

# Dell Command | PowerShell Provider Version 2.0 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.

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# Introduction

Dell Command | PowerShell Provider is a PowerShell module that provides BIOS configuration capability to Dell client platforms using the Windows PowerShell Interface. Dell Command | PowerShell Provider can be installed as plug-in software registered within a Windows PowerShell environment.

This document describes the supported attributes, and error reporting in Dell Command | PowerShell Provider.

Dell Command | PowerShell Provider works for local and remote systems, and even in Windows pre-installation environment. This module, with its native configuration capability, makes BIOS configuration easily manageable.

## Other documents you may need



In addition to this guide, and the integrated help available within the module, you can access other available Dell Command | PowerShell Provider documents at [dell.com/dellclientcommandssuitemanuals](https://dell.com/dellclientcommandssuitemanuals). To access other documents,

1. Go to [dell.com/dellclientcommandssuitemanuals](https://dell.com/dellclientcommandssuitemanuals).
2. Click **Dell Command | PowerShell Provider**.
3. Click **Dell Command | PowerShell Provider 2.0** link in the Product Support section.
4. Click the **Manuals** drop-down icon in the **Product Support** page.
5. To download the document, click the document's PDF link.

# Attributes supported in Dell Command | PowerShell Provider

Following are the categories in Dell Command PowerShell Provider. These categories contain BIOS attributes.

**Table 1. Attributes supported in Dell Command | PowerShell Provider**

Category Name	Description
<a href="#">AdvancedBootOptions</a>	Displays the attributes to configure advanced boot settings.
<a href="#">AdvancedConfigurations</a>	Displays the attributes to configure various advanced settings.
<a href="#">BatteryInformation</a>	Displays information about each battery with the percent charged information.
<a href="#">BIOSSetupAdvancedMode</a>	Displays the attributes to configure various BIOS setups advanced mode settings.
<a href="#">BootSequence</a>	Displays the attributes to configure the system boot settings.
<a href="#">Intel Software Guard Extensions</a>	Displays the attributes to configure Intel Software Guard Extensions settings.
<a href="#">Manageability</a>	Displays the attributes to configure various manageability settings.
<a href="#">Maintenance</a>	Displays the attributes to configure maintenance-related settings.
<a href="#">MemoryInformation</a>	Displays non-editable information about memory.
<a href="#">MiscellaneousDevices</a>	Displays the attributes to configure various miscellaneous onboard devices.
<a href="#">Performance</a>	Displays the attributes to configure performance-related settings.
<a href="#">POSTBehavior</a>	Displays the attributes to configure system's behavior after POST.
<a href="#">PowerManagement</a>	Displays the attributes to configure power management settings.
<a href="#">PreEnabled</a>	Displays the attributes to configure various pre-enabled settings.
	 <b>NOTE: This category describes the miscellaneous BIOS settings.</b>
<a href="#">ProcessorInformation</a>	Displays non-editable information about processor(s).
<a href="#">SecureBoot</a>	Displays the attributes to configure Secure Boot settings.
<a href="#">Security</a>	Displays the attributes to configure the security feature of the system.
<a href="#">StealthModeControl</a>	Displays the attributes to configure stealth mode settings.
<a href="#">SupportAssistSystemResolution</a>	Displays the attributes to configure various SupportAssist settings.
<a href="#">SystemConfiguration</a>	Displays the attributes to configure devices that are integrated on the system board.
<a href="#">SystemInformation</a>	Displays information that uniquely identifies the system.
<a href="#">SystemLogs</a>	Displays the attributes to configure system logs settings.
<a href="#">TPMSecurity</a>	Displays the attributes to configure TPM device settings.
<a href="#">USBConfiguration</a>	Displays the attributes to configure USB settings.
	 <b>NOTE: USB keyboard and mouse always work as defined in the BIOS setup, irrespective of these settings.</b>
<a href="#">Video</a>	Displays the attributes to configure video settings.
<a href="#">VirtualizationSupport</a>	Displays the attributes to configure virtualization settings.

Category Name	Description
<a href="#">Wireless</a>	Displays the attributes to configure wireless devices.

## AdvancedBootOptions

Table 2. AdvancedBootOptions

Attribute Name	Description
<b>AttemptLegacyBoot</b>	<p>Determines if BIOS should attempt to boot from the legacy boot list when the UEFI boot list fails.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled - If the UEFI boot list fails, then BIOS attempts to boot from the Legacy boot list.</li> <li>Disabled - BIOS discontinues the booting process if the UEFI boot list fails.</li> </ul>
<b>LegacyOrom</b>	<p>If enabled, allows legacy option ROMs to load. Without this option, only UEFI option ROMs loads. This option is required for Legacy boot mode. This mode cannot be enabled with Secure Boot.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>UefiBootPathSecurity</b>	<p>Determines whether the system should prompt the user to enter the Admin password, if set, while booting from a UEFI boot path from the F12 Boot Menu.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>AlwaysExceptInternalHdd — All UEFI boot paths require the user to enter the Admin password, except for the boot paths that are hosted on an internal hard disk drives.</li> <li>Always — Booting from any UEFI boot path requires the user to enter the Admin password.</li> <li>Never — The Admin password is not required for booting from UEFI boot paths.</li> </ul>

## AdvancedConfigurations

Table 3. AdvancedConfigurations

Attribute Name	Description
<b>Aspm</b>	<p>Set the ASPM (Active State Power Management) level.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Auto — There is handshaking between the device and PCI Express hub to determine the best ASPM mode supported by the device.</li> <li>Disabled — ASPM power management is turned off always.</li> <li>L1 — ASPM power management is set to use L1.</li> </ul>
<b>OneTBSystemMemoryLimitEnable</b>	<p>Confines the system memory to less than 1 TB when more than 1TB memory is installed in the computer.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> </ul>

Attribute Name	Description
	<ul style="list-style-type: none"> <li>Disabled</li> </ul>

## BatteryInformation

Table 4. BatteryInformation

Attribute Name	Description
PercentCharged	<p>Displays the charged percentage of the battery.</p> <p>Possible values: Read-only</p>


## BIOSSetupAdvancedMode

Table 5. BIOSSetupAdvancedMode

Attribute Name	Description
AdvancedMode	<p>Enabling BIOS Setup Advanced Mode makes all BIOS settings visible.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>

## BootSequence

Table 6. BootSequence

Attribute Name	Description
BootList	<p>Determines the system's boot mode.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Uefi — Enables booting to Unified Extensible Firmware Interface (UEFI) capable operating systems.</li> <li>Legacy — (the default) Ensures compatibility with operating systems that do not support UEFI.</li> </ul> <p> <b>NOTE: Legacy boot mode is not allowed when secure boot is enabled or legacy option ROM is disabled.</b></p>

### BootSequence




Specifies the order in which a system searches for devices when trying to find an operating system to boot. The BootSequence option allows users to customize the boot order and boot ability of boot devices. The UEFI BIOS allows the selection of **UEFI** boot paths or **Legacy** boot devices.

## IntelSoftwareGuardExtensions

Table 7. IntelSoftwareGuardExtensions

Attribute Name	Description
EnclaveSize	<p>Displays the memory allocation size for the Intel Software Guard Extension (SGX) processor reserved memory.</p>



Attribute Name	Description
	Possible values: 32MB, 64MB, 128MB (Read-only)
	 <b>NOTE: You cannot set the Enclave Reserve Memory Size using the Dell Command   PowerShell Provider. One of the methods of setting Enclave Reserve Memory Size is from the BIOS setup screen.</b>
SoftGuardEn	<p>Configures Software Guard Extensions (SGX) feature. You can select <b>Enabled</b> or <b>SoftControlled</b> if this option is disabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> <li>· SoftControlled</li> </ul> <p> <b>CAUTION: Using the Dell Command   PowerShell Provider, you cannot do the following:</b></p> <ul style="list-style-type: none"> <li>· Disable this feature if the current state is Enabled or SoftControlled</li> <li>· Enable this feature if the current state is SoftControlled</li> <li>· Change this feature to SoftControlled if the current state is Enabled</li> </ul> <p> <b>NOTE: One of the methods of configuring Software Guard Extensions (SGX) feature is from the BIOS setup screen.</b></p>



## Manageability



Table 8. Manageability

Attribute	Description
PostMebxKey	<p>MEBx stands for Intel Management Engine BIOS Extension. Enables or disables the MEBx hotkey function when the system boots.</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
UsbProvision	<p>Enables or disables provisioning of Intel AMT from a USB storage device.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled — Intel AMT can be provisioned using the local provisioning file via a USB storage device.</li> <li>· Disabled — Provisioning of Intel AMT from a USB storage device is blocked.</li> </ul>

## Maintenance

Table 9. Maintenance


Attribute Name	Description
AllowBIOSDowngrade	<p>Allows or restricts downgrading of the system BIOS.</p> <p> <b>CAUTION: You cannot enable the Allow BIOS Downgrade feature using the Dell Command   PowerShell Provider.</b></p> <p> <b>NOTE: One of the methods of enabling the Allow BIOS Downgrade feature is from the BIOS setup screen.</b></p>

Attribute Name	Description
	<p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Allows the system to downgrade the system BIOS.</li> <li>Disabled — Restricts the system to downgrade the system BIOS.</li> </ul>
<b>BiosAutoRcvr</b>	<p>Enables or disables BIOS auto recovery feature.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — If BIOS corruption is detected, the system automatically recovers BIOS without any user interaction.</li> <li>Disabled — Disables BIOS auto recovery feature.</li> </ul> <p> <b>NOTE: You can enable this option only if BiosRcvrFrmHdd option is enabled.</b></p>
<b>BiosIntegrityCheck</b>	<p>Enables or disables the BIOS integrity check during the booting process.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — BIOS checks the BIOS image integrity during every booting process.</li> <li>Disabled — BIOS checks the BIOS image integrity only if the previous booting process did not complete.</li> </ul> <p> <b>NOTE: BIOS checks the BIOS image integrity only if the BiosAutoRcvr option is enabled.</b></p>
<b>BiosRcvrFrmHdd</b>	<p>Enables or disables the system BIOS Recovery option. This feature saves a recovery image to a primary hard disk drive storage, or to an external USB, and uses this recovery image to recover the BIOS image when system BIOS fails.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — BIOS stores the recovery image on a primary hard disk drive storage. So the BIOS recovery image is available both from the primary hard disk drive permanent storage and via an external USB.</li> <li>Disabled — BIOS does not store the recovery image on primary hard disk drive storage. So the BIOS recovery image is available only via an external USB.</li> </ul>
<b>Serr</b>	<p>Enables or disables the SERR on the DRAM controller and the PEG controller in the north bridge.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Disabled — Disable the SERR DMI messaging mechanism.</li> <li>Enabled — Allows SERR messages to be generated.</li> </ul>

## MemoryInformation

Table 10. MemoryInformation

Attribute Name	Description
<b>DIMMASize</b>	<p>Displays the amount of main memory physically installed in the DIMM slot A.</p> <p>Possible Values: Read-only</p>
<b>DIMMBSize</b>	<p>Displays the amount of main memory physically installed in the DIMM slot B.</p> <p>Possible Values: Read-only</p>

Attribute Name	Description
<b>DIMMCSize</b>	Displays the amount of main memory physically installed in the DIMM slot C.  Possible Values: Read-only
<b>DIMMDSize</b>	Displays the amount of main memory physically installed in the DIMM slot D.  Possible Values: Read-only
<b>MemoryAvailable</b>	Displays the amount of main memory available to the operating system.   <b>NOTE: Due to an amount of memory allocated for the system use, MemoryAvailable is less than MemoryInstalled. Certain operating systems may not be able to use all the available memory.</b>  Possible Values: Read-only
<b>MemoryInstalled</b>	Displays the amount of main memory physically installed in the system.  Possible Values: Read-only
<b>MemorySpeed</b>	Displays the clock frequency of the main memory.  Possible Values: Read-only
<b>MemoryTechnology</b>	Displays the technology of the main memory installed in the system.  Possible Values: Read-only

## MiscellaneousDevices

Table 11. MiscellaneousDevices

Attribute Name	Description
<b>Camera</b>	Enables or disables the camera.  Possible values: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>Camera2</b>	Enable or disables the backward-facing camera.  Possible values: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>DedicatedGPS</b>	Enables or disables the Internal GPS radio.  Possible values: <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>EsataPorts</b>	Enables or disables all e-SATA ports. If the system supports a dock, all e-SATA ports into the dock are also enabled or disabled.

Attribute Name	Description
<b>ExpressCard</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul> <p>Enables or disables the ExpressCard.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>HdFreeFallProtect</b>	<p>Enables or disables hard drive free fall protection.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>MediaCard</b>	<p>Enables or disables the media card. If disabled, the media card is hidden from the OS and not seen in the Device Manager.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>MediaCardand1394</b>	<p>Enables or disables the media card and 1394.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>MiniCardSSDDevice</b>	<p>Enables or disables the mini card Solid State Drive (SSD) module.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>ModuleBayDevice</b>	<p>Enables or disables the module bay. The module bay is a hot-pluggable bay where storage and media devices such as HDDs, CDs or DVDs can be installed.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>OnboardModem</b>	<p>Enables or disables the onboard internal modem.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>PcCard</b>	<p>Enables or disables the PC card.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> </ul>



Attribute Name	Description
	<ul style="list-style-type: none"> <li>Disabled</li> </ul>
<b>PciSlots</b>	<p>Enables or disables the various on-board PCI slots.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>PCMCIA</b>	<p>Enables or disables the PCMCIA device slot.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>SdCard</b>	<p>Enables or disables the SD card slot.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>SdCardBoot</b>	<p>Enables or disables booting the system from an SD card.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Allows the system to boot from an SD card.</li> <li>Disabled — Prevents the system from detecting or boot from the SD card.</li> </ul>
<b>SdCardReadOnly</b>	<p>Enables or disables the read-only mode for SD card.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>

## Performance


Table 12. Performance

Attribute Name	Description
<b>AdjCachePrefetch</b>	<p>Enables or disables the AdjacentCacheLinePrefetch feature.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled - CPU fetches the adjacent cache line in the other half of the sector.</li> <li>Disabled - CPU only fetches the cache line that contains the data currently required by the CPU.</li> </ul>
<b>CPUCore</b>	<p>This field specifies whether the processor has one or more cores enabled. The performances of some applications improve with the additional cores.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>CoresAll — All cores are enabled.</li> <li>Cores1 — Only one core is enabled.</li> <li>Cores2 — Two cores are enabled.</li> </ul>

Attribute Name	Description
	<ul style="list-style-type: none"> <li>• Cores3 — Three cores are enabled.</li> <li>• Cores4 — Four cores are enabled.</li> <li>• Cores5 — Five cores are enabled.</li> <li>• Cores6 — Six cores are enabled.</li> <li>• Cores7 — Seven cores are enabled.</li> <li>• Cores8 — Eight cores are enabled.</li> <li>• Cores9 — Nine cores are enabled.</li> <li>• Cores10 — Ten cores are enabled.</li> <li>• Cores11 — Eleven cores are enabled.</li> <li>• Cores12 — Twelve cores are enabled.</li> <li>• Cores13 — Thirteen cores are enabled.</li> <li>• Cores14 — Fourteen cores are enabled.</li> <li>• Cores15 — Fifteen cores are enabled.</li> <li>• Cores16 — Sixteen cores are enabled.</li> </ul>
<b>CpuSnoopMode</b>	<p>Configures the CPU snoop mode.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Early — Enables early snoop mode. Use this mode for latency-sensitive applications that do not require high remote bandwidth.</li> <li>• Home — Enables home snoop mode. Use this mode for applications that require high memory bandwidth.</li> <li>• ClusterOnDie — Enables cluster on die mode. Dell recommends this mode for NUMA-optimized applications to achieve lowest local memory latency, and highest local memory bandwidth.</li> <li>• OppSnoop — Enables opportunistic snoop mode. Directory with Opportunistic Snoop Broadcast (OSB) offers a good balance of latency and bandwidth.</li> <li>• NoSnoop — Enables no snoop mode.</li> </ul>
<b>CStatesCtrl</b>	<p>Enables or disables additional processor sleep states. The operating system may optionally use these states for additional power savings when idle.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>DRmt</b>	<p>The Dell Reliable Memory Technology (RMT) feature identifies and filters out defective regions of the memory modules before they are consumed by the BIOS or OS. When enabled, the system automatically identifies errors, record their locations, and exclude bad location on reboot.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>EnableMultiCoreSupport</b>	<p>Enables or disables multiple CPU cores.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — The operating system is allowed to access additional cores present on a single CPU package.</li> <li>• Disabled — The operating system is prevented to access additional cores present on a single CPU package.</li> </ul>



Attribute Name	Description
<b>HwPrefetcher</b>	<p>Enables or disables the CPU's hardware prefetcher. If enabled, the processor's Hardware Prefetcher will automatically prefetch data and code for the processor.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>IntelRapidStart</b>	<p>Enables or disables the Intel Rapid Start feature. The Intel Rapid Start feature reduces power consumption by putting the system into a low-power state during sleep mode after the specified amount of time (minutes). The resume time may be slightly more than resuming the system from a sleep mode, but less than resuming from a hibernate mode.</p> <p>Intel Rapid Start Technology is automatically be disabled due to configuration changes, such as:</p> <ul style="list-style-type: none"> <li>• Hard disk configuration or partition changes</li> <li>• Memory capacity over 8GB is installed.</li> <li>• System or HDD password is enabled.</li> <li>• A Dell Encryption Accelerator card is installed.</li> <li>• The BlockSleep setting is enabled.</li> </ul>
<b>IntelRapidStartInstantOnDisplay</b>	<p>Enables or disables displaying the system logo from cache during system resume using Intel Rapid Start Technology.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Displays the system logo from cache during system resume using Intel Rapid Start Technology.</li> <li>• Disabled — Does not display the system logo from cache during system resume using Intel Rapid Start Technology.</li> </ul>
<b>IrstTimer</b>	<p>Sets the Intel Rapid Start Timer. The value can be specified in minutes ranging from 0 to 999. Specify the Rapid Start timer value as 0 to put the system into a low-power state immediately after the system transition to a sleep mode.</p> <p>Possible values: Integer ranging from 0 to 999</p>
<b>LimitCpuidValue</b>	<p>Restricts the maximum CPUID functions supported by the processor. Some operating system does not complete the installation when more than three CPUID functions are supported.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>LogicProc</b>	<p>Enables or disables HyperThreading in the processor.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>MultiCoreSupport</b>	<p>Specifies whether the processor has one or more cores enabled. The performances of some applications improve with additional cores.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• CoresAll — All cores are enabled.</li> <li>• Cores1 — Only one core is enabled.</li> <li>• Cores2 — Two cores are enabled.</li> </ul>


Attribute Name	Description
<b>NodeInterleave</b>	<ul style="list-style-type: none"> <li>• Cores4— Four cores are enabled.</li> <li>• Cores6— Six cores are enabled.</li> <li>• Cores8— Eight cores are enabled.</li> <li>• Cores10 — Ten cores are enabled.</li> <li>• Cores12 — Twelve cores are enabled.</li> <li>• Cores14 — Fourteen cores are enabled.</li> <li>• Cores16 — Sixteen cores are enabled.</li> </ul> <p>Enables or disables memory interleave mode.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>Speedstep</b>	<p>Intel SpeedStep technology that allows the processor to operate at two or more operating speeds called P-states in ACPI terminology. When disabled, the processor operates at its maximum frequency.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Disabled</li> <li>• Enabled</li> <li>• MaximumPerformance</li> <li>• MaximumBattery</li> </ul>
<b>IsochronousMode</b>	<p>Enables or disables System Isochronous mode.</p> <p> <b>NOTE: Isochronous mode may be best for audio and video streaming applications.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled - Enable this mode to reduce the latency of memory transactions at the expense of bandwidth.</li> <li>• Disabled - Disable this mode for applications that need high memory bandwidth.</li> </ul>
<b>TurboMode</b>	<p>Enables or disables the Intel TurboBoost mode of the processor.</p> <ul style="list-style-type: none"> <li>• Disabled — Does not allow the TurboBoost driver to increase the performance state of the processor preceding the standard performance.</li> <li>• Enabled — Allows the Intel Turbo driver to increase the performance of the CPU or graphics processor.</li> </ul>
<b>AmdCpuCore</b>	<p>This field specifies whether the processor has one or more cores enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• CoreAll</li> <li>• Core1p0</li> <li>• Core1p1</li> <li>• Core2p0</li> <li>• Core3p0</li> <li>• Core2p2</li> <li>• Core4p0</li> <li>• Core3p3</li> </ul>

Attribute Name	Description
<b>AmdThreadControl</b>	<p>Each processor core contains two threads. Each thread appears as a separate processor to the operating system. However, the threads share part of the processor core with one another.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>AmdTurboCore</b>	<p>Enables or disables the AMD Turbo Core Technology in the processor. When enabled, AMD Turbo Core Technology dynamically adjusts processor frequency to provide a performance boost at the operating system's request.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>MemRSA</b>	<p>Enables or disables the Reliability Availability Serviceability (RSA) support on memory module.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>PcieRSA</b>	<p>Enables or disables the Reliability Availability Serviceability (RSA) support on PCIe devices.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>CpuRSA</b>	<p>Enables or disables the Reliability Availability Serviceability (RSA) support on CPUs.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>


## POSTBehavior

Table 13. POSTBehavior

Attribute Name	Description
<b>ExternalHotKey</b>	<p>Enables or disables Fn key emulation.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — The Scroll Lock key on external keyboards emulate the Fn key only when running in a non-ACPI OS.</li> <li>• Disabled — The Scroll Lock key behaves normally.</li> </ul>
<b>ExtPostTime</b>	<p>Creates an extra preboot delay for specified seconds to allow the user to see POST status messages.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• 0s — Does not delay.</li> <li>• 5s — Delays for 5 seconds.</li> </ul>

Attribute Name	Description
<b>Fastboot</b>	<ul style="list-style-type: none"> <li>• 10s — Delays for 10 seconds.</li> </ul> <p>Controls specific steps performed during boot to decrease boot time or increase boot checks. This option can speed up the boot process by bypassing some compatibility steps.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Minimal — Reduces boot time by skipping certain hardware and configuration initialization during boot.</li> <li>• Thorough — Performs complete hardware and configuration initialization during boot.</li> <li>• Auto — Allows the BIOS to decide configuration initialization to be performed during boot.</li> <li>•</li> </ul>
<b>FnLock</b>	<p>This option controls the behavior of the dual function keys, when Fn key is pressed and when it is not.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Fn+Esc key combination toggles the primary behavior of F1 to F12 keys between their normal and secondary functions.</li> <li>• Disabled — You cannot toggle the primary behavior of these keys.</li> </ul>
<b>FnLockMode</b>	<p>If Enabled, F1 to F12 keys behave as function keys holding Fn key is required to access their secondary functions. Without holding Fn key, the dual function keys behave as normally labeled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• EnableSecondary</li> <li>• DisableStandard</li> </ul>
<b>FullScreenLogo</b>	<p>Enables or disables the full screen logo that appears during BIOS POST.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>Keypad</b>	<p>Activates the internal keyboard's embedded keypad either when Numlock LED is on or when the Fn key is pressed.</p> <p> <b>NOTE: When Setup is running, this option has no effect, Setup works in the EnabledByFnKey mode.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• EnabledByFnKey — The keypad is enabled only when you hold the Fn key.</li> <li>• EnabledByNumLock — The keypad is enabled when, the Numlock LED is On and no external keyboard is attached.</li> </ul>
<b>MacAddrPassThru</b>	<p>This feature replaces the external NIC MAC address (in a supported dock or dongle) with the selected MAC address from the system. The default value is the System Unique MAC Address.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• SystemUnique</li> <li>• IntegratedNic1</li> <li>• Disabled</li> </ul>

Attribute Name	Description
<b>NumLock</b>	<p>Enables or disables the NumLock function when the system boots.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>PntDevice</b>	<p>Defines how the system handles mouse and touchpad input.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• SerialMouse — Uses a serial mouse and disables the internal touchpad.</li> <li>• Ps2Mouse — Disables the integrated touchpad when an external PS2 mouse is present.</li> <li>• Touchpad — Leave the integrated touchpad enabled when an external PS2 mouse is present.</li> <li>• SwitchToExternalPS2 — Sets the pointing device to switch to external ps2.</li> </ul>
<b>PostF12Key</b>	<p>Enables or disables &lt;F12&gt; Boot Menu on POST boot screen.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Enables F12 Boot Option Menu.</li> <li>• Disabled — Disables F12 Boot Option Menu.</li> </ul>
<b>PostF2Key</b>	<p>Enables or disables &lt;F2&gt; boot menu on POST boot screen.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>PostHelpDeskKey</b>	<p>Enables or disables display of the (ctrl+h) help Desktop hotkey message on the POST screen if Management Engine (ME) is alive and Client Initiated Remote Access (CIRA) is supported.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>PowerWarn</b>	<p>Enables or disables display of warning messages when you use certain power adapters. The system displays these messages when you attempt to use a power adapter that has too little capacity for your configuration.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>RptKeyErr</b>	<p>Enables or disables reporting of keyboard-related errors when the system boots.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>SignOfLifeByKbdBacklight</b>	<p>This option allows the system to indicate that the power button has been pressed during POST by turning on the keyboard backlight.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> </ul>


Attribute Name	Description
<b>SignOfLifeByDisplay</b>	<ul style="list-style-type: none"> <li>• Disabled</li> </ul> <p>This option allows the system to indicate that the power button has been pressed during POST by displaying the Dell Logo.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>SignOfLifeByAudio</b>	<p>This option allows the system to indicate that the power button has been pressed during POST with an audible tone.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>SignOfLifeIndication</b>	<p>During POST, system acknowledges that the power button has been pressed in a manner that the user can either hear or feel.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>WarningsAndErr</b>	<p>During POST the system continues to boot, or pauses when warnings or errors are detected. This feature can be used for the remotely managed systems that does not have a keyboard or a console for the user to respond.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• PromptWrnErr — System pauses for the user to respond when warnings or errors are detected.</li> <li>• ContWrn — System continues to boot when warnings are detected, but pauses for the user to respond when errors are detected.</li> <li>• ContWrnErr — System continues to boot when warnings or errors are detected.</li> </ul>
<b>WyseP25Access</b>	<p>Enables or disables the WyseP25Access feature.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Allows remote access to BIOS setup through Dell Wyse P25, Dell Wyse P45, or through any other compatible portal.</li> <li>• Disabled — Restricts remote access to BIOS setup through Dell Wyse P25, Dell Wyse P45, or through any other compatible portal.</li> </ul> <p> <b>CAUTION: If Dell Wyse P25 BIOS Access feature is disabled, it cannot be enabled remotely through the Dell Wyse P25, Dell Wyse P45, or through any other compatible portal. Disabling this feature prevents keyboard access to Diagnostics, Safe Mode, Boot Options, and other Pre-OS functionalities.</b></p> <p> <b>NOTE: This feature is enabled by default.</b></p>

# PowerManagement





Table 14. PowerManagement

Attribute Name	Description
<b>AcPwrRcvry</b>	<p>Controls the system's behavior when AC power is restored after AC power has been lost.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Off — System stays off after AC power is restored.</li><li>• On — System powers on after AC power is restored.</li><li>• Last — System returns to the previous state after AC power recovery.</li></ul>
<b>AdvancedBatteryChargeConfiguration</b>	<p>Configures the days settings based on BeginningOfDay and workperiod. Advanced Battery charge mode uses standard charging algorithm and other methods during working hours to maximize battery health. During working hours, express charge is used to charge the batteries faster. You can configure the days and the work period during which the battery has to be charged. To enable advanced battery charging, provide the day, and set the following:</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• BeginningOfDay — To configure the AdvanceBatteryCharge start time in 24 hours format. The value of hour must be in the range 0–23 and minute must be 0, 15, 30, or 45.</li><li>• Workperiod — To configure the duration of charging.</li></ul>
<b>AdvBatteryChargeCfg</b>	<p>Enables or disables the Advanced Battery Charge configuration. During working hours, with the Advanced Battery Charge configuration, the batteries can be charged faster using ExpressCharge.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>
<b>AutoOn</b>	<p>Configures the days when the system has to turn on automatically at the time specified in AutoOnHr and AutoOnMn. This function can turn on the system either every day, on weekdays, or on selected days. If AutoOnHr is set to 23, and AutoOnTime is set to 53, then setting AutoOnTime to Weekdays turns on the system automatically on weekdays (Monday to Friday) at 11:53 p.m.. To turn on the system on particular days, set AutoOnTime as Select Days, and then enable or disable individual days by setting AutoOnSun -enabled, AutoOnMon -disabled, etc.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Disabled</li><li>• EveryDay</li><li>• SelectDays</li><li>• Weekdays</li></ul>
<b>AutoOnHr</b>	<p>Configures the hour when the system has to turn on automatically. Provide the value ranging from 0 to 23. To set the time 11:59 p.m., provide the value as 23.</p> <p>Possible values: Integers ranging from 0 to 23</p>
<b>AutoOnMn</b>	<p>Configures the minute when the system has to turn on automatically. Provide the value ranging from 0 to 59. To set the time 11:59 p.m., provide the value as 59.</p> <p>Possible values: Integers ranging from 0 to 59</p>
<b>AutoOnSun</b>	<p>Enables or disables the AutoOn functionality at the specified time on Sundays.</p>

Attribute Name	Description
<b>AutoOnMon</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul> <p>Enables or disables the AutoOn functionality at the specified time on Mondays.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>AutoOnTue</b>	<p>Enables or disables the AutoOn functionality at the specified time on Tuesdays.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>AutoOnWed</b>	<p>Enables or disables the AutoOn functionality at the specified time on Wednesdays</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>AutoOnThur</b>	<p>Enables or disables the AutoOn functionality at the specified time on Thursdays.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>AutoOnFri</b>	<p>Enables or disables the AutoOn functionality at the specified time on Fridays.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>AutoOnSat</b>	<p>Enables or disables the AutoOn functionality at the specified time on Saturdays.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>AutoWakePeriod</b>	<p>Defines the time in minutes after which the system should automatically wake up from Standby, Hibernate, or Switched off mode.</p> <p>Possible values: integers ranging from 0 to 254</p>
<b>BlinkPowerSupply1LED</b>	<p>Normally, the status LEDs on the back of the Power Supply Unit (PSU) displays solid green color.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — The first power supply (PSU 1) status LED blinks for few seconds.</li> </ul>



 **NOTE: The system wakes up from Sleep, Hibernate, or Switched off mode only if the AutoOn option is enabled for everyday of the week.**




Attribute Name	Description
<b>BlinkPowerSupply2LED</b>	<p> <b>NOTE: There is no need for disabling the LEDs manually. When the Embedded Controller (EC) gives the control back to PSU, the LED turns off automatically.</b></p> <p>Normally, the status LEDs on the back of the Power Supply Unit (PSU) displays solid green color.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — The second power supply (PSU 2) status LED blinks for few seconds.</li> </ul>
<b>BlockSleep</b>	<p> <b>NOTE: There is no need for disabling the LEDs manually. When the Embedded Controller (EC) gives the control back to PSU, the LED turns off automatically.</b></p> <p>Blocks the system entering sleep (S3 state) mode in an OS environment. If enabled, the system does not go into sleep mode, Intel Rapid Start is disabled automatically, and OS Power option is blank if it was set to Sleep earlier.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>CustomChargeStart</b>	<p>Sets the percentage value ranging from 50 to 95 at which custom battery charging should start.</p> <p> <b>NOTE: Primary Battery Custom Charge Start percent must be less than the Primary Battery Custom Charge End percent and the minimum difference between the two must be 5 percent.</b></p> <p>Possible values: Integers ranging from 50 to 95</p>
<b>CustomChargeStop</b>	<p>Sets the percentage value ranging from 55 to 100 at which the custom battery charging should stop.</p> <p> <b>NOTE: Primary Battery Custom Charge Start percentage must be less than the Primary Battery Custom Charge End percent and the minimum difference between the two must be 5 percent.</b></p> <p>Possible values: Integers ranging from 55 to 100</p>
<b>DeepSleepCtrl</b>	<p>Controls when Deep Sleep is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Disabled</li> <li>• S5Only</li> <li>• S4AndS5</li> </ul>
<b>DockBatteryChargeConfiguration</b>	<p>Configures the dock battery charge mode.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Standard — Charges the battery over a long period of time.</li> <li>• Express — Charges the battery in Express Charge mode using Dell's fast charging technology.</li> </ul>
<b>FanCtrlOvrdr</b>	<p>Runs the system fan at full speed.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> </ul>

Attribute Name	Description
<b>FanSpeed</b>	<ul style="list-style-type: none"> <li>• Disabled</li> </ul> <p>Sets the speed of the fan to Auto, High, Medium, Low, Medium High, or Medium Low. When set to Auto, the system run time automatically sets the speed.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Auto</li> <li>• High</li> <li>• Med</li> <li>• Low</li> <li>• MedHigh</li> <li>• MedLow</li> </ul>
<b>FanSpeedLvl</b>	<p>Configures the fan speed control if the fan speed is set to Auto using FanSpeed attribute. 0 sets the fan speed to the optimal speed level, and a higher percentage provides enhanced cooling.</p> <p>Possible values: Integers ranging from 0 to 100</p>
<b>IntelReadyModeEn</b>	<p>This option enables or disables Intel Ready Mode Technology (iRMT).</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>IntlSmartConnect</b>	<p>Intel Smart Connect Technology (ISCT) identifies the nearby wireless connections while system is in a sleeping state. SmartConnect Synchronizes email or social media applications that were open when the system entered the sleep state.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>LidSwitch</b>	<p>Enables or disables the lid switch functions.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — OS setting determines the display behavior when lid is closed.</li> <li>• Disabled — Display will not be affected when lid is closed.</li> </ul>
<b>ModBattChargeCfg</b>	<p>Configures the module bay battery charge mode.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Standard — Charges the battery at a standard rate.</li> <li>• Express — Charges the battery faster using the express charging algorithm, Dell's fast charging technology</li> </ul>
<b>PeakShiftBatteryThreshold</b>	<p>Sets the value of the Peak Shift battery threshold. The acceptable value range is from 15 to 100 percent. When the Peak Shift battery threshold level is reached, the system starts using AC power.</p> <p>Possible values: Integers ranging from 15 to 100</p>
<b>PeakShiftCfg</b>	<p>Enables or disables Peak Shift configuration. Using Peak Shift, you can minimize the consumption of AC power during the peak power usage period of the day.</p>





Attribute Name	Description
<b>PeakShiftDayConfiguration</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul> <p>Configures the days settings based on StartTime, EndTime, and ChargeStartTime. Using Peak Shift configuration, you can minimize the consumption of AC power during the peak power usage period of the day. You can set a start and end times for the Peak Shift period. During this period, the system runs on battery if the battery charge is preceding the set battery threshold value. After the Peak Shift period, the system runs on AC power without charging the battery. The system functions normally using AC power and recharging the battery after the specified ChargeStartTime.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>PrimaryBattChargeCfg</b>	<p>Configures the primary battery charge mode. The selected charging mode applies to all batteries installed in the system.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Adaptive — Battery settings are adoptively optimized based on your typical battery usage pattern.</li> <li>• Standard — Charges the battery at a standard rate.</li> <li>• Express — Charges the battery faster using the express charging algorithm, Dell's fast charging technology.</li> <li>• PrimAcUse — Charges the battery while plugged in, a mode preferred by the users who operate their systems while plugged in to an external power source.</li> <li>• Custom — The battery charging starts and stops based on user settings specified in Primary Battery Custom Charge Start and Primary Battery Custom Charge End.</li> </ul>
<b>SfpwakeOnLan</b>	<p>Enables the system to power on by a special LAN signal, or by a special SFP signal.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• SFP - Allows the system to be powered on by special SFP signals.</li> <li>• LANSFP - Allows the system to be powered on by either by LAN, or by SFP signals.</li> <li>• SFPPXE - Allows the system to be powered on by SFP signals, and immediately boot to PXE.</li> </ul> <p> <b>NOTE: This feature works only if the system is connected to AC power.</b></p>
<b>SleepMode</b>	<p>Determines which sleep mode to be used by the operating system.</p> <p> <b>NOTE: The BIOS can only support either Modern Standby sleep mode (connected or disconnected), or S3 sleep mode.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• OSAutoSelection — Allows the operating system to select the appropriate sleep mode automatically.</li> <li>• ForceS3 — Forces the operating system to use the S3 sleep mode only.</li> </ul>
<b>SliceBattChargeCfg</b>	<p>Configures the battery slice charge mode. The battery slice is an external battery that docks with the system docking connector. The battery slice houses its own battery charger.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Standard</li> </ul>




Attribute Name	Description
	<ul style="list-style-type: none"> <li>Express</li> </ul>
<b>Speedshift</b>	<p>Enables or disables the Intel Speed Shift Technology support. Setting this option to Enabled allows the operating system to select the appropriate processor performance automatically.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>TypeCPower</b>	<p>Configures the maximum power for type-C connector.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>7.5W</li> <li>15W</li> </ul>
<b>UsbWake</b>	<p>Enables USB devices to wake the system from Standby.</p> <p> <b>NOTE: This feature is functional only when the AC power adapter is connected.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>WakeOnAc</b>	<p>Controls the system's behavior when AC power is restored after AC power was lost.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Disabled — System stays off after AC power is restored.</li> <li>Enabled — System powers on after AC power is restored.</li> </ul>
<b>WakeOnDock</b>	<p>Enables or disables waking the system when a docking connection is made.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>WakeOnLan</b>	<p>Enables the system to turn on from the off state when triggered by a special LAN signal, or from the hibernate state when triggered by a special wireless LAN signal.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>LanOnly — Allows the system to be powered on by special LAN signal.</li> <li>Disabled — Does not allow the system to power on when it receives a wakeup signal from the LAN or wireless LAN.</li> <li>LanWithPxeBoot</li> <li>WlanOnly — Allows the system to be powered on by special WLAN signal.</li> <li>LanWlan — Allows the system to be powered on by special LAN or wireless LAN signal.</li> <li>AddInCard — Allows the system to be powered on by NICs plugged into the special power connector.</li> <li>Onboard — Allows the system to be powered on by Onboard NIC.</li> </ul>
<b>WlanAutoSense</b>	<p>Enables or disables the WLAN radio when the system is connected to a wired network. When disconnected from the wired network, WLAN radio is re-enabled.</p>

Attribute Name	Description
	<p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>WwanAutoSense</b>	<p>Enables or disables the WWAN radio when the system is connected to a wired network. When disconnected from the wired network, WWAN radio is re-enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>

## PreEnabled

Table 15. PreEnabled

Attribute	Description
<b>BiosConnectActivation</b>	<p>Configures the state of the available BiosConnect boot paths.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Deactivate — BIOS setup options are not available and all BiosConnect boot paths are disabled.</li> <li>FullActivation — BIOS Setup options are enabled and all BiosConnect boot paths are enabled.</li> <li>LaunchpadActivationOnly — BIOS setup options are enabled and only launchpad code path is enabled.</li> </ul>
<b>DashSupport</b>	<p>Enables and disables the support for Desktop and Mobile Architecture for System Hardware (DASH) management through Platform Level Data Model (PLDM) exchanges.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>DisGpuExtDisplay</b>	<p>Enables or disables the platform external displays.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Allows discrete Graphics Processing Unit (dGPU) to enable the platform external displays such as HDMI, NB DP and Type-C, etc. with the purpose of enabling discrete graphic features such as Eyefinity, Mosaic, 10bit DP displays, etc..</li> </ul> <p> <b>NOTE: Embedded Display Port (eDP) will be enabled by Integrated Graphics Processing Unit (iGPU).</b></p> <ul style="list-style-type: none"> <li>Disabled — The normal hybrid graphics mode is enabled.</li> </ul> <p> <b>NOTE: This feature is used in hybrid graphics mode only.</b></p>
<b>FaultTolerantMemLogClear</b>	<p>Enables or disables the Fault Tolerant Memory Log Clear option.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — System clears fault tolerant memory log during the next boot.</li> <li>Disabled — Fault Tolerant Memory Log Clear option will be disabled, and no action will be taken during the next boot.</li> </ul>

Attribute	Description
<b>GpsWwan</b>	<p> <b>NOTE: Fault Tolerant Memory Log Clear option will be reset to disabled state after log gets cleared.</b></p> <p>Enables or disables GPS WWAN Radio.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>MemPerMonitor</b>	<p>Enables or disables the memory performance monitor feature.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>PwrOffWlanStealthMode</b>	<p>Enables or disables PwrOffWlanStealthMode.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled — Disconnects power from the Intel 8260 Wireless NIC when the Stealth Mode is enabled.</li> <li>· Disabled — Does not disconnect power from the Intel 8260 Wireless NIC when the Stealth Mode is enabled.</li> </ul> <p> <b>NOTE: Disabling Stealth Mode does not automatically restore the power or functionality of the card until the next complete boot. This non-standard mode is available as an option for Stealth Mode control of the Intel 8260 card for the following use cases: Pre-boot applications, Linux OS, or Windows OS without Dell recommended drivers.</b></p>
<b>RecoveryTool</b>	<p>Enables or disables the Dell recovery tool.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled — Enables the Dell recovery tool.</li> <li>· Disabled — Disables the Dell recovery tool.</li> </ul>
<b>ReportLogoType</b>	<p>Reports the type of splash screen logo (Dell or custom) that is passed from BIOS to user.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· 0 and 1</li> </ul> <p> <b>NOTE: You cannot enable or disable this feature using Dell Command   PowerShell Provider.</b></p>
<b>RuggedDeskDockNicPxe</b>	<p>Enables or disables the support for PXE Boot from Rugged Desk Dock NIC device.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>ServiceOSClear</b>	<p>Deletes the service OS non-volatile region.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled — Deletes the service OS non-volatile region and changes the token status to Disabled.</li> </ul>

Attribute	Description
	<ul style="list-style-type: none"> <li>Disabled — Does not delete the service OS non-volatile region.</li> </ul>
<b>UsbWakeS4En</b>	<p>Enables or disables the USB wake from s4 power state of the system.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Enables the USB wake from s4 power state of the system.</li> <li>Disabled — Disables the USB wake from s4 power state of the system.</li> </ul>



## ProcessorInformation

Table 16. ProcessorInformation

Attribute Name	Description
<b>64-BitTechnology</b>	<p>Specifies whether the installed processors support 64-bit extensions.</p> <p>Possible values: Read-only</p>
<b>CoreCount</b>	<p>Displays the number of cores in each processor. By default, the maximum number of cores per processor are enabled.</p> <p>Possible values: Read-only</p>
<b>CurrentClockSpeed</b>	<p>Displays the current speed of the processor.</p> <p>Possible values: Read-only</p>
<b>HTCapable</b>	<p>Specifies whether the system supports Hyper Threading (HT).</p> <p>Possible values: Read-only</p>
<b>MaximumClockSpeed</b>	<p>Displays the maximum speed supported by the processor.</p> <p>Possible values: Read-only</p>
<b>ProcessorID</b>	<p>Displays the processor ID that contains the processor-specific information that describes the features of the processor.</p> <p>Possible values: Read-only</p>
<b>ProcessorL2Cache</b>	<p>Displays the L2 cache size.</p> <p>Possible values: Read-only</p>
<b>ProcessorL3Cache</b>	<p>Displays the L3 cache size.</p> <p>Possible values: Read-only</p>
<b>ProcessorType</b>	<p>Displays the brand information of the processor installed on the system.</p> <p>Possible values: Read-only</p>

# SecureBoot

Table 17. SecureBoot



Attribute Name	Description
<b>SecureBoot</b>	<p>Enables or disables the SecureBoot feature. For SecureBoot to be enabled, the system needs to be in UEFI boot mode, and the Enable Legacy Option ROMs option needs to be turned off.</p> <p> <b>CAUTION: You cannot disable the SecureBoot feature using the Dell Command   PowerShell Provider.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul> <p> <b>NOTE: One of the methods to disable SecureBoot feature is from the BIOS setup screen.</b></p>





# Security


Table 18. Security

Attribute Name	Description
<b>AdminPassword</b>	<p>Sets, changes, or clears the administrator (admin) password (also called the setup password). If you delete the admin password, the system password, if set, is also deleted.</p> <p>Possible values: String containing minimum 4 and maximum 32 characters including whitespace.</p>
<b>AdminSetupLockout</b>	<p>Enables or disables admin setup lockout.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>
<b>Blocksid</b>	<p>When there is no drive ownership and the blocksid is enabled, BIOS sends the Block SID authentication command to SED drives. When disabled, BIOS does not send the Block SID command.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>
<b>CapsuleFirmwareUpdate</b>	<p>Enables or disables BIOS updates via UEFI capsule update packages.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>
<b>ChasIntrusion</b>	<p>The chassis intrusion switch is a physical switch which triggers an event when the chassis is opened.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled — The system detects and reports chassis intrusion events to the system display on boot-up.</li><li>• Disabled — The system does not detect and report the Chassis Intrusion events to the system display on boot-up.</li></ul>



Attribute Name	Description
	<ul style="list-style-type: none"> <li>• SilentEnable — The system detects, but does not report the Chassis Intrusion events to the system display on boot-up.</li> </ul>
<b>ChassisIntrusionStatus</b>	<p>Displays the status of chassis intrusion.</p> <p> <b>NOTE: Except TripReset, all values are read-only.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• DoorOpen — Indicates that chassis door is open.</li> <li>• Tripped — Indicates that the chassis door was opened since the last time the sensor-detection logic was reset.</li> <li>• DoorClosed — Indicates that chassis door is closed.</li> <li>• TripReset — Resets the sensor-detection logic to detect the next closed-to-open transition on the chassis door.</li> </ul>
<b>Computrace</b>	<p>This feature allows the users to enable or disable Absolute Software's Computrace security software BIOS ROM. After this token is written, the state is permanently maintained (this is a write-once field). This token is for Factory use only. Application and management software must ignore this token. Write-once permanent is different from write-once. Write-once is reset on a power cycle and/or chipset reset. Write-once permanent cannot be reset or change once it is set.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Disable</li> <li>• Activate</li> </ul> <p> <b>NOTE: You cannot enable or disable this feature using Dell Command   Configure.</b></p>
<b>CpuXdSupport</b>	<p>Enables or disables the run disable mode of the processor. The operating system can use this feature to hinder software that exploits buffer overflows.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>GeneralPurposeEncryption</b>	<p>Enables or disables general-purpose encryption.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>HDDInfo</b>	<p>Displays the details of each HDD. The following information is displayed:</p> <ul style="list-style-type: none"> <li>• <b>HDDName</b> — The name of the HDD.</li> <li>• <b>Present</b> — Whether the HDD is physically present.</li> <li>• <b>PwdProtected</b> — Whether a password exists for the HDD.</li> <li>• <b>PendingRestart</b> — Whether a reboot is pending to set the password.</li> <li>• <b>AdminOnlyChange</b> — Whether the changes to the password can be made only by an administrator.</li> <li>• <b>SecureEraseSupported</b> — Whether HDD Secure Erase is supported.</li> <li>• <b>SecureEraseEnabled</b> — Whether HDD Secure Erase is enabled.</li> </ul> <p>Possible values: Read-only</p>
<b>HDDPassword</b>	<p>Sets, changes, or clears the HDD password. Enter the HDD password, if set, when the system is powered on.</p>

Attribute Name	Description
<b>HddProtection</b>	<p> <b>NOTE: After setting the HDD password, restart the system.</b></p> <p>Possible values: String containing minimum 1 and maximum 32 characters including whitespace.</p>
<b>IntlPlatformTrust</b>	<p>Lets the user choose loading of HDD Protection OPROM.</p> <p>Enables or disables IntlPlatformTrust feature.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Displays the Intel Platform Trust Technology (PTT) device from the operating system on the next boot.</li> <li>• Disabled — Hides the Intel Platform Trust Technology (PTT) device from the operating system on the next boot.</li> </ul>
<b>IsAdminPasswordSet</b>	<p> <b>NOTE: When disabled, the PTT device is not displayed to the operating system, and no changes can be made to the PTT device or its content.</b></p> <p>Specifies if an admin password has been set.</p> <p>Possible values: True, false (Read-only)</p>
<b>IsSystemPasswordSet</b>	<p>Specifies if a system password has been set.</p> <p>Possible values: True, false (Read-only)</p>
<b>MasterPasswordLockout</b>	<p>Enables or disables master password settings.</p> <p> <b>CAUTION: Using the Dell Command   PowerShell Provider, you cannot disable this feature.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — The master password cannot be used to: <ul style="list-style-type: none"> <li>– clear other passwords</li> <li>– unlock and access Hard Disk Drive</li> <li>– erase data from Hard Disk Drive.</li> </ul> </li> <li>• Disabled — The master password can be used to: <ul style="list-style-type: none"> <li>– clear other passwords</li> <li>– unlock and access Hard Disk Drive</li> <li>– erase data from Hard Disk Drive.</li> </ul> </li> </ul>
<b>OromKeyboardAccess</b>	<p> <b>NOTE: One of the methods of configuring this feature is from the BIOS setup screen.</b></p> <p>Determines whether users are able to enter Option ROM Configuration screens using hotkeys during boot.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Users are able to enter OROM configuration screens using hotkeys during boot.</li> <li>• OneTimeEnable — Users will be able to enter OROM configuration screens using hotkeys during next boot only. After next boot, the settings will revert to disabled.</li> <li>• Disabled — Users are able to enter OROM configuration screens using hotkeys during boot.</li> </ul>
<b>PasswordBypass</b>	<p>Allows users to skip the entry of the system password, HDD password, fingerprint scan, or smartcard on either/both reboot (warm boot) or S3 resume (resume from standby).</p>

Attribute Name	Description
	<p>Possible values:</p> <ul style="list-style-type: none"> <li>• Disabled</li> <li>• RebootBypass</li> <li>• ResumeBypass</li> <li>• RebootAndResumeBypass</li> </ul>
<b>PasswordLock</b>	<p>Determines whether the changes to the system and HDD passwords are permitted or restricted if an admin password is set.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Disabled — If disabled, then the system and HDD passwords are locked by admin password and cannot be set, modified, or deleted unless admin password is provided.</li> <li>• Enabled — If enabled, then the system and the HDD passwords can be set, modified, or deleted.</li> </ul>
<b>Ppibypassforblocksid</b>	<p>When there is no drive ownership and the ppibypassforblocksid is enabled, the BIOS requires user input while sending the Block SID authentication command to SED drives. When disabled, BIOS does not require user input while sending the Block SID command.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>Smmsecuritymitigation</b>	<p>Enables or disables the additional UEFI SMM Security Mitigation protections. The operating system uses this feature to protect the secure environment created by virtualization-based security. Enabling this feature provides the additional UEFI SMM Security Mitigation protections support. However, this feature may cause compatibility or functionality issues with some legacy tools and applications.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>StrongPassword</b>	<p>Enables or disables the enforced use of a strong password. If enabled, the admin and system passwords must contain at least one upper case character, at least one lowercase character, and minimum eight characters.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>SystemPassword</b>	<p>Sets, changes, or clears the system password (also known as the user password). Enter the system password, if set, when the system is powered on.</p> <p>Possible values: String containing minimum 4 and maximum 32 characters including whitespace.</p>
<b>WirelessSwitchChanges</b>	<p>Determines if changes to the wireless switch setting are permitted or restricted when an administrator password is set.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Permits the changes to the wireless switch setting when an administrator password is set.</li> <li>• Disabled — Restricts the changes to the wireless switch setting when an administrator password is set.</li> </ul> <p> <b>NOTE: Provide the administrator password to be able to change the wireless switch setting. If the Administrator password is not set, this setting has no effect.</b></p>

# StealthModeControl

Table 19. StealthModeControl


Attribute	Description
<b>StealthMode</b>	<p>Sets the behavior of system elements.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled — The system elements operate in the preprogrammed stealth mode.</li><li>• Disabled — The system elements operate in normal mode.</li></ul>
<b>StealthModeBluetoothRadio</b>	<p>Enables or disables Stealth Mode behavior for bluetooth radio if the StealthMode attribute is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>
<b>StealthModeFans</b>	<p>Enables or disables Stealth Mode behavior for fans if the StealthMode attribute is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>
<b>StealthModeGPSReceiver</b>	<p>Enables or disables Stealth Mode behavior for GPS receiver if the StealthMode attribute is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>
<b>StealthModeLCD</b>	<p>Enables or disables Stealth Mode behavior for the LCD if the StealthMode attribute is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>
<b>StealthModeLEDs</b>	<p>Enables or disables Stealth Mode behavior for LEDs if the StealthMode attribute is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>
<b>StealthModeSpeakers</b>	<p>Enables or disables Stealth Mode behavior for speakers if the StealthMode attribute is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Enabled</li><li>• Disabled</li></ul>



Attribute	Description
<b>StealthModeWiGigRadio</b>	<p>Enables or disables Stealth Mode behavior for WiGig radio if the StealthMode attribute is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>StealthModeWLANRadio</b>	<p>Enables or disables Stealth Mode behavior for WLAN radio if the StealthMode attribute is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>StealthModeWWANRadio</b>	<p>Enables or disables Stealth Mode behavior for WWAN radio if the StealthMode attribute is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>

## SupportAssistSystemResolution

Table 20.

Attribute	Description
<b>AutoOSRecoveryThreshold</b>	<p>Sets the threshold value for auto OS recovery.</p> <p>Possible values: 0 to 3</p> <p>Controls the automatic boot flow for SupportAssist System Resolution console and for Dell OS Recovery Tool. The system boots to the SupportAssist System Resolution console and for Dell OS Recovery Tool if;</p> <ul style="list-style-type: none"> <li>• the primary operating system fails to boot consecutively</li> <li>• the count of boot failure is greater than or equal to the value of the Auto OS Recovery threshold setup option</li> <li>• SupportAssist OS Recovery option is enabled</li> </ul> <p> <b>NOTE: If Auto OS Recovery threshold is set to 0, then all automatic boot flow for SupportAssist System Resolution console and for Dell OS Recovery Tool will be disabled.</b></p>
<b>BiosConnect</b>	<p>Enables or Disables BIOS Connect feature.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>EnableSupportAssistOSRecovery</b>	<p>Enables or disables the boot flow for SupportAssist OS recovery tool in the event of certain system errors.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> </ul>

Attribute	Description
	<ul style="list-style-type: none"> <li>Disabled</li> </ul>
<b>MpmCfg</b>	<p>This feature controls the level of monitoring of Memory Performance Monitor (MPM). MPM monitors the memory for faults and perform fault recovery when possible.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>OFF</li> <li>Low</li> <li>Med</li> <li>High</li> </ul>

## SystemConfiguration

**Table 21. SystemConfiguration**


Attribute Name	Description
<b>AnalogDigitalInterfaceModeChannel1</b>	<p>Sets the defined Analog or Digital Interface mode for channel 1.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Unused — Channel is unused.</li> <li>ADCInput — Sets the channel mode as Analog-to-Digital Converter (ADC) input.</li> <li>DACOutput — Sets the channel mode as Digital-to-Analog Converter (DAC) output.</li> <li>DACAndADC — Sets the channel mode as DAC output, but can be monitored through ADC input.</li> <li>GPIO — Sets the channel mode as General Purpose Input or Output.</li> </ul>
<b>AnalogDigitalInterfaceModeChannel2</b>	<p>Sets the defined Analog or Digital Interface mode for channel 2.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Unused — Channel is unused.</li> <li>ADCInput — Sets the channel mode as Analog-to-Digital Converter (ADC) input.</li> <li>DACOutput — Sets the channel mode as Digital-to-Analog Converter (DAC) output.</li> <li>DACAndADC — Sets the channel mode as DAC output, but can be monitored through ADC input.</li> <li>GPIO — Sets the channel mode as General Purpose Input or Output.</li> </ul>
<b>AnalogDigitalInterfaceModeChannel3</b>	<p>Sets the defined Analog or Digital Interface mode for channel 3.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Unused — Channel is unused.</li> <li>ADCInput — Sets the channel mode as Analog-to-Digital Converter (ADC) input.</li> <li>DACOutput — Sets the channel mode as Digital-to-Analog Converter (DAC) output.</li> <li>DACAndADC — Sets the channel mode as DAC output, but can be monitored through ADC input.</li> <li>GPIO — Sets the channel mode as General Purpose Input or Output.</li> </ul>
<b>AnalogDigitalInterfaceModeChannel4</b>	<p>Sets the defined Analog or Digital Interface mode for channel 4.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Unused — Channel is unused.</li> <li>ADCInput — Sets the channel mode as Analog-to-Digital Converter (ADC) input.</li> </ul>



Attribute Name	Description
<b>AnalogDigitalInterfaceModeChannel5</b>	<ul style="list-style-type: none"> <li>· DACOutput — Sets the channel mode as Digital-to-Analog Converter (DAC) output.</li> <li>· DACAndADC — Sets the channel mode as DAC output, but can be monitored through ADC input.</li> <li>· GPIO — Sets the channel mode as General Purpose Input or Output.</li> </ul> <p>Sets the defined Analog or Digital Interface mode for channel 5.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Unused — Channel is unused.</li> <li>· ADCInput — Sets the channel mode as Analog-to-Digital Converter (ADC) input.</li> <li>· DACOutput — Sets the channel mode as Digital-to-Analog Converter (DAC) output.</li> <li>· DACAndADC — Sets the channel mode as DAC output, but can be monitored through ADC input.</li> <li>· GPIO — Sets the channel mode as General Purpose Input or Output.</li> </ul>
<b>AnalogDigitalInterfaceModeChannel6</b>	<p>Sets the defined Analog or Digital Interface mode for channel 6.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Unused — Channel is unused.</li> <li>· ADCInput — Sets the channel mode as Analog-to-Digital Converter (ADC) input.</li> <li>· DACOutput — Sets the channel mode as Digital-to-Analog Converter (DAC) output.</li> <li>· DACAndADC — Sets the channel mode as DAC output, but can be monitored through ADC input.</li> <li>· GPIO — Sets the channel mode as General Purpose Input or Output.</li> </ul>
<b>AnalogDigitalInterfaceModeChannel7</b>	<p>Sets the defined Analog or Digital Interface mode for channel 7.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Unused — Channel is unused.</li> <li>· ADCInput — Sets the channel mode as Analog-to-Digital Converter (ADC) input.</li> <li>· DACOutput — Sets the channel mode as Digital-to-Analog Converter (DAC) output.</li> <li>· DACAndADC — Sets the channel mode as DAC output, but can be monitored through ADC input.</li> <li>· GPIO — Sets the channel mode as General Purpose Input or Output.</li> </ul>
<b>AnalogDigitalInterfaceModeChannel8</b>	<p>Sets the defined Analog or Digital Interface mode for channel 8.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Unused — Channel is unused.</li> <li>· ADCInput — Sets the channel mode as Analog-to-Digital Converter (ADC) input.</li> <li>· DACOutput — Sets the channel mode as Digital-to-Analog Converter (DAC) output.</li> <li>· DACAndADC — Sets the channel mode as DAC output, but can be monitored through ADC input.</li> <li>· GPIO — Sets the channel mode as General Purpose Input or Output.</li> </ul>
<b>CanBus</b>	<p>Enables or disables the Controller Area Network (CAN) Bus.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>


Attribute Name	Description
<b>DisOsdBtn</b>	<p>Enables or disables the On-screen Display (OSD) buttons on an All-In-One system. When disabled, pressing these buttons has no effect.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>DockSupportOnBattery</b>	<p>Enabling DockSupportOnBattery allows you to use the docking station, when AC power is absent, but only when the battery is preceding a certain charge percentage. The percentage may change per battery and per platform. For example, the dock may only be powered when the battery is at 60 percent charge or higher, and when the battery drops below this level (without AC power) the dock loses power.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>EmbNic1</b>	<p>Controls the state of on-board LAN controller 1.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled</li> <li>· Enabled</li> <li>· EnabledPxe</li> <li>· OnWithImageServerBoot</li> <li>· EnabledwithRPLBoot</li> <li>· EnabledwithISCSIBoot</li> </ul>
<b>EmbNic2</b>	<p>Controls the state of on-board LAN controller 2.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled</li> <li>· EnabledPXE</li> <li>· Enabled</li> <li>· EnabledwithImageServerBoot</li> <li>· EnabledwithRPLBoot</li> <li>· EnabledwithISCSIBoot</li> </ul>
<b>EmbSataRaid</b>	<p>Configures the operating mode of the integrated SATA hard drive controller.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled — The SATA controllers are hidden.</li> <li>· Ata — SATA is configured for ATA mode.</li> <li>· Ahci — SATA is configured for AHCI mode.</li> <li>· Raid — SATA is configured to support RAID mode (Intel Rapid Restore Technology).</li> </ul>
<b>Emmcdevice</b>	<p>Enables or disables the eMMC drive.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>



Attribute Name	Description
<b>ForcePXEasFirstBootDevice</b>	<p>Enables or disables Preboot Execution Environment (PXE) as the first boot device for all subsequent boots.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>ForcePxeNextBoot</b>	<p>Enables or disables Force PXE on next boot in BIOS.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — If enabled, when the BIOS boots next time, the first PXE-capable device is inserted as the first device in the boot sequence. Enabling this value causes this operation on the next boot only, and does not cause a change in the defined boot sequence of the system. The BIOS chooses the first PXE-capable device as the onboard network controller of the system, if present and enabled, or the first bootable network device found in the standard PCI search order of the system, whichever comes first.</li> <li>• Disabled — If disabled, the boot override feature is disabled and the system boot sequence is in effect.</li> </ul>
<b>Hdd1FanEnable</b>	<p>Enables or disables the automatic fan controller, an error check of a fan. If a fan is detected, this function is automatically enabled. Disabling the fan requires physical removal of the HDD fan.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>Hdd2FanEnable</b>	<p>Enables or disables the automatic fan controller, an error check of a fan. If a fan is detected, this function is automatically enabled. Disabling the fan requires physical removal of the HDD2 fan.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>Hdd3FanEnable</b>	<p>Enables or disables the automatic fan controller, an error check of a fan. If a fan is detected, this function is automatically enabled. Disabling the fan requires physical removal of the HDD3 fan.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>IntegratedAudio</b>	<p>Enables or disables the integrated audio controller.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> <li>• Auto</li> </ul>
<b>IntegratedSas</b>	<p>Enables or disables the integrated Serial Attached SCSI (SAS) controller.</p> <p> <b>NOTE: This option affects the SAS RAID controller Only. This controller operates the connectors on the motherboard that are marked SASA and SASB.</b></p>


Attribute Name	Description
<b>InternalSpeaker</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul> <p>Enables or disables the built-in speaker.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> <li>· Low</li> <li>· Medium</li> <li>· High</li> </ul>
<b>IoModule</b>	<p>Enables or disables I/O module.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>KbdBacklightTimeoutAc</b>	<p>Configures the time-out value for the keyboard backlight when an AC adapter is plugged into the system.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· 5s — Keyboard backlight stays on for 5 seconds.</li> <li>· 10s — Keyboard backlight stays on for 10 seconds.</li> <li>· 15s — Keyboard backlight stays on for 15 seconds.</li> <li>· 30s — Keyboard backlight stays on for 30 seconds.</li> <li>· 1m — Keyboard backlight stays on for 1 minute.</li> <li>· 5m — Keyboard backlight stays on for 5 minutes.</li> <li>· 15m — Keyboard backlight stays on for 15 minutes.</li> <li>· Never — Keyboard backlight always stays on.</li> </ul>
<b>KbdBacklightTimeoutBatt</b>	<p>Configures the time-out value for the keyboard backlight when the system is running only on battery power.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· 5s — Keyboard backlight stays on for 5 seconds.</li> <li>· 10s — Keyboard backlight stays on for 10 seconds.</li> <li>· 15s — Keyboard backlight stays on for 15 seconds.</li> <li>· 30s — Keyboard backlight stays on for 30 seconds.</li> <li>· 1m — Keyboard backlight stays on for 1 minute.</li> <li>· 5m — Keyboard backlight stays on for 5 minutes.</li> <li>· 15m — Keyboard backlight stays on for 15 minutes.</li> <li>· Never — Keyboard backlight always stays on.</li> </ul>
<b>KeyboardBacklightActiveColor</b>	<p>Displays or sets an active color for the keyboard backlight in a rugged system. 6 colors are available: four predefined colors (white, red, green, blue), and two user configurable colors (custom1 and custom2). Active color indicates the color used on startup. Any one of the 6 colors can be chosen as an active color.</p>



Attribute Name	Description
<b>KeyboardBacklightCustom1Color</b>	<p>Possible value:</p> <ul style="list-style-type: none"> <li>· White</li> <li>· Red</li> <li>· Green</li> <li>· Blue</li> <li>· Custom1</li> <li>· Custom2</li> </ul> <p>Configures the Custom1 color by specifying the RGB values by mentioning it in 'R:G:B' format. Each color component value ranges from 0 to 255.</p> <p>Possible values: [0-255];[0-255];[0-255]</p>
<b>KeyboardBacklightCustom2Color</b>	<p>Configures the Custom2 color by specifying the RGB values by mentioning it in 'R:G:B' format. Each color component value ranges from 0 to 255.</p> <p>Possible values: [0-255];[0-255];[0-255]</p>
<b>KeyboardBacklightEnabledColors</b>	<p>Displays or enables the supported colors for the keyboard backlight in the rugged systems. 6 colors are available: 4 predefined colors (white, red, green, blue), and 2 user-configurable colors (custom1 and custom2). Multiple colors out of the 6 colors can be enabled at the same time. After enabling colors, you can switch among the enabled colors by pressing &lt;Fn +C&gt; keys. Enabling <b>NoColor</b> means that the keyboard backlight is turned off.</p> <p>Possible values: Either combination of,</p> <ul style="list-style-type: none"> <li>· White</li> <li>· Red</li> <li>· Green</li> <li>· Blue</li> <li>· Custom1</li> <li>· Custom2</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>· NoColor</li> </ul> <p> <b>NOTE: If value NoColor is selected, you cannot use &lt;Fn+C&gt; to switch to another keyboard backlight color. The value NoColor cannot be combined with any other color.</b></p>
<b>KeyboardBacklightOnAc</b>	<p>Disables the fade if an AC adapter is plugged in. For example, if you have set the back light to 25 percent using KeyboardIllumination, and the system is on AC power, then the keyboard backlight remains at 25 percent regardless of internal keyboard or touch pad activity. This feature is in effect only if the Keyboard backlight is enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled — Keyboard backlight fades after 10 seconds of inactivity.</li> <li>· Disabled — Disables the timer that fades the backlight after 10 seconds of inactivity if the system is running on AC power.</li> </ul>
<b>KeyboardIllumination</b>	<p>This field lets you configure the keyboard illumination brightness percentage. The keyboard automatically illuminates when the internal keyboard, touchpad, or pointstick are used.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Auto — Sets the illumination based on ambient light level.</li> <li>· Disabled — Turns off keyboard illumination.</li> </ul>

Attribute Name	Description
<b>LiquidCooler1</b>	<ul style="list-style-type: none"> <li>· 25 — Sets the brightness level to 25 percent.</li> <li>· Dim — Sets the brightness level to 50 percent.</li> <li>· 75— Sets the brightness level to 75 percent.</li> <li>· Bright — Sets the brightness level to 100 percent.</li> </ul> <p>Enables or disables the liquid cooler 1.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled - Enables the liquid cooler 1.</li> <li>· Disabled - Disables the liquid cooler 1.</li> </ul>
<b>LiquidCooler2</b>	<p>Enables or disables the liquid cooler 2.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled - Enables the liquid cooler 2.</li> <li>· Disabled - Disables the liquid cooler 2.</li> </ul>
<b>LptMode</b>	<p>Determines how the parallel port on the docking station operates.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled — Port is disabled.</li> <li>· At — Port is configured for IBM AT compatibility.</li> <li>· Ps2 — Port is configured for IBM PS2 compatibility.</li> <li>· Ecp — Extended Capability Port protocol.</li> </ul>
<b>M2PcieSsd0</b>	<p>Enables or disables M2 PCIE SSD 0.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>M2PcieSsd1</b>	<p>Enables or disables M2 PCIE SSD 1.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Microphone</b>	<p>Enables or disables the internal or external microphone.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>MEMSSensors</b>	<p>Enables or disables the Micro Electro Mechanical Sensors.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>MmioAbove4Gb</b>	<p>Enables or disables decoding of 64-bit capable devices in more than 4 GB address space only if the system supports 64-bit PCI decoding.</p>



Attribute Name	Description
<b>Minisas0</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul> <p>Enables or disables the Minisas drive 0.</p>
<b>Minisas1</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul> <p>Enables or disables the Minisas drive 1.</p>
<b>Minisas2</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul> <p>Enables or disables the Minisas drive 2.</p>
<b>Minisas3</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul> <p>Enables or disables the Minisas drive 3.</p>
<b>NearFieldComputing</b>	<p>Enables or disables the Near Field Computing (NFC) device.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>OnboardSoundDevice</b>	<p>Enables or disables the onboard sound devices.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled</li> <li>· Enabled</li> </ul>
<b>OptionalBootSequence</b>	<p>Allows or prevents the installation of the Microsoft Windows operating system on client systems with more than one operating system volume.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled — Allows the installation of the Microsoft Windows operating system on client systems with more than one operating system volume.</li> <li>· Disabled — Prevents the installation of the Microsoft Windows operating system on client systems with more than one operating system volume.</li> </ul> <p> <b>NOTE: By default, this option is disabled to maintain compatibility with existing installation tools; however, this option can be changed if more than one operating system volume is present on the client system.</b></p>

Attribute Name	Description
<b>PciAllocationPriority</b>	<p>Allocates PCI resources, buses, memory-mapped I/O (MMIO) space, and I/O space.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Equal — Allocates equal amount of memory to all the resources when two CPUs are installed.</li> <li>CPU1 — Allocates larger amount of device-specific memory, which reduces the usable memory in 32-bit operating systems.</li> </ul>
<b>PciMmioSpaceSize</b>	<p>Allocates a part of the memory to the PCI Memory Mapped I/O (MMIO). It allows reserving large or small device-specific memory regions to decrease or increase the usable memory on systems with a 32-bit operating system.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Small — Allocates a small region of memory to PCI memory mapped I/O.</li> <li>Large — Allocates a large region of memory to PCI memory mapped I/O. This reserves the large device-specific memory regions, but reduces the amount of usable memory in 32-bit operating system.</li> </ul>
<b>PcibusCount</b>	<p>Sets the maximum number of PCI bus counts for the system.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>64</li> <li>128</li> <li>256</li> </ul>
<b>PowerButton</b>	<p>Enables or disables the power button.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>SFP</b>	<p>Enables or disables Small Formfactor Pluggable (SFP) device.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Disabled — Disables the SFP device.</li> <li>Enabled — Enables the SFP device.</li> <li>EnabledwithPXE - Enables the SFP device with PXE support.</li> </ul>
<b>Sata0</b>	<p>Enables or disables the first SATA drive controller.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>Sata1</b>	<p>Enables or disables the second SATA drive controller.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>Sata2</b>	<p>Enables or disables the third SATA drive controller.</p>



Attribute Name	Description
<b>Sata3</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul> <p>Enables or disables the fourth SATA drive controller.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Sata4</b>	<p>Enables or disables the fifth SATA drive controller.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Sata5</b>	<p>Enables or disables the sixth SATA drive controller.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Sata6</b>	<p>Enables or disables the seventh SATA drive controller.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Sata7</b>	<p>Enables or disables the eighth SATA drive controller.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Sata8</b>	<p>Sets SATA port 8 to off or auto.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Serial1</b>	<p>Configures the first (or only) built-in serial port.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled</li> <li>· Com1</li> <li>· Com2</li> <li>· Com3</li> <li>· Com4</li> <li>· COM1_BMC</li> <li>· BMCSERIAL</li> <li>· BMCLAN</li> </ul>

Attribute Name	Description
<b>Serial2</b>	<ul style="list-style-type: none"> <li>· RAC</li> <li>· RS232</li> <li>· RS422</li> <li>· RS485</li> <li>· Auto</li> </ul> <p>Configures the second (if available) built-in serial port.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled</li> <li>· COM2</li> <li>· COM4</li> <li>· RS232</li> <li>· RS422</li> <li>· RS485</li> <li>· Auto</li> </ul>
<b>Serial3</b>	<p>Configures the third (if available) built-in serial port.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled</li> <li>· RS232</li> <li>· RS422</li> <li>· RS485</li> <li>· Auto</li> </ul>
<b>Serial4</b>	<p>Configures the fourth (if available) built-in serial port.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disable</li> <li>· RS232</li> <li>· RS422</li> <li>· RS485</li> <li>· Auto</li> </ul>
<b>Serial5</b>	<p>Configures the fifth (if available) built-in serial port.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled</li> <li>· Auto</li> </ul>
<b>Serial6</b>	<p>Configures the sixth (if available) built-in serial port.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Disabled</li> <li>· Auto</li> </ul>
<b>SmartErrors</b>	<p>Controls whether hard drive errors for integrated drives are reported during system startup.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> </ul>



Attribute Name	Description
	<ul style="list-style-type: none"> <li>Disabled</li> </ul>
<b>TabletButtonIllumination</b>	<p>Sets the Tablet Button illumination level.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Disabled</li> <li>25pct</li> <li>50pct</li> <li>75pct</li> <li>100pct</li> </ul>
<b>Touchscreen</b>	<p>Enables or disables the touchscreen.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>UefiNwStack</b>	<p>This option is disabled by default. If enabled, UEFI Networking protocols are installed/available, allowing pre-OS and early OS networking features to use the enabled NICs. This option may be used without turning on PXE.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>UnmanagedNIC</b>	<p>Configures the state of the onboard secondary, unmanaged Network Interface Card (NIC).</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> <li>Enabled with PXE</li> </ul>
<b>UnobtrusiveMode</b>	<p>Enables or disables the toggling of light emissions using hotkey Fn+B.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Pressing Fn+B will toggle light emissions from the system.</li> <li>Disabled — Pressing Fn+B keys has no effect and will not toggle light emissions from the system.</li> </ul>
<b>UsbPowerShare</b>	<p>Configures the USB PowerShare feature behavior.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Charges the external devices, such as phones and laptop music players, using the stored system battery when the system is turned off or in sleep mode. This feature works only if: <ul style="list-style-type: none"> <li>The device is connected through the USB PowerShare port on the laptop.</li> <li>The system is connected to an AC power source.</li> <li>The battery charge is less than 50 percent.</li> </ul> </li> <li>Disabled — Turns off this feature, and devices attached to the USB PowerShare port will not be charged when the system is in a sleep mode or turned off.</li> </ul>
<b>Vmdnvmecpie0</b>	<p>Enables or disables the VMD for Front NVMe Port (PCIE0).</p>

Attribute Name	Description
<b>Vmdnvmepcie1</b>	<p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul> <p>Enables or disables the VMD for Front NVMe Port (PCIE1).</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Vmdnvmepcie0cpu1</b>	<p>Enables or disables the VMD for Front NVMe Port (PCIE0-CPU1).</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Vmdnvmepcie1cpu1</b>	<p>Enables or disables the VMD for Front NVMe Port (PCIE1-CPU1).</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>Vmdpcieslot</b>	<p>Enables or disables the VMD for PCIe Slot.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>WatchdogTimer</b>	<p>Enables or disables the system to reboot or reset when the watchdog time expires.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· Enabled</li> <li>· Disabled</li> </ul>
<b>WlanRegionCode</b>	<p>Sets the WLAN code for specific region.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>· rtw — (Rest of the World) Sets the WLAN region code for the rest of the world. This option is selected by default.</li> <li>· na — (North America (FCC)) Sets the WLAN region code for Canada and the United States.</li> <li>· eur — (Europe) Sets the WLAN region code for Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, and United Kingdom.</li> <li>· jpn — (Japan) Sets the WLAN region code for Japan only.</li> <li>· aus — (Australia) Sets the WLAN region code for Australia, New Zealand, Saudi Arabia, South Africa, UAE, and Vietnam.</li> <li>· chn — (China, South Asia) Sets the WLAN region code for China and India.</li> <li>· twn — (Taiwan) Sets the WLAN region code for Colombia, Peru, and Taiwan.</li> <li>· idn — (Indonesia) Sets the WLAN region code for Indonesia only.</li> </ul>



# SystemInformation

Table 22. SystemInformation

Attribute Name	Description
<b>Asset</b>	<p>An asset tag is a string that can be used by an IT administrator to uniquely identify a particular system.</p> <p>Possible values: String containing 0 to 14 characters.</p>
<b>BIOSVersion</b>	<p>Displays the current version of the system BIOS firmware.</p> <p>Possible values: Read-only</p>
<b>ExpressServiceCode</b>	<p>The express service code is a mathematical hash applied to the service tag. The express service code is seen in BIOS Setup and on an exterior sticker.</p> <p>Possible values: Read-only</p>
<b>ManufactureDate</b>	<p>Displays the system manufacture date (mm/dd/yyyy).</p> <p>Possible values: Read-only</p>
<b>OwnershipTag</b>	<p>The ownership tag is a string that can be used to display a system-specific message on the BIOS start-up and setup screens.</p> <p>Possible values: String containing 0 to 80 characters</p>
<b>OwnershipDate</b>	<p>Displays the date (mm/dd/yyyy) the system was first powered on after leaving the factory.</p> <p>Possible values: Read-only</p>
<b>SvcTag</b>	<p>The service tag is the system's serial number that uniquely identifies the Dell system.</p> <p>Possible values: Read-only</p>

# SystemLogs




Table 23. SystemLogs


Attribute Name	Description
<b>BiosLogClear</b>	<p>Prevents or allows the system event log to be cleared on the next boot.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Keep — Does not clear the system event log on the next boot.</li><li>• Clear — Clears the system event log on the next boot.</li></ul>
<b>PowerLogClear</b>	<p>Prevents or allows the power event log to be cleared on the next boot.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• Keep — Does not clear the power event log on the next boot.</li><li>• Clear — Clears the power event log on the next boot.</li></ul>
<b>ThermalLogClear</b>	<p>Prevents or allows the thermal event log to be cleared on the next boot.</p>

Attribute Name	Description
	<p>Possible values:</p> <ul style="list-style-type: none"> <li>Keep — Does not clear the thermal event log on the next boot.</li> <li>Clear — Clears the thermal event log on the next boot.</li> </ul>

## TPMSecurity

Table 24. TPMSecurity

Attribute Name	Description
<b>Ppibypassforblocksid</b>	<p>When there is no drive ownership and the ppibypassforblocksid is enabled, BIOS requires user input while sending the Block SID authentication command to SED drives. When ppibypassforblocksid is disabled, BIOS does not require user input while sending the Block SID command.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Disabled</li> <li>Enabled</li> </ul>
<b>SHA256</b>	<p>Sets the hash algorithm used for TPM 2.0 measurements.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Disabled — Sets hash algorithm to SHA-1.</li> <li>Enabled — Sets hash algorithm to SHA-256.</li> <li>SHA384 — Sets hash algorithm to SHA-384.</li> <li>SHA512 — Sets hash algorithm to SHA-512.</li> </ul> <p> <b>NOTE: This value cannot be changed if TPM is already owned.</b></p>
<b>TpmActivation</b>	<p>Activates and enables the TPM normal state for TPM use.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Activates the TPM.</li> <li>Disabled — Displays the current activation state of TPM.</li> </ul> <p> <b>NOTE: Deactivate is a read-only possible value. TPM can be deactivated only from the BIOS setup screen.</b></p>
<b>TpmClear</b>	<p>When you enable the TpmClear attribute, TPM ownership is cleared during the next boot, and the system firmware sets the value of the attribute to disabled. When you disable the TpmClear attribute, TPM ownership remains unchanged.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul> <p> <b>NOTE: You cannot enable or disable this feature using Dell Command   Configure.</b></p>
<b>TpmPpiAcpi</b>	<p>Controls whether the system accept ACPI physical presence commands from the OS.</p> <ul style="list-style-type: none"> <li>Enabled — System accepts ACPI physical presence commands from the OS.</li> <li>Disabled — System does not accept ACPI physical presence commands from the OS.</li> </ul>

Attribute Name	Description
<b>TpmPpiclearoverride</b>	<p>When enabled tpmPpiclearoverride performing the TPM clear command within operating system does not require user interaction. When disabled, performing the TPM clear command within the operating system does require user interaction.</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>TpmPpiDpo</b>	<p>Controls the physical presence requirement for the following operations: Disable, Deactivate, and SetOwnerInstall_False.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>TpmPpiPo</b>	<p>Controls the physical presence requirement for the following operations: Enable, Activate, and SetOwnerInstall_True.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Physical presence is not required to perform any of these operations.</li> <li>Disabled — Physical presence is required to perform these operations.</li> </ul>
<b>TpmSecurity</b>	<p>Controls whether the Trusted Platform Module (TPM) in the system is enabled and visible to the operating system.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — BIOS turns on the TPM during POST, and can be used by the operating system.</li> <li>Disabled — BIOS does not on the TPM during POST, and the TPM is nonfunctional and invisible to the operating system.</li> </ul> <p> <b>NOTE: Disabling this option does not change any TPM settings that you may have configured nor does it delete or change any information or keys you may have stored there. It simply turns off the TPM so that it cannot be used. When you re-enable this option, TPM works exactly as it did before it was disabled.</b></p>

## USBConfiguration

Table 25. USBConfiguration

Attribute Name	Description
<b>AlwaysAllowDellDocks</b>	<p>Allows or restricts the Dell Type-C Thunderbolt docks to function when the Thunderbolt is disabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Allows the Dell Type-C Thunderbolt docks to function even when the Thunderbolt is disabled.</li> <li>Disabled — Restricts the Dell Type-C Thunderbolt docks to function when the Thunderbolt is disabled.</li> </ul>
<b>DisableDockingStationDevicesexceptvideo</b>	<p>Enables or disables all devices such as serial, audio, LAN, and USB ports in the docking station.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>



Attribute Name	Description
<b>FrontUsbPortCollection</b>	<p> <b>NOTE: This option works only when UsbPortsExternal is enabled.</b></p> <p>If a USB port is enabled, devices attached to this port are enabled and available for the OS. If a USB port is disabled, any devices attached to the port are not visible to the OS.</p> <p> <b>NOTE: USB, keyboard, and mouse work in the BIOS setup irrespective of this setting.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>FrontUSB3.0Ports</b>	<p>Enables or disables the front USB 3.0 ports.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>RearUsb3Ports</b>	<p>If a USB port is enabled, devices attached to this port are enabled and available for the OS. If a USB port is disabled, any devices attached to the port are not visible to the OS.</p> <p> <b>NOTE: USB, keyboard, and mouse work in the BIOS setup irrespective of this setting.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>RearUSB3.0Ports</b>	<p>Enables or disables the rear USB 3.0 ports.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>ThunderboltBoot</b>	<p>Enables or disables booting from the Thunderbolt device.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>ThunderboltPorts</b>	<p>Enables or disables the thunderbolt controller in the system.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>ThunderboltPreboot</b>	<p>Enables OROMs and pre-boot UEFI drivers provided by Thunderbolt devices or PCIe devices.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>ThunderboltSecLvl</b>	<p>Configures the thunderbolt security level.</p>



Attribute Name	Description
	<p>Possible values:</p> <ul style="list-style-type: none"> <li>• NoSec — Disables the thunderbolt security.</li> <li>• UserAuth — Allows minimum user notification. Connection manager requests connection approval from the host software, based on the unique ID of the connecting device, auto approval might or might not be given.</li> <li>• SecConn — Allows one-time saved key device. Connection manager requests connection approval from the host software; approval is given only if the host challenge to device is acceptable.</li> <li>• DpOnly — Allows to connect only display port.</li> </ul>
<b>USBPort06</b>	<p>Enables or disables USB port 6.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort07</b>	<p>Enables or disables USB port 07.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort08</b>	<p>Enables or disables USB port 8.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort09</b>	<p>Enables or disables USB port 9.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort12</b>	<p>Enables or disables USB port 12.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort13</b>	<p>Enables or disables USB port 13.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort14</b>	<p>Enables or disables USB port 14.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>

Attribute Name	Description
<b>USBPort15</b>	<p>Enables or disables USB port 15.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort16</b>	<p>Enables or disables USB port 16.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort17</b>	<p>Enables or disables USB port 17.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort18</b>	<p>Enables or disables USB port 18.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort19</b>	<p>Enables or disables USB port 19.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort24</b>	<p>Enables or disables USB port 24.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort25</b>	<p>Enables or disables USB port 25.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort26</b>	<p>Enables or disables USB port 26.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>USBPort27</b>	<p>Enables or disables USB port 27.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> </ul>



Attribute Name	Description
	<ul style="list-style-type: none"> <li>Disabled</li> </ul>
<b>USBPort28</b>	<p>Enables or disables USB port 28.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>USBPort29</b>	<p>Enables or disables USB port 29.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>Usb30</b>	<p>Enables or disables USB 3.0.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>UsbEmu</b>	<p>If Boot Support is enabled, the system allows to boot any type of USB Mass Storage devices such as hard drive, memory key, floppy, etc.</p> <p> <b>NOTE: USB-aware OS always see USB Mass Storage devices irrespective of this setting if the port is enabled.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> <li>EnabledWithNoUSBBoot</li> </ul>
<b>UsbPortsExternal</b>	<p>Enables or disables the device attached to this USB port.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Devices attached to this USB port are enabled and available in the operating system.</li> <li>Disabled — Devices attached to this USB port are disabled and not visible in the operating system.</li> </ul> <p> <b>NOTE: USB mouse and keyboard work even if the external USB port is disabled.</b></p>
<b>UsbPortsFront</b>	<p>Enables or disables all front USB Ports in the systems.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>UsbPortsFront1</b>	<p>Enables or disables USB front port 1.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>

<b>Attribute Name</b>	<b>Description</b>
<b>UsbPortsFront2</b>	<p>Enables or disables USB front port 2.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsFront3</b>	<p>Enables or disables USB front port 3.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsFront4</b>	<p>Enables or disables USB front port 4.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsInternal</b>	<p>Enables or disables all front USB Ports in the system.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsRear</b>	<p>Enables or disables all back USB Ports.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsRear1</b>	<p>Enables or disables USB rear port 1.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsRear2</b>	<p>Enables or disables USB rear port 2.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsRear3</b>	<p>Enables or disables USB rear port 3.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsRear4</b>	<p>Enables or disables USB rear port 4.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> </ul>





Attribute Name	Description
<b>UsbPortsRear5</b>	<ul style="list-style-type: none"> <li>• Disabled</li> </ul> <p>Enables or disables USB Ports Rear 5.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsRear6</b>	<p>Enables or disables USB Ports Rear 6.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsSide</b>	<p>Enables or disables all side USB Ports in the system.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsSide1</b>	<p>Enables or disables USB side port 1.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsSide2</b>	<p>Enables or disables USB side port 2.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbRearDual</b>	<p>Enables or disables the rear left dual USB ports.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbRearDual2Stack</b>	<p>Enables or disables the rear right dual USB ports.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbRearQuad</b>	<p>Enables or disables the rear quad USB ports.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>UsbPortsInternal2</b>	<p>Enables or disables the internal USB port.</p>

Attribute Name	Description
	<p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled - Enables the internal USB port</li> <li>Disabled - Disables the internal USB port 2</li> </ul>

## Video

Table 26. Video


Attribute Name	Description
<b>AmbLightSen</b>	<p>Enables or disables the ambient light sensor.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>BootTimeVideo</b>	<p>Sets the onboard or the first video controller for boot time messages.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Onboard — The onboard video controller is used for boot-time messages.</li> <li>Addin — The first add-in video controller is used for boot-time messages.</li> </ul> <p> <b>NOTE: Depending on the BIOS search and system slot layout, the first add-in device changes.</b></p>
<b>BrightnessAc</b>	<p>Sets the panel brightness in effect when the system is using AC power.</p> <p>Possible values: Integers ranging from 0 to 15</p>
<b>BrightnessBattery</b>	<p>Sets the panel brightness in effect when the system is using battery power only.</p> <p>Possible values: Integers ranging from 0 to 15</p>
<b>DockDisplayPort1VideoSource</b>	<p>Configures the source for the High-Definition Multimedia Interface (HDMI) and displays port 1 on the dock.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — Uses the integrated video controller as video source.</li> <li>Disabled — Uses the external video controller as video source.</li> </ul>
<b>MultiDisplay</b>	<p>Enables or disables MultiDisplay.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>Optimus</b>	<p>Enables or disables the Optimus feature.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled — This feature automatically turns off the power of the Graphics Processing Unit (GPU) when not required, and turns it on when required.</li> <li>Disabled — This feature does not automatically turn on or off the power of the GPU. In mobile PCs, when the GPU power is off the driver redirects graphics commands to the integrated graphics chip.</li> </ul>

Attribute Name	Description
<b>PrimaryVideoSlot</b>	<p>Selects which PCI Express slot contains the primary boot video device. A monitor connected to the primary video device displays BIOS setup and initial operating system text and graphics.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Slot0 — Sets the 1st slot as the primary video device slot.</li> <li>Slot1 — Sets the 2nd slot as the primary video device slot.</li> <li>Slot2 — Sets the 3rd slot as the primary video device slot.</li> <li>Slot3 — Sets the 4th slot as the primary video device slot.</li> <li>Slot4 — Sets the 5th slot as the primary video device slot.</li> <li>Slot5 — Sets the 6th slot as the primary video device slot.</li> <li>Slot6 — Sets the 7th slot as the primary video device slot.</li> <li>Slot7 — Sets the 8th slot as the primary video device slot.</li> <li>Slot8 — Sets the 9th slot as the primary video device slot.</li> <li>Slot9 — Sets the 10th slot as the primary video device slot.</li> <li>Slot10 — Sets the 11th slot as the primary video device slot.</li> <li>Slot11 — Sets the 12th slot as the primary video device slot.</li> <li>Slot12 — Sets the 13th slot as the primary video device slot.</li> <li>Slot13 — Sets the 14th slot as the primary video device slot.</li> <li>Slot14 — Sets the 15th slot as the primary video device slot.</li> <li>Auto — Automatically scans the slots and selects the first video device slot found with video card as a primary video device slot.</li> </ul> <p> <b>NOTE:</b></p> <ul style="list-style-type: none"> <li>This option has no effect if only one video device is present in the system.</li> <li>If the selected slot does not contain a video device, the system BIOS scans the slots and selects the primary video device.</li> </ul>
<b>SwitchableGraphics</b>	<p>Enables or disables switchable graphics technologies such as NVIDIA, Optimus, and AMD PowerExpress.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>

## VirtualizationSupport

Table 27. VirtualizationSupport

Attribute	Description
<b>AmdVtEnable</b>	<p>This field specifies whether the Virtual Machine Monitor (VMM) utilizes the additional hardware capabilities provided by AMD-V Technology.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>AmdViEnable</b>	<p>This field specifies whether the Virtual Machine Monitor (VMM) utilizes the additional hardware capabilities provided by AMD-Vi Technology.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> </ul>

Attribute	Description
	<ul style="list-style-type: none"> <li>Disabled</li> </ul>
<b>IntelVMDTechnology</b>	<p>Enables or disables the Intel Volume Management Device (VMD) technology. Selecting Auto Enables VMD for any PCIe SSD connected to PCIe root ports. If the Auto option is not selected, then it disables VMD for all ports. SSD works only as native NVMe device.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Auto</li> <li>Disabled</li> </ul>
<b>TrustExecution</b>	<p>Determines whether a Measured Virtual Machine Monitor (MVVM) can utilize the additional hardware capabilities provided by the Intel Trusted Execution Technology.</p> <p> <b>NOTE: TPM has to be enabled and activated. Also, Virtualization Technology and VT for Direct I/O must be enabled to use this feature.</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>Virtualization</b>	<p>Enables or disables the VT technology in applicable CPUs. Trusted execution required for Virtualization technology to be enabled.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>VtForDirectIo</b>	<p>Determines whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Intel Virtualization Technology for Direct IO.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> <li>Disabled</li> </ul>
<b>PcieLinkSpeed</b>	<p>Configures PCIe LinkSpeed.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>auto - PCIe link speed is configured based on the maximum speed supported by both upstream and downstream devices.</li> <li>gen1 - The PCIe link speed is configured in Gen1.</li> <li>gen2 - The maximum PCIe link speed that allows to be configured is limited to Gen2.</li> </ul>

## Wireless

Table 28. Wireless

Attribute Name	Description
<b>BluetoothDevice</b>	<p>Enables or disables the internal Bluetooth device.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>Enabled</li> </ul>



Attribute Name	Description
<b>LidMountedWirelessActivityLED</b>	<ul style="list-style-type: none"> <li>• Disabled</li> </ul> <p>This additional LED is mounted in the lid in a visible position.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Always Off — The LED always stays off irrespective of network activity.</li> <li>• LED Indicates Wireless Activity Status — The LED becomes active whenever any of the wireless devices are capable of connecting to a wireless network. Wireless activity is defined as the following three inputs: <ul style="list-style-type: none"> <li>– WWAN activity</li> <li>– Bluetooth activity</li> <li>– Wi-Fi activity</li> </ul> </li> </ul>
<b>WirelessLan</b>	<p>Enables or disables the internal wireless LAN device.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>WirelessSwitchBluetoothCtrl</b>	<p>Determines that bluetooth is controlled by the wireless On-Off switch.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Physical wireless On-Off switch can turn the bluetooth On-Off.</li> <li>• Disabled — Physical wireless On-Off switch will not be able to turn the bluetooth On-Off.</li> </ul>
<b>WirelessSwitchGps</b>	<p>Determines that GPS radio of WWAN device is controlled by the wireless On-Off switch.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Physical wireless On-Off switch can turn the GPS On or Off.</li> <li>• Disabled — Physical wireless On-Off switch will not be able to turn the GPS On or Off.</li> </ul>
<b>WirelessSwitchCellularCtrl</b>	<p>Determines that WWAN is controlled by the wireless On-Off switch.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Physical wireless On-Off switch can turn the WWAN On-Off.</li> <li>• Disabled — Physical wireless On-Off switch will not be able to turn the WWAN On-Off.</li> </ul>
<b>WirelessSwitchUwb</b>	<p>Determines that UWB (Ultra Wide Band) Radio will be controlled by the wireless On-Off switch.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Physical wireless On-Off switch can turn the UWB Radio On-Off.</li> <li>• Disabled — Physical wireless On-Off switch will not be able to turn the UWB Radio On-Off.</li> </ul>
<b>WirelessSwitchWiGigCtrl</b>	<p>Determines that Wireless Gigabit Alliance (WiGig) radio can be controlled by the physical wireless On/Off switch.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Physical wireless On/Off switch turns the WiGig radio On/Off.</li> <li>• Disabled — Physical wireless On/Off switch does not turn the WiGig radio On-Off.</li> </ul>

Attribute Name	Description
<b>WirelessSwitchWlanOnlyCtrl</b>	<p>Determines that WLAN is controlled by the wireless On-Off switch.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Physical wireless On-Off switch can turn the WLAN On-Off.</li> <li>• Disabled — Physical wireless On-Off switch will not be able to turn the WLAN On-Off.</li> </ul>
<b>WirelessWwan</b>	<p>Enables or disables the internal wireless WAN device.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>WirelessSwitchWlanCtrl</b>	<p>Determines that WLAN and WiGig Radio is controlled by the wireless On-Off switch.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled — Physical wireless On-Off switch can turn the WLAN and WiGig Radio On-Off.</li> <li>• Disabled — Physical wireless On-Off switch will not be able to turn the WLAN and WiGig Radio On-Off.</li> </ul>
<b>WirelessUwb</b>	<p>Enable or disables Ultra Wide Band (UWB) radio.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>
<b>ZigBee</b>	<p>Enables or disables the ZigBee feature.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled</li> <li>• Disabled</li> </ul>



# Error reporting in Dell Command | PowerShell Provider

Dell Command | PowerShell Provider provides an Error Reporting feature. Dell Command | PowerShell Provider uses the PowerShell ErrorVariable parameter to capture the ErrorRecord. This ErrorVariable can be used to get more information such as exception, error id, error category, and recommended action etc. about an error.

 **NOTE: If the system does not have a WMI-ACPI compliant BIOS. Update the BIOS with a compatible version, if available.**

**Example:** To set the error variable.

```
gi .\POSTBehavior\numl -ErrorVariable ev
```

**Example:** To see more information about the error.

```
$ev.ErrorDetails
```

The table below describes all the possible Error IDs generated by Dell Command | PowerShell Provider categorized by error categories.

**Table 29. Error reporting in Dell Command | PowerShell Provider**

Error Category	Error ID	Scenarios	Example
InvalidArgument	InvalidPath	Path is not complete while doing set operation.	
	PasswordProvidedIncorrectly	Trying to provide both plain text password and secure password.	
	NullDrive	Newly created drive is null.  Or  Trying to remove drive which is already null.	
	NoRoot	Drive root is empty or null.	
InvalidData	InvalidPossibleValue	Using set-item cmdlet for an attribute with Invalid possible value.	si .\POSTBehavior\Numlock "on"
	NumberNotInRange	Doing set operation by giving out of range integer value for an attribute which accepts integer value in a particular range.	si .\PowerManagement\AutoOnHr "54" si .\PowerManagement\AutoOnMn "67" si .\PeakShiftBatteryThreshold "13"
	ReadOnlyValue	Trying to set read only value for chassis intrusion status.	si .\Security\ChassisIntrusionStatus "DoorClosed"
	SetNotAllowed	Set operation is not allowed using Dell Command   PowerShell Provider but allowed using BIOS Setup Menu.	si .\Security\MasterPasswordLockout "Disabled"

Error Category	Error ID	Scenarios	Example
	NotValidNumber	Doing set operation by giving noninteger value for an attribute accepts integer value.	si .\PowerManagement\AutoOnHr "on" si .\PowerManagement\AutoOnMn "43.67"
	StringLengthNotInRange	Doing set operation by giving string which has out of range length for an attribute which accepts a string having length within a range.	si .\SystemInformation\Asset "thisismorethan10characters"
	InvalidTimeFormat	Doing set operation by giving invalid time format.	si .\PeakShiftDayConfiguration Sunday - StartTime "34:34"
	InvalidPrimaryBatteryCustomChargeDifference	Not keeping the minimum difference between CustomChargeStart and CustomChargeStop.	si .\PowerManagement\CustomChargeStart "55" si .\PowerManagement\CustomChargeStop "58"
	NewPasswordNotInRange	Trying to set a password that is not in supported range by system.	si .\Security\AdminPassword "12" si .\Security\SystemPassword "del"
	InvalidPeakShiftTimes	Not maintaining the time dependency between PeakShift StartTime, EndTime, and ChargeStartTime.	si .\PowerManagement\PeakShiftDayConfiguration Sunday - StartTime "14:30" -EndTime "12:30" - ChargeStartTime "14:45"
	InvalidDayOfWeek	Providing invalid day.	si .\PowerManagement\PeakShiftDayConfiguration Sun - StartTime "14:30" -EndTime "12:30" - ChargeStartTime "14:45"
	InCorrectBootOrder	Trying to provide duplicate boot device number,	si .\BootSequence\BootSequence "1,2,1"
	UnsupportedColorName	Trying to set unsupported color for KeyboardBacklightEnabledColors or KeyboardBacklightActiveColor	si .\SystemConfiguration\KeyboardBacklightEnabledColors "Red,White,Purple"
	InvalidCombinationOfNoColorAndSupportedColors	Trying to set colors for KeyboardBacklightEnabledColors with NoColor Value	si .\SystemConfiguration\KeyboardBacklightEnabledColros "Red,White,Custom1,NoColor"
	DuplicateColorName	Trying to provide same color more than once for KeyboardBacklightEnabledColors	si .\SystemConfiguration\KeyboardBacklightEnabledColros "Red,White,Custom1,Custom1"
	OnlyOneColorAllowedForActiveColor	Trying to set multiple colors for KeyboardBacklightActiveColor	si .\SystemConfiguration\KeyboardBacklightActiveColor "Red,White"
	InvalidRGBFormat	Trying to provide RGB values in an incorrect format for KeyboardBacklightCustom1Color or KeyboardBacklightCustom2Color	si .\SystemConfiguration\KeyboardBacklightCustom1Color "234:34"



Error Category	Error ID	Scenarios	Example
	NotValidNumberForRGB	Trying to provide invalid number for R, G or B components for KeyboardBacklightCustom1Color or KeyboardBacklightCustom2Color	si .\SystemConfiguration\KeyboardBacklightCustom1Color "234:34:567"
InvalidOperation	SetItemForReadOnlyError	Attempt to set read-only attribute,	si .\SystemInformation\ExpressServiceCode dsdasfjskfjskfskd  si .\SystemInformation\SvcTag sdwadnakjsd
	NewDriveNotSupported	If newly created drive name is not equal to DellSmbios,	
ObjectNotFound	DellSmbiosPathNotFound	Path is correct but either attribute name or category name is wrong.  Or  Category does not have any supported attribute for local system and trying to get or set some attributes	dir .\PowerManagement\ gi .\PowerManagement\Numlck  si .\PowerManagement\Numlck "enabled"  si .\POSTBehaviord\Numlock "enabled"
OpenError	DefaultDriveInitFailed	DellSMBIOS Drive creation fails in system.	
SecurityError	PasswordSetButNotProvided	Doing set operation for any attribute without providing password if set on your system.	si .\POSTBehavior\Numlock "enabled"
	FailedToSetAdminPassword	Trying to set admin password if system and/or HDD password is already set.	si .\Security\AdminPassword "12345"
WriteError	SMBIOSWriteFailed	Provided incorrect password while doing set operation if password is already set.	si .\POSTBehavior\numlock "enabled" – Password <wrong password>

# Accessing documents from the Dell EMC support site

You can access the required documents using the following links:

- For Dell EMC Enterprise Systems Management documents — [Dell.com/SoftwareSecurityManuals](https://www.dell.com/support/manuals)
- For Dell EMC OpenManage documents — [Dell.com/OpenManageManuals](https://www.dell.com/support/manuals)
- For Dell EMC Remote Enterprise Systems Management documents — [Dell.com/esmmanuals](https://www.dell.com/support/manuals)
- For iDRAC and Dell EMC Lifecycle Controller documents — [Dell.com/idracmanuals](https://www.dell.com/support/manuals)
- For Dell EMC OpenManage Connections Enterprise Systems Management documents — [Dell.com/OMConnectionsEnterpriseSystemsManagement](https://www.dell.com/support/manuals)
- For Dell EMC Serviceability Tools documents — [Dell.com/ServiceabilityTools](https://www.dell.com/support/manuals)
- a. Go to [Dell.com/Support/Home](https://www.dell.com/support/home).
- b. Click **Choose from all products**.
- c. From **All products** section, click **Software & Security**, and then click the required link from the following:
  - **Enterprise Systems Management**
  - **Remote Enterprise Systems Management**
  - **Serviceability Tools**
  - **Dell Client Command Suite**
  - **Connections Client Systems Management**
- d. To view a document, click the required product version.
- Using search engines:
  - Type the name and version of the document in the search box.

