b>io</b>. Set to <b>compute</b> for computation-intensive applications. Set to <b>io</b> for I/O intensive applications. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --qpibandwidthpriority=compute</pre> <pre>qpibandwidthpriority=compute</pre> |

## QpiSpeed

Table 132. QpiSpeed

|                 |                                                                                                                                                                               |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: MaxDataRate, 9GTps, 8GTps, 7GTps, 6GTps</li></ul> |
| Description     | <p>Sets the speed of the processor.</p> <p>Example:</p> <pre>A:&gt;syscfg --QpiSpeed=8GTps</pre> <pre>QpiSpeed=8GTps</pre>                                                    |

## RtidSetting

Table 133. RtidSetting

|                 |                                                                                                                                                                                                                                                             |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Enabled, Disabled</li></ul>                                                                                                     |
| Description     | <p>When set to Enabled, it allocates more (Requestor Transaction IDs) RTIDs to the remote socket thereby increasing cache performance between the sockets.</p> <p>Example:</p> <pre>A:&gt;syscfg --RtidSetting=Enabled</pre> <pre>RtidSetting=Enabled</pre> |

## ProcnControlledTurbo

Table 134. ProcnControlledTurbo

|                 |                                                                                                                                                                                                                                                                                                                                                |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX3X systems: enable, disable</li><li>On Dell's YX3X and later systems: Disabled, ControlledTurboLimit, ControlledTurboLimitMinus1, ControlledTurboLimitMinus2, ControlledTurboLimitMinus3</li></ul>                                                                          |
| Description     | <p>Controls the turbo engagement. Enable this option only if SysProfile is set to PerfOptimized.</p> <p> <b>NOTE:</b> The value of <i>n</i> in ProcnControlledTurbo can be 1–4.</p> <p>Example:</p> <pre>A:&gt;syscfg --ProclControlledTurbo=Disabled</pre> |

## ProcConfigTdp

Table 135. ProcConfigTdp

|                 |                                                                                                                                                               |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX3X systems: NA</li><li>On Dell's YX3X and later systems: Nominal, Level1, Level2</li></ul> |
| Description     | <p>Configures the Thermal Design Power (TDP).</p> <p>Example:</p> <pre>A:&gt;syscfg --ProcConfigTdp=Nominal</pre> <pre>ProcConfigTdp=Nominal</pre>            |

## ProcX2Apic

Table 136. ProcX2Apic

|                 |                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li></ul> |
|-----------------|---------------------------------------------------------------------------------------------|

**Table 136. ProcX2Apic (continued)**

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>On Dell's YX2X and later systems: Enabled, Disabled</li> </ul>                       |
| <b>Description</b> | <p>Enables or disables the x2APIC mode.</p> <p>Example:</p> <pre>A:&gt;syscfg --ProcX2Apic=Enabled ProcX2Apic=Enabled</pre> |

## SATA Settings

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

### EmbSata or embsataraid

**Table 137. EmbSata or embsataraid**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: off, combined, ata, ahci, raid, qdma</li> <li>On Dell's YX2X and later systems: Off, AtaMode, RaidMode, AhciMode</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>     | <p>Configures an embedded SATA RAID controller. This option can be replicated.</p> <ul style="list-style-type: none"> <li><b>off / Off</b> — disables the embedded SATA RAID controller.</li> <li><b>combined</b> — sets the SATA RAID controller to combined mode.</li> <li><b>ata/ AtaMode</b> — sets SATA RAID controller to ATA mode.</li> <li><b>ahci/ AhciMode</b> — sets ATA RAID controller to ahci mode.</li> <li><b>raid/ RaidMode</b> — sets SATA RAID controller to RAID mode.</li> <li><b>qdma</b> — 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.</li> </ul> <p>Example:</p> <pre>A:&gt;syscfg --embsataraid=off  embsataraid=off</pre> |

### eSataPort1Capacity

**Table 138. eSataPort1Capacity**

|                        |                                                                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: read-only</li> </ul>                                                 |
| <b>Description</b>     | <p>Displays the total capacity of a hard-disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --eSataPort1Capacity</pre> |

## eSataPort1DriveType

Table 139. eSataPort1DriveType

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| Description     | <p>Indicates the type of device attached to the embedded SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --eSataPort1DriveType</pre>           |

## eSataPort1

Table 140. eSataPort1

|                 |                                                                                                                                                                  |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Off, Auto</li></ul>                  |
| Description     | <p>Sets the embedded SATA port1 to <code>auto</code> or <code>off</code>.</p> <p>Example:</p> <pre>A:&gt;syscfg --eSataPort1=Off</pre> <pre>eSataPort1=Off</pre> |

## eSataPort1Model

Table 141. eSataPort1Model

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: read-only</li></ul> |
| Description     | <p>Displays the drive model of the selected device.</p> <p>Example:</p> <pre>A:&gt;syscfg --eSataPort1Model</pre>                               |

## SataPortA or sata0

Table 142. SataPortA or sata0

|                 |                                                                                                                                                                                                            |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: <code>auto</code>, <code>off</code></li><li>On Dell's YX2X and later systems: <code>Off</code>, <code>Auto</code></li></ul> |
| Description     | <p>Sets the drive type of the selected device to <code>off</code> or <code>auto</code>. This option can be replicated.</p>                                                                                 |

**Table 142. SataPortA or sata0 (continued)**

|  |                                                                            |
|--|----------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --sata0=auto</pre> <pre>sata0=auto</pre> |
|--|----------------------------------------------------------------------------|

## SataPortACapacity

**Table 143. SataPortACapacity**

|                        |                                                                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul>                                                |
| <b>Description</b>     | <p>Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortACapacity</pre> |

## SataPortADriveType

**Table 144. SataPortADriveType**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>Indicates the type of device attached to the SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortADriveType</pre>                        |

## SataPortAModel

**Table 145. SataPortAModel**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the drive model of the selected device.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortAModel</pre>                                   |

## SataPortB or sata1

Table 146. SataPortB or sata1

|                 |                                                                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: auto, off</li><li>On Dell's YX2X and later systems: Auto, Off</li></ul>               |
| Description     | <p>Turns the SATA port 1 to <b>auto</b> or <b>off</b>. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --sata1=auto</pre> <pre>sata1=auto</pre> |

## SataPortBCapacity

Table 147. SataPortBCapacity

|                 |                                                                                                                                                                                                   |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul>                                                   |
| Description     | <p>Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortBCapacity</pre> |

## SataPortBDriveType

Table 148. SataPortBDriveType

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| Description     | <p>Indicates the type of device attached to the SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortBDriveType</pre>                     |

## SataPortBModel

Table 149. SataPortBModel

|                 |                                                                                                                                                                                           |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's 12th generation PowerEdge systems: NA</li><li>On Dell's 12th generation PowerEdge and later systems: Read-only</li></ul> |
| Description     | Displays the drive model of the selected device.                                                                                                                                          |

**Table 149. SataPortBModel (continued)**

|                           |                                                          |
|---------------------------|----------------------------------------------------------|
|                           | <p>Example:</p> <pre>A:&gt;syscfg --SataPortBModel</pre> |
| <b>Applicable Systems</b> | Dell's 12th generation PowerEdge and later systems       |

## SataPortC or Sata2

**Table 150. SataPortC or Sata2**

|                        |                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: auto, off</li> <li>On Dell's YX2X and later systems: Off, Auto</li> </ul>            |
| <b>Description</b>     | <p>Turns the SATA port 2 to <b>auto</b> or <b>off</b>. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --sata2=auto</pre> <pre>sata2=auto</pre> |

## SataPortCCapacity

**Table 151. SataPortCCapacity**

|                        |                                                                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul>                                                |
| <b>Description</b>     | <p>Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortCCapacity</pre> |

## SataPortCDriveType

**Table 152. SataPortCDriveType**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>Indicates the type of device attached to the SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortCDriveType</pre>                        |

## SataPortCModel

Table 153. SataPortCModel

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| Description     | <p>Displays the drive model of the selected device.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortCModel</pre>                                |

## SataPortD or sata3

Table 154. SataPortD or sata3

|                 |                                                                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: auto, off</li><li>On Dell's YX2X and later systems: Auto, Off</li></ul>               |
| Description     | <p>Turns the SATA port 3 to <b>auto</b> or <b>off</b>. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --sata3=auto</pre> <pre>sata3=auto</pre> |
| Description     | <p>Turns the SATA port 3 to <b>auto</b> or <b>off</b>. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --sata3=auto</pre> <pre>sata3=auto</pre> |

## SataPortDCapacity

Table 155. SataPortDCapacity

|                 |                                                                                                                                                                                                   |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul>                                                   |
| Description     | <p>Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortDCapacity</pre> |

## SataPortDDriveType

Table 156. SataPortDDriveType

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| Description     | <p>This option indicates type of device attached to this SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortDDriveType</pre>            |

## SataPortDModel

Table 157. SataPortDModel

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| Description     | <p>Displays the drive model of the selected device.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortDModel</pre>                                |

## SataPortE or sata4

Table 158. SataPortE or sata4

|                 |                                                                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: auto, off</li><li>On Dell's YX2X and later systems: Off, Auto</li></ul>               |
| Description     | <p>Turns the SATA port 4 to <b>auto</b> or <b>off</b>. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --sata4=auto</pre> <pre>sata4=auto</pre> |

## SataPortECapacity

Table 159. SataPortECapacity

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| Description     | <p>Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives.</p>           |

**Table 159. SataPortECapacity (continued)**

|  |                                                             |
|--|-------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --SataPortECapacity</pre> |
|--|-------------------------------------------------------------|

## SataPortEDriveType

**Table 160. SataPortEDriveType**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>This option indicates type of device attached to this SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortEDriveType</pre>               |

## SataPortEModel

**Table 161. SataPortEModel**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the drive model of the selected device.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortEModel</pre>                                   |

## SataPortF or sata5

**Table 162. SataPortF or sata5**

|                        |                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: auto, off</li> <li>On Dell's YX2X and later systems: Off, Auto</li> </ul>            |
| <b>Description</b>     | <p>Turns the SATA port 5 to <b>auto</b> or <b>off</b>. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --sata5=auto</pre> <pre>sata5=auto</pre> |

## SataPortFCapacity

**Table 163. SataPortFCapacity**

|                        |                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> </ul> |
|------------------------|-----------------------------------------------------------------------------------------------|

**Table 163. SataPortFCapacity (continued)**

|                    |                                                                                                                                                                                                   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>On Dell's YX2X and later systems: Read-only</li> </ul>                                                                                                     |
| <b>Description</b> | <p>Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortFCapacity</pre> |

## SataPortFDriveType

**Table 164. SataPortFDriveType**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>This option indicates type of device attached to this SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortFDriveType</pre>               |

## SataPortFModel

**Table 165. SataPortFModel**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the drive model of the selected device.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortFModel</pre>                                   |

## SataPortG or sata6

**Table 166. SataPortG or sata6**

|                        |                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: auto, off</li> <li>On Dell's YX2X and later systems: Off, Auto</li> </ul>            |
| <b>Description</b>     | <p>Turns the SATA port 6 to <b>auto</b> or <b>off</b>. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --sata6=auto</pre> <pre>sata6=auto</pre> |

## SataPortGCapacity

Table 167. SataPortGCapacity

|                 |                                                                                                                                                                                                   |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul>                                                   |
| Description     | <p>Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortGCapacity</pre> |

## SataPortGDriveType

Table 168. SataPortGDriveType

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| Description     | <p>This option indicates type of device attached to this SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortGDriveType</pre>            |

## SataPortGModel

Table 169. SataPortGModel

|                 |                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| Description     | <p>Displays the drive model of the selected device.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortGModel</pre>                                |

## SataPortH or sata7

Table 170. SataPortH or sata7

|                 |                                                                                                                                                                                                  |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's 12th generation PowerEdge systems: auto, off</li><li>On Dell's 12th generation PowerEdge and later systems: Off, Auto</li></ul> |
| Description     | <p>Turns the SATA port 7 to <b>auto</b> or <b>off</b>. This option can be replicated.</p>                                                                                                        |

**Table 170. SataPortH or sata7 (continued)**

|                           |                                                                            |
|---------------------------|----------------------------------------------------------------------------|
|                           | <p>Example:</p> <pre>A:&gt;syscfg --sata7=auto</pre> <pre>sata7=auto</pre> |
| <b>Applicable Systems</b> | All PowerEdge systems.                                                     |

## SataPortHCapacity

**Table 171. SataPortHCapacity**

|                        |                                                                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: read-only</li> </ul>                                                                      |
| <b>Description</b>     | <p>Displays the total capacity of a hard-disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortHCapacity</pre> |

## SataPortHDriveType

**Table 172. SataPortHDriveType**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>This option indicates type of device attached to this SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortHDriveType</pre>               |

## SataPortHModel

**Table 173. SataPortHModel**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the drive model of the selected device.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortHModel</pre>                                   |

## SataPortI or sata7

Table 174. SataPortI or sata7

|                        |                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: auto, off</li><li>On Dell's YX2X and later systems: Off, Auto</li></ul>               |
| <b>Description</b>     | <p>Turns the SATA port 7 to <b>auto</b> or <b>off</b>. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --sata7=auto</pre> <pre>sata7=auto</pre> |

## SataPortICapacity

Table 175. SataPortICapacity

|                        |                                                                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul>                                                   |
| <b>Description</b>     | <p>Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortICapacity</pre> |

## SataPortIDriveType

Table 176. SataPortIDriveType

|                        |                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| <b>Description</b>     | <p>This option indicates type of device attached to this SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortIDriveType</pre>            |

## SataPortIModel

Table 177. SataPortIModel

|                        |                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| <b>Description</b>     | <p>Displays the drive model of the selected device.</p>                                                                                         |

**Table 177. SATAPortIModel (continued)**

|  |                                                          |
|--|----------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --SataPortHModel</pre> |
|--|----------------------------------------------------------|

## SATAPortJ or sata7

**Table 178. SATAPortJModel**

|                        |                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: auto, off</li> <li>On Dell's YX2X and later systems: Off, Auto</li> </ul>            |
| <b>Description</b>     | <p>Turns the SATA port 7 to <b>auto</b> or <b>off</b>. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --sata7=auto</pre> <pre>sata7=auto</pre> |

## SATAPortJCapacity

**Table 179. SATAPortJCapacity**

|                        |                                                                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul>                                                |
| <b>Description</b>     | <p>Displays the total capacity of a hard disk drive. This option is undefined for removable-media devices such as optical drives.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortJCapacity</pre> |

## SATAPortJDriveType

**Table 180. SATAPortJDriveType**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>This option indicates type of device attached to this SATA port.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortJDriveType</pre>               |

## SataPortJModel

Table 181. SataPortJModel

|                        |                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| <b>Description</b>     | <p>Displays the drive model of the selected device.</p> <p>Example:</p> <pre>A:&gt;syscfg --SataPortJModel</pre>                                |

## SecurityFreezeLock

Table 182. SecurityFreezeLock

|                        |                                                                                                                                                                                                                                                                             |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Enabled, Disabled</li></ul>                                                                                                                     |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --SecurityFreezeLock=Enabled SecurityFreezeLock=Enabled</pre> |

## Serial Communication

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

## ConTermType or conterm

Table 183. ConTermType or conterm

|                        |                                                                                                                                                                                                                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: vt100, ansi</li><li>On Dell's YX2X and later systems: Vt100, Vt220, Ansi</li></ul>                                                                                                                                |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --conterm=vt100  conterm=vt100</pre> |

## ExtSerialConnector or extserial

Table 184. ExtSerialConnector or extserial

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: com1, com2, rad</li><li>On Dell's YX2X and later systems: Serial1, Serial2, RemoteAccDeviceDescription</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Description     | <p>Sets the behavior of the external serial connector. When set to <b>com1</b>, the BIOS maps the external serial connector to COM port 1. The <b>com1</b> setting is the default.</p> <p>When set to <b>com2</b>, the external serial connector is routed to the <b>COM2</b> interface. Terminal escape sequences can toggle the external connector between the system (COM2) and the remote access device.</p> <p>When set to <b>rad</b>, the external serial connector is routed to the remote access device interface. Terminal escape sequences can toggle the external connector between the system (<b>COM2</b>) and the remote access device.</p> <p>This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --extserial=com1</pre> <pre>extserial=com1</pre> <p>The <b>--serialcomm</b> option can be used with the external serial (<b>--extserial</b>) option instead of the <b>--conred</b> (available on systems earlier than PowerEdge 9G systems) option.</p> |

## FailSafeBaud or fsbr

Table 185. FailSafeBaud or fsbr

|                 |                                                                                                                                                                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: 115200, 57600, 19200, 9600</li><li>On Dell's YX2X and later systems: 115200, 57600, 19200, 9600</li></ul>                                                                        |
| Description     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --fsbr=9600</pre> <pre>fsbr=9600</pre> |

## RedirAfterBoot

Table 186. RedirAfterBoot

|                 |                                                                                                                                                         |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Enabled, Disabled</li></ul> |
| Description     | Sets the BIOS console redirection to enable or disable when the operating system is loaded.                                                             |

**Table 186. RedirAfterBoot (continued)**

|  |                                                                                         |
|--|-----------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --RedirAfterBoot=Enabled RedirAfterBoot=Enabled</pre> |
|--|-----------------------------------------------------------------------------------------|

## SerialComm or serialcomm

**Table 187. SerialComm or serialcomm**

|                        |                                                                                                                                                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: on, com1cr, com2cr, off</li> <li>On Dell's YX2X and later systems: OnNoConRedir, OnConRedirCom1, OnConRedirCom2, Off</li> </ul> |
| <b>Description</b>     | <p>Enables or disables the serial communication devices (Serial Device 1 and Serial Device 2) in BIOS.</p> <p>Example:</p> <pre>A:&gt;syscfg --SerialComm=OnNoConRedir SerialComm=OnNoConRedir</pre>            |

## SerialPortAddress or serialportaddrsel

**Table 188. SerialPortAddress or serialportaddrsel**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: default, alternate</li> <li>On Dell's YX2X and later systems: Serial1Com1Serial2Com2, Serial1Com2Serial2Com1, Com1, Com2</li> </ul>                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>     | <p>Sets the port address of the serial devices.</p> <p>On systems prior to Dell's YX2X systems, when this option is <b>default</b>, Serial Device 1 is set to COM port 1 and Serial Device 2 is set to COM port 2.</p> <p>On systems prior to Dell's YX2X systems, when this option is <b>alternate</b>, Serial Device 1 is set to COM port 2 and Serial Device 2 is set to COM port 1.</p> <p>This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --serialportaddrsel=default  serialportaddrsel=default</pre> |

## Slot Disablement

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

## Slot*n*

Table 189. Slot*n*

|                 |                                                                                                                                                                                                                                                                                                               |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Enabled, Disabled, BootDriverDisabled</li></ul>                                                                                                                                   |
| Description     | <p>Controls the configuration of the installed card in the specified slot.</p> <p> <b>NOTE:</b> The value of <i>n</i> in Slot<i>n</i> can be 1–10.</p> <p>Example:</p> <pre>A:&gt;syscfg --Slot1=Enabled Slot1=Enabled</pre> |

## Slot*n*Bif

Table 190. Slot*n*Bif

|                 |                                                                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX4X: NA</li><li>On YX4X: x16, x4, x8, x4x4x8, x8x4x4</li></ul>                                                                       |
| Description     | <p>Controls the configuration of the installed card in the specified slot. Where the value of <i>n</i> in Slot<i>n</i> can be 1 or 2.</p> <p>Example:</p> <pre>A:&gt;syscfg --Slot1Bif=x8</pre> |

## System Information

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

## SysMfrContactInfo

Table 191. SysMfrContactInfo

|                 |                                                                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul>                      |
| Description     | <p>Displays the information for contacting the Original Equipment Manufacturer (OEM) of this system.</p> <p>Example:</p> <pre>A:&gt;syscfg --SysMfrContactInfo</pre> |

## SystemBiosVersion or biosver

Table 192. SystemBiosVersion or biosver

|                 |                                                                                                    |
|-----------------|----------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: Read-only</li></ul> |
|-----------------|----------------------------------------------------------------------------------------------------|

**Table 192. SystemBiosVersion or biosver (continued)**

|                    |                                                                                                                     |
|--------------------|---------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>On Dell's YX2X and later systems: Read-only</li> </ul>                       |
| <b>Description</b> | <p>Displays the current revision of the system BIOS firmware.</p> <p>Example:</p> <pre>A:&gt;syscfg --biosver</pre> |

## SystemManufacturer

**Table 193. SystemManufacturer**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the name of the Original Equipment Manufacturer (OEM) of this system.</p> <p>Example:</p> <pre>A:&gt;syscfg --SystemManufacturer</pre> |

## SystemModelName

**Table 194. SystemModelName**

|                        |                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: NA</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the product name of the system.</p> <p>Example:</p> <pre>A:&gt;syscfg --SystemModelName</pre>                                          |

## SystemServiceTag or svctag or syssvctag

**Table 195. SystemServiceTag or svctag or syssvctag**

|                        |                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: Read-only</li> <li>On Dell's YX2X and later systems: Read-only</li> </ul>                                                                                                                                                                                                                       |
| <b>Description</b>     | <p>Displays the system service tag (a unique identifier assigned by the Original Equipment Manufacturer (OEM) of this system).</p> <p> <b>NOTE:</b> The <code>syssvctag</code> option reports the system service tag on a Blade system.</p> <p>Example:</p> <pre>A:&gt;syscfg --svctag</pre> |

## SystemMeVersion

Table 196. SystemMeVersion

|                        |                                                                                                                                       |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX3X systems: NA</li><li>On Dell's YX3X systems: Read-only</li></ul> |
| <b>Description</b>     | <p>Displays the version of the Management Engine firmware.</p> <p>Example:</p> <pre>A:&gt;syscfg --SystemMeVersion</pre>              |

## UefiComplianceVersion

Table 197. UefiComplianceVersion

|                        |                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Read-only</li></ul> |
| <b>Description</b>     | <p>Displays the UEFI compliance level of the system firmware.</p> <p>Example:</p> <pre>A:&gt;syscfg --UefiComplianceVersion</pre>               |

## System Profile Settings

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

## CollaborativeCpuPerfCtrl

Table 198. CollaborativeCpuPerfCtrl

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Enabled, Disabled</li></ul>                                                                                                                                                                                                                                                                                |
| <b>Description</b>     | <p>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 (<i>ProcPwrPerf</i>) is set to system DBPM in <i>Custom</i> mode.</p> <p>Example:</p> <pre>A:&gt;syscfg --CollaborativeCpuPerfCtrl=Enabled</pre> <pre>CollaborativeCpuPerfCtrl=Enabled</pre> |

## MemFrequency or memorypowermode

Table 199. MemFrequency or memorypowermode

|                 |                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: min, 978, 800, 1067, 1333, max</li><li>On Dell's YX2X and later systems: MaxPerf, 2133MHz, 1866MHz, 1600MHz, 1333MHz, 1067MHz, 800MHz, MaxReliability</li></ul>                                                                                                                      |
| Description     | <p>Sets the speed of system memory.</p> <p> <b>NOTE:</b> On systems prior to Dell's 12th generation PowerEdge systems, memorypowermode is a suboption of <a href="#">Power</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --MemFrequency=MaxPerf</pre> <pre>MemFrequency=MaxPerf</pre> |

## MemPatrolScrub

Table 200. MemPatrolScrub

|                 |                                                                                                                                                                                                  |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Standard, Extended, Disabled</li></ul>                               |
| Description     | <p>Sets the Memory Patrol Scrub frequency as Standard Mode, Extended Mode, or Disabled.</p> <p>Example:</p> <pre>A:&gt;syscfg --MemPatrolScrub=Standard</pre> <pre>MemPatrolScrub=Standard</pre> |

## MemRefreshRate

Table 201. MemRefreshRate

|                 |                                                                                                                                              |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: 1x, 2x</li></ul> |
| Description     | <p>Sets the Memory Refresh Rate as 1x or 2x</p> <p>Example:</p> <pre>A:&gt;syscfg --MemRefreshRate=1x</pre> <pre>MemRefreshRate=1x</pre>     |

## MemVolt

Table 202. MemVolt

|                 |                                                                                                                                                                                                                                                                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: AutoVolt, Volt15V, Volt135V</li></ul> <p> <b>NOTE:</b> Volt15V represents 1.5 Volt and Volt135V represents 1.35 Volts.</p> |
| Description     | <p>Sets the DIMM voltage selection.</p> <p>Example:</p> <pre>A:&gt;syscfg --MemVolt=AutoVolt</pre> <pre>MemVolt=AutoVolt</pre>                                                                                                                                                                                                          |

## MonitorMwait

Table 203. MonitorMwait

|                 |                                                                                                                                                                                                                                   |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: NA</li><li>On Dell's YX2X and later systems: Enabled, Disabled</li></ul>                                                                           |
| Description     | <p>Enables or disables Monitor/Mwait instructions. You can disable Monitor/Mwait only when C state is disabled in Custom mode.</p> <p>Example:</p> <pre>A:&gt;syscfg --MonitorMwait=Enabled</pre> <pre>MonitorMwait=Enabled</pre> |

## PowerSaver

Table 204. PowerSaver

|                 |                                                                                                                                                                                       |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX3X systems: NA</li><li>On Dell's YX3X and later systems: Enabled, Disabled</li></ul>                               |
| Description     | <p>Enables or disables the power-saving Dell Active Power Controller (DAPC) algorithm.</p> <p>Example:</p> <pre>A:&gt;syscfg --PowerSaver=Enabled</pre> <pre>PowerSaver=Enabled</pre> |

## ProcC1E or cpucle

Table 205. ProcC1E or cpucle

|                 |                                                                                                                                                                              |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to Dell's YX2X systems: enable, disable</li><li>On Dell's YX2X systems and later systems: Enabled, Disabled</li></ul> |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Table 205. ProcC1E or cpucle (continued)**

|                    |                                                                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b> | <p>Enables or disables C1-E. By default, it is enabled. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --cpucle=enable</pre> <pre>cpucle=enable</pre> |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## ProcCStates or cstates

**Table 206. ProcCStates /or cstates**

|                        |                                                                                                                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems<br/>: enable, disable</li> <li>On Dell's YX2X and later systems<br/>: Enabled, Disabled</li> </ul>                         |
| <b>Description</b>     | <p>Enables or disables the power c states of the processor. When enabled, the processor can operate in all available power states.</p> <pre>A:&gt;syscfg --cstates=enable</pre> <pre>cstates=enable</pre> |

## ProcPwrPerf or cpupowermode

**Table 207. ProcPwrPerf or cpupowermode**

|                        |                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: min, max, osdbpm, systemdbpm</li> <li>On Dell's YX2X and later systems: MaxPerf, MinPwr, SysDbpm, OsDbpm</li> </ul>                                                                                                                                                                        |
| <b>Description</b>     | <p>Sets CPU Power Management to maximum performance, operating system DBPM, or System DBPM (DAPC).</p> <p> <b>NOTE:</b> The cpupowermode option is a suboption of <a href="#">Power</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --ProcPwrPerf=OsDbpm</pre> <pre>ProcPwrPerf=OsDbpm</pre> |

## ProcTurboMode or turbomode

**Table 208. ProcTurboMode or turbomode**

|                        |                                                                                                                                                                         |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: enable, disable</li> <li>On Dell's YX2X and later systems: Enabled, Disabled</li> </ul> |
| <b>Description</b>     | <p>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</p>       |

**Table 208. ProcTurboMode or turbomode (continued)**

|  |                                                                                                                                                                                                                   |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>whenever the other core has gone into an idle state. When enabled, the processor can operate in Turbo Boost Mode.</p> <p>Example:</p> <pre>A:&gt;syscfg --turbomode=enable</pre> <pre>--turbomode=enable</pre> |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SysProfile or profile

**Table 209. SysProfile or profile**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: maxperformance, osctl, apc, custom</li> <li>On Dell's YX2X and later systems: PerfPerWatt OptimizedOs, PerfPerWatt OptimizedDapc, PerfOptimized, Custom, DenseCfg Optimized</li> </ul>                                                                                                                                            |
| <b>Description</b>     | <p>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.</p> <p><b>i NOTE:</b> On systems prior to Dell's 12th generation PowerEdge systems, profile is a sub-option of <a href="#">power</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --profile=maxperformance profile=maxperformance</pre> |

## EnergyEfficientTurbo

**Table 210. EnergyEfficientTurbo**

|                        |                                                                                                                                                                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX3X systems: NA</li> <li>On Dell's YX3X and later systems: Enabled, Disabled</li> </ul>                                                                                                                                |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --EnergyEfficientTurbo=Enabled EnergyEfficientTurbo=Enabled</pre> |

## ProcTurboCoreNum

**Table 211. ProcTurboCoreNum**

|                        |                                                                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX3X systems: NA</li> <li>On Dell's YX3X and later systems: All, 1, 2, 4, 6, 8, 10, 12, 14, 16, 18</li> </ul> |
| <b>Description</b>     | <p>Sets the number of Turbos Boost-enabled cores for a processor. By default, the maximum number of cores per processor is enabled.</p>                                         |

**Table 211. Proc $n$ TurboCoreNum (continued)**

|  |                                                                                                                                                                                 |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>NOTE:</b> The value of <math>n</math> in Proc<math>n</math>TurboCoreNum can be 0–3.</p> <p>Example:</p> <pre>A:&gt;syscfg --Proc1TurboCoreNum=6 Proc1TurboCoreNum=6</pre> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## EnergyPerformanceBias

**Table 212. EnergyPerformanceBias**

|                        |                                                                                                                                                                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX3X systems: NA</li> <li>On Dell's YX3X and later systems: MaxPower, BalancedPerformance, BalancedEfficiency, LowPower</li> </ul>                                                                         |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --EnergyPerformanceBias=MaxPower</pre> |

## UncoreFrequency

**Table 213. UncoreFrequency**

|                        |                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX3X systems: NA</li> <li>On Dell's YX3X and later systems: DynamicUFS, MaxUFS, MinUFS</li> </ul>                                                                                                                                                                                                               |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --UncoreFrequency=DynamicUFS</pre> |

## 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**

|                        |                                                                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to Dell's YX2X systems: on, off, last</li> <li>On Dell's YX2X and later systems: On, Off, Last</li> </ul>          |
| <b>Description</b>     | <p>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</p> |

**Table 214. AcPwrRcvry acpower (continued)**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>systems that are turned off using a power strip. When set to <b>on</b>, the system turns on after AC is restored. When set to <b>off</b>, the system does not turn on after AC is restored. When set to <b>last</b>, 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.</p> <p>Example:</p> <pre>A:&gt;syscfg --acpower=on acpower=on</pre> |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## AcPwrRcvryDelay

**Table 215. AcPwrRcvryDelay**

|                        |                                                                                                                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Immediate, User, Random</li> </ul>                                                                         |
| <b>Description</b>     | <p>Specifies how the system supports the staggering of power-up after AC power has been restored to the system.</p> <p>Example:</p> <pre>A:&gt;syscfg --AcPwrRcvryDelay=Immediate  AcPwrRcvryDelay=Immediate</pre> |

## AcPwrRcvryUserDelay

**Table 216. AcPwrRcvryUserDelay**

|                        |                                                                                                                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: &lt;integer&gt;</li> </ul>                                                                        |
| <b>Description</b>     | <p>Controls the user defined AC Recovery Delay. The delay must be in the range of 60 seconds to 240 seconds.</p> <p>Example:</p> <pre>A:&gt;syscfg --AcPwrRcvryUserDelay=60  AcPwrRcvryUserDelay=60</pre> |

## AesNi

**Table 217. AesNi**

|                        |                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul> |
| <b>Description</b>     | <p>Displays the current status of Intel Processor AES-NI feature.</p>                                                                |

**Table 217. AesNi (continued)**

|  |                                                                                  |
|--|----------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --AesNi=Enabled</pre> <pre>AesNi=Enabled</pre> |
|--|----------------------------------------------------------------------------------|

## IntelTxt or inteltxt

**Table 218. IntelTxt or inteltxt**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: On, Off</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --inteltxt=enable</pre> <pre>inteltxt=enable</pre> <p><b>NOTE:</b> To enable the Intel TXT option in a supported processor, make sure that the:</p> <ul style="list-style-type: none"> <li>Virtualization technology in <b>Processor</b> setting is enabled.</li> <li>TPM module is installed and initialed as <b>OK</b> by BIOS.</li> <li>TPM security in System security is set to <b>on with pre-boot measurements</b>.</li> <li>User password is not set.</li> </ul> |

## NmiButton or nmibutton

**Table 219. NmiButton or nmibutton**

|                        |                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enable, disable</li> <li>On YX2X and later systems: Enabled, Disabled</li> </ul>                                                                                                                                                                                                                                      |
| <b>Description</b>     | <p>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.</p> <p><b>NOTE:</b> This option configures Baseboard Management Controller (BMC) and Remote Access Controller (RAC) settings.</p> <p>Example:</p> <pre>A:&gt;syscfg --nmibutton=enable</pre> <pre>nmibutton=enable</pre> |

## PasswordStatus or pwdlock

Table 220. PasswordStatus or pwdlock

|                 |                                                                                                                                                                                                                                                                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: lock, unlock</li><li>On YX2X and later systems: Locked, Unlocked</li></ul>                                                                                                                                                                                                  |
| Description     | <p>Locks the system password. To prevent the system password from being modified, set this option to <code>locked</code> and enable setup password. This field also prevents the system password from being disabled by the user while the system boots.</p> <p>Example:</p> <pre>A:&gt;syscfg --pwdlock=lock</pre> <pre>pwdlock=lock</pre> |

## PwrButton or powerbutton

Table 221. PwrButton or powerbutton

|                 |                                                                                                                                                            |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: enable, disable</li><li>On YX2X and later systems: Enabled, Disabled</li></ul>             |
| Description     | <p>Enables or disables the power button on the front panel.</p> <p>Example:</p> <pre>A:&gt;syscfg --powerbutton=enable</pre> <pre>powerbutton=enable</pre> |

## SetupPassword or setuppwd

Table 222. SetupPassword or setuppwd

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: read-only</li><li>On YX2X and later systems: read-only</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Description     | <p>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 <b>oldsetuppwd</b> option. This option is not replicated. For more information on delimiters, see <a href="#">Command Line Option Delimiters</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --setuppwd=asetuppassword</pre> <p>The password has been set. Please use a warm reboot to apply the password to the system.</p> <p>Example 2:</p> <pre>A:&gt;syscfg --setuppwd=asetuppassword --oldsetuppwd=currentpassword</pre> |

**Table 222. SetupPassword or setuppwd (continued)**

|  |                                                                                                                                                                                              |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>The password has been set. Please use a warm reboot to apply the password to the system.</p>                                                                                              |
|  | <p>Example 3:</p> <pre>A:&gt;syscfg --setuppwd=setuppassword -- oldsetuppwd=currentpassword The old password entered is incorrect. The new password will not be set. Please try again.</pre> |

## SysPassword or syspwd

**Table 223. SysPassword or syspwd**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: read-only</li> <li>On YX2X and later systems: read-only</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>     | <p>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 <b>oldsyspwd</b> option. This option is not replicated. For more information on delimiters, see <a href="#">Command Line Option Delimiters</a>.</p> <p>Example 1:</p> <pre>A:&gt;syscfg --syspwd=password The password has been set. Please use a warm reboot to apply the password to the system.</pre> <p>Example 2:</p> <pre>A:&gt;syscfg --syspwd=password --oldsyspwd=password The password has been set. Please use a warm reboot to apply the password to the system</pre> <p>.</p> <p><b>NOTE:</b> You cannot disable your password using DTK. To disable your password, you must use the system BIOS.</p> |

## SystemCpldVersion

**Table 224. SystemCpldVersion**

|                        |                                                                                                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: read-only</li> </ul>                                    |
| <b>Description</b>     | <p>Displays the current revision of the Complex Programmable Logic Device (CPLD) of the system.</p> <p>Example:</p> <pre>A:&gt;syscfg --SystemCpldVersion</pre> |

## TcmActivation or tcmactivation

Table 225. TcmActivation or tcmactivation

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments    | <ul style="list-style-type: none"><li>On systems prior to 12G: enabled, disabled, and nochange</li><li>On 12G systems: NoChange, Activate, Deactivate</li></ul>                                                                                                                                                                                                                                                                                                    |
| Description        | <p>Allows the user to change the operational state of the Trusted Cryptography Module (TCM). This field is read-only when <code>TCM_Security</code> is set to <code>Off</code>.</p> <p> <b>NOTE:</b> The <b>tcmactivation</b> option is a sub-option of <a href="#">tcm</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --tcmactivation=enabled</pre> <pre>tcmactivation=enabled</pre> |
| Applicable Systems | All systems prior to PowerEdge 13G systems.                                                                                                                                                                                                                                                                                                                                                                                                                        |

## TcmClear or tcmclear

Table 226. TcmClear or tcmclear

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX3X: Yes, No</li><li>On YX3X systems: NA</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Description     | <p> <b>CAUTION:</b> Clearing the TCM will cause loss of all keys in the TCM. This could affect booting of the operating system.</p> <p>When set to <code>Yes</code>, all the contents of the TCM will be cleared. This field is read-only when <code>TCMSecurity</code> is set to <code>Off</code>.</p> <p> <b>NOTE:</b> The <b>tcmclear</b> option is a sub-option of <a href="#">tcm</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --TcmClear=Yes</pre> <pre>TcmClear=Yes</pre> |

## TcmSecurity or tcmsecurity

Table 227. TcmSecurity or tcmsecurity

|                 |                                                                                                                                                                                                                                                                     |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | <ul style="list-style-type: none"><li>On systems prior to YX2X: on, off</li><li>On YX2X and later systems: On, Off</li></ul>                                                                                                                                        |
| Description     | <p>Controls the reporting of the Trusted Cryptography Module (TCM) in the system.</p> <p> <b>NOTE:</b> The <b>tcmsecurity</b> option is a sub-option of <a href="#">tcm</a>.</p> |

**Table 227. TcmSecurity or tcmsecurity (continued)**

|  |                                                                                    |
|--|------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --tcmsecurity=on</pre> <pre>tcmsecurity=on</pre> |
|--|------------------------------------------------------------------------------------|

## TpmActivation or tpmactivation

**Table 228. TpmActivation or tpmactivation**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: enabled, disabled, nochange</li> <li>On YX2X systems: NoChange, Activate, Deactivate</li> </ul>                                                                                                                                                                                                                                                                                               |
| <b>Description</b>     | <p>Allows the user to change the operational state of the Trusted Platform Module (TPM). This field is read-only when <code>TPM_Security</code> is set to <code>Off</code>.</p> <p> <b>NOTE:</b> The <b>tpmactivation</b> option is a sub-option of <a href="#">tpm</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --tpmactivation=enabled</pre> <pre>tpmactivation=enabled</pre> |

## TpmClear or tpmclear

**Table 229. TpmClear or tpmclear**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X systems: Yes, No</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>     | <p> <b>CAUTION:</b> Clearing the TPM will cause loss of all keys in the TPM. This could affect booting of the operating system.</p> <p>When set to <code>Yes</code>, all the contents of the TPM will be cleared. This field is read-only when <code>TCMSecurity</code> is set to <code>Off</code>.</p> <p> <b>NOTE:</b> The <b>tpmclear</b> option is a sub-option of <a href="#">tpm</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --TpmClear=Yes</pre> <pre>TpmClear=Yes</pre> |

## TpmSecurity or tpmsecurity

**Table 230. TpmSecurity or tpmsecurity**

|                        |                                                                                                                                                                  |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: off, onwithpbm, onwithoutpbm</li> <li>On YX2X and later systems: Off, OnPbm, OnNoPbm</li> </ul> |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Table 230. TpmSecurity or tpmsecurity (continued)**

|                    |                                                                                                                                                                                                                                                                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b> | <p>Controls the reporting of the Trusted Platform Module (TPM) in the system.</p> <p> <b>NOTE:</b> The <b>tpmsecurity</b> option is a sub-option of <b>tpm</b>.</p> <p>Example:</p> <pre>A:&gt;syscfg --tpmsecurity=off</pre> <pre>tpmsecurity=off</pre> |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## TpmStatus

**Table 231. TpmStatus**

|                        |                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the current status of TPM.</p> <p>Example:</p> <pre>A:&gt;syscfg --TpmStatus</pre>                               |

## TpmInfo

**Table 232. TpmInfo**

|                        |                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX3X: NA</li> <li>On YX3X and later systems: read-only</li> </ul> |
| <b>Description</b>     | <p>Displays the TPM type and firmware version.</p> <p>Example:</p> <pre>A:&gt;syscfg --TpmInfo</pre>                         |

## TpmCommand

**Table 233. TpmCommand**

|                        |                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX3X: NA</li> <li>On YX3X and later systems: None, Activate, Deactivate, Clear</li> </ul>                                                                                                                                                                              |
| <b>Description</b>     | <p>Configures the Trusted Platform Module (TPM).</p> <ul style="list-style-type: none"> <li>None <ul style="list-style-type: none"> <li>Commands are not sent to the TPM.</li> </ul> </li> <li>Activate — TPM is enabled.</li> <li>Deactivate — TPM is disabled.</li> <li>Clear — All the contents of TPM are cleared.</li> </ul> |

**Table 233. TpmCommand (continued)**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p> <b>NOTE:</b> This field is read-only when <code>TpmSecurity</code> is set to <code>Off</code>.</p> <p> <b>CAUTION:</b> Clearing TPM results in loss of all keys in the TPM. This could affect booting to operating system.</p> <p>Example:</p> <pre>A:&gt;syscfg --TpmCommand=Activate</pre> |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SecureBoot

**Table 234. SecureBoot**

|                        |                                                                                                                                                                                                                                                                                  |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Enabled.</li> </ul>                                                                                                                                                      |
| <b>Description</b>     | <p>Enables the <code>BootSeqRetry</code> feature. When set to <code>Enabled</code>, the system re-attempts the boot sequence after a 30-second timeout, if the last boot attempt has failed.</p> <p>Example:</p> <pre>A:&gt;syscfg --SecureBoot=Enabled SecureBoot=Enabled</pre> |

## SecureBootPolicy

**Table 235. SecureBootPolicy**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: Standard, Custom</li> </ul>                                                                                                                                                                                                                                                                                   |
| <b>Description</b>     | <p>Sets the process to authenticate pre-boot images. When set to <code>Standard</code>, the BIOS uses the system manufacturer keys and certificates to authenticate pre-boot images. When set to <code>Custom</code>, the BIOS uses user-defined keys and certificates. The default value is <code>Standard</code>.</p> <p>Example:</p> <pre>A:&gt;syscfg --SecureBootPolicy=Standard SecureBootPolicy=Standard</pre> |

## UefiVariableAccess

**Table 236. UefiVariableAccess**

|                        |                                                                                                                                                                                                                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX3X: NA</li> <li>On YX3X and later systems: Standard, Controlled</li> </ul>                                                                                                                                                                                                        |
| <b>Description</b>     | <p>Secures the UEFI variables. When set to <code>Standard</code>, the UEFI variables are accessible from the operating system as per the UEFI specification. When set to <code>Controlled</code>, selected UEFI variables are protected in the operating system and new UEFI boot entries are pushed to the end of the current boot order.</p> |

**Table 236. UefiVariableAccess (continued)**

|  |                                                                                                   |
|--|---------------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --UefiVariableAccess=Standard UefiVariableAccess=Standard</pre> |
|--|---------------------------------------------------------------------------------------------------|

## SecureBootMode

**Table 237. SecureBootMode**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: NA</li> <li>On YX4X and later systems: UserMode, DeployedMode.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>     | <p>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.</p> <p>In User Mode and Deployed Mode, PK is present, and BIOS performs signature verification on programmatic attempts to update policy objects.</p> <p>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.</p> <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --SecureBootMode=UserMode SecureBootMode=UserMode</pre> |

## TpmPpiBypassClear

**Table 238. TpmPpiBypassClear**

|                        |                                                                                                                                                                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: N/A</li> <li>On YX4X and later systems: Enabled, Disabled</li> </ul>                                                                                                                                                           |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --tpmPpiByPassClear=Enabled  tpmPpiBypassClear=Enabled</pre> |

## TpmPpiBypassProvision

**Table 239. TpmPpiBypassProvision**

|                        |                                                                                 |
|------------------------|---------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX4X: N/A</li> </ul> |
|------------------------|---------------------------------------------------------------------------------|

**Table 239. TpmPpiBypassProvision (continued)**

|                    |                                                                                                                                                                                                                                                                                                                          |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | <ul style="list-style-type: none"> <li>On YX4X and later systems: Enabled, Disabled</li> </ul>                                                                                                                                                                                                                           |
| <b>Description</b> | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --tpmPpiByPassProvision=Enabled</pre> <pre>tpmPpiBypassProvision=Enabled</pre> |

## UEFI Boot Settings

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

### UefiBootSeq

**Table 240. UefiBootSeq**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | <ul style="list-style-type: none"> <li>On systems prior to YX2X: NA</li> <li>On YX2X and later systems: list of device names separated by commas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>     | <p>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 <b>bootmode</b> is set to UEFI and has no effect when <b>bootmode</b> is set to BIOS.</p> <p> <b>NOTE:</b> Only the devices listed in the bootseq are enabled.</p> |

## 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**

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

**Table 242. DTKTORACADM Command on Linux Operating System**

| Valid Arguments    | <code>python dtktoracadm.py</code> or <code>python dtktoracadm.py linux_scripts.lst debug</code>                                                                                                                                                          |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description        | On the system running Linux operating system, in the prompt type the command, where <code>linux_scripts.lst</code> is the input which contains the list of path to run the RACADM scripts and <code>debug</code> 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 | <code>lcp --dnshcp</code>           | iDRAC.IPv4.DNSFromDHCP            |
|                | <code>lcp --domainname</code>       | iDRAC.NIC.DNSDomainName           |
|                | <code>lcp --dnsrcname</code>        | iDRAC.NIC.DNSRacName              |
|                | <code>lcp --dnsregisterrac</code>   | iDRAC.NIC.DNSRegister             |
|                | <code>--idractype</code>            | iDRAC.Info.Type -z legacy         |
|                | <code>--autoneg</code>              | iDRAC.NIC.Autoneg                 |
|                | <code>--gateway</code>              | iDRAC.IPv4.Gateway                |
|                | <code>--ipaddress</code>            | iDRAC.IPv4.Address                |
|                | <code>--macaddress</code>           | iDRAC.NIC.MACAddress              |
|                | <code>--nicselecionfailover</code>  | iDRAC.NIC.Failover                |
|                | <code>--subnetmask</code>           | iDRAC.IPv4.Netmask                |
|                | <code>--vlanid</code>               | iDRAC.NIC.VLANID                  |
|                | <code>--dnsserver1v6</code>         | get iDRAC.IPv6.DNS1               |
|                | <code>--dnsserver2v6</code>         | get iDRAC.IPv6.DNS2               |
|                | <code>--gatewayv6</code>            | iDRAC.IPv6.Gateway                |
|                | <code>--ipv6address1</code>         | iDRAC.IPv6.Address1               |
|                | <code>--ipv6address2</code>         | iDRAC.IPv6.Address2               |
|                | <code>--linklocaladdrv6</code>      | iDRAC.IPv6.LinkLocalAddress       |
|                | <code>--prefixlengthv6</code>       | iDRAC.IPv6.PrefixLength           |
|                | <code>--connectionmode</code>       | iDRAC.IPMISerial.ConnectionMode   |
|                | <code>--msgcommbitrate</code>       | iDRAC.IPMISerial.BaudRat          |
|                | <code>--msgcommflowctrl</code>      | iDRAC.IPMISerial.FlowControl      |
|                | <code>--tmcfghandshakectrl</code>   | iDRAC.IPMISerial.HandshakeControl |
|                | <code>--tmcfglineediting</code>     | iDRAC.IPMISerial.LineEdit         |
|                | <code>--tmcfgnewlineseq</code>      | iDRAC.IPMISerial.NewLineSeq       |
|                | <code>--solcharaccuminterval</code> | iDRAC.IPMISOL.AccumulateInterval  |
|                | <code>--solbitrate</code>           | iDRAC.IPMISOL.BaudRate            |
|                | <code>--solprivlevel</code>         | iDRAC.IPMISOL.MinPrivilege        |

**Table 243. SYSCFG equivalent RACADM commands (continued)**

| Group                  | SYSCFG Commands            | Equivalent RACADM Commands                   |
|------------------------|----------------------------|----------------------------------------------|
|                        | --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            |
|                        | --SetBootOrderFqddn        | BIOS.BiosBootSettings.SetBootOrderFqddn      |
|                        | --SetLegacyHddOrderFqddn   | 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     | --DcUlpPrefetcher          | BIOS.ProcSettings.DcUlpPrefetcher            |
|                        | --DcuStreamerPrefetcher    | BIOS.ProcSettings.DcuStreamerPrefetcher      |
|                        | --LogicalProc              | BIOS.ProcSettings.LogicalProc                |
|                        | --ProcExecuteDisable       | BIOS.ProcSettings.ProcExecuteDisable         |
|                        | --ProcHwPrefetcher         | BIOS.ProcSettings.ProcHwPrefetcher           |

**Table 243. SYSCFG equivalent RACADM commands (continued)**

| Group         | SYSCFG Commands      | Equivalent RACADM Commands           |
|---------------|----------------------|--------------------------------------|
|               | --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            |
|               | --proc2l2cache       | BIOS.procsettings.Proc2L2Cache       |
|               | --proc2l3cache       | BIOS.procsettings.Proc2L3Cache       |
|               | --proc2numcores      | BIOS.procsettings.Proc2NumCores      |
|               | --proc64bit          | BIOS.procsettings.Proc64bit          |
|               | --procadj cacheline  | BIOS.procsettings.ProcAdjCacheLine   |
|               | --procbusspeed       | BIOS.procsettings.ProcBusSpeed       |
|               | --proccorespeed      | BIOS.procsettings.ProcCoreSpeed      |
|               | --qpispeed           | BIOS.procsettings.QpiSpeed           |
|               | --proconfigtdp       | 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          |

**Table 243. SYSCFG equivalent RACADM commands (continued)**

| Group                | SYSCFG Commands      | Equivalent RACADM Commands                 |
|----------------------|----------------------|--------------------------------------------|
|                      | --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        |
|                      | --sataporti          | BIOS.SataSettings.SataPortI                |
|                      | --sataportimodel     | BIOS.SataSettings.SataPortIModel           |
|                      | --sataportidrivetype | BIOS.SataSettings.SataPortIDriveType       |
|                      | --sataporticapacity  | BIOS.SataSettings.SataPortICapacity        |
|                      | --sataportj          | BIOS.SataSettings.SataPortJ                |
|                      | --sataportjmodel     | BIOS.SataSettings.SataPortJModel           |
|                      | --sataportjdrivetype | BIOS.SataSettings.SataPortJDriveType       |
|                      | --sataportjcapacity  | BIOS.SataSettings.SataPortJCapacity        |
| Serial Communication | --ConTermType        | BIOS.SerialCommSettings.ConTermType        |
|                      | --ExtSerialConnector | BIOS.SerialCommSettings.ExtSerialConnector |
|                      | --FailSafeBaud       | BIOS.SerialCommSettings.FailSafeBaud       |
|                      | --RedirAfterBoot     | BIOS.SerialCommSettings.RedirAfterBoot     |
| Slot Disablement     | --Slotn              | BIOS.SlotDisablement.Slotn                 |
| 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 YX2X Systems

The following are the valid options and arguments supported on PowerEdge systems earlier than PowerEdge YX2X systems.

## assignintr

Table 244. assignintr

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | standard, distributed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Description     | <p>Controls the interrupt assignment of PCI devices in the system. This option is set to <b>standard</b> by default, causing standard interrupt routing that uses interrupt A, B, C, and D for all PCIe devices. When set to <b>distributed</b>, 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.</p> <p>Example:</p> <pre>A:&gt;syscfg --assignintr=standard</pre> <pre>assignintr=standard</pre> |

## bezelir

Table 245. bezelir

|                 |                                                                                                                                                                            |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | enable, disable                                                                                                                                                            |
| Description     | <p>Enables or disables the ESM to monitor and log front bezel intrusion conditions.</p> <p>Example:</p> <pre>A:&gt;syscfg --bezelir=enable</pre> <pre>bezelir=enable</pre> |

## cmosdefaults

Table 246. cmosdefaults

|                 |                                                                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | enable, disable                                                                                                                                                      |
| Description     | <p>Enables or disables the request for a default CMOS value during the next reboot.</p> <pre>A:&gt;syscfg --cmosdefaults=enable</pre> <pre>cmosdefaults=enable</pre> |

## conboot

Table 247. conboot

|                 |                                                                                                                                                                                                             |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | enable, disable                                                                                                                                                                                             |
| Description     | <p>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.</p> |

**Table 247. conboot (continued)**

|  |                                                                                    |
|--|------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --conboot=enable</pre> <pre>conboot=enable</pre> |
|--|------------------------------------------------------------------------------------|

## coreperformanceboost

**Table 248. coreperformanceboost**

|                        |                                                                                                                                                                                                                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | enable, disable                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --coreperformanceboost=enable</pre> <pre>coreperformanceboost=enable</pre> |

## dbpm

**Table 249. dbpm**

|                        |                                                                                                                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | enable, disable                                                                                                                                                       |
| <b>Description</b>     | <p>Enables or disables demand-based power management. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --dbpm=enable</pre> <pre>dbpm=enable</pre> |

## embhypervisor

**Table 250. embhypervisor**

|                        |                                                                                                                                             |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | off, on                                                                                                                                     |
| <b>Description</b>     | <p>Turns on or off the embedded hypervisor port.</p> <p>Example:</p> <pre>A:&gt;syscfg --embhypervisor=on</pre> <pre>embhypervisor=on</pre> |

## embideraid

Table 251. embideraid

|                 |                                                                                                                                                                                                                                              |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | on, off                                                                                                                                                                                                                                      |
| Description     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --embideraid=on</pre> <pre>embideraid=on</pre> |

## embnic1pxe

Table 252. embnic1pxe

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | enable, disable                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Description     | <p>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 <b>embnic1</b> option. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --embnic1pxe=enable</pre> <pre>embnic1pxe=enable</pre> |

## embnic2pxe

Table 253. embnic2pxe

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | enable, disable                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Description     | <p>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 <b>embnic2</b> option. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --embnic2pxe=enable</pre> <pre>embnic2pxe=enable</pre> |

## embnics

Table 254. embnics

|                 |                                                                                                                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | enable, disable                                                                                                                                                                         |
| Description     | <p>Turns both the embedded NICs on or off. This option is only present on systems that do not support the <b>embnic1</b> and <b>embnic2</b> options. This option can be replicated.</p> |

**Table 254. embnics (continued)**

|  |                                                                                      |
|--|--------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --embnics=enable</pre> <pre>--embnics=enable</pre> |
|--|--------------------------------------------------------------------------------------|

## embscsi1

**Table 255. embscsi1**

|                        |                                                                                                                                                                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | on, off                                                                                                                                                                                                                                             |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --embscsi1=on</pre> <pre>embscsi1=on</pre> |

## embscsi2

**Table 256. embscsi2**

|                        |                                                                                                                                                                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | on, off                                                                                                                                                                                                                                              |
| <b>Description</b>     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --embscsi2=on</pre> <pre>embscsi2=on</pre> |

## embscsiraid

**Table 257. embscsiraid**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | raid, off, scsi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>     | <p>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.</p> <p> <b>CAUTION: If you change the controller from SCSI to RAID mode, data loss may occur. Backup any data you must save before changing modes.</b></p> <p>Example:</p> <pre>A:&gt;syscfg --embscsiraid=raid</pre> <pre>embscsiraid=raid</pre> |

## embscsiraidchb

Table 258. embscsiraidchb

|                 |                                                                                                                                                                                                                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | raid, scsi                                                                                                                                                                                                                                                                                                           |
| Description     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --embscsiraidchb=raid</pre> <pre>embscsiraidchb=raid</pre> |

## embscsiraidchb

Table 259. embscsiraidchb

|                 |                                                                                                                                                                                                                                                                                                                      |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | raid, scsi                                                                                                                                                                                                                                                                                                           |
| Description     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --embscsiraidchb=raid</pre> <pre>embscsiraidchb=raid</pre> |

## fiberchannel

Table 260. fiberchannel

|                 |                                                                                                                                                                                |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | enable, disable                                                                                                                                                                |
| Description     | <p>Enables or disables embedded fiber channel. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --fiberchannel=enable</pre> <pre>fiberchannel=enable</pre> |

## floppy

Table 261. floppy

|                 |                                                                                                                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Option          | --floppy                                                                                                                                                                                                        |
| Valid Arguments | auto, off, readonly                                                                                                                                                                                             |
| Description     | <p>Sets the diskette drive controller to <b>auto</b>, <b>off</b>, or <b>readonly</b>. This option is available on all supported systems that have a supported diskette drive. This option can be replicated</p> |

**Table 261. floppy (continued)**

|  |                                                                              |
|--|------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --floppy=auto</pre> <pre>floppy=auto</pre> |
|--|------------------------------------------------------------------------------|

## formfactor

**Table 262. formfactor**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | read-only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>     | <p>Displays the geometry of PowerEdge Blade systems. The option can have the following values: <b>halfheight</b> (the Blade systems occupies 1 slot of the chassis), <b>halfheight, dualwide</b> (the Blade system occupies 2 horizontal slots of the chassis), <b>fullheight</b> (the Blade system occupies 2 vertical slots of the chassis), <b>fullheight, dualwide</b> (the Blade system occupies 4 slots of the chassis) and <b>quarterheight</b> (the Blade systems occupies half slot of the chassis).</p> <p>Example:</p> <pre>A:&gt;syscfg --formfactor=fullheight, dualwide</pre> <pre>formfactor=fullheight, dualwide</pre> |

## hpcmode

**Table 263. hpcmode**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | enable, disable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>     | <p>Enables or disables the High Performance Computing (HPC) Mode. When set to <b>enable</b>, the HPC is enabled utilizing only the high frequency P-State settings. When set to <b>disable</b> (default value), all P-States inherent to the CPU are used.</p> <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --hpcmode=enable</pre> <pre>hpcmode=enable</pre> |

## htassist

**Table 264. htassist**

|                        |                                                                                                                                                       |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | enable, disable                                                                                                                                       |
| <b>Description</b>     | <p>Enables or disables the <b>Probe Filter</b> chipset option. Some applications may have lower performance when the chipset feature is disabled.</p> |

**Table 264. htassist (continued)**

|  |                                                                                      |
|--|--------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --htassist=enable</pre> <pre>htassist=enable</pre> |
|--|--------------------------------------------------------------------------------------|

## idecdrom

**Table 265. idecdrom**

|                        |                                                                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | auto, off                                                                                                                                            |
| <b>Description</b>     | <p>Turns the CD drive on or off. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --idecdrom=auto</pre> <pre>idecdrom=auto</pre> |

## idracgui

**Table 266. idracgui**

|                        |                                                                                                                                                                  |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | enable, disable                                                                                                                                                  |
| <b>Description</b>     | <p>Enables and disables the iDRAC GUI. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --idracgui=disable</pre> <pre>idracgui=disable</pre> |

## lcd1

**Table 267. lcd1**

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

## lcd2

Table 268. 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 <a href="#">Command Line Option Delimiters</a> . |

## lpt

Table 269. lpt

| Valid Arguments | lpt1, lpt2, lpt3, disable                                                                                                                                                                                                                                                      |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description     | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg --lpt=lpt1</pre> <pre>lpt=lpt1</pre> |

## memdynamicpower

Table 270. memdynamicpower

| Valid Arguments | enable, disable                                                                                                                                                                               |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description     | <p>Enables or disables the dynamic memory power states. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --memdynamicpower=enable</pre> <pre>memdynamicpower=enable</pre> |

## memintleave

Table 271. memintleave

| Valid Arguments | enable, disable                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description     | <p>Enables or disables the memory interleave mode. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --memintleave=enable</pre> <pre>memintleave=enable</pre> <p> <b>NOTE:</b> The memintleave option is same as Nodeinterleave option. For more information, see <a href="#">Memory Settings</a> group.</p> |

## memremap

Table 272. memremap

|                 |                                                                                                                                               |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | off, auto                                                                                                                                     |
| Description     | <p>Sets the memory remapping to <b>off</b> or <b>auto</b>.</p> <p>Example:</p> <pre>A:&gt;syscfg --memremap=off</pre> <pre>memremap=off</pre> |

## mouse

Table 273. mouse

|                 |                                                                                                                                                             |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | on, off                                                                                                                                                     |
| Description     | <p>Turns the mouse controller on or off.</p> <p>This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --mouse=off</pre> <pre>mouse=off</pre> |

## noraidprompt

Table 274. noraidprompt

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Description     | <p>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 <b>--embcsiraid</b> or <b>--embcsiraidchb</b> options.</p> <p>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.</p> <p> <b>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</b></p> <p>Example:</p> <pre>A:&gt;syscfg --embcsiraid=raid --noraidprompt</pre> <pre>embcsiraid=raid</pre> |

## oldsetuppwd

Table 275. oldsetuppwd

| Valid Arguments | <string>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description     | <p>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 <a href="#">Command Line Option Delimiters</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg --setuppwd=asetuppassword --oldsetuppwd=currentpassword</pre> <p>The password has been set.Please use a warm reboot to apply the password to the system.</p> |

## oldsyspwd

Table 276. oldsyspwd

| Valid Arguments | <string>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description     | <p>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 <a href="#">Command Line Option Delimiters</a>.</p> <p>Example1:</p> <pre>A:&gt;syscfg --syspwd=&lt;anotherpassword&gt; --oldsyspwd=&lt;password&gt;</pre> <p>The password has been set.Please use a warm reboot to apply the password to the system.</p> <p>Example 2:</p> <pre>A:&gt;syscfg --syspwd=&lt;asyspassword&gt; --oldsyspwd=&lt;currentpassword&gt;</pre> <p>The old password entered is incorrect. The new password will not be set. Please try again.</p> |

## opticaldrivectl

Table 277. opticaldrivectl

| Valid Arguments | enable, disable                                    |
|-----------------|----------------------------------------------------|
| Description     | Enables or disables the optical CD-ROM controller. |

**Table 277. opticaldrivectl (continued)**

|  |                                                                                                    |
|--|----------------------------------------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --opticaldrivectl=enable</pre> <pre>opticaldrivectl=enable</pre> |
|--|----------------------------------------------------------------------------------------------------|

## power

**Table 278. power**

|                        |                                                                                                          |
|------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | NA                                                                                                       |
| <b>Description</b>     | For details about the power suboptions and arguments, see <a href="#">Sub Options For Power Option</a> . |

## remflashmedia

**Table 279. remflashmedia**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | read-only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>     | <p>Displays the redundancy status of internal dual SD module. The status can be:</p> <ul style="list-style-type: none"> <li>• Full — Secure digital card (SD) 1 and 2 are functioning properly.</li> <li>• Lost — Either any of the secure digital cards or both are not functioning properly.</li> </ul> <p>The option also displays the status of the individual SD cards as follows:</p> <ul style="list-style-type: none"> <li>• Active — The card is used for secure digital reads.</li> <li>• Standby — The card is receiving a copy of all secure digital reads.</li> <li>• Failed — An error is reported during a secure digital read or write.</li> <li>• Absent — No secure digital media is detected.</li> <li>• 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.</li> <li>• Write Protected — The card is write-protected.</li> </ul> <p>Example:</p> <pre>A:&gt;syscfg --remflashmedia</pre> <pre>Internal Dual SD ModuleRedundancy=Lost</pre> <pre>SD1 status=Absent</pre> <pre>SD1 status=Active</pre> |

## redmem

**Table 280. redmem**

|                        |                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | off, spare, mirror, DDDC                                                                                             |
| <b>Description</b>     | Allows selection of the required redundant memory mode, or disables redundant memory. This option can be replicated. |

**Table 280. redmem (continued)**

|  |                                                                 |
|--|-----------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --redmem=off redmem=off</pre> |
|--|-----------------------------------------------------------------|

## serial1

**Table 281. serial1**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | disable, com1, com3, com1_bmc, bmcserial, bmclan, rac                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>     | <p>Configures or reports the first serial port communication port. This option can be replicated.</p> <ul style="list-style-type: none"> <li>• bmcserial — maps serial port 1 to BMC Serial.</li> <li>• bmclan — routes the serial traffic destined for serial1 out to NIC1.</li> <li>• com1_bmc — maps serial port 1 to COM port 1 BMC.</li> <li>• rac — maps serial port 1 to the RAC device.</li> </ul> <p>Example:</p> <pre>A:&gt;syscfg --serial1=rac  serial1=rac</pre> |

## serial2

**Table 282. serial2**

|                        |                                                                                                                                                                           |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | auto, disable, com2, com4                                                                                                                                                 |
| <b>Description</b>     | <p>Configures or reports the second serial port communication port. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --serial2=rac  serial2=rac</pre> |

## slotname

**Table 283. slotname**

|                        |                                                                                                               |
|------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | read-only                                                                                                     |
| <b>Description</b>     | <p>Reports the slot name of the blade.</p> <p>Example:</p> <pre>A:&gt;syscfg --slotname  slotname=Slot5</pre> |

## sma

Table 284. sma

|                 |                                                                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | enable, disable                                                                                                                             |
| Description     | <p>Enables or disables processor sequential memory access.</p> <p>Example:</p> <pre>A:&gt;syscfg --sma=disable</pre> <pre>sma=disable</pre> |

## sysrev

Table 285. sysrev

|                 |                              |
|-----------------|------------------------------|
| Valid Arguments | read-only                    |
| Description     | Reports the system revision. |

## tcm

Table 286. tcm

|                 |                                                                                                             |
|-----------------|-------------------------------------------------------------------------------------------------------------|
| Option          | tcm                                                                                                         |
| Valid Arguments | NA                                                                                                          |
| Description     | For details about the <b>tcm</b> suboptions and arguments, see <a href="#">Sub Options For tcm Option</a> . |

## tpm

Table 287. tpm

|                 |                                                                                                             |
|-----------------|-------------------------------------------------------------------------------------------------------------|
| Valid Arguments | NA                                                                                                          |
| Description     | For details about the <b>tpm</b> suboptions and arguments, see <a href="#">Sub Options For tpm Option</a> . |

## usb

Table 288. usb

|                 |                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments | on, legacy, off                                                                                                                                                                                                                                                                                                                                                             |
| Description     | Sets or reports the status of the USB port. When set to <b>on</b> , USB keyboards and mice function only for systems with operating systems that have native <b>USB</b> support. When set to <b>legacy</b> , <b>USB</b> keyboards and mice are supported through the BIOS to function in operating systems that do not natively support USB. This option can be replicated. |

**Table 288. usb (continued)**

|  |                                                                    |
|--|--------------------------------------------------------------------|
|  | <p>Example:</p> <pre>A:&gt;syscfg --usb=on</pre> <pre>usb=on</pre> |
|--|--------------------------------------------------------------------|

## usbflash

**Table 289. usbflash**

|                        |                                                                                                                                                                                                                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | auto, fdd, hdd                                                                                                                                                                                                                                                                                     |
| <b>Description</b>     | <p>Sets or reports the emulation for an <b>USB</b> flash device. The <b>USB</b> flash device can be set to emulate a hard drive (<b>HDD</b>) or a diskette drive (<b>FDD</b>). This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg --usbflash=auto</pre> <pre>usbflash=auto</pre> |

## vflash

**Table 290. vflash**

|                        |                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Valid Arguments</b> | enable, disable                                                                                                              |
| <b>Description</b>     | <p>Enables or disables vflash on iDRAC.</p> <p>Example:</p> <pre>A:&gt;syscfg --vflash=enable</pre> <pre>vflash=enable</pre> |

# Sub Options And Arguments For power Option

**Table 291. Sub Options And Arguments For power Option**

| Option | Sub-option | Arguments                                                                                      | Description                                                                                                                                                                                                                                                                                                                |
|--------|------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| power  | --profile  | <p>&lt;powerprofile&gt;</p> <p>where <i>powerprofile</i> can be maxperformance, osctl, apc</p> | <p>Displays the settings similar to the BIOS setup screen for the respective profile. Reboot the system for the settings to take effect.</p> <p>If power profiles are not available on the platform, an error message is displayed.</p> <pre>A:&gt;syscfg power--<br/>profile=maxperformance --<br/>setuppwdoverride</pre> |

**Table 291. Sub Options And Arguments For power Option (continued)**

| Option | Sub-option                                                                                                             | Arguments                                                                                                                                                                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                                                                                                                        | custom                                                                                                                                                                     | Creates the custom profile. Reboot the system for the settings to take effect.<br><br>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.<br><br>Example:<br><br>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.<br><br>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.<br><br>A:>syscfg power --profile=custom --fanpowermode=min --setuppwdoverride<br><br><b>NOTE:</b> Set the value of <b>profile</b> to <b>custom</b> to change the values of <b>cpupowermode</b> , <b>memorypowermode</b> , and <b>fanpowermode</b> .                                                                                                                                          |
|        | --profile                                                                                                              | NA                                                                                                                                                                         | Displays the profile set and the respective profile parameters.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|        | --cap<br><b>NOTE:</b> 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><br>--unit<unit><br><b>NOTE:</b> This option is available only with the appropriate installed license. | <budgetcap> is the limit for power consumption in Watts, or btuphr, or percent.<br><br><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.<br><br>If the unit is btuphr, it is converted in to Watts using the formula <b>Watt = BTU/hr /3.413</b> . If the unit is percent, the formula is <b>Power Cap (Watts) = [Power supply rating for input power (Watts) - Min potential power (Watts)] * Power Cap (%) + Min potential power (Watts)</b> |

**Table 291. Sub Options And Arguments For power Option (continued)**

| Option | Sub-option         | Arguments | Description                                                                                                                                                                                                                                                                                                                                              |
|--------|--------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                    |           | <p>Example:</p> <pre>A:&gt;syscfg power --cap=&lt;value&gt; --unit=watt --setuppwdoverride</pre>                                                                                                                                                                                                                                                         |
|        | --maxpowercap      |           | Displays the value of the maximum power threshold.                                                                                                                                                                                                                                                                                                       |
|        | --minpowercap      |           | Displays the value of the minimum power threshold.                                                                                                                                                                                                                                                                                                       |
|        | --valsetuppwd      | <string>  | <p>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 <a href="#">Command Line Option Delimiters</a>.</p> <pre>A:&gt;syscfg power --profile=maxperformance --valsetuppwd=&lt;setup_password&gt;</pre> |
|        | --setuppwdoverride | NA        | <p>Does not prompt you for a password to access the DTK settings on systems that do not have a setup password configured.</p> <pre>A:&gt;syscfg power --profile=maxperformance -setuppwdoverride</pre>                                                                                                                                                   |

## Sub Options And Arguments For tcm Option

**Table 292. 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        | <p>Reports the presence of TCM to the operating system.</p> <p>Example:</p> <pre>A:&gt;syscfg tcm --tcmsecurity=off</pre>           |
|        | --tcmactivation | enabled   | Enables and activates the TCM feature.                                                                                              |
|        |                 | disabled  | Disables and deactivates the TCM feature.                                                                                           |
|        |                 | nochange  | <p>Does not alter the operational state of the TCM feature.</p> <p>Example:</p> <pre>A:&gt;syscfg tcm --tcmactivation=enabled</pre> |
|        | --tcmclear      | NA        | Clears the contents of the <b>TCM</b> chip without erasing the <b>tcmsecurity</b> and <b>tcmactivation</b> settings.                |

**Table 292. Sub Options And Arguments For tcm Option (continued)**

| Option | Sub-option     | Arguments | Description                                                                                                                                                      |
|--------|----------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                |           | <p>Example:</p> <pre>A:&gt;syscfg tcm -- tcmactivation=enabled --tcmclear -- setuppwdoverride</pre>                                                              |
|        | --tcmundoclear | NA        | <p>Cancels the result of the <b>tcmclear</b> setting.</p> <p>Example:</p> <pre>A:&gt;syscfg tcm -- tcmactivation=enabled --tcmundoclear --setuppwdoverride</pre> |

## Sub Options And Arguments For tpm Option

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

**Table 293. 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 | <p>Directs the BIOS to bypass the preboot measurements.</p> <p>Example:</p> <pre>A:&gt;syscfg tpm -- tpmsecurity=onwithoutpbm</pre> <pre>--setuppwdoverride</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|        | --tpmactivation | enabled      | Enables and activates the TPM feature.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|        |                 | disabled     | Disables and deactivates the TPM feature.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|        |                 | nochange     | <p>Does not alter the operational state of the TPM feature.</p> <p>Example:</p> <pre>A:&gt;syscfg tpm -- tpmactivation=enabled -- setuppwdoverride</pre> <p><b>NOTE:</b> You cannot set <b>tpmactivation</b> when <b>tpmsecurity</b> is set to <b>off</b>.</p> <p><b>NOTE:</b> After setting <b>tpmactivation</b> to <b>enabled</b> or <b>disabled</b>, if you reboot your system, <b>DTK displays</b> the TPM Configuration Honoured system will reset and the system reboots again <b>message and reboots</b>.</p> <p><b>NOTE:</b> When you set <b>tpmactivation</b> to <b>enabled</b> or <b>disabled</b>, DTK displays the value of</p> |

**Table 293. Sub Options And Arguments For tpm Option (continued)**

| Option | Sub-option         | Arguments | Description                                                                                                                                                                                                                                                                                                                                                                  |
|--------|--------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                    |           | <b>tpmactivation</b> as <b>nochange</b> . However, the TPM feature is activated/deactivated when you reboot the system.                                                                                                                                                                                                                                                      |
|        | --tpmclear         | NA        | <p>Clears the contents of the <b>TPM</b> chip without erasing the <b>tpmsecurity</b> and <b>tpmactivation</b> settings.</p> <p>Example:</p> <pre>A:&gt;syscfg tpm -- tpmactivation=enabled --tpmclear -- setuppwdoverride</pre>                                                                                                                                              |
|        | --undotpmclear     | NA        | <p>Cancels the result of the <b>tpmclear</b> setting. If you specify this setting before specifying the <b>tpmclear</b> setting, the There is currently no pending TPM Clear request message is displayed.</p> <p>Example:</p> <pre>A:&gt;syscfg tpm -- tpmactivation=enabled --undotpmclear --setuppwdoverride</pre>                                                        |
|        | --valsetuppwd      | <string>  | <p>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 <a href="#">Command Line Option Delimiters</a>.</p> <p>Example:</p> <pre>A:&gt;syscfg tpm -- tpmactivation=enabled --tpmclear -- valsetuppwd=&lt;setup_password&gt;</pre> |
|        | --setuppwdoverride | NA        | <p>On systems that do not have a setup password configured, if you set this option, you are not prompted for a password to access <b>DTK</b> settings.</p> <pre>A:&gt;syscfg tpm -- tpmactivation=enabled --tpmclear -- setuppwdoverride</pre>                                                                                                                               |

## 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 294. 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.<br>Example:<br><pre>A:&gt;syscfg bmcversion devid=32</pre><br><pre>devrevision=0</pre><br><pre>majorfwversion=0</pre><br><pre>minorfwversion=40</pre> |

## chassistype

**Table 295. 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).<br>Example:<br><pre>A:&gt;syscfg -- chassistype<br/>chassistype=10 (VRTX)</pre> |

## clearsel

**Table 296. clearsel**

| Option      | Sub-option | Valid Arguments | Description                                                          |
|-------------|------------|-----------------|----------------------------------------------------------------------|
| --clearsel* | NA         | NA              | Clears the System Event Log (SEL). This option cannot be replicated. |

Table 296. clearsel

| Option | Sub-option | Valid Arguments | Description                                                         |
|--------|------------|-----------------|---------------------------------------------------------------------|
|        |            |                 | <p>Example:</p> <pre>A:&gt;syscfg -- clearsel Clearing SEL...</pre> |

## controlpanelaccess

Table 297. controlpanelaccess

| Option               | Sub-option | Valid Arguments                         | Description                                                                                                                                                                               |
|----------------------|------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| --controlpanelaccess | NA         | viewandmodify,<br>viewonly,<br>disabled | <p>Sets or gets the access level for the Liquid Crystal Display (LCD).</p> <p>Example:</p> <pre>A:&gt;syscfg -- controlpanelaccess= viewandmodify controlpanelaccess= viewandmodify</pre> |

## deviceguid

Table 298. deviceguid

| Option        | Sub-option | Valid Arguments | Description                                                                                                                                        |
|---------------|------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| --deviceguid* | NA         | NA              | <p>Displays the GUID for the BMC. This option cannot be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg--deviceguid  deviceguid=XXXXXXXXXX</pre> |

## encryptkey

Table 299. encryptkey

| Option       | Sub-option | Valid Arguments      | Description                                                                                                                                                                                                                                                                                      |
|--------------|------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| --encryptkey | NA         | <hexadecimal number> | <p>Encrypts the IPMI sessions.</p> <p>The hexadecimal number entered as an argument is case insensitive although the value returned by the <code>encryptkey</code> option is always in uppercase.</p> <p>The value returned is appended with zeroes so that it is always 40 characters long.</p> |

Table 299. encryptkey

| Option | Sub-option | Valid Arguments | Description                                                                                                                      |
|--------|------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------|
|        |            |                 | <p>Example:</p> <pre>A:&gt;syscfg -- encryptkey=abcd</pre> <pre>encryptkey= ABCD000000000000 0000000000000000 000000000000</pre> |

## identify

Table 300. identify

|                    |                                                                                                                                                                                                                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valid Arguments    | 0–254                                                                                                                                                                                                                                                                                              |
| Description        | <p>Flashes the identification LED for a specified number of seconds.</p> <p> <b>NOTE:</b> Use 0 to stop the blinking of the LED.</p> <p>Example:</p> <pre>A:&gt;syscfg --identify=10</pre> <pre>identify=10</pre> |
| 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.                                                                                                         |
|                | --minorfwversion | NA              | <p>Reports the minor firmware revision of iDRAC.</p> <pre>A:&gt;syscfg --idracversion devid=32 devrevision=0 majorfwversion=0 minorfwversion=40</pre> |

## kvmstatusonlcd

Table 302. kvmstatusonlcd

| Option               | Sub-option | Valid Arguments     | Description                                                                                                                                                                    | Applicable Systems    |
|----------------------|------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| --<br>kvmstatusonlcd | NA         | active,<br>inactive | Configures the Dell Virtual KVM (vKVM) session status on the LCD.<br><br>Example:<br><br><pre>A:&gt;syscfg --<br/>kvmstatusonlcd=active</pre> <pre>kvmstatusonlcd=active</pre> | PowerEdge 11G systems |

## lancfgparams

Table 303. lancfgparams

| Option                 | Sub-option   | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|--------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| lancfgparams or<br>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>     | <p>Sets the destination IP address or Fully Qualified Domain Name (FQDN) for the alert destination specified with the alertdest sub-option.</p> <p>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.</p> <p><b>i NOTE:</b> FQDN is applicable only for destipaddr option and is supported only on PowerEdge 12G systems.</p> <p>Example 1 (to set the destination IP address):</p> <pre>A:&gt;syscfg lcp --alertdest=1 --<br/>destipaddr=192.168.100.15</pre> |

**Table 303. lancfgparams (continued)**

| Option | Sub-option                                                                                                            | Valid Arguments                                       | Description                                                                                                                                                                                                                                                                                                                               |
|--------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                                                                                                                       |                                                       | <p>Example 2 (to set the destination IP address as FQDN):</p> <pre>A:&gt;syscfg lcp --alertdest=1 --destipaddr=xxx.yyy.com</pre>                                                                                                                                                                                                          |
|        | --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<br><i>i</i> <b>NOTE:</b> 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.<br><i>i</i> <b>NOTE:</b><br>This option is applicable on systems prior to PowerEdge 12G systems. The sharedreceiveonall argument is available only on PowerEdge 11G systems. |
|        | --nicselection<br><i>i</i> <b>NOTE:</b> 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.<br><i>i</i> <b>NOTE:</b> This option is applicable on PowerEdge 11G systems.                                                                                   |
|        | --nicselectionfailover<br><i>i</i> <b>NOTE:</b> 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.<br><i>i</i> <b>NOTE:</b> This option is applicable on PowerEdge 12G systems.                                                                      |
|        | --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.                                                                                                                                                                                                                                                                                       |
|        | --dnshcp                                                                                                              | 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.                                                                                                                                                                                                                                                                 |

**Table 303. lancfgparams (continued)**

| Option | Sub-option           | Valid Arguments    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------|----------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | --dnsserver2         | <ipaddress>        | Sets the IP address of the secondary DNS server for domain name resolution.                                                                                                                                                                                                                                                                                                                                                                                                  |
|        | --dnsregisterrac     | enable,<br>disable | Enables or disables binding of the RAC name to the IP address.                                                                                                                                                                                                                                                                                                                                                                                                               |
|        | --dnsracname         | <string>           | Sets the name of the RAC.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|        | --domainnamefromdhcp | enable,<br>disable | Enables or disables getting the RAC domain name through DHCP.                                                                                                                                                                                                                                                                                                                                                                                                                |
|        | --domainname         | <string>           | <p>Sets the domain name of the RAC.</p> <p>Example 1 (to display the current LAN configuration settings):</p> <pre>A:&gt;syscfg --lancfgparams</pre> <pre>destipaddr=192.168.100.15</pre> <pre>vlantag=enable</pre> <pre>vlanid=1000</pre> <pre>vlanpriority=7</pre> <pre>macaddress=0:6:5b:fb:c8:a7</pre> <pre>commstring=public</pre> <pre>ipaddrsrc=static</pre> <pre>ipaddress=192.168.100.10</pre> <pre>subnetmask=255.255.255.0</pre> <pre>gateway=192.168.100.1</pre> |

**Table 303. lancfgparams (continued)**

| Option | Sub-option | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                      |
|--------|------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |            |                 | <p>Example 2 (to set the LAN configuration parameters):</p> <pre>A:&gt;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</pre> |

## 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 | <p>Sets the maximum privilege level accepted for the LAN channel. This sub-option can be replicated.</p> <p>Example (to configure the LAN channel with alerts and IPMI over LAN enabled):</p> <pre>A:&gt;syscfg lanchannelaccess-- pefalerting=enable -- ipmioverlan=alwaysavail</pre> |

## 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                                           | <p>Reports the number of User IDs with fixed names on the LAN channel.</p> <p>Example 1 (to enable User ID 2 on the LAN channel with administrator privileges):</p> <pre>A:&gt;syscfg lanuseraccess --userid=2 --usrprivlmt=administrator</pre> <p>Example 2 (to enable User ID 4 on the LAN channel with user privileges):</p> <pre>A:&gt;syscfg lanuseraccess --userid=4 --usrprivlmt=user</pre> |

## loaddefaults

Table 307. loaddefaults

| Option          | Sub-option | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                     |
|-----------------|------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| --loaddefaults* | NA         | NA              | <p>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.</p> <p> <b>NOTE:</b> The NMI, power button, and SOL defaults are not reset by using this option.</p> |

Table 307. loaddefaults

| Option | Sub-option | Valid Arguments | Description                                                                       |
|--------|------------|-----------------|-----------------------------------------------------------------------------------|
|        |            |                 | <p>Example:</p> <pre>A:&gt;syscfg --loaddefaults</pre> <p>Loading defaults...</p> |

## nextboot

Table 308. nextboot

| Option                            | Sub-option | Valid Arguments                                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------|------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| --nextboot or --OneTimeBootSeqDev | NA         | valid device name (from the bootseq option device list) | <p>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 <a href="#">--bootseq</a>. This option is not replicated.</p> <p>Example 1:</p> <pre>A:&gt;syscfg --bootseq</pre> <pre>Device 1: floppy.emb.0 - Diskette Drive A:</pre> <pre>Device 2: cdrom.emb.0 - CD-ROM device</pre> <pre>Device 3: hdd.emb.0 - Hard Drive C:</pre> <pre>Device 4: nic.emb.1 - Intel Boot Agent Version 4.0.17</pre> <pre>Device 5: nic.emb.2 - Intel Boot Agent Version 4.0.17</pre> <p>Example 2:</p> <pre>A:&gt;syscfg --nextboot=nic.emb.1</pre> <pre>nextboot=nic.emb.1</pre> |

## nmibutton

Table 309. nmibutton

| Option      | Sub-option | Valid Arguments | Description                                                        |
|-------------|------------|-----------------|--------------------------------------------------------------------|
| --nmibutton | NA         | enable, disable | Enables or disables the NMI button. This option can be replicated. |

Table 309. nmibutton

| Option | Sub-option | Valid Arguments | Description                                                                            |
|--------|------------|-----------------|----------------------------------------------------------------------------------------|
|        |            |                 | <p>Example:</p> <pre>A:&gt;syscfg --nmibutton=enable</pre> <pre>nmibutton=enable</pre> |

## passwordaction

Table 310. passwordaction

| Option         | Sub-option | Valid Arguments                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------|------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| passwordaction |            |                                              | <p>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.</p> <p><b>NOTE:</b> This option does not support 20 byte passwords.</p>                                                                                                                                                                                                                       |
|                | --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>                                     | <p>Sets the password (maximum of 16 printable ASCII characters) for the specified BMC User ID. This sub-option cannot be replicated.</p> <p>Example (to set and test the password for User ID 3):</p> <pre>A:&gt;syscfg passwordaction --userid=3 --action=setpassword --password=bmcmaster passwordaction userid=3 action=setpassword password=*****</pre> <pre>A:&gt;syscfg passwordaction --userid=3 --action=testpassword --password=bmcmaster</pre> <pre>Password test failed.</pre> |

## pefcfgparams

Table 311. pefcfgparams

| Option              | Sub-option | Valid Arguments    | Description                                                                          |
|---------------------|------------|--------------------|--------------------------------------------------------------------------------------|
| pefcfgparams or pcp |            |                    | Configures and displays PEF configuration parameters. This option can be replicated. |
|                     | --filter   | fanfail, voltfail, | Specifies a PEF value. This sub-option can be replicated.                            |

**Table 311. pefcfgparams (continued)**

| Option | Sub-option       | Valid Arguments                                                                                                                                                                                                                                                                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                  | discretevoltfail,<br>tempwarn,<br>tempfail,<br>intrusion,<br>redundegraded, redunlost,<br>procwarn,<br>procfail,<br>powerwarn,<br>powerfail,<br>hardwarelogfail,<br>autorecovery,<br>batterywarn,<br>batteryfail,<br>powerabsent,<br>procabsent,<br>systempowerwarn,<br>systempowerfail | For a complete list of all possible PEF messages along a description of each event, see <a href="#">BMC Platform Events Filter Alert Messages</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|        | --filteraction   | powercycle,<br>reset,<br>powerdown, powerreduction, 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.<br><br>The hostname string must comprise only the following 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.<br><br>Example: (to set the PEF configuration parameters):<br><br>Example 1 (To configure the PEF so that the system is powered down in response to a fan failure event):<br><br><pre>A:&gt;syscfg pefcfgparams --<br/>filter= fanfail--<br/>filteraction=powerdown</pre><br><pre>pefcfgparams filter=fanfail<br/>filteraction=powerdown</pre><br>Example 2 (To configure the PEF so that a PEF alert is not sent to the destination IP |

**Table 311. pefcfgparams (continued)**

| Option | Sub-option | Valid Arguments | Description                                                                                                                                                                                             |
|--------|------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |            |                 | <p>address in response to a chassis intrusion event):</p> <pre>A:&gt;syscfg pefcfgparams -- filter= intrusion-- filteralert=disable</pre> <pre>pefcfgparams filter= intrusion filteralert=disable</pre> |

**Table 312. pefcfgparams**

| Option                 | Sub-option     | Valid Arguments                                                                                                                                                                                                                                                                                                                         | Description                                                                                                                                                                                                                                                                                                 | Applicable Systems    |
|------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| pefcfgparams<br>or pcp |                |                                                                                                                                                                                                                                                                                                                                         | Configures and displays PEF configuration parameters. This option can be replicated.                                                                                                                                                                                                                        | All PowerEdge systems |
|                        | --filter       | fanfail,<br>voltfail,<br>discretevolt<br>fail,<br>tempwarn,<br>tempfail,<br>intrusion,<br>redundegrade<br>d,redunlost,<br>procwarn,<br>procfail,<br>powerwarn,<br>powerfail,<br>hardwarelogf<br>ail,<br>autorecovery<br>,<br>batterywarn,<br>batteryfail,<br>powerabsent,<br>procabsent,<br>systempowerw<br>arn,<br>systempowerf<br>ail | <p>Specifies a PEF value. This sub-option can be replicated.</p> <p>For a complete list of all possible PEF messages along a description of each event, see <a href="#">BMC Platform Events Filter Alert Messages</a></p> <p><b>NOTE:</b> The fanfail option is not supported on PowerEdge 10G systems.</p> |                       |
|                        | --filteraction | powercycle,<br>reset,<br>powerdown,<br>power<br>reduction,<br>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>                                                                                                                                                                                                                                                                                                                                | <p>Sets the host name (maximum of 62 printable ASCII characters) for the BMC. This sub-option can be replicated.</p> <p>The hostname string must comprise only the following characters: hyphen (-), underscore (_), and period (.) .</p>                                                                   |                       |

**Table 312. pefcfgparams (continued)**

| Option | Sub-option       | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Applicable Systems |
|--------|------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|        |                  |                 | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |
|        | --alertpolstatus | enable, disable | <p>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.</p> <p>Example: (to set the PEF configuration parameters):</p> <p>Example 1 (To configure the PEF so that the system is powered down in response to a fan failure event):</p> <pre>A:&gt;syscfg pefcfgparams --filter= fanfail-- filteraction=powerdown</pre> <pre>pefcfgparams filter=fanfail filteraction=powerdown</pre> <p>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):</p> <pre>A:&gt;syscfg pefcfgparams --filter= intrusion-- filteralert=disable</pre> <pre>pefcfgparams filter= intrusion filteralert=disable</pre> |                    |

## powerbutton

**Table 313. powerbutton**

| Option        | Sub-option | Valid Arguments | Description                                                          |
|---------------|------------|-----------------|----------------------------------------------------------------------|
| --powerbutton | NA         | enable, disable | Enables or disables the power button. This option can be replicated. |

**Table 313. powerbutton**

| Option | Sub-option | Valid Arguments | Description                                                                                |
|--------|------------|-----------------|--------------------------------------------------------------------------------------------|
|        |            |                 | <p>Example:</p> <pre>A:&gt;syscfg --powerbutton=enable</pre> <pre>powerbutton=enable</pre> |

## powerctl

**Table 314. powerctl**

| Option     | Sub-option | Valid Arguments | Description                                                                                                                                                                                                                                                                                            |
|------------|------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| --powerctl | NA         | powerdown       | <p>Performs a chassis powerdown and controls the reset of the system.</p> <p>Powerdown turns off the system.</p>                                                                                                                                                                                       |
|            |            | powercycle      | Turns off the system and automatically turns on your system after a few seconds.                                                                                                                                                                                                                       |
|            |            | reset           | Resets the system.                                                                                                                                                                                                                                                                                     |
|            |            | softshutdown    | <p>In Linux, the system turns off immediately.</p> <p><b>i NOTE:</b> In Windows PE, this option does not work.</p> <p><b>i NOTE:</b> This option applies only to PowerEdge systems that are configured with a BMC.</p> <p><b>i NOTE:</b> This argument requires ACPI support to function properly.</p> |

## racreset

**Table 315. 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 316. serialcfgparams**

| Option                    | Sub-option       | Valid Arguments       | Description                                                                                                   |
|---------------------------|------------------|-----------------------|---------------------------------------------------------------------------------------------------------------|
| serialcfgparams<br>or scp |                  |                       | Configures and displays serial configuration parameters. This option can be replicated.                       |
|                           | --connectionmode | basic, terminal       | Sets the connection mode used to perform <b>IPMI</b> messaging to the BMC. This sub-option can be replicated. |
|                           | --msgcomm        | noflowctrl,<br>rtscts | Sets the IPMI message communication flow control. This suboption can be replicated.                           |

**Table 316. serialcfgparams (continued)**

| Option | Sub-option             | Valid Arguments                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------|------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | --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.                                                                                                                                                                                                                                                                                                                                                                                          |
|        | --tmcfggechoctrl       | 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, lf | Sets the new line sequence value for terminal mode configuration. This sub-option can be replicated.                                                                                                                                                                                                                                                                                                                                                                                       |
|        | --tmcfginputnewlineseq | cr, null                         | <p>Sets the input new line sequence value for terminal mode configuration. This sub-option can be replicated.</p> <p>Example (to display the current serial configuration settings):</p> <pre>A:&gt;syscfg serialcfgparams serialcfgparams tmcfgdelctrl=del  tmcfggechoctrl=echo  tmcfghandshakectrl=enable  connectionmode=terminal  tmcfgnewlineseq=crlf  msgcommflowctrl=rtscts  tmcfginputnewlineseq=cr  msgcommdtrhangup=disable  msgcommbitrate=19200  tmcfglineediting=enable</pre> |

## serialchannelaccess

Table 317. serialchannelaccess

| Option                          | Sub-option       | Valid Arguments                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------|------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| --serialchannelaccess<br>or sca |                  |                                  | Sets or displays the channel access settings for the serial channel. This option can be replicated.                                                                                                                                                                                                                                                                                                                                          |
|                                 | --ipmioverserial | disable,<br>alwaysavail          | Sets the serial channel access mode. This sub-option can be replicated.                                                                                                                                                                                                                                                                                                                                                                      |
|                                 | --channelprivlmt | user, operator,<br>administrator | <p>Sets the maximum privilege level accepted for the serial channel. This sub-option can be replicated.</p> <p>Example (to configure the serial channel with <b>IPMI</b> over serial disabled and the maximum privilege level set to administrator):</p> <pre>A:&gt;syscfg serialchannel access -- ipmioverserial=disable  -- channelprivlmt=administ rator serialchannelaccess  ipmioverserial=disable  channelprivlmt=administ rator</pre> |

## serialchannelinfo

Table 318. serialchannelinfo

| Option                        | Sub-option       | Valid Arguments | Description                                                                                                     |
|-------------------------------|------------------|-----------------|-----------------------------------------------------------------------------------------------------------------|
| --serialchannelinfo<br>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. |

**Table 318. serialchannelinfo (continued)**

| Option | Sub-option | Valid Arguments | Description                                                                                |
|--------|------------|-----------------|--------------------------------------------------------------------------------------------|
|        |            |                 | <p>Example:</p> <pre>A:&gt;syscfg serialchannelinfo --mediumtype  mediumtype= asynch</pre> |

## serialuseraccess

**Table 319. serialuseraccess**

| Option                  | Sub-option              | Valid Arguments                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|-------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| serialuseraccess or sua |                         |                                              | Configures the privilege level and channel accessibility associated with a specified 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, no access     | Sets the maximum <b>BMC</b> user privilege level for the serial channel for the User ID specified using the <code>userid</code> sub-option. This sub-option can be replicated. This sub-option is dependent on the <code>userid</code> sub-option.                                                                                                                                                                                                                                 |
|                         | --currentenabledusers   | NA                                           | Reports the number of currently enabled User IDs on the serial channel. This sub-option can be replicated.                                                                                                                                                                                                                                                                                                                                                                         |
|                         | --useridswithfixednames | NA                                           | <p>Reports the number of User IDs with fixed names on the serial channel. This sub-option can be replicated.</p> <p>Example 1 (to enable User ID 2 on the serial channel with administrator privileges ) :</p> <pre>A:&gt;syscfg serialuseraccess -- userid=2 -- usrprivlmt=administrator  userid=2  usrprivlmt=administrator  status=enable</pre> <p>Example 2 (to enable User ID 4 on the serial channel with user privileges ):</p> <pre>A:&gt;syscfg serialuseraccess --</pre> |

**Table 319. serialuseraccess (continued)**

| Option | Sub-option | Valid Arguments | Description                    |
|--------|------------|-----------------|--------------------------------|
|        |            |                 | userid=4 --<br>usrprivlmt=user |
|        |            |                 | userid=4                       |
|        |            |                 | usrprivlmt=user                |
|        |            |                 | status=enable                  |

## solaction

**Table 320. solaction**

| Option    | Sub-option | Valid Arguments                              | Description                                                                                                                                                                                                                                           |
|-----------|------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| solaction |            |                                              | <p>This option enables or disables Serial-Over- LAN (SOL) access for a particular user. This option can be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg solaction --userid=2 --action=disable</pre> <pre>solaction userid=2 action=disable</pre> |
|           | --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 <code>userid</code> sub-option. This sub-option can be replicated and is dependent on the <code>userid</code> sub-option.                                                                         |

## solcfgparams

**Table 321. 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 |

**Table 321. solcfgparams (continued)**

| Option | Sub-option             | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------|------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                        |                 | 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     | <p>Sets the serial channel communication bit rate (in bps) with the BMC when SOL is activated. This option can be replicated.</p> <p><b>i NOTE:</b> 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.</p> <p>Example 1 (to display the current SOL configuration):</p> <pre>A:&gt;syscfg solcfgparams solcfgparams solenable=enable solprivlevel=administrator solcharaccum interval=25 solcharsend threshold=25 solbitrate=9600</pre> <p>Example 2 (to set the SOL configuration parameters):</p> <pre>A:&gt;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</pre> |

## ssninfo

**Table 322. ssninfo**

| Option  | Sub-option | Valid Arguments | Description                                                                                                                                                                                                                                                    |
|---------|------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ssninfo |            |                 | <p>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.</p> <p><b>i NOTE:</b> All PowerEdge systems prior to PowerEdge 12G systems.</p> |

**Table 322. ssninfo (continued)**

| Option | Sub-option          | Valid Arguments | Description                                                                                                                                                                                                   |
|--------|---------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | --maxactivessns     | NA              | Displays the maximum possible active BMC sessions. This sub-option cannot be replicated.                                                                                                                      |
|        | --currentactivessns | NA              | <p>Displays the number of currently active sessions on all channels of the BMC. This sub-option cannot be replicated.</p> <p>Example:</p> <pre>A:&gt;syscfg ssninfo currentactivessns=1 maxactivessns=4</pre> |

## 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 323. 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                              | <p>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.</p> <p>Example to disable User ID 3:</p> <pre>A:&gt;syscfg useraction --userid=3 -- action=disable</pre> <pre>useraction userid=3 action=disable</pre> |

## username

**Table 324. 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. |

**Table 324. username (continued)**

| Option | Sub-option | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                  |
|--------|------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |            |                 | <p>Example 1( to configure User ID 3 with a user name ):</p> <pre>A:&gt;syscfg username --userid=3 --name=bmcmaster</pre> <pre>username userid=3 name=bcmaster</pre> <p>Example 2 (to display the username for User ID 3):</p> <pre>A:&gt;syscfg username --userid=3 --name</pre> <pre>username userid=3 name=bcmaster</pre> |

## version

**Table 325. version**

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

## virtualmedia

**Table 326. virtualmedia**

| Option                                                                                                        | Sub-option | Valid Arguments       | Description                                                              |
|---------------------------------------------------------------------------------------------------------------|------------|-----------------------|--------------------------------------------------------------------------|
| --virtualmedia<br><i>i</i> <b>NOTE:</b> 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.

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

**Table 327. SYSCFG Options For State Configuration**

| Option                                                                                 | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -b or --byte                                                                           | <string>        | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg -b 1</pre> <p>The state byte has been set to 1.</p> <pre>A:&gt;syscfg -b 2 -x</pre> <p>The state byte has been set to 0x02.</p> |
| -r or --read*<br><b>i</b> <b>NOTE:</b> The asterisk is not part of the command syntax. | NA              | <p>Reads the value of state data. When used with the -x option, the value is reported in hexadecimal format (0xNN).</p> <p>Example:</p> <pre>A:&gt;sysfg -r -x</pre> <p>The state byte has been set to 0x02.</p> <pre>A:&gt;syscfg -r</pre> <p>The state byte has been set to 2.</p>                                                                                                                                                                                                       |
| -x or --hex                                                                            | None            | <p>Specifies that a value should be in hexadecimal format.</p> <p>Example:</p> <pre>A:&gt;sysfg -r -x</pre> <p>The state byte has been set to 0x01.</p> <pre>A:&gt;sysfg -x -b 0x02</pre> <p>The state byte has been set to 0x02.</p>                                                                                                                                                                                                                                                      |

## 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.

**i** **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 328. SYSCFG Options and Arguments for System Configuration**

| Option        | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| --asset       | None            | <p>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 <a href="#">Command Line Option Delimiters</a> .</p> <p>Example:</p> <pre>A:&gt;syscfg --asset</pre> <pre>asset=ASSET</pre> |
| --biosver*    | None            | <p>Reports the BIOS version for a system. If used with the -s option, the environment variable is set to the BIOS version.</p> <p>Example:</p> <pre>A:&gt;syscfg --biosver</pre> <pre>biosver=A08</pre>                                                                                                                                                                                                            |
| --chassvctag* | None            | <p>Reports the chassis service tag on blade systems.</p> <p>Example:</p> <pre>A:&gt;syscfg --chassvctag</pre> <pre>chassvctag=SVCTAG1</pre>                                                                                                                                                                                                                                                                        |
| --cpucount*   | None            | <p>Reports the number of processors found on the system.</p> <p>Example 1:</p> <pre>A:&gt;syscfg --cpucount cpucount=1</pre> <p>Example 2:</p> <pre>A:&gt;syscfg --cpucount cpucount=2</pre>                                                                                                                                                                                                                       |
| --cpuspeed*   | None            | <p>Reports the speed of all processors in a system.</p> <p>Example:</p> <pre>A:&gt;syscfg --cpuspeed</pre> <pre>cpuspeed=1000MHz</pre>                                                                                                                                                                                                                                                                             |
| --envfile     | <filename>      | <p>Reads the environment variable file (included in DTK as <code>sys.ini</code> ) 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 <a href="#">Environment Variable File</a>.</p>       |

**Table 328. SYSCFG Options and Arguments for System Configuration (continued)**

| Option   | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                 | <p>Example:</p> <pre>A:&gt;syscfg --envfile sys.ini</pre> <pre>DELLNIC1=INTEL PRO100 DELLNIC2=INTEL PRO100 DVIDEO1=RAGEXL DIDE1=PEQUR/ROSS IDE DSCSI1=AIC-7899</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| --mem*   | None            | <p>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).</p> <p>Example:</p> <pre>A:&gt;syscfg --mem</pre> <pre>mem=256MB</pre>                                                                                                                                                                                                                                 |
| -n       | <filename>      | <p>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 <a href="#">PCI Reporting</a> . This option must be used with the pci option.</p> <p>Example:</p> <pre>A:&gt;syscfg -n pci.txt --pci</pre> <pre>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</pre> <pre>PRO/100+ Dual Port Server Adapter Slot: 01 Class: 02 - Network SubClass: 00 - Ethernet</pre> |
| --ovrwr* | None            | <p>When used with the outfile option, this option specifies that the output file should be overwritten if it exists.</p> <p> <b>NOTE:</b> This option is applicable only on PowerEdge systems prior to 12G.</p> <p>Example:</p> <pre>A:&gt;syscfg -outfile=out.ini --ovrwr</pre>                                                                                                                                                                                                                                                                   |
| --pci*   | None            | <p>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</p>                                                                                                                                                            |

**Table 328. SYSCFG Options and Arguments for System Configuration (continued)**

| Option | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                 | <p>given and the <code>pci.ids</code> file cannot be found, Unknown is printed for all vendor and device codes.</p> <p>For more information, see <a href="#">PCI Reporting</a>.</p> <p>Example 1 (the <code>pci.ids</code> filename is specified in the command line instance):</p> <pre>A:&gt;syscfg -n pci.ids --pci</pre> <pre>PCI Bus: 0, Device: 0, Function: 0 Vendor: 1166 - ServerWorks Device: 0012 - CMIC-LE Slot: 00 Class: 06 - Bridge SubClass: 00 - CPU/PCI</pre> <pre>PCI Bus: 0, Device: 0, Function: 1 Vendor: 1166 - ServerWorks Device: 0012 - CMIC-LE Slot: 00 Class: 06 - Bridge SubClass: 00 - CPU/PCI</pre> <pre>PCI Bus: 0, Device: 0, Function: 2 Vendor: 1166 - ServerWorks Device: 0000 - Unknown Slot: 00 Class: 06 - Bridge SubClass: 00 - CPU/PCI</pre> |
|        | None            | <p>Example 2 (the <code>pci.ids</code> file is located in the same directory as the utility so that names resolve):</p> <pre>A:&gt;syscfg --pci</pre> <pre>PCI Bus: 0, Device: 0, Function: 0 Vendor: 1166 - ServerWorks Device: 0012 - CMIC-LE Slot: 00 Class: 06 - Bridge SubClass: 00 - CPU/PCI</pre> <pre>PCI Bus: 0, Device: 0, Function: 1 Vendor: 1166 - ServerWorks Device: 0012 - CMIC-LE Slot: 00 Class: 06 - Bridge SubClass: 00 - CPU/PCI</pre> <pre>PCI Bus: 0, Device: 0, Function: 2 Vendor: 1166 - ServerWorks Device: 0000 - Unknown Slot: 00 Class: 06 - Bridge SubClass: 00 - CPU/PCI</pre>                                                                                                                                                                        |

**Table 328. SYSCFG Options and Arguments for System Configuration (continued)**

| Option                 | Valid Arguments             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        | None                        | <p>Example 3 (a <code>pci.ids</code> file does not exist) :</p> <pre>A:&gt;syscfg --pci</pre> <pre>PCI Bus: 0, Device: 0, Function: 0 Vendor: 1166 - Unknown Device: 0012 - Unknown Slot: 00 Class: 06 - Bridge SubClass: 00 - CPU/PCI</pre> <pre>PCI Bus: 0, Device: 0, Function: 1 Vendor: 1166 - Unknown Device: 0012 - Unknown Slot: 00 Class: 06 - Bridge SubClass: 00 - CPU/PCI</pre> <pre>PCI Bus: 0, Device: 0, Function: 2 Vendor: 1166 - Unknown Device: 0000 - Unknown Slot: 00 Class: 06 - Bridge SubClass: 00 - CPU/PCI</pre> |
| <code>-s</code>        | <code>&lt;string&gt;</code> | <p>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.</p> <p>Example:</p> <pre>A:&gt;syscfg -s ENVNAME --svctag</pre> <pre>ENVNAME=SERVICE</pre>                                                                                                                                                                                        |
| <code>--slot*</code>   | None                        | <p>Reports the slot on a Blade system. If it is not a Blade system, the slot is reported as 0. If used with the <code>-s</code> option, the environment variable is set to the slot.</p> <p>Example 1 (Blade systems) :</p> <pre>A:&gt;syscfg --slot</pre> <pre>slot=1</pre> <p>Example 2 (Rack and Tower systems) :</p> <pre>A:&gt;syscfg --slot</pre> <pre>slot=0</pre> <p> <b>NOTE:</b> This option is valid only on PowerEdge blade systems.</p>    |
| <code>--svctag*</code> | None                        | <p>Reports the service tag for a system. If used with the <code>-s</code> option, the environment variable is set to the BIOS version.</p>                                                                                                                                                                                                                                                                                                                                                                                                 |

**Table 328. SYSCFG Options and Arguments for System Configuration (continued)**

| Option       | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                 | <p>Example:</p> <pre>A:&gt;syscfg --svctag</pre> <pre>svctag=113CD1S</pre>                                                                                                                                                                                                                                                                                                                                               |
| --sysasset*  | None            | <p>Reports the system asset tag on Blade systems.</p> <p>Example:</p> <pre>A:&gt;syscfg --sysasset</pre> <pre>sysasset=ASSET01</pre>                                                                                                                                                                                                                                                                                     |
| --sysid*     | None            | <p>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 <code>-s</code> general option, the environment variable is set to the system ID.</p> <p>Example:</p> <pre>A:&gt;syscfg --sysid</pre> <pre>sysid=0x00df</pre> |
| --sysname*   | None            | <p>Reports the system identification string for a server, which is the string displayed under the Dell logo during POST. If used with the <code>-s</code> option, the environment variable is set to the system name.</p> <p>Example:</p> <pre>A:&gt;syscfg --sysname</pre> <pre>sysname=PowerEdge 1550/1000</pre>                                                                                                       |
| --syssvctag* | None            | <p>Reports the system service tag on a Blade system.</p> <p>Example:</p> <pre>A:&gt;syscfg --syssvctag</pre> <pre>syssvctag=BLADE01</pre>                                                                                                                                                                                                                                                                                |
| --uuid*      | None            | <p>Reports the Unique User Identifier (UUID) for a system. The UUID is a unique system identifier used in PXE requests.</p> <p>Example:</p> <pre>A:&gt;syscfg --uuid</pre> <pre>uuid=44454C4C-5300-104C-8044- B1C04F423131</pre>                                                                                                                                                                                         |

# 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 329. SYSCFG For IPv6 Configuration**

| Option                  | Sub-option                                                                                                               | Valid Arguments | Description                                                                                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| lancfgparamsv6 or lcpv6 | --ipv6                                                                                                                   | enable, disable | Enables or disables the IPv6 stack.<br><br>A:> syscfg lcpv6 --ipv6=enable                                                                                                                      |
|                         | --ipsrcv6=static<br>--ipaddrv6= <ipv6address><br>--prefixlengthv6=<prefix lengthv6><br>--gatewayv6=<ipv6gateway address> | NA              | Allows you to manually configure IPv6 addresses.<br><br>A:>syscfg lcpv6<br><br>--ipsrcv6=static<br>--ipaddrv6=1234:1234:1234::1234<br><br>--prefixlengthv6=32<br>--gatewayv6=1234:1234:1234::1 |
|                         | --ipsrcv6=auto                                                                                                           | NA              | Automatically configures the IPv6 addresses.<br><br>A:>syscfg lcpv6 --ipsrcv6=auto                                                                                                             |
|                         | --dnssrcv6=auto                                                                                                          | NA              | Automatically configures the DNS address.<br><br>A:>syscfg lcpv6 --dnssrcv6=auto                                                                                                               |
|                         | --dnssrcv6=static<br>--dnsserverlv6=<ipv6dnsserver laddress>                                                             | NA              | Allows you to manually set the DNS address.                                                                                                                                                    |
|                         | --linklocaladdripv6=<linklocaladdripv6>                                                                                  |                 | Allows you to view IPv6 addresses.<br><br>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.

# 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 330. RAIDCFG Short and Long Format Options**

| Option                                                                       | Valid Arguments                                            | Short Description                                                                                                                                       | Mandatory or Optional                                                                   |
|------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <div>No option</div> <div>-h</div> <div>-?</div> <div>or</div> <div>/?</div> | NA                                                         | Displays general usage information for the utility. The usage information consists of a comprehensive list of valid options, parameters, and arguments. | Optional.<br>See <a href="#">General Help</a> for specific usage information.           |
| -ac or action                                                                | blink                                                      | Blinks the specified physical disks on the specified controller.                                                                                        | See <a href="#">Blinking And Unblinking Array Disks</a> for specific usage information. |
|                                                                              | <div>ci</div> <div>or</div> <div>cancelinit</div>          | Cancels the slow or full initialization on the selected virtual disk.                                                                                   | See <a href="#">Initializing Virtual Disks</a> for specific usage information.          |
|                                                                              | cc or consistencycheck                                     | Checks the consistency for a specified virtual disk.                                                                                                    | See <a href="#">Consistency Check For Virtual Disk</a> for specific information.        |
|                                                                              | ccc or cancelconsistencycheck                              | Cancels the consistency check for a specified virtual disk.                                                                                             | See <a href="#">Consistency Check For Virtual Disk</a> for specific information.        |
|                                                                              | <div>chsk</div> <div>or</div> <div>changesecuritykey</div> | Changes the encryption key of the encryption-capable controller.                                                                                        | See <a href="#">Changing Encryption Key</a> for specific information.                   |
|                                                                              | <div>crbd</div> <div>or</div> <div>cancelrebuild</div>     | Cancels the rebuild of the physical disk associated with a specified virtual disk.                                                                      | See <a href="#">Configuring Physical Disk Rebuild</a> for specific information.         |
|                                                                              | <div>ctr</div> <div>or</div> <div>converttoraid</div>      | Configures the array disk as RAID.                                                                                                                      | See <a href="#">Configuring Array Disk as RAID</a> for specific information.            |

**Table 330. RAIDCFG Short and Long Format Options (continued)**

| Option | Valid Arguments                                                    | Short Description                                                                                                                                                                                                                                                                   | Mandatory or Optional                                                                                      |
|--------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
|        | <div>csk</div> <div>or</div> <div>createsecuritykey</div>          | Creates encryption key for the encryption-capable controller.                                                                                                                                                                                                                       | See <a href="#">Creating Encryption Key</a> for specific information.                                      |
|        | <div>ctnr</div> <div>or</div> <div>converttononraid</div>          | Configures the array disk as JBOD.                                                                                                                                                                                                                                                  | See <a href="#">Configuring Array Disk as RAID</a> for specific information.                               |
|        | <div>cvd</div> <div>or</div> <div>createvdisk</div>                | Creates a virtual disk.<br><i><b>NOTE:</b></i> 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 <a href="#">Creating Virtual Disks</a> for specific usage information.                                 |
|        | <div>dvd</div> <div>or</div> <div>deletevdisk</div>                | Deletes a virtual disk.                                                                                                                                                                                                                                                             | See <a href="#">Deleting Virtual Disks</a> for specific usage information.                                 |
|        | <div>dpc</div> <div>or</div> <div>discardPreservedCache</div>      | Discards the preserved cache on the controller.                                                                                                                                                                                                                                     | See <a href="#">Discarding Preserved Cache</a> for specific usage information.                             |
|        | <div>dphs</div> <div>or</div> <div>disablepersistenthotspace</div> | Disables the controller Persistent Hot Spare feature for the selected controller.                                                                                                                                                                                                   | See <a href="#">Enabling and Disabling Persistent Dedicated Hot Spares</a> for specific usage information. |
|        | <div>dsk</div> <div>or</div> <div>deletesecuritykey</div>          | Deletes the encryption key of the encryption-capable controller.                                                                                                                                                                                                                    | See <a href="#">Deleting Encryption Key</a> for specific usage information.                                |
|        | <div>eai</div> <div>or</div> <div>enableautoimport</div>           | Configures the auto import property of the controller.                                                                                                                                                                                                                              | See <a href="#">Configuring Auto Import</a> for specific usage information.                                |

**Table 330. RAIDCFG Short and Long Format Options (continued)**

| Option | Valid Arguments                                                  | Short Description                                                                           | Mandatory or Optional                                                                                      |
|--------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
|        | <div>eph</div> <div>or</div> <div>enablepersistenthotspare</div> | Enables the controller Persistent Hot Spare feature for the selected controller.            | See <a href="#">Enabling and Disabling Persistent Dedicated Hot Spares</a> for specific usage information. |
|        | <div>evs</div> <div>or</div> <div>expandvdsiz</div>              | Increases the size of the virtual disk by the specified percentage.                         | See <a href="#">Increasing Virtual Disk Size</a> for specific usage information.                           |
|        | <div>fgnimp</div> <div>or</div> <div>foreignimport</div>         | Imports the foreign configuration for the indicated controller.                             | See <a href="#">Importing and Clearing Foreign Configurations</a> for specific usage information.          |
|        | <div>fgnclr</div> <div>or</div> <div>foreignclear</div>          | Clears the foreign configuration for the specified controller.                              | See <a href="#">Importing and Clearing Foreign Configurations</a> for specific usage information.          |
|        | <div>fgnrvr</div> <div>or</div> <div>foreignrecover</div>        | Recovers the foreign configuration for the specified controller.                            | See <a href="#">Importing and Clearing Foreign Configurations</a> for specific usage information.          |
|        | <div>fi</div> <div>or</div> <div>fastinit</div>                  | Initializes the virtual disk for the specified controller.                                  | See <a href="#">Initializing Virtual Disks</a> for specific usage information.                             |
|        | <div>gfki</div> <div>or</div> <div>getforeignkeyids</div>        | Displays the foreign key ids present on the specified controller.                           | See <a href="#">Displaying Foreign Key Ids</a> for specific usage information.                             |
|        | <div>gpciels</div> <div>or</div> <div>getPCIELinkSpeed</div>     | Displays the Peripheral Component Interconnect Express (PCIe) link speed of the controller. | See <a href="#">Setting and Displaying the PCIe Link Speed</a> for specific usage information.             |
|        | <div>insecerase</div>                                            | Erases the encrypted physical disk that is in ready or foreign disk state.                  | See <a href="#">Erasing Encrypted Physical Disk</a> for specific usage information.                        |

**Table 330. RAIDCFG Short and Long Format Options (continued)**

| Option | Valid Arguments                                                   | Short Description                                                                             | Mandatory or Optional                                                                                     |
|--------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
|        | or<br><code>instantsecureerase</code>                             |                                                                                               |                                                                                                           |
|        | <code>isfc</code><br>or<br><code>importsecureforeignconfig</code> | Imports the foreign configuration of the virtual disks secured with the specified passphrase. | See <a href="#">Importing Secured Foreign Configurations</a> for specific usage information.              |
|        | <code>lghs</code><br>or<br><code>listglobalhotspare</code>        | Displays the array (physical) disks used for global hot spare for the specified controller.   | See <a href="#">Assigning, Unassigning, And Listing Global Hot Spares</a> for specific usage information. |
|        | <code>offline</code>                                              | Sets the physical disk state to offline.                                                      | See <a href="#">Configuring Physical Disk State</a> for specific usage information.                       |
|        | <code>online</code>                                               | Sets the physical disk state to online.                                                       | See <a href="#">Configuring Physical Disk State</a> for specific usage information.                       |
|        | <code>rghs</code><br>or<br><code>removeglobalhotspare</code>      | Unassigns all global hot spares to disks on the specified controller.                         | See <a href="#">Assigning, Unassigning, And Listing Global Hot Spares</a> for specific usage information. |
|        | <code>replacepd</code><br>or<br><code>replacepdisk</code>         | Replaces the physical disk of a virtual disk by a ready state disk.                           | See <a href="#">Replacing Physical Disk Of A Virtual Disk</a> for specific usage information.             |
|        | <code>rbd</code><br>or<br><code>rebuild</code>                    | Rebuilds the physical disk associated with a specified virtual disk.                          | See <a href="#">Configuring Physical Disk Rebuild</a> for specific information.                           |
|        | <code>rst</code><br>or<br><code>reset</code>                      | Resets the selected controller.                                                               | See <a href="#">Resetting The Controller</a> for specific usage information.                              |
|        | <code>sbfc</code>                                                 | Sets the indicated virtual disk as boot VD on the indicated controller.                       | See <a href="#">Setting A Virtual Disk As Bootable Virtual Disk</a> for specific usage information.       |

**Table 330. RAIDCFG Short and Long Format Options (continued)**

| Option                                       | Valid Arguments                                                                                                                                                                                                             | Short Description                                                                                                                                                                                                                                                                                                                                                                                | Mandatory or Optional                                                                                               |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|                                              | or<br><code>setbootflag</code>                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                     |
|                                              | <code>sbm</code><br>or<br><code>setbootmode</code>                                                                                                                                                                          | 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 <a href="#">Setting Boot Mode</a> for specific usage information.                                               |
|                                              | <code>sghs</code><br>or<br><code>setglobalhotspare</code>                                                                                                                                                                   | Assigns the specified disks as global hot spares on the specified controller.                                                                                                                                                                                                                                                                                                                    | Optional. See <a href="#">Assigning, Unassigning, And Listing Global Hot Spares</a> for specific usage information. |
|                                              | <code>sli</code><br>or<br><code>slowinit</code>                                                                                                                                                                             | Initializes the virtual disk for the specified controller using the <code>slowinit</code> command.                                                                                                                                                                                                                                                                                               | See <a href="#">Initializing Virtual Disks</a> for specific usage information.                                      |
|                                              | <code>spciels</code><br>or<br><code>setPCIELinkSpeed</code>                                                                                                                                                                 | Sets the PCIe link speed of the controller to 2 or 3.                                                                                                                                                                                                                                                                                                                                            | See <a href="#">Setting And Displaying The PCIe Link Speed</a> for specific usage information.                      |
|                                              | <code>svdn</code><br>or<br><code>setvdname</code>                                                                                                                                                                           | Sets the name of the specified virtual disk on the specified controller.                                                                                                                                                                                                                                                                                                                         | See <a href="#">Setting Virtual Disk Name</a> for specific usage information.                                       |
| <code>-ad</code> or <code>adisk</code>       | NA                                                                                                                                                                                                                          | Specifies an array disk command.                                                                                                                                                                                                                                                                                                                                                                 | See <a href="#">Enumerating Array Disks</a> for specific usage information.                                         |
|                                              | <code>ch:targ, ch:targ, ...</code><br>or <code>ch:targ:lun, ...</code><br>or <code>ch:targ:enc</code><br><code>channel:target, or</code><br><code>channel:target:lun,</code><br>or<br><code>channel:target:enclosure</code> | Specifies an array disk.<br><br>For SCSI controllers, the value of LUN should always be 0.<br><br>For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.<br><br><b>NOTE:</b> You can also use <code>pdisk</code> or <code>-pd</code> instead of <code>adisk</code> or <code>-ad</code> to specify an array disk. | Optional.<br><br>See <a href="#">Enumerating Array Disks</a> for specific usage information.                        |
| <code>-c</code> or <code>controllerid</code> | <valid controller ID number>                                                                                                                                                                                                | Specifies a RAID controller.                                                                                                                                                                                                                                                                                                                                                                     | See <a href="#">Enumerating RAID Controllers</a> for specific usage information.                                    |

**Table 330. RAIDCFG Short and Long Format Options (continued)**

| Option               | Valid Arguments                                                                                                                                   | Short Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mandatory or Optional                                                                                                              |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| -cp or cachepolicy   | d or e                                                                                                                                            | Specifies the cache policy for reads on a specified virtual disk or disk cache policy.                                                                                                                                                                                                                                                                                                                                                                                                                | Optional.<br>See <a href="#">Creating Virtual Disks</a> 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.<br>See <a href="#">Enumerating RAID Controllers</a> for specific usage information. |
| -envc or envcommand  | <string>                                                                                                                                          | Sets a user-defined environmental variable (<string>) to the value returned from a function call.                                                                                                                                                                                                                                                                                                                                                                                                     | See <a href="#">Setting Environment Variables</a> for specific usage information.                                                  |
| -envn or envname     | <string>                                                                                                                                          | Sets the environment variable (<string>) that equates to the value returned from a function call.                                                                                                                                                                                                                                                                                                                                                                                                     | See <a href="#">Setting Environment Variables</a> for specific usage information.                                                  |
| -fd or failoverdrive | ch:targ, ch:targ, ...<br>or ch:targ:lun, ...<br>or ch:targ:enc<br><br>channel:target, or<br>channel:target:lun,<br>or<br>channel:target:enclosure | Specifies the location of the failover drive in an array.<br><br>For SCSI controllers, the value of LUN should always be 0.<br><br>For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.<br><br><b>i NOTE:</b> From DTK 2.4 onwards, the -fd option creates dedicated hot spares instead of global hot spares. To set global hot spares, see <a href="#">Assigning, Unassigning, And Listing Global Hot Spares</a> . | Optional.<br>See <a href="#">Creating Virtual Disks</a> 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.<br>See <a href="#">Miscellaneous Options</a> for specific usage information.                                            |
| -l or logfile        | <filename>                                                                                                                                        | Logs command line output to a file.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Optional.<br>See <a href="#">Miscellaneous Options</a> for specific usage information.                                             |
| -o                   | <filename>                                                                                                                                        | Reads the RAID configurations from all available controllers and write these configurations in the given .ini filename.                                                                                                                                                                                                                                                                                                                                                                               | Mandatory.<br>See <a href="#">RAID Replication Options</a> for specific usage information.                                         |
| -r or raid           | <valid RAID level number>                                                                                                                         | Sets the RAID level for the array.<br><br>Valid RAID values are 0, 1, 5, 10, 50.<br><br>If no value is specified for RAID, 0 is taken as the default level.                                                                                                                                                                                                                                                                                                                                           | Optional.<br>See <a href="#">Creating Virtual Disks</a> for specific usage information.                                            |

**Table 330. RAIDCFG Short and Long Format Options (continued)**

| Option                | Valid Arguments                | Short Description                                                                                                                                                                                                                                                                                                                                                                         | Mandatory or Optional                                                                           |
|-----------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| -rp or readpolicy     | ra, ara, nra, rc, nrc          | Sets the read policy for the virtual disk.                                                                                                                                                                                                                                                                                                                                                | Optional.<br>See <a href="#">Creating Virtual Disks</a> 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:<br>getcontrollerslots,<br>getfirmware,<br>getcontrollertype,<br>getadisks, getadiskcount,<br>getfreeadisks,<br>getfreeadiskcount,<br>getfreeadisksize, and<br>gethotspares.                                                                                                | Mandatory.<br>See <a href="#">Setting Environment Variables</a> for specific usage information. |
| -si or silent         | NA                             | Does not display any information on the terminal console.                                                                                                                                                                                                                                                                                                                                 | Optional.<br>See <a href="#">Miscellaneous Options</a> for specific usage information.          |
| -sp or spanlength     | <number>                       | The span size of RAID 5, which is a mandatory parameter for RAID 50.<br><br><b>i NOTE:</b> Spanlength is applicable for RAID 10, RAID 50, and RAID 60. The minimum permissible spanlength value is 2 for RAID 10, 3 for RAID 50 and 4 for 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.<br>See <a href="#">Creating Virtual Disks</a> 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.<br><br>The default size is in MB. If GB follows the number, the size is expressed in GB.                                                                                                                                                                                                               | Optional.<br>See <a href="#">Creating Virtual Disks</a> for specific usage information.         |
| -ssz or stripesize    | <number>                       | Sets the stripe size on the virtual disk in KB.<br><br><b>i NOTE:</b> When creating virtual disks, do not specify the units for chunk (stripe) size. The units are always listed in KB.                                                                                                                                                                                                   | Optional.<br>See <a href="#">Creating Virtual Disks</a> 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 <a href="#">Enumerating Virtual Disks</a> for specific usage information.                   |
|                       | <valid virtual disk ID number> | Displays the specified virtual disk.                                                                                                                                                                                                                                                                                                                                                      | Optional.<br>See <a href="#">Enumerating Virtual Disks</a> for specific usage information.      |

**Table 330. RAIDCFG Short and Long Format Options (continued)**

| Option             | Valid Arguments      | Short Description                                                                                                                                                                              | Mandatory or Optional                                                                  |
|--------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| -ver or version    | NA                   | Displays the version number of the utility.                                                                                                                                                    | Optional.<br>See <a href="#">Miscellaneous Options</a> 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.<br>See <a href="#">Miscellaneous Options</a> 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 331. General Help**

| Option            | Parameters | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No option-h-?or/? | NA         | NA              | <p>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.</p> <p>Example:</p> <pre>A:&gt;raidcfg -h</pre> <pre>RAIDCFG v5</pre> <pre>Copyright (c) 2002-2014 Dell Inc.</pre> <pre>[raidcfg]</pre> <p>Help: options in &lt;&gt; are mandatory and options in [] are optional and can be in any order after mandatory ones.</p> <pre>raidcfg -h</pre> <p>Provides users with general help options that may be used with this utility.</p> |

## Enumerating RAID Controllers

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

**Table 332. Enumerating RAID Controllers**

| Mandatory Options and Arguments | Optional Parameters | Valid Parameters Arguments   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------|---------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -ctrl or controller             | NA                  | NA                           | <p>Lists all the RAID controllers on the host system, along with select property information. This option is mandatory</p> <p>Example:</p> <pre>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!</pre>                                                                                                     |
|                                 | -c or controllerid  | <valid controller ID number> | <p>Displays the properties for the RAID controller with the specified controller ID. This option combination is mandatory.</p> <p>Example:</p> <pre>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 T10 Protection Info Capable: Yes Encryption Capable: Yes Encryption Key Present: Yes RAIDCFG Command successful!</pre> |

## 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 333. Creating Virtual Disks**

| Mandatory Options and Arguments                                                                                                                                                                                                                                | Optional Parameters                            | Valid Parameters Arguments                                                                                                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-ctrl -ac=cvd -c=id -ad=ch:targ,ch:targ, ... [or ch:targ:encl,...]</code><br>or<br><code>controller action=createvdisk controllerid= id adisk= channel:target:lun,... channel:target:lun,...</code><br>[or<br><code>channel:target:enclosure,...]</code> | NA                                             | NA                                                                                                                                        | <p>Creates a virtual disk comprising the properties supplied. This option combination is mandatory.</p> <p><b>NOTE:</b> Create a bootable virtual disk only from the disk drives of slot 0-3 of the system.</p> <p>For SCSI controllers, the value of LUN should always be 0.</p> <p>For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -ac=cvd -c=2 -ad=1:4,1:8 -r=1 -ssz=32 -cp=d -rp=nra -wp=wt -fd=1:1</pre> <p>RAIDCFG Command successful!</p>                                                                                |
|                                                                                                                                                                                                                                                                | <code>-cp</code> or <code>cachepolicy</code>   | d or e                                                                                                                                    | <p>Valid arguments for disk cache policy are:</p> <ul style="list-style-type: none"> <li>• d — Disable</li> <li>• e — Enable</li> </ul> <p>The <code>-cp</code> option is optional and can be added to the command line in any order after the mandatory option combination.</p>                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                                                                                                                                                                                | <code>-fd</code> or <code>failoverdrive</code> | ch:targ, ch:targ, ... or<br>ch:targ:lun,... or<br>ch:targ:enc<br>channel:target, or<br>channel:target:lun, or<br>channel:target:enclosure | <p>Sets the failover drive for the virtual disk. The <code>-fd</code> option is optional and can be added to the command line in any order after the mandatory option combination.</p> <p><b>NOTE:</b> From DTK 2.4 onwards, the <code>-fd</code> option creates dedicated hot spares instead of global hot spares. For information about setting global hot spares, see <a href="#">Assigning, Unassigning, And Listing Global Hot Spares</a>.</p> <p>For SCSI controllers, the value of LUN should always be 0.</p> <p>For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.</p> |
|                                                                                                                                                                                                                                                                | <code>-r</code> or <code>-raid</code>          | 0, 1, 5, 6, 10, 50, 60                                                                                                                    | <p>Sets the RAID type or level for the virtual disk.</p> <p><b>NOTE:</b> If this option is not specified for any RAID controller, RAID 0 is taken as the default.</p> <p>The valid arguments are:</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>                                                                                                                                                                                                                                                             |

**Table 333. Creating Virtual Disks (continued)**

| Mandatory Options and Arguments                                                                                                                                                                                           | Optional Parameters          | Valid Parameters Arguments       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                           |                              |                                  | <ul style="list-style-type: none"> <li>• 1 — RAID 1 is the simplest form of maintaining redundant data. In RAID 1, data is mirrored or duplicated on one or more drives.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> </ul> |
| <pre>-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,...]</pre> | <pre>-rp or readpolicy</pre> | <pre>ra, ara, nra, rc, nrc</pre> | <p> <b>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.</b></p> <p>Sets the SCSI read policy for the virtual disk. Specify the SCSI read policy for the logical drive. The valid arguments are:</p> <ul style="list-style-type: none"> <li>• <b>ra</b> — (read-ahead) The controller reads sequential sectors of the disk when seeking data.</li> <li>• <b>ara</b> — (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.</li> <li>• <b>nra</b> — (No-Read-Ahead) The controller does not read sequential sectors of the disk when seeking data.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                     |

**Table 333. Creating Virtual Disks (continued)**

| Mandatory Options and Arguments                                                                                                                                                                                               | Optional Parameters           | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                               |                               |                            | <p><b>i</b> <b>NOTE:</b> The <b>ra</b>, <b>ara</b>, and <b>nra</b> options are supported on the following RAID controllers only:</p> <ul style="list-style-type: none"> <li>• PERC 5/E Adapter, PERC 5/I Integrated, PERC 5/i Adapter</li> <li>• PERC 6/i Integrated, PERC 6/i Adapter, PERC 6/E Adapter</li> <li>• rc — (Read-Caching) Enables read caching.</li> <li>• nrc — (No-Read-Caching) Disables read caching.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <pre>-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,...]</pre> | <pre>-sp or spanlength</pre>  | <pre>&lt;number&gt;</pre>  | <p>Creates a virtual disk comprised of the properties supplied. The <b>-sp</b> option is optional and can be added to the command line in any order after the mandatory option combination.</p> <p><b>i</b> <b>NOTE:</b> 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.</p> <p><b>i</b> <b>NOTE:</b> 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.</p> <p>For SCSI controllers, the value of LUN should always be 0.</p> <p>For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.</p> |
| <pre>-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,...</pre>                                        | <pre>-ssz or stripesize</pre> | <pre>&lt;number&gt;</pre>  | <p>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 <b>-ssz</b> 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.</p> <p>For SCSI controllers, the value of LUN should always be 0.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

**Table 333. Creating Virtual Disks (continued)**

| Mandatory Options and Arguments                                                                                                                                                                                                                                   | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [or<br>channel:target:<br>enclosure,...]                                                                                                                                                                                                                          |                     |                            | 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 -<br>c=id -ad=<br>ch:targ,ch:targ ,<br>... [or<br>ch:targ:encl,...]<br>or<br>controller<br>action=<br>createvdisk<br>controllerid= id<br>adisk=<br>channel:target:<br>lun,<br>channel:target:<br>lun,... [or<br>channel:target:<br>enclosure,..     | -str or strict      | <number>                   | <p>Strict (-str parameter) is the percentage of expected array disk utilization.</p> <p>Example:</p> <pre>A:&gt; raidcfg -ctrl -ac= cvd -c=0 -ad=0:0,0:1 - r=1 -str=20</pre> <p>If the unused portion of an array disk is greater than the mentioned percentage, raidcfg aborts.</p> <p>For SCSI controllers, the value of <b>LUN</b> should always be 0.</p> <p>For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| -ctrl -ac=cvd -<br>c=id -ad=<br>ch:targ,ch:targ,<br>... [or<br>ch:targ:encl,...]<br>or<br>controller<br>action=<br>createvdisk<br>controllerid= id<br>adisk=<br>channel:target:<br>lun,...<br>channel:target:<br>lun,... [or<br>channel:target:<br>enclosure,...] | -sz or -size        | <number>                   | <p>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 added to the command line in any order after the mandatory option combination.</p> <p>The minimum virtual disk size that you can create for various controllers is as follows:</p> <ul style="list-style-type: none"> <li>For PERC 5 controllers: <ul style="list-style-type: none"> <li>RAID 0: 100 MB</li> <li>RAID 1: 100 MB</li> <li>RAID 5: 100 MB</li> </ul> </li> <li>For PERC 6 controllers: <ul style="list-style-type: none"> <li>RAID 0: 100 MB</li> <li>RAID 1: 100 MB</li> <li>RAID 5: 100 MB</li> <li>RAID 6: 100 MB</li> <li>RAID 60: 100 MB</li> </ul> </li> <li>For PERC 7, PERC 8, and PERC 9 controllers: <ul style="list-style-type: none"> <li>RAID 0: 100 MB</li> <li>RAID 1: 100 MB</li> <li>RAID 5: 100 MB</li> <li>RAID 6: 100 MB</li> <li>RAID 10: 100 MB</li> <li>RAID 50: 100 MB</li> <li>RAID 60: 100 MB</li> </ul> </li> <li>Software RAID controllers: <ul style="list-style-type: none"> <li>RAID 0: 100 MB</li> <li>RAID 1: 100 MB</li> <li>RAID 5: 100 MB</li> </ul> </li> </ul> |

**Table 333. Creating Virtual Disks (continued)**

| Mandatory Options and Arguments                                                                                                                                                                                        | Optional Parameters                     | Valid Parameters Arguments      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                        |                                         |                                 | <ul style="list-style-type: none"> <li>RAID 10: 100 MB</li> </ul> <p><b>NOTE:</b> If this option is not provided, RAIDCFG determines the maximum virtual disk size and creates it.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <pre>-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,...]</pre> | <pre>-vdpi or vdiskprotectioninfo</pre> | <pre>0,1</pre>                  | <p>Creates a virtual disk with the T10 Protection Information (PI) feature enabled.</p> <p><b>NOTE:</b> This option is supported only on PERC 9 controllers.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -ac=cvd -c=2 -ad=1:4,1:8 -vdpi=1</pre> <pre>RAIDCFG Command successful!</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                        | <pre>-wp or writepolicy</pre>           | <pre>wb, wt, wc, nwc, fwb</pre> | <p>Sets the write policy for the virtual disk. The valid arguments are:</p> <ul style="list-style-type: none"> <li><b>wb</b> — 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.</li> <li><b>wt</b> — Write-Through caching sets the controller to send a write-request completion signal only after the data is written to the disk.</li> </ul> <p><b>NOTE:</b> The wb and wt options are supported on the following RAID controllers only:</p> <ul style="list-style-type: none"> <li>PERC 5/E Adapter, PERC 5/I Integrated, PERC 5/i Adapter</li> <li>PERC 6/i Integrated, PERC 6/i Adapter, PERC 6/E Adapter</li> <li>PERC 7, PERC 8, and PERC 9</li> </ul> <ul style="list-style-type: none"> <li><b>wc</b> — Write-Caching sets the controller to send a write-request completion signal only after the data is written to the disk.</li> <li><b>nwc</b> — No-Write-Caching specifies that the controller does not send a write-request completion signal after the data is written to the disk.</li> <li><b>fwb</b> — 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</li> </ul> |

**Table 333. Creating Virtual Disks (continued)**

| Mandatory Options and Arguments | Optional Parameters                         | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------|---------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 |                                             |                            | <p><b>NOTE:</b> The <code>-w</code> option is optional and can be added to the command line in any order after the mandatory option combination.</p> <p>For SCSI controllers, the value of LUN should always be 0.</p> <p>For SAS controllers, the value of enclosure can be non-zero, in which case you must specify values for channel, target, and enclosure.</p> |
|                                 | <code>-sf</code> or <code>secureflag</code> | 0, 1                       | <p>Creates a secured virtual disk on controllers with encryption capability and encryption key.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -ac=cvd -c=2 -ad=1:4,1:8 -sf=1</pre> <pre>RAIDCFG Command successful!</pre>                                                                                                                                             |

## 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 334. Enumerating Array Disks (Hard Drives)**

| Mandatory Options and Arguments                 | Optional Parameters | Valid Parameters/ Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------|---------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-ad -c=id or adisk controllerid=id</code> | NA                  | NA                          | <p>Lists all the array disks attached to the specified RAID controller. This option combination is mandatory.</p> <p><b>NOTE:</b> The following example displays the output of a Series 7 controller.</p> <p><b>NOTE:</b> The software controller does not display the <code>NegSpeed</code>, <code>CapSpeed</code>, <code>Certified</code> and <code>Supported</code> parameters.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ad -c=2</pre> <pre>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</pre> |

**Table 334. Enumerating Array Disks (Hard Drives) (continued)**

| Mandatory Options and Arguments | Optional Parameters | Valid Parameters/ Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------|---------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 |                     |                             | <pre> 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) 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! </pre> |
|                                 | -vd=id or vdisk=id  |                             | <p>Lists the array disks that make up the virtual disk on the specified RAID controller. This option combination is mandatory.</p> <p>Example:</p> <pre> A:&gt;raidcfg -ad -c=4 -vd=0 Controller: PERC H710P Adapter ***** Physical Drive *****Drive Vendor: DELL (tm) Model: ST3450757SS </pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**Table 334. Enumerating Array Disks (Hard Drives) (continued)**

| Mandatory Options and Arguments               | Optional Parameters                                                              | Valid Parameters/ Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------|----------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               |                                                                                  |                             | <pre> 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! </pre>                                                                                                                                                                                                                      |
| <pre>-ad -c=id or adisk controllerid=id</pre> | <pre>-ad= ch:targ,ch:t arg,... adisk= channel:tar get, channel:tar get,...</pre> |                             | <p>Displays information about the specified array disk. This option combination is mandatory.</p> <p>Example:</p> <pre> A:&gt;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 Encryption Capable: Yes Secured: No Sector Size: 512 MB T10 Protection Info Capable: No  RAIDCFG Command successful! </pre> |

## 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 335. 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<br>adisk=channel:target , channel:target ,. .. -ac=blink<br>controllerid= id<br>vdisk=id       | NA                  | NA                         | Blinks the specified physical disks on the specified controller.<br><br>Example:<br><br>A:>raidcfg -ad -ad=0:0:1 -ac=blink -c=4<br>RAIDCFG Command successful!     |
| -ad -ad=ch:targ,ch:targ , ... -ac= unblink -c=id or adisk<br>adisk=channel:target , channel:target ,. .. -ac= unblink<br>controllerid= id<br>vdisk=id | NA                  | NA                         | Unblinks the specified physical disks on the specified controller.<br><br>Example:<br><br>A:>raidcfg -ad -ad=0:0:1 -ac=unblink -c=4<br>RAIDCFG Command successful! |

## Enumerating Virtual Disks

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

**Table 336. 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.<br><br>Example:<br><br>A:>raidcfg -vd<br>Controller: PERC H710P Adapter<br>VDisk ID: 0<br>Virtual Disk Name: Virtual Disk 0<br>Size: 857344 MB (837 GB)<br>Type: RAID 0<br>Read Policy: Adaptive Read Ahead<br>Write Policy: Write Back<br>Cache Policy: Disabled<br>Stripe Size: 64<br>Drives: 0:0:1,0:1:1<br>BootVD: No<br>T10 Protection Info: Disabled<br>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.                                                                                                                                                                                                                                                                                  |

**Table 336. Enumerating Virtual Disks (continued)**

| Mandatory Options and Arguments     | Optional Parameters | Valid Parameters Arguments     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------|---------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     |                     |                                | <p>Example:</p> <pre>A:&gt;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</pre> <p>RAIDCFG Command successful!</p>                                                                                                                                                                                                                                                                                     |
| -vd -c=id or vdisk controllerid= id | -vd or vdisk        | <valid virtual disk ID number> | <p>Displays details about a single virtual disk under the indicated controller. The <b>-vd -c= id</b> option combination is mandatory. The second <b>-vd</b> option is optional and can be added to the command line in any order after the mandatory option combination.</p> <p>Example:</p> <pre>A:&gt;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</pre> <p>RAIDCFG Command successful!</p> |

## Deleting Virtual Disks

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for deleting virtual disks.

**Table 337. Deleting Virtual Disks**

| Mandatory Options and Arguments                                     | Optional Parameters | Valid Parameters Arguments | Description                                                                                  |
|---------------------------------------------------------------------|---------------------|----------------------------|----------------------------------------------------------------------------------------------|
| -vd -ac=dvd -c=id<br>or<br>vdisk action=deletevdisk controllerid=id | NA                  | NA                         | Deletes all virtual disks on the indicated controller. This option combination is mandatory. |

**Table 337. Deleting Virtual Disks (continued)**

| Mandatory Options and Arguments                                                                    | Optional Parameters | Valid Parameters Arguments     | Description                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------|---------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                    |                     |                                | <p>Example:</p> <pre>A:&gt;raidcfg -vd -ac=dvd -c=2</pre> <pre>RAIDCFG Command successful!</pre>                                                                                                                                                                                                                                                      |
| <pre>-vd -ac=dvd -c=id</pre> <p>or</p> <pre>vdisk<br/>action=deletevdisk<br/>controllerid=id</pre> | -vd or vdisk        | <valid virtual disk ID number> | <p>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.</p> <p>Example:</p> <pre>A:&gt;raidcfg -vd -ac=dvd -c=2 -vd=0</pre> <pre>RAIDCFG Command successful!</pre> |

**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 338. Increasing Virtual Disk Size**

| Mandatory Options and Arguments                                                                                                          | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>-vd -c=id -vd=vdid -ac=evs -szinper=% or vdisk<br/>controllerid=id<br/>vdisk=vdid<br/>action=expandvdsize<br/>sizeinpercent=%</pre> | NA                  | NA                         | <p>Increases the size of the virtual disk by the specified percentage.</p> <p>Example:</p> <pre>A:&gt;raidcfg -vd -c=2 -vd=2 -ac=evs -szinper=25</pre> |

## 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 339. Setting A Virtual Disk As Bootable Virtual Disk**

| Mandatory Options and Arguments       | Optional Parameters | Valid Parameters Arguments     | Description                                                                           |
|---------------------------------------|---------------------|--------------------------------|---------------------------------------------------------------------------------------|
| <pre>-vd -ac=sbf -c=id or vdisk</pre> | -vd or vdisk        | <valid virtual disk ID number> | Sets the specified virtual disk as bootable virtual disk on the specified controller. |

**Table 339. Setting A Virtual Disk As Bootable Virtual Disk**

| Mandatory Options and Arguments            | Optional Parameters | Valid Parameters Arguments | Description                                                                      |
|--------------------------------------------|---------------------|----------------------------|----------------------------------------------------------------------------------|
| action=<br>setbootflag<br>controllerid= id |                     |                            | Example:<br><br>A:>raidcfg -vd -ac=sbf -c=2 -vd=0<br>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 340. Blinking And Unblinking Virtual Disks**

| Mandatory Options and Arguments                                                        | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------|---------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -vd -vd=id<br>ac=blink -c=id or<br>vdisk vdisk=id<br>action=blink<br>controllerid=id   | NA                  | NA                         | Blinks the physical disks associated with the specified virtual disk on the specified controller.<br><br>Example:<br><br>A:>raidcfg -vd -vd=2 -ac=blink -c=2<br>RAIDCFG Command successful!   |
| -vd -vd=id<br>ac=unblink -c=id<br>or vdisk vdisk=id<br>action=blink<br>controllerid=id | NA                  | NA                         | Unblinks the physical disks associated with the specified virtual disk on the specified controller.<br><br>Example:<br><br>A:>raidcfg -vd -vd=2 -ac=blink -c=2<br>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 341. Setting Virtual Disk Name**

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

## Setting Environment Variables

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for setting the CLI environment.

**Table 342. Setting Environment**

| Mandatory Options and Arguments                                                                                                                              | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>-se -envn=&lt;string&gt; -envc=&lt;function&gt; or setenvironment envname=&lt;string&gt; envcommand=&lt;function&gt; &gt;</pre>                         | NA                  | NA                         | <p>Sets a user-defined environment variable to the value returned from the <code>getcontrollerslots</code> function call. This option combination is mandatory.</p> <p>Example:</p> <pre>A:&gt;raidcfg -se -envn=CNTRL - envc=getcontrollerslots CNTRL=0 1 2</pre> <pre>RAIDCFG Command successful!</pre>                                                                                                                                                                                                         |
| <pre>-se -envn=&lt;string&gt; -envc=&lt;function&gt; or setenvironment envname=&lt;string&gt; envcommand=&lt;function&gt; &gt;</pre>                         | -f or filename      | <filename>                 | <p>Captures the environment output to the given filename. This option either appends the information to an existing file or creates a new file.</p>                                                                                                                                                                                                                                                                                                                                                               |
| <pre>-se -envn=&lt;string&gt; - envc=&lt;function&gt; - c=id or setenvironment envname=&lt;string&gt; envcommand=&lt;function&gt; &gt; controllerid=id</pre> | NA                  | NA                         | <p>Sets a user-defined environment variable to the value returned from the <code>getfirmware</code>, <code>getcontrollertype</code>, <code>getadisks</code>, <code>getadiskcount</code>, <code>getfreeadisks</code>, <code>getfreeadiskcount</code>, <code>getfreeadisksize</code>, or <code>gethotspares</code> function call. This option combination is mandatory.</p> <p>Example:</p> <pre>A:&gt;raidcfg -se -envn=FIRMWARE -envc=getfirmware -c=2 FIRMWARE=531T</pre> <pre>RAIDCFG Command successful!</pre> |

## Function Calls of Setenvironment Option

The following table lists the function calls of the `setenvironment` option.

**Table 343. Function Calls of the setenvironment Option**

| Function Call            | Description                                                |
|--------------------------|------------------------------------------------------------|
| <code>getfirmware</code> | Returns the firmware version of the specified controllers. |

**Table 343. Function Calls of the setenvironment Option (continued)**

| Function Call     | Description                                                                                                                                                                                                                                         |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <p>Example:</p> <pre>A:&gt;raidcfg -se -envn=FIRMWARE -envc= getfirmware -c=2</pre> <pre>FIRMWARE=531T</pre> <pre>RAIDCFG Command successful!</pre>                                                                                                 |
| getcontrollertype | <p>Returns LSI for LSI controllers and ADAP for Adaptec controllers.</p> <p>Example:</p> <pre>A:&gt;raidcfg -se -envn=CONTROLLERTYPE -envc= getcontrollertype -c=2</pre> <pre>CONTROLLERTYPE=LSI</pre> <pre>RAIDCFG Command successful!</pre>       |
| getadisks         | <p>Returns the array disks attached to the controller.</p> <p>Example:</p> <pre>A:&gt;raidcfg -se -envn=ADISKS -envc=getadisks -c=2</pre> <pre>ADISKS=0:0:1,0:1:1,0:2:1</pre> <pre>RAIDCFG Command successful!</pre>                                |
| getfreeadiskcount | <p>Returns the number of free array disks found in the specified controller.</p> <p>Example:</p> <pre>A:&gt;raidcfg -se -envn=FREEADISKCOUNT -envc= getfreeadiskcount -c=2</pre> <pre>FREEADISKCOUNT=2</pre> <pre>RAIDCFG Command successful!</pre> |
| getfreeadisksize  | <p>Returns the total size of the free array disks in megabytes.</p> <p>Example:</p> <pre>A:&gt;raidcfg -se -envn=FREEADISKSIZE -envc= getfreeadisksize -c=2</pre> <pre>FREEADISKSIZE=15346</pre> <pre>RAIDCFG Command successful!</pre>             |
| gethotspares      | <p>Returns the global hot spares (global failover disks) found on the specified controller.</p>                                                                                                                                                     |

**Table 343. Function Calls of the setenvironment Option (continued)**

| Function Call | Description                                                                                                                                                                                  |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <p>Example:</p> <pre>A:&gt;raidcfg -se -envn=HOTSPARES -envc= gethospares -c=2</pre> <pre>HOTSPARES=1:8:1,1:9:1</pre> <pre>RAIDCFG Command successful!</pre>                                 |
| getfreeadisks | <p>Returns the free array disks.</p> <pre>A:&gt;raidcfg -se -envn=GETFREEADISKS -envc= getfreeadisks -c=2</pre> <pre>GETFREEADISKS=0:3:1,0:4:1</pre> <pre>RAIDCFG Command successful!</pre>  |
| getadiskcount | <p>Returns the total number of array disks.</p> <pre>A:&gt;raidcfg -se -envn=GETADISKCOUNT -envc= getadiskcount -c=2</pre> <pre>GETADISKCOUNT=1</pre> <pre>RAIDCFG Command successful!</pre> |

## RAID Replication Options

The following table lists the RAID replication options.

**Table 344. RAID Replication Options**

| Mandatory Options and Arguments | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                       |
|---------------------------------|---------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -i                              | NA                  | <filename>                 | <p>Reads the RAID configuration information from the given <b>.ini</b> filename and creates the <b>RAID</b> configurations on the specified controllers. This option is mandatory.</p> <p>Example:</p> <pre>A:&gt; raidcfg -i=\tmp\raid.ini</pre> |
| -o                              | NA                  | <filename>                 | <p>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.</p>                                                   |

**Table 344. RAID Replication Options (continued)**

| Mandatory Options and Arguments | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------|---------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 |                     |                            | <p>Example:</p> <pre>A:&gt; raidcfg -o=\tmp\raid.ini</pre> <p>The contents of the raid.ini file are:</p> <pre>[vdisk0] controllerid=0 size=123456 raid=5 readpolicy=ra writepolicy=wt 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</pre> <p><b>NOTE:</b> If the controller uses global hot spares, the <b>raid.ini</b> file contains the following section:</p> <pre>[GlobalHotspare0] controllerid=0 failoverdrive=0:8:0</pre> |

## 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 345. Assigning, Unassigning, and Listing Global Hot Spares**

| Mandatory Options and Arguments                                                                                                                                    | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>-ctrl -ac=sghs -c=id -ad -pd=ch:targ:encl</pre> <p>or</p> <pre>controller action=setglobalhotspare controllerid=id adisk pdisk=channel:target:enclosure</pre> | NA                  | NA                         | <p>Assigns the specified disk as a global hot spare on the controller. You can assign only one disk at a time.</p> <p><b>NOTE:</b> The parameter, <i>force</i>, 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.</p> <p><b>NOTE:</b> Assign hot spare for a bootable virtual disk only from the disk drives of slot 0-3 of the system.</p> |

**Table 345. Assigning, Unassigning, and Listing Global Hot Spares (continued)**

| Mandatory Options and Arguments                                                                                                                      | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                      |                     |                            | <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -ac=sghs -c=2 -ad=0:1 -force</pre> <pre>RAIDCFG Command successful!</pre>                                                                                          |
| <pre>-ad -pd -ac=lghs -c=id or adisk pdisk -action=listglobal hotspare controllerid=id</pre>                                                         | NA                  | NA                         | <p>Displays the array (physical) disks used for global hot spare for the specified controller.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ad -ac=lghs -c=2</pre> <pre>RAIDCFG Command successful!</pre>        |
| <pre>-ctrl -ac=rghs -c=id -ad -pd=ch:targ:encl or controller action=removeglobal hotspare controllerid=id adisk pdisk=channel:target:enclosure</pre> | NA                  | NA                         | <p>Unassigns all the specified global hot spares to a disk on the specified controller.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -ac=rghs -c=2 -ad=0:1,0:2</pre> <pre>RAIDCFG Command successful!</pre> |

## Importing And Clearing Foreign Configurations

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for foreign configurations.

**Table 346. RAIDCFG Options for Foreign Configurations**

| Mandatory Options and Arguments                                                                        | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>-ctrl -c=id -ac=fgnimp</pre> <p>or</p> <pre>controller controllerid=id action=foreignimport</pre> | NA                  | NA                         | <p>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.</p> <p>If you use this argument on a controller that does not have a foreign configuration, the <code>No Foreign configuration present in the controller</code> message is displayed.</p> <p><b>NOTE:</b> For importing secured foreign configuration, use <code>importsecureforeignconfig</code> or <code>isfc</code>. For more details, see <a href="#">Importing Secured Foreign Configurations</a>.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -c=2 -ac=fgnimp</pre> |

**Table 346. RAIDCFG Options for Foreign Configurations (continued)**

| Mandatory Options and Arguments                                                                               | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-ctrl -c=id -ac=fgnclr</code><br>or<br><code>controllercontrollerid=id<br/>foreignclear</code>          | NA                  | NA                         | <p>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..</p> <p>If you use this argument on a controller that does not have a foreign configuration, the <code>No Foreign configuration present in the controller</code> message is displayed.</p> <p><b>NOTE:</b> For clearing secured foreign configuration, use <code>instantsecureerase</code> or <code>insecerase</code>. For more details, see <a href="#">Erasing Encrypted Physical Disk</a>.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -c=2 -ac=fgnclr</pre> |
| <code>-ctrl -c=id -ac=fgnrvr</code><br>or<br><code>controllercontrollerid=id<br/>action=foreignrecover</code> | NA                  | NA                         | <p>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.</p> <p>If you use this argument on a controller that does not have a foreign configuration, the <code>No Foreign configuration present in the controller</code> message is displayed.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -c=2 -ac=fgnrvr</pre>                                                                                                                                                                                                       |

## 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 347. RAIDCFG Options for Importing Secured Foreign Configuration**

| Mandatory Options and Arguments                                                                                                                                 | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-ctrl -c=id -ac=isfc -pp=passphrase</code><br>or<br><code>controllercontrollerid=id<br/>action=importsecureforeignconfig<br/>passphrase=passphrase</code> | NA                  | NA                         | <p>Imports the foreign configuration of the virtual disks secured with the specified passphrase.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -c=2 -ac=isfc -pp=Dell_123</pre> |

## 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 348. Displaying Foreign Key Ids**

| Mandatory Options and Arguments                                                                                          | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>--ctrl -c=id -ac=gfki</code><br>or<br><code>controller<br/>controllerid=id<br/>action=getforeign<br/>keyids</code> | NA                  | NA                         | Displays the foreign key ids present on the specified controller.<br><br>Example:<br><br><pre>A:&gt;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!</pre> |

## Creating Encryption Key

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for creating encryption key for the controller.

**Table 349. Creating Encryption Key**

| Mandatory Options and Arguments                                                                                                                                                    | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-ctrl -c=id -ac=csk -pp=passphrase -kid=key</code><br>or<br><code>controller<br/>controllerid=id<br/>action=createsecuritykey<br/>passphrase=passphrase<br/>keyid=key</code> | NA                  | NA                         | Creates encryption key for the encryption-capable controller.<br><br>Example:<br><br><pre>A:&gt;raidcfg -ctrl -c=2 -ac=csk -pp=Dell_123 kid=Dell_321</pre> |

## Changing Encryption Key

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for changing the encryption key of the controller.

**Table 350. Changing Encryption Key**

| Mandatory Options and Arguments                                                 | Optional Parameters | Valid Parameters Arguments | Description                                                      |
|---------------------------------------------------------------------------------|---------------------|----------------------------|------------------------------------------------------------------|
| <code>-ctrl -c=id -ac=chsk -pp=passphrase -kid=key -opp=passphrase</code><br>or | NA                  | NA                         | Changes the encryption key of the encryption-capable controller. |

**Table 350. Changing Encryption Key**

| Mandatory Options and Arguments                                                                                         | Optional Parameters | Valid Parameters Arguments | Description                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|------------------------------------------------------------------------------------------------------|
| <pre>controller controllerid=id action=changesecuritykey passphrase=passphrase keyid=key oldpassphrase=passphrase</pre> |                     |                            | <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -c=2 -ac=chsk -pp=Dell_123 kid=Dell_321 -opp=Dell_abc</pre> |

## Deleting Encryption Key

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for deleting the encryption key of a controller.

**Table 351. Deleting Encryption Key**

| Mandatory Options and Arguments                                                                         | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                         |
|---------------------------------------------------------------------------------------------------------|---------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <pre>-ctrl -c=id -ac=dsk</pre> <p>or</p> <pre>controller controllerid=id action=deletesecuritykey</pre> | NA                  | NA                         | <p>Deletes the encryption key of the encryption-capable controller.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -c=2 -ac=dsk</pre> |

## 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 352. Configuring the Disk Rebuild**

| Mandatory Options and Arguments                                                                                                                   | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>-vd -ac=rbd -ad -pd= ch:targ:encl -c=id</pre> <p>or</p> <pre>vdisk action=rebuild adisk pdisk=channel:target:enclosure controllerid=id</pre> | NA                  | NA                         | <p>Rebuilds the physical disk associated with a specified virtual disk.</p> <p>Example:</p> <pre>A:&gt;raidcfg -vd -ac=rbd -ad=0:1 -c=2</pre>                |
| <pre>-vd -ac=crbd -ad -pd= ch:targ:encl -c=id</pre> <p>or</p>                                                                                     | NA                  | NA                         | <p>Cancels the rebuild of the physical disk associated with a specified virtual disk.</p> <p>Example:</p> <pre>A:&gt;raidcfg -vd -ac=crbd -ad=0:1 -c=2</pre> |

**Table 352. Configuring the Disk Rebuild (continued)**

| Mandatory Options and Arguments                                                           | Optional Parameters | Valid Parameters Arguments | Description |
|-------------------------------------------------------------------------------------------|---------------------|----------------------------|-------------|
| vdisk<br>action=cancelrebuild adisk <br>pdisk=channel:target:enclosure<br>controllerid=id |                     |                            |             |

## 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 353. 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<br><br>or<br>vdisk<br>action=converttoraid adisk <br>pdisk=channel:target:enclosure<br>controllerid=id     | NA                  | NA                         | Configures the array disk as RAID.<br><br>Example:<br><br><pre>A:&gt;raidcfg -ad -ac=ctr -ad=0:1 -c=2</pre>  |
| -ad -ac=ctnr -ad -pd= ch:targ:encl -c=id<br><br>or<br>vdisk<br>action=converttononraid adisk <br>pdisk=channel:target:enclosure<br>controllerid=id | NA                  | NA                         | Configures the array disk as JBOD.<br><br>Example:<br><br><pre>A:&gt;raidcfg -ad -ac=ctnr -ad=0:1 -c=2</pre> |

## 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 354. Configuring Physical Disk State**

| Mandatory Options and Arguments            | Optional Parameters | Valid Parameters Arguments | Description                          |
|--------------------------------------------|---------------------|----------------------------|--------------------------------------|
| -ad -ac=online -ad -pd= ch:targ:encl -c=id | NA                  | NA                         | Sets the array disk state to online. |

**Table 354. Configuring Physical Disk State (continued)**

| Mandatory Options and Arguments                                                                                                                | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| or<br>adisk<br>action=online<br>adisk <br>pdisk=channel:tar<br>get:enclosure<br>controllerid=id                                                |                     |                            | Example:<br><pre>A:&gt;raidcfg -ad -ac=online -ad=0:1 -c=2</pre>                                                                                        |
| -ad -ac=offline -ad -pd=ch:targ:encl -c=id<br>or<br>adisk<br>action=offline<br>adisk <br>pdisk=channel:tar<br>get:enclosure<br>controllerid=id | NA                  | NA                         | Cancels the rebuild of the physical disk associated with a specified virtual disk.<br>Example:<br><pre>A:&gt;raidcfg -ad -ac=offline -ad=0:1 -c=2</pre> |

## 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 355. Replacing Physical Disk Of A Virtual Disk**

| Mandatory Options and Arguments                                                                                                                            | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -vd -ac=replacepd<br>-vd=id<br>ch:targ:encl -c=id<br>or<br>vdisk<br>action=replacepd<br>sk adisk <br>pdisk=channel:tar<br>get:enclosure<br>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.<br>Example:<br><pre>A:&gt;raidcfg -vd -ac=replacepd -vd=2 -c=2 -src=0:1 -dest=0:1</pre> |

## 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 356. Consistency Check For Virtual Disk**

| Mandatory Options and Arguments                                    | Optional Parameters | Valid Parameters Arguments | Description                                     |
|--------------------------------------------------------------------|---------------------|----------------------------|-------------------------------------------------|
| -vd -c=id -vd=id<br>-ac=cc or vdisk<br>controllerid=id<br>vdisk=id | NA                  | NA                         | Check consistency for a specified virtual disk. |

**Table 356. Consistency Check For Virtual Disk (continued)**

| Mandatory Options and Arguments                                                                      | Optional Parameters | Valid Parameters Arguments | Description                                                                                                            |
|------------------------------------------------------------------------------------------------------|---------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------|
| action=consistencycheck                                                                              |                     |                            | Example:<br><br>A:>raidcfg -vd -c=2 -vd=2 -ac=cc                                                                       |
| -vd -c=id -vd=id<br>-ac=ccc or vdisk<br>controllerid=id<br>vdisk=id<br>action=cancelconsistencycheck | NA                  | NA                         | Cancels the consistency check for the specified virtual disk.<br><br>Example:<br><br>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 357. Erasing Encrypted Physical Disk**

| Mandatory Options and Arguments                                                                                                                                                                                                     | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>-ad -ad   - pd= ch:targ: encl,ch:targ:encl ,... - ac=insecerase -c=id</pre> <p>or</p> <pre>adisk adisk   pdisk= channel:target :enclosure , channel:target :enclosure ,... . action=instant secureerase controllerid= id</pre> | NA                  | NA                         | Erases the encrypted physical disk that is in ready or foreign disk state.<br><br>Example:<br><br>A:>raidcfg -ad -ad=0:1,0:2<br>-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 358. Discarding Preserved Cache**

| Mandatory Options and Arguments       | Optional Parameters | Valid Parameters Arguments | Description                                     |
|---------------------------------------|---------------------|----------------------------|-------------------------------------------------|
| --ctrl -c=id -ac=dpc -force<br><br>or | NA                  | NA                         | Discards the preserved cache on the controller. |

**Table 358. Discarding Preserved Cache (continued)**

| Mandatory Options and Arguments                                                                                                     | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| controller<br>controllerid=id<br>action=discardPreservedCache -force                                                                |                     |                            | Example:<br><br>A:>raidcfg -ctrl -c=2 -ac=dpc -force<br><br>RAIDCFG Command successful!                                                                                                   |
| --ctrl -c=id -ac=dpc -force -igncfg<br><br>or<br>controller<br>controllerid=id<br>action=discardPreservedCache -force -ignoreconfig | NA                  | NA                         | Discards the preserved cache on the controller ignoring the foreign configuration.<br><br>Example:<br><br>A:>raidcfg -ctrl -c=2 -ac=dpc -force -igncfg<br><br>RAIDCFG Command successful! |

## Initializing Virtual Disks

The following table lists the RAIDCFG options, parameters, and pre-defined arguments for initializing selected virtual disks.

**Table 359. Initializing Virtual Disks**

| Mandatory Options and Arguments                                                         | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------|---------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -vd -c=id -vd=id<br>-ac=fi or vdisk<br>controllerid=id<br>vdisk=id<br>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.<br><br>Using the <b>fastinit</b> command on unsupported controllers returns an error.<br><br>Example:<br><br>A:>raidcfg -vd -c=2 -vd=2 -ac=fi |
| -vd -c=id -vd=id<br>-ac=sli or vdisk<br>controllerid=id<br>vdisk=id<br>action=slowinit  | 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 supported on SAS controllers. Using the slowinit command on unsupported controllers returns an error.<br><br>Example:<br><br>A:>raidcfg -vd -c=2 -vd=2 -ac=sli              |
| -vd -c=id -vd=id<br>-ac=ci or vdisk<br>controllerid=id<br>vdisk=id<br>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..                                                                                    |

**Table 359. Initializing Virtual Disks (continued)**

| Mandatory Options and Arguments | Optional Parameters | Valid Parameters Arguments | Description                                                |
|---------------------------------|---------------------|----------------------------|------------------------------------------------------------|
|                                 |                     |                            | Example:<br><pre>A:&gt;raidcfg -vd -c=2 -vd=2 -ac=ci</pre> |

## Resetting The Controller

The following table lists the RAIDCFG options, parameters, and predefined arguments for resetting the controller.

**Table 360. Resetting The Controller**

| Mandatory Options and Arguments                                                      | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                 |
|--------------------------------------------------------------------------------------|---------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| -ctrl -c=id -ac=rst or<br>controller<br>controllerid=id<br>action=reset              | NA                  | NA                         | Resets the specified controller.<br>Example:<br><pre>A:&gt;raidcfg -ctrl -c=2 -ac=rst</pre>                                 |
| -ctrl -c=id -ac=rst -force or -<br>controller -<br>controllerid=id -<br>action=reset | force               | NA                         | The parameter <code>force</code> , 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 361. Enabling And Disabling Persistent Dedicated Hot Spares**

| Mandatory Options and Arguments                                                                | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| --ctrl -c=id -ac=ephs<br>or<br>controller<br>controllerid=id<br>action=enableperistenthotspare | 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.<br><b>NOTE:</b> Assign hot spare for a bootable virtual disk only from the disk drives of slot 0-3 of the system.<br>Example:<br><pre>A:&gt;raidcfg -ctrl -ac=ephs -c=2</pre> <pre>RAIDCFG Command successful!</pre> |
| --ctrl -c=id -ac=dphs<br>or<br>controller<br>controllerid=id                                   | 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.                                                                                                                                               |

**Table 361. Enabling And Disabling Persistent Dedicated Hot Spares (continued)**

| Mandatory Options and Arguments  | Optional Parameters | Valid Parameters Arguments | Description                                                                                     |
|----------------------------------|---------------------|----------------------------|-------------------------------------------------------------------------------------------------|
| action=disablepersistenthotspare |                     |                            | Example:<br><pre>A:&gt;raidcfg -ctrl -ac=dphs -c=2</pre> <pre>RAIDCFG Command successful!</pre> |

## 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 362. Setting and Displaying the PCIe Link Speed**

| Mandatory Options and Arguments                                                                                                             | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>--ctrl -c=id -ac=spciels -spd=&lt;2   3&gt;</pre> or<br><pre>controller controllerid=id action=setpcielspeed speed=&lt;2   3&gt;</pre> | NA                  | NA                         | Sets the PCIe link speed of the controller to PCIe Generation 2 or 3.<br> <b>NOTE:</b> Reboot the system to apply the setting.<br>Example:<br><pre>A:&gt;raidcfg -ctrl -c=2 -ac=spciels -spd=2</pre> <pre>RAIDCFG Command successful!</pre> |
| <pre>--ctrl -c=id -ac=gpciels</pre> or<br><pre>controller controllerid=id action=getpcielspeed</pre>                                        | NA                  | NA                         | Displays the PCIe link speed of the controller.<br>Example:<br><pre>A:&gt;raidcfg -ctrl -c=2 -ac=gpciels</pre> <pre>RAIDCFG Command successful!</pre>                                                                                                                                                                        |

## 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 363. 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 364. Setting Boot mode**

| Mandatory Options and Arguments                                                                                                         | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-ctrl -c=id -ac=sbm -bm=&lt;0 1 2&gt;</code> or <code>controller controllerid=id action=setbootmode bootmode=&lt;0 1 2&gt;</code> | NA                  | NA                         | Sets the boot mode of the controller to any of the following during the system start or reboot: <ul style="list-style-type: none"><li>• Stop on error (0)</li><li>• Continue on error (1)</li><li>• Continue headless on error (2)</li></ul> Example:<br><pre>A:&gt;raidcfg -ctrl -c=2 -ac=sbm -bm=0</pre> |

## 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 365. Configuring Auto Import**

| Mandatory Options and Arguments                                                                                                            | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-ctrl -c=id -ac=eai -ai=&lt;0 1&gt;</code> or <code>controller controllerid=id action=enableautoimport autoimport=&lt;0 1&gt;</code> | 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).<br>Example:<br><pre>A:&gt;raidcfg -ctrl -c=2 -ac=eai -ai=0</pre> |

## Miscellaneous Options

The following table lists all other RAIDCFG options, parameters, and pre-defined arguments.

**Table 366. Miscellaneous Optional Parameters**

| Mandatory Options and Arguments | Optional Parameters                     | Valid Parameters Arguments    | Description                                                                                                                                                                                                                                                                                                         |
|---------------------------------|-----------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| any option                      | <code>-l</code> or <code>logfile</code> | <code>&lt;filename&gt;</code> | 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. |

**Table 366. Miscellaneous Optional Parameters (continued)**

| Mandatory Options and Arguments | Optional Parameters | Valid Parameters Arguments | Description                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------|---------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 |                     |                            | <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -l=log.txt</pre> <pre>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]</pre> <pre>RAIDCFG Command successful!</pre>                                                                                    |
|                                 | -si or silent       | NA                         | <p>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.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -si</pre>                                                                                                  |
|                                 | -ver or version     | NA                         | <p>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.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ver</pre> <pre>RAIDCFG V4.4</pre> <pre>Copyright (c) 2002-2014 Dell Inc.</pre> <pre>RAIDCFG Command successful!</pre> |

## Quick Reference To RAIDCFG Commands

The following table lists the basic RAIDCFG commands.

**Table 367. Quick Reference To RAIDCFG Commands**

| Purpose                                      | Command                    | Description                                                                                                                                                                                                                        |
|----------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| To list all the RAID controllers in a system | <code>raidcfg -ctrl</code> | <p>Lists all the RAID controllers in the system.</p> <p>Record the slot ID of the controllers for later reference.</p> <p>Example:</p> <pre>A:&gt;raidcfg -ctrl -ac=sghs -c=2 -ad=0:1</pre> <pre>RAIDCFG Command successful!</pre> |

**Table 367. Quick Reference To RAIDCFG Commands (continued)**

| Purpose                                                                        | Command                                                                               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| To list all the disks attached to a particular controller                      | <code>raidcfg adisk -c=slotid</code>                                                  | Lists all the disks attached to the controller. The slot ID is obtained from the first command.<br><br>Record the drive location of the disks for later reference.                                                                                                                                                                                                                                                                                        |
| To create a virtual disk with all the default settings                         | <code>raidcfg -ctrl -ac=cvd -c=slotid -ad=x:y,x:y,...</code>                          | Creates a virtual disk of maximum available size for type RAID 0. RAID 0 is the default.<br><br>The slot ID in <code>&lt;-c=slotid&gt;</code> and the array disks in <code>&lt;-ad=...&gt;</code> are obtained from the first two commands.                                                                                                                                                                                                               |
| To create a virtual disk of a certain size with all the default settings       | <code>raidcfg -ctrl -ac=cvd -c=slotid -ad=x:y,x:y,... -sz=5GB</code>                  | Creates a virtual disk of 5 GB size for type RAID 0. RAID 0 is the default.<br><br>The slot ID in <code>&lt;-c=slotid&gt;</code> and the array disks in <code>&lt;-ad=...&gt;</code> are obtained from the first two commands.                                                                                                                                                                                                                            |
| To create a virtual disk of a certain size and make it RAID 1                  | <code>raidcfg -ctrl -ac=cvd -c=slotid -ad=x:y,x:y -sz=5GB -r=1</code>                 | Creates a virtual disk of 5 GB size for type RAID 1.<br><br>The slot ID in <code>&lt;-c=slotid&gt;</code> and the array disks in <code>&lt;-ad=...&gt;</code> are obtained from the first two commands.                                                                                                                                                                                                                                                   |
| To create a virtual disk of a certain size and make it RAID 5                  | <code>raidcfg -ctrl -ac=cvd -c=slotid -ad=x:y,x:y,x:y,... -sz=5GB -r=5</code>         | Creates a virtual disk of 5 GB size for type RAID 5.<br><br>The slot ID in <code>&lt;-c=slotid&gt;</code> and the array disks in <code>&lt;-ad=...&gt;</code> 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 | <code>raidcfg -ctrl -ac=cvd -c=slotid -ad=x:y,x:y -sz=5GB -r=1 -fd=x:y</code>         | Creates a virtual disk of 5 GB size for type RAID 1.<br><br>The slot ID in <code>&lt;-c=slotid&gt;</code> and the array disks in <code>&lt;-ad=...&gt;</code> are obtained from the first two commands.<br><br>The option <code>&lt;-fd&gt;</code> 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                                            | <code>raidcfg -ctrl -ac=cvd -c=slotid -ad=x:y,x:y,x:y,x:y -r=10</code>                | Creates a virtual disk of max size for type RAID 10.<br><br>The slot ID in <code>&lt;-c=slotid&gt;</code> and the array disks in <code>&lt;-ad=...&gt;</code> are obtained from the first two commands. The drive location is obtained from the second command.                                                                                                                                                                                           |
| To create a virtual disk of RAID 50                                            | <code>raidcfg -ctrl -ac=cvd -c=slotid -ad=x:y,x:y,x:y,x:y ,x:y,x:y -r=50 -sp=x</code> | Creates a virtual disk of maximum size for type RAID 50.<br><br>The slot ID in <code>&lt;-c=slotid&gt;</code> and the array disks in <code>&lt;-ad=...&gt;</code> are obtained from the first two commands. The drive location is obtained from the second command.                                                                                                                                                                                       |
| To create a virtual disk of RAID 6                                             | <code>raidcfg -ctrl -ac=cvd -c=slotid -ad=x:y,x:y,x:y,x:y ,x:y,x:y -r=6 -sp=x</code>  | Creates a virtual disk of maximum size for type RAID 6.<br><br>The slot ID in <code>&lt;-c=slotid&gt;</code> and the array disks in <code>&lt;-ad=...&gt;</code> are obtained from the first two commands. The drive location is obtained from the second command.<br><br> <b>NOTE:</b> The minimum number of drives required to create a virtual disk of RAID 6 is 4. |
| To create a virtual disk of RAID 60                                            | <code>raidcfg -ctrl -ac=cvd -c=slotid -ad=x:y,x:y,x:y,x:y ,x:y,x:y -r=60 -sp=x</code> | Creates a virtual disk of maximum size for type RAID 60.<br><br>The slot ID in <code>&lt;-c=slotid&gt;</code> and the array disks in <code>&lt;-ad=...&gt;</code> are obtained from the first two commands. The drive location is obtained from the second command.                                                                                                                                                                                       |

**Table 367. Quick Reference To RAIDCFG Commands (continued)**

| Purpose                                                 | Command                                                  | Description                                                                                                                                                                                                           |
|---------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                         |                                                          |  <b>NOTE:</b> 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               | <code>raidcfg vdisk</code>                               | Lists the virtual disks on a system for all RAID controllers.                                                                                                                                                         |
| To view all the virtual disks for a specific controller | <code>raidcfg vdisk -c=slotid</code>                     | Lists all the virtual disks on a specific controller.<br>The slot ID in <code>&lt;-c=slotid&gt;</code> is obtained from the first commands.                                                                           |
| To delete a specific virtual disk on a controller       | <code>raidcfg vdisk -ac=dvd -c=slotid -vd=vdiskid</code> | Deletes a specific virtual disk on a controller.<br>The slot ID in <code>&lt;-c=slotid&gt;</code> is obtained from the first command and the vdiskid in <code>&lt;-vd=vdiskid&gt;</code> is obtained from command 10. |

# 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.

**i** **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.

**i** **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 368. UPINIT Options and Arguments**

| Option | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| none   | none            | <p>If no options are given, the tool outputs usage information. The usage information is printed in the format shown below.</p> <p>Example 1:</p> <pre>A:&gt;upinit</pre> <pre>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.</pre> <p>Example 2:</p> <pre>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.</pre> <p><b>NOTE:</b> The <b>--overwrite</b> option should be used for upgrading/downgrading purposes. The <b>--size</b> option is not required when using the <b>--overwrite</b> option because the <b>--overwrite</b> option does not resize an existing Dell Utility Partition. If any partitions exist, they are deleted.</p> |
| -h     | none            | <p>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.</p> <p>Windows PE Example:</p> <pre>upinit version 1.0</pre> <p><b>Copyright (c) 2002-2012 Dell Inc.</b></p> <p>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.</p> <p>Usage:</p> <pre>upinit.bat [--overwrite] --disk=ID or -d=ID --size=size or -s=size</pre>                                                                                                                                                                                                                                                                                                                                                                                                                          |

**Table 368. UPINIT Options and Arguments (continued)**

| Option | Valid Arguments | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                 | <p>--file=file or -f=file<br/> --help or -h prints usage.<br/> --disk or -d ID of the disk on which to create the Dell Utility Partition.<br/> --size or -s Size in MB for the Dell Utility Partition.<br/> --file or -f Filename of the Dell Utility Partition Image File.<br/> --overwrite or -o Overwrites an existing Dell Utility Partition.</p> <p>Example:</p> <pre>upinit --disk=0 --size=32 --file= upimg.bin</pre> <p>In the example, upinit creates a Dell Utility Partition of size 32 MB using the <b>upimg.bin</b> image file.</p> <p>The <b>--overwrite</b> option should be used for upgrading/downgrading purposes. The <b>--size</b> option is not required when using the <b>--overwrite</b> option because the <b>--overwrite</b> option does not resize an existing Dell Utility Partition. If any partitions exist, they are not deleted.</p> <p>Linux Example:</p> <pre>upinit version 1.0 <b>Copyright (c) 2002-2012 Dell Inc.</b> 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.</pre> <p>Usage:</p> <pre>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.</pre> <p>Example:</p> <pre>upinit --disk=/dev/sda --size=32 --file=upimg.bin</pre> <p>In the example, upinit creates a Dell Utility Partition of size 32 MB on /dev/sda using the upimg.bin file.</p> <p>The <b>--overwrite</b> option should be used for upgrading/downgrading purposes. The <b>--size</b> option is not required when using the <b>--overwrite</b> option because the <b>--overwrite</b> option does not resize an existing Dell Utility Partition. If any partitions exist, they are not deleted.</p> |

**Table 368. UPINIT Options and Arguments (continued)**

| Option      | Valid Arguments                                      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| disk        | integer, required (Windows) string, required (Linux) | <p>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.</p> <p>Use option <b>--overwrite</b> to overwrite an existing utility partition.</p> <p>Example:</p> <pre>A:&gt;upinit --disk=0 --size=32 --file= c:\upimage.bin (WinPE Example)</pre> <pre># upinit --disk=/dev/hda --size=32 -- file=/home/BIN/upimage.bin (Linux Example)</pre> |
| size        | integer, required                                    | <p>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.</p> <p>Example :</p> <pre>A:&gt;upinit --disk=0 --size=32 --file= c:\upimage.bin</pre>                                                                                                                                                                                                                                                    |
| file        | string, required                                     | <p>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.</p> <p>Example:</p> <pre>A:&gt;upinit --disk=0 --size=32 --file= c:\upimage.bin</pre>   |
| --overwrite | string, optional                                     | <p>Overwrites an existing utility partition. It does not create a new partition or delete an existing partition.</p>                                                                                                                                                                                                                                                                                                                                                                                          |

# 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 369. 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.                                    |
| 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.                  |

**Table 369. SYSCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                          |
|------------|----------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                   |
| 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.                                                                                   |

**Table 369. SYSCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                                                         |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                              |
| 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.                                                                                                                                       |

**Table 369. SYSCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                     |
|------------|-------------------------------------------------------------------------------------------------------------|
| 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.                                                       |
| 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.                                           |

**Table 369. SYSCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                   |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                              |
| 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.                                                                                                  |

**Table 369. SYSCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                         |
|------------|-----------------------------------------------------------------------------------------------------------------|
| 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.                               |
| 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.                                  |

**Table 369. SYSCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                           |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                            |
| 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.<br>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.                                                                        |

**Table 369. SYSCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                    |
|------------|------------------------------------------------------------------------------------------------------------|
| 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 370. 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 <code>srvadmin_services</code> (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 371. 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 exists. Please use <code>--overwrite</code> option to upgrade or overwrite. |
| 6          | Error: Partitions exists. Please clear all the partitions before running <code>upinit.sh</code> .                 |
| 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.                                                                                             |

**Table 371. UPINIT Common Error Codes and Messages (continued)**

| Error Code | Message                                                           |
|------------|-------------------------------------------------------------------|
| 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>                               |
| 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 372. 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 373. 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 374. RAIDCFG Error Codes and Messages**

| Error Code | Message                     |
|------------|-----------------------------|
| 0          | RAIDCFG Command successful! |
| 1          | Error! Incorrect Syntax.    |
| 2          | Failure!                    |

**Table 374. RAIDCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                  |
|------------|--------------------------------------------------------------------------|
| 3          | Illegal operation                                                        |
| 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.                                                  |
| 38         | Disk Rebuild failed.                                                     |
| 39         | Disk Format failed.                                                      |

**Table 374. RAIDCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                                                 |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                            |
| 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.                                                                                                                                    |

**Table 374. RAIDCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                                                              |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                                              |
| 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.                                                                                                                                                                    |

**Table 374. RAIDCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                               |
|------------|---------------------------------------------------------------------------------------|
| 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.                                      |
| 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.          |

**Table 374. RAIDCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                                                                                                                                   |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                                                                                               |
| 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.                                                                                                     |

**Table 374. RAIDCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                                                                                                                                            |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 <a href="http://support.dell.com">http://support.dell.com</a> .                                                                                                                                             |
| 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.                                                                                                                                                                                                    |
| 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!                                                                                                                                                                                                                                                       |

**Table 374. RAIDCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                                                                                                                                                                                                |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                                                                                                                                                        |
| 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.                                                                                                                                                                                                                                                                               |

**Table 374. RAIDCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                                                                  |
| 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.                                                                                                                                                                            |

**Table 374. RAIDCFG Error Codes and Messages (continued)**

| Error Code | Message                                                                                                                                                                  |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                 |
| 1024       | Invalid 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 375. 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     |

**Table 375. RACADM Firmware Error Codes and Messages (continued)**

| Error Code | Message                              |
|------------|--------------------------------------|
| 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         |
| 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                       |

**Table 375. RACADM Firmware Error Codes and Messages (continued)**

| Error Code | Message                            |
|------------|------------------------------------|
| 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                          |
| 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 376. 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.                                |

**Table 376. RACADM Error Codes and Messages (continued)**

| Error Code | Message                                                                          |
|------------|----------------------------------------------------------------------------------|
| 533        | TFTP read error encountered.                                                     |
| 534        | TFTP local file write error encountered.                                         |
| 535        | TFTP local file read error encountered.                                          |
| 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.                                                      |
| 569        | RAC controller is currently resetting.                                           |

# 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 377. 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.                    |

## 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=maxdata rate
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=perfperwattoptimizeddpc
;ProcPwrPerf=sydbpm
;MemFrequency=maxperf
;ProcTurboMode=enable
;ProcClE=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
dnshcp=disable
dnsrcname=idrac
dnsregisterrac=disable
domainname=
domainnamednshcp=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]
cfgRhostsSmtptEmailEnable=1
cfgRhostsFwUpdateTftpEnable=1
cfgRhostsSmtptServerIpAddr=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]
cfgAD RacDomain=
cfgAD RacName=
cfgAD Enable=0
cfgAD AuthTimeout=0x78
cfgAD RootDomain=
```

# Identifying the series of your Dell EMC PowerEdge servers

The PowerEdge series of servers from Dell EMC are divided into different categories on the basis of their configuration. For easier reference, they are referred to as YX2X, YX3X, YX4X, YX4XX, or YX5XX series of servers. The structure of the naming convention is described below:

The letter Y denotes the alphabets in the server model number. The alphabets denote the form factor of the server. The form factors are described below:

- Cloud (C)
- Flexible(F)
- Modular (M or MX)
- Rack(R)
- Tower(T)

The letter X denotes the numbers in the server model number. The numbers denote multiple items about the server.

- The first X denotes the value stream or class of the server.
  - 1-5—iDRAC basic
  - 6-9—iDRAC Express
- The digit denotes the series of the server. It is retained in the server naming convention and not replaced by the letter X.
  - 0—series 10
  - 1—series 11
  - 2—series 12
  - 3—series 13
  - 4—series 14
  - 5—series 15
- The third X denotes the number of processor sockets a series of server supports. This is applicable only from series 14 of PowerEdge servers.
  - 1—one socket server
  - 2—two socket server
- The last X always denotes the make of the processor as described below:
  - 0—Intel
  - 5—AMD

**Table 378. PowerEdge servers naming convention and examples**

| <b>YX3X servers</b> | <b>YX4X systems</b> | <b>YX4XX systems</b> | <b>YX5XX</b>    |
|---------------------|---------------------|----------------------|-----------------|
| PowerEdge M630      | PowerEdge M640      | PowerEdge R6415      | PowerEdge R6515 |
| PowerEdge M830      | PowerEdge R440      | PowerEdge R7415      | PowerEdge R7515 |
| PowerEdge T130      | PowerEdge R540      | PowerEdge R7425      | PowerEdge R6525 |