# Dell Command | Monitor Version 9.1.1 Reference Guide



# Notes, cautions, and warnings



**NOTE:** A NOTE indicates important information that helps you make better use of your computer.



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

The Dell Command | Monitor software enables remote management application programs to access information, monitor the status of the Enterprise client system, or change the state of the system, such as shutting it down remotely. Dell Command | Monitor exposes, through standard interfaces, key system parameters that allow administrators to manage, inventory, monitor the system health of, and gather information on deployed client systems.



**NOTE:** Dell Command | Monitor was formerly Dell OpenManage Client Instrumentation (OMCI). After the OMCI version 8.2.1, OMCI is rebranded as Dell Command | Monitor.



**NOTE:** All classes or properties listed in the reference guide may not be supported on all Dell systems.

# **Dell Command | Monitor namespaces**

The following namespaces are available in Dell Command | Monitor:

• Standard Namespace (new namespace) - This namespace is standards-based with implementation of multiple profiles as defined by the DMTF. The CIM schema for this namespace is 2.17 and provides all functionality of Dell Command | Monitor. In Dell Command | Monitor, we use DASH-compliant namespace convention. A DASH-compliant implementation uses a CIM-based data model for representing managed resources and services.



**NOTE:** From Dell Command | Monitor 9.0, Legacy namespace **(root\dellomci)** is not supported.

# **Profiles**

Dell Command | Monitor uses industry standard profiles to represent the management data provided. These profiles are implemented either as defined or in some cases have Dell-specific extensions.

The following is a list of profiles that are implemented in this version of Dell Command | Monitor:

## Non-extended profiles:

- Base Metrics The Base Metrics Profile is a component profile that defines the minimum object
  model needed to provide dynamic metrics associated to existing managed element s and related
  associations.
- Battery The Battery Profile extends the management capabilities of referencing profiles by adding the capability to represent batteries for manageability. The battery as a logical device is modeled as referencing the battery physical package for physical asset information, the sensor for sensor-reading information, and the profile registration for the schema implementation version information.
- BIOS Management The BIOS Management Profile extends the management capabilities of referencing profiles by adding the capability to represent and configure BIOS attributes, such as a Network Controller or IDE Controller. The individual BIOS attribute's relationship with a respective device is also described.
- Boot Control The Boot Control Profile describes the classes, associations, properties, and methods used to manage the boot control configurations of a physical or virtual computer system.
- CPU The CPU Profile extends the management capability of referencing profiles by adding the
  capability to represent CPUs or processors in a managed system. CPU cache memory and
  associations with CPU physical aspects, as well as profile implementation version information, are
  modeled in this profile.
- Fan The Fan Profile extends the management capabilities of referencing profiles by adding the capability to represent fans for manageability and describe fans in a redundant configuration. The fan as a logical device is modeled as referencing the fan physical package for physical asset information, a sensor for sensor reading information.
- Indications The Indications Profile defines the CIM elements that are used to subscribe for indications of unsolicited events, to advertise the possible indications, and to represent indications used to report events in a managed system.
- IP Interface The IP Interface Profile extends the management capability of referencing profiles by adding the capability to represent an IP interface of a managed system.
- OS Status The OS Status Profile extends the management capabilities of referencing profiles by adding the capability to perform basic management of operating systems installed on a system.
- PCI Device The PCI Device Profile extends the management capabilities of referencing profiles by adding the capability to represent PCI devices for manageability, including PCI, PCI-X, PCI Express, bridge and switch devices.
- Physical Asset The Physical Asset Profile extends the management capability of the referencing
  profiles by adding the capability to describe the physical aspects of logical elements that the
  implementation is instantiating.
- Power State Management The Power State Management Profile describes the classes, associations, properties, and methods used to manage the power of a computer system.
- Profile Registration The Profile Registration extends the management capability of the referencing profiles by adding the capability to describe the registration and versioning of CIM profiles that are implemented by CIM based system and component management instrumentations.

- RecordLog The Record Log Profile is an autonomous profile that provides the management capabilities to represent logs of a managed system element.
- Sensors The Sensors Profile extends the management capabilities of referencing profiles by adding the capability to represent sensors.
- Software Inventory The Software Inventory Profile describes the CIM schema elements required to provide an inventory of installed BIOS, firmware, drivers, and related software in a managed system.
- Device Tray The Device Tray Profile is a component profile for modeling a device tray of a modular system.
- Software Update The Software Update Profile describes the classes, associations, properties, and methods used to support the installation and update of BIOS, firmware, drivers and related software on a managed element within a managed system.
- Base Desktop and Mobile The Base Desktop and Mobile Profile is an autonomous profile that defines the classes used to describe monolithic desktop or mobile computer hardware and related software. The scope of this profile is limited to monolithic desktop or mobile computer hardware and related software that are directly realized in physical components.

## **Extended profiles:**

- Asset Profile
- Ethernet Port Profile
- Event Configuration
- Serial Port
- Service Processor Profile
- System Memory
- USB
- Docking Station
- Human Computer Interaction
- Display Controller

For more information on Profiles, refer to the website - dmtf.org/standards/profiles.

# Classes

Classes and properties are defined by the CIM schema. The profiles identify mandatory classes and properties in order to implement the profile.

For more information on CIM schema, classes and properties, refer to the website - **dmtf.org/ standards/cim** 

# Dell Command | Monitor classes and properties

Dell Command | Monitor provides information for a namespace through different classes.

# **Dell Command | Monitor DMTF profiles**

The namespace to access the Dell Command | Monitor DMTF profiles is root\dcim\sysman.

The following tables describe the DMTF profiles and the classes associated with each profile.

# DCIM\_AlertIndication

Property	Description
AlertingElementFormat	The format of the AlertingManagedElement property is interpretable based on the value of this property.
	Possible values are:
	<ul> <li>0 = Unknown — The format is unknown or not meaningfully interpretable by a CIM client application.</li> </ul>
	<ul> <li>1 = Other — The format is defined by the value of the OtherAlertingElementFormat property.</li> </ul>
	• 2 = CIMObjectPath — The format is a CIMObjectPath, with format NamespacePath:ClassName.Prop1 = <b>Value1</b> , Prop2= <b>Value2</b> , specifying an instance in the CIM Schema.
Alerting Managed Element	The identifying information of the entity (that is, the instance) for which this Indication is generated. The property contains the path of an instance, encoded as a string parameter — if the instance is modeled in the CIM Schema. If it is not a CIM instance, the property contains some identifying string that names the entity for which the Alert is generated. The path or identifying string is formatted per the AlertingElementFormat property.
AlertType	Primary classification of the Indication.

Possible values are:

- 1 = Other The Indication's OtherAlertType property conveys its classification. Use of Other in an enumeration is a standard CIM convention. It means that the current Indication does not fit into the categories described by this enumeration.
- 2 = Communications Alert An Indication of this type is principally associated with the procedures and/or processes required to convey information from one point to another.
- 3 = Quality of Service Alert An Indication of this type is principally associated with a degradation or errors in the performance or function of an entity.
- 4 = Processing Error An Indication of this type is principally associated with a software or processing fault.
- 5 = Device Alert An Indication of this type is principally associated with an equipment or hardware fault.
- 6 = Environmental Alert An Indication of this type is principally associated with a condition relating to an enclosure in which the hardware resides, or other environmental considerations.
- 7 = Model Change The Indication addresses changes in the Information Model. For example, it may embed a Lifecycle Indication to convey the specific model change being alerted
- 8 = Security Alert An Indication of this type is associated with security violations, detection of viruses, and similar issues.

An instrumentation or provider-specific value that describes the underlying **real-world** event represented by the Indication. Two Indications with the same, non NULL EventID value are considered, by the creating entity, to represent the same event. The comparison of two EventID values is only defined for Alert Indications with identical, non NULL values of SystemCreateClassName, SystemName, and ProviderName.

An identifier for the Indication. This property is similar to a key value in that it can be used for identification, when correlating Indications (see the CorrelatedIndications array). Its value SHOULD be unique as long as correlations are reported, but MAY be reused or left NULL if no future Indications will reference it in their CorrelatedIndications array. To ensure uniqueness, the value of IndicationIdentifier should be constructed using the following **preferred** algorithm:

<OrgID>:<LocalID>

EventID

IndicationIdentifier

Property	Description
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the IndicationIdentifier or that is a recognized ID that is assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness must not contain a colon (:). When using this algorithm, the first colon to appear in IndicationIdentifier must appear between <orgid> and <localid> is chosen by the business entity and should not be re-used to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity should assure that the resulting IndicationIdentifier is not reused across any IndicationIdentifiers that are produced by this or other providers for the NameSpace of this instance.</localid></orgid></class></schema></orgid></localid></orgid>
IndicationTime	The time and date of creation of the Indication. The property may be set to NULL if the entity creating the Indication is not capable of determining this information.
	NOTE: IndicationTime may be the same for two Indications that are generated in rapid succession.
Message	The formatted message. This message is constructed by combining some or all of the dynamic elements specified in the MessageArguments property with the static elements uniquely identified by the MessageID in a message registry or other catalog associated with the OwningEntity.
Message Arguments	An array containing the dynamic content of the message.
MessageID	A string that uniquely identifies, within the scope of the OwningEntity, the format of the Message.
OtherAlertingElementFormat	A string defining <b>Other</b> values for AlertingElementFormat. This value MUST be set to a non NULL value when AlertingElementFormat is set to a value of 1 ( <b>Other</b> ). For all other values of AlertingElementFormat, the value of this string must be set to NULL.

OtherAlertType

A string describing the Alert type - used when the AlertType property is set to 1, **Other State Change**.

Property	Description
OtherSeverity	Holds the value of the user-defined severity value when <b>PerceivedSeverity</b> is 1 ( <b>Other</b> ).
OwningEntity	A string that uniquely identifies the entity that owns the definition of the format of the Message described in this instance. OwningEntity MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity or standards body defining the format.
PerceivedSeverity	An enumerated value that describes the severity of the Alert Indication from the notifier's point of view:
	Possible values are:
	• 2 and 0 — Information and Unknown (respectively) follow common usage. Literally, the AlertIndication is purely informational or its severity is unknown.
	<ul> <li>1 = Other — By CIM convention, is used to indicate that the Severity's value can be found in the OtherSeverity property.</li> </ul>
	<ul> <li>3 = Degraded/Warning — Is used when it is appropriate to let the user decide if action is needed.</li> </ul>
	<ul> <li>4 = Minor — Is used to indicate that action is needed, but the situation is not serious now.</li> </ul>
	• 5 = Major — Is used to indicate that action is needed NOW.
	<ul> <li>6 = Critical — Is used to indicate that action is needed NOW and the scope is broad (perhaps an imminent outage to a critical resource results).</li> </ul>
	<ul> <li>7 = Fatal/Non recoverable — Is used to indicate that an error occurred, but it is too late to take remedial action.</li> </ul>
ProbableCause	An enumerated value that describes the probable cause of the situation that resulted in the AlertIndication.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Adapter/Card Error</li> <li>3 = Application Subsystem Failure</li> <li>4 = Bandwidth Reduced</li> <li>5 = Connection Establishment Error</li> <li>6 = Communications Protocol Error</li> <li>7 = Communications Subsystem Failure</li> <li>8 = Configuration/Customization Error</li> <li>9 = Congestion</li> <li>10 = Corrupt Data</li> </ul>

- 11 = CPU Cycles Limit Exceeded
- 12 = Dataset/Modem Error
- 13 = Degraded Signal
- 14 = DTE-DCE Interface Error
- 15 = Enclosure Door Open
- 16 = Equipment Malfunction
- 17 = Excessive Vibration
- 18 = File Format Error
- 19 = Fire Detected
- 20 = Flood Detected
- 21 = Framing Error
- 22 = HVAC Problem
- 23 = Humidity Unacceptable
- 24 = I/O Device Error
- 25 = Input Device Error
- 26 = LAN Error
- 27 = Non-Toxic Leak Detected
- 28 = Local Node Transmission Error
- 29 = Loss of Frame
- 30 = Loss of Signal
- 31 = Material Supply Exhausted
- 32 = Multiplexer Problem
- 33 = Out of Memory
- 34 = Output Device Error
- 35 = Performance Degraded
- 36 = Power Problem
- 37 = Pressure Unacceptable
- 38 = Processor Problem (Internal Machine Error)
- 39 = Pump Failure
- 40 = Queue Size Exceeded
- 41 = Receive Failure
- 42 = Receiver Failure
- 43 = Remote Node Transmission Error
- 44 = Resource at or Nearing Capacity
- 45 = Response Time Excessive
- 46 = Retransmission Rate Excessive
- 47 = Software Error
- 48 = Software Program Abnormally Terminated
- 49 = Software Program Error (Incorrect Results)
- 50 = Storage Capacity Problem
- 51 = Temperature Unacceptable
- 52 = Threshold Crossed
- 53 = Timing Problem
- 54 = Toxic Leak Detected
- 55 = Transmit Failure

- 56 = Transmitter Failure
- 57 = Underlying Resource Unavailable
- 58 = Version MisMatch
- 59 = Previous Alert Cleared
- 60 = Login Attempts Failed
- 61 = Software Virus Detected
- 62 = Hardware Security Breached
- 63 = Denial of Service Detected
- 64 = Security Credential MisMatch
- 65 = Unauthorized Access
- 66 = Alarm Received
- 67 = Loss of Pointer
- 68 = Payload Mismatch
- 69 = Transmission Error
- 70 = Excessive Error Rate
- 71 = Trace Problem
- 72 = Element Unavailable
- 73 = Element Missing
- 74 = Loss of Multi Frame
- 75 = Broadcast Channel Failure
- 76 = Invalid Message Received
- 77 = Routing Failure
- 78 = Backplane Failure
- 79 = Identifier Duplication
- 80 = Protection Path Failure
- 81 = Sync Loss or Mismatch
- 82 = Terminal Problem
- 83 = Real Time Clock Failure
- 84 = Antenna Failure
- 85 = Battery Charging Failure
- 86 = Disk Failure
- 87 = Frequency Hopping Failure
- 88 = Loss of Redundancy
- 89 = Power Supply Failure
- 90 = Signal Quality Problem
- 91 = Battery Discharging
- 92 = Battery Failure
- 93 = Commercial Power Problem
- 94 = Fan Failure
- 95 = Engine Failure
- 96 = Sensor Failure
- 97 = Fuse Failure
- 98 = Generator Failure
- 99 = Low Battery
- 100 = Low Fuel

Property	Description
	• 101 = Low Water
	• 102 = Explosive Gas
	• 103 = High Winds
	• 104 = Ice Buildup
	• 105 = Smoke
	<ul> <li>106 = Memory Mismatch</li> </ul>
	<ul> <li>107 = Out of CPU Cycles</li> </ul>
	<ul> <li>108 = Software Environment Problem</li> </ul>
	<ul> <li>109 = Software Download Failure</li> </ul>
	• 110 = Element Reinitialized
	• 111 = Timeout
	<ul> <li>112 = Logging Problems</li> </ul>
	• 113 = Leak Detected
	<ul> <li>114 = Protection Mechanism Failure</li> </ul>
	<ul> <li>115 = Protecting Resource Failure</li> </ul>
	<ul> <li>116 = Database Inconsistency</li> </ul>
	• 117 = Authentication Failure
	<ul> <li>118 = Breach of Confidentiality</li> </ul>
	• 119 = Cable Tamper
	<ul> <li>120 = Delayed Information</li> </ul>
	<ul> <li>121 = Duplicate Information</li> </ul>
	<ul> <li>122 = Information Missing</li> </ul>
	<ul> <li>123 = Information Modification</li> </ul>
	<ul> <li>124 = Information Out of Sequence</li> </ul>
	• 125 = Key Expired
	<ul> <li>126 = Non-Repudiation Failure</li> </ul>
	<ul> <li>127 = Out of Hours Activity</li> </ul>
	• 128 = Out of Service
	• 129 = Procedural Error
	<ul> <li>130 = Unexpected Information</li> </ul>
ProviderName	The name of the Provider generating this Indication.
SystemCreationClassName	The scoping of the creation class name of the system for the provider, generating this indication.
SystemName	The scoping name of the system for the provider, generating this indication.
Trending	Provides information on trending — trending up, down, or no change.
	Possible values are:
	• 0 = Unknown
	<ul><li>0 = Unknown</li><li>1 = Not Applicable</li></ul>

Property	Description
	<ul><li> 3 = Trending Down</li><li> 4 = No Change</li></ul>
DCIM_Card	
Property	Description
CanBeFRUed	Boolean that indicates whether this PhysicalElement can be FRUed (TRUE) or not (FALSE).
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
HostingBoard	Boolean indicating that this Card is a Motherboard or, more generically, a baseboard in a Chassis.
Manufacturer	The name of the organization responsible for producing the PhysicalElement. This organization may be the entity from whom the Element is purchased, but it is not necessarily true. The latter information is contained in the Vendor property of CIM_Product.
Model	The name by which the PhysicalElement is known.
PackageType	Enumeration defining the type of the PhysicalPackage.
	Possible values are:
	<ul> <li>0 = Unknown - Indicates that the package type is not known.</li> <li>1 = Other - The package type does not correspond to an existing enumerated value.</li> </ul>

The value is specified using the OtherPackageType property.

- 2 = Rack
- 3 = Chassis/Frame
- 4 = Cross Connect/Backplane
- 5 = Container/Frame Slot
- 6 = Power Supply
- 7 = Fan
- 8 = Sensor
- 9 = Module/Card
- 10 = Port/Connector
- 11 = Battery
- 12 = Processor
- 13 = Memory
- 14 = Power Source/Generator
- 15 = Storage Media Package (e.g., Disk or Tape Drive)
- 16 = Blade
- 17 = Blade Expansion



NOTE: This enumeration expands on the list in the Entity MIB (the attribute, entPhysicalClass). The numeric values are consistent with CIM's enum numbering guidelines, but are slightly different than the MIB's values.

The values **Rack** through **Port/Connector** are defined per the Entity-MIB (where the semantics of rack are equivalent to the MIB's stack value). The other values (for battery, processor, memory, power source/generator and storage media package) are self-explanatory. A value of Blade should be used when the PhysicalPackage contains the operational hardware aspects of a ComputerSystem, without the supporting mechanicals such as power and cooling. For example, a Blade Server includes processor(s) and memory, and relies on the containing chassis to supply power and cooling. In many respects, a Blade can be considered a Module/Card. However, it is tracked differently by inventory systems and differs in terms of service philosophy. For example, a Blade is intended to be hot-plugged into a hosting enclosure without requiring additional cabling, and does not require a cover to be removed from the enclosure for installation. Similarly, a **Blade Expansion** has characteristics of a **Blade** and a **Module/Card**. However, it is distinct from both due to inventory tracking and service philosophy, and because of its hardware dependence on a Blade. A Blade Expansion must be attached to a Blade prior to inserting the resultant assembly into an enclosure.

Property	Description
PartNumber	The part number assigned by the organization that is responsible for producing or manufacturing the PhysicalElement.
SKU	The stock-keeping unit number for this PhysicalElement.
Tag	An arbitrary string that uniquely identifies the Physical Element and serves as the key of the Element. The Tag property can contain information such as asset tag or serial number data. The key for PhysicalElement is placed very high in the object hierarchy to independently identify the hardware or entity, regardless of physical placement in or on Cabinets, Adapters, and so on. For example, a hotswappable or removable component can be taken from its containing (scoping) Package and be temporarily unused. The object still continues to exist and can even be inserted into a different scoping container. Therefore, the key for Physical Element is an arbitrary string and is defined independently of any placement or location-oriented hierarchy.

# DCIM\_Chassis

Property	Description
BreachDescription	A free-form string providing more information if the SecurityBreach property indicates that a breach or some other security-related event occurred.
CanBeFRUed	Boolean that indicates whether this PhysicalElement can be FRUed (TRUE) or not (FALSE).
ChassisPackageType	Indicates the physical form factor for the type of Chassis.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = SMBIOS Reserved</li> <li>3 = Desktop</li> <li>4 = Low Profile Desktop</li> <li>5 = Pizza Box</li> <li>6 = Mini Tower</li> <li>7 = Tower</li> <li>8 = Portable</li> <li>9 = LapTop</li> <li>10 = Notebook</li> <li>11 = Hand Held</li> </ul>

- 12 = Docking Station
- 13 = All in One
- 14 = Sub Notebook
- 15 = Space-Saving
- 16 = Lunch Box
- 17 = Main System Chassis
- 18 = Expansion Chassis
- 19 = SubChassis
- 20 = Bus Expansion Chassis
- 21 = Peripheral Chassis
- 22 = Storage Chassis
- 23 = SMBIOS Reseved
- 24 = Sealed-Case PC
- 25 = SMBIOS Reserved
- 26 = CompactPCI
- 27 = AdvancedTCA
- 28 = Blade Enclosure
- .. = DMTF Reserved
- 0x8000..0xFFFF = Vendor Reserved

This property may have a value when the PackageType property contains the value 3 **Chassis Frame**. A value of 28 **Blade Enclosure** indicates that the Chassis is designed to contain one or more PhysicalPackage(s) of PackageType 16 **Blade** or PackageType 17 **Blade Expansion**.

## Chass is Type Description

A string providing more information on the ChassisPackageType.

## CreationClassName

Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.

# ElementName

A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-classed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

Property	Description
LockPresent	Boolean indicating whether the Frame is protected with a lock.
Manufacturer	The name of the organization responsible for producing the PhysicalElement. This organization may be the entity from whom the Element is purchased, but this is not necessarily true. The latter information is contained in the Vendor property of CIM_Product.
Model	The name by which the PhysicalElement is generally known.
Name	The Name property defines the label by which the object is known. When sub-classed, the Name property can be overridden to be a Key property.
PackageType	Enumeration defining the type of the PhysicalPackage.
	Possible values are:
	<ul> <li>0 = Unknown — Indicates that the package type is not known.</li> </ul>
	<ul> <li>1 = Other — The package type does not correspond to an existing enumerated value. The value is specified using the OtherPackageType property.</li> </ul>
	• 2 = Rack
	• 3 = Chassis/Frame
	• 4 = Cross Connect/Backplane
	<ul><li>5 = Container/Frame Slot</li><li>6 = Power Supply</li></ul>
	<ul><li>7 = Fan</li></ul>
	• 8 = Sensor
	• 9 = Module/Card
	• 10 = Port/Connector
	• 11 = Battery
	• 12 = Processor
	• 13 = Memory
	• 14 = Power Source/Generator
	<ul> <li>15 = Storage Media Package (example, Disk or Tape Drive)</li> </ul>
	• 16 = Blade
	• 17 = Blade Expansion
	NOTE: This enumeration expands on the list in the Entity MIB (the attribute, entPhysicalClass). The numeric values are consistent with CIM's enum numbering guidelines, but are slightly different than the MIB's values.

**Property** Description The values Rack through Port/Connector are defined per the Entity-MIB (where the semantics of rack are equivalent to the MIB's stack value). The other values (for battery, processor, memory, power source/generator and storage media package) are self-explanatory. A value of Blade should be used when the PhysicalPackage contains the operational hardware aspects of a ComputerSystem, without the supporting mechanicals such as power and cooling. For example, a Blade Server includes processor(s) and memory, and relies on the containing chassis to supply power and cooling. In many respects, a Blade can be considered a Module/Card. However, it is tracked differently by inventory systems and differs in terms of service philosophy. For example, a Blade is intended to be hot-plugged into a hosting enclosure without requiring additional cabling, and does not require a cover to be removed from the enclosure for installation. Similarly, a Blade Expansion has characteristics of a Blade and a Module/Card. However, it is distinct from both due to inventory tracking and service philosophy, and because of its hardware dependence on a Blade. A Blade Expansion must be attached to a Blade prior to inserting the resultant assembly into an enclosure. The part number assigned by the organization that **PartNumber** is responsible for producing or manufacturing the PhysicalElement. Property Ownership Tag of a system. **PropertyOwnershipTag** SecurityBreach An enumerated, integer-valued property indicating whether a physical breach of the Frame was attempted but unsuccessful (value = 4) or attempted and successful (value = 5). Possible values are: 1 = Other2 = Unknown 3 = No Breach 4 = Breach Attempted

SKU

Tag

The stock-keeping unit number for this PhysicalElement.

5 = Breach Successful

An arbitrary string that uniquely identifies the Physical Element and serves as the key of the Element. The Tag property can contain information

Property	Description
	such as asset tag or serial number data. The key for PhysicalElement is placed very high in the object hierarchy in order to independently identify the hardware or entity, regardless of physical placement in or on Cabinets, Adapters, and so on. For example, a hotswappable or removable component can be taken from its containing (scoping) Package and be temporarily unused. The object still continues to exist and can even be inserted into a different scoping container. Therefore, the key for Physical Element is an arbitrary string and is defined independently of any placement or location-oriented hierarchy.
VendorCompatibilityStrings	An array of strings that identify the component that is compatible with, and can be inserted in a slot that reports this string as one of the array element in the VendorCompatibilityStrings. This allows system administrators to determine whether it is appropriate to insert a package into a slot to ensure uniqueness within the NameSpace, each value defined by the vendor for use in the VendorCompatibilityStrings property SHOULD be constructed using the following <b>preferred</b> algorithm:: Where and are separated by a colon ':', and where MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the _ structure of Schema class names.) In addition, to ensure uniqueness MUST NOT contain a colon (':'). When using this algorithm, the first colon to appear in InstanceID MUST appear between and . is chosen by the business entity and SHOULD not be re-used to identify different underlying (real-world) elements.
ChangePropertyOwenershipTag (Method)	This method allows a user to change the Property Ownership Tag of a system.
ChangeAssetTag (Method)	This method allows a user to change the Asset Tag of a system.

# DCIM\_Chip

Property	Description
CanBeFRUed	Boolean that indicates whether this PhysicalElement can be FRUed (TRUE) or not (FALSE).
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used

Property	Description
	with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub classed to be a Key. It is not reasonable that the same property can convey both identity and a user- friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
Manufacturer	The name of the organization responsible for producing the PhysicalElement. This organization may be the entity from where the Element is purchased, but this is not necessarily true. The latter information is contained in the Vendor property of CIM_Product.
Model	The name by which the PhysicalElement is generally known.
PartNumber	The part number assigned by the organization that is responsible for producing or manufacturing the PhysicalElement.
SerialNumber	A manufacturer-allocated number used to identify the Physical Element.
SKU	The stock-keeping unit number for this PhysicalElement.
Tag	An arbitrary string that uniquely identifies the Physical Element and serves as the key of the Element. The Tag property can contain information such as asset tag or serial number data. The key for PhysicalElement is placed very high in the object hierarchy to independently identify the hardware or entity, regardless of physical placement in or on Cabinets, Adapters, and so on.
	For example, a hotswappable or removable component can be taken from its containing (scoping) Package and be temporarily unused. The object still continues to exist and can even be inserted into a different scoping container.

Property	Description
	Therefore, the key for Physical Element is an arbitrary string and is defined independently of any placement or location-oriented hierarchy.

# DCIM\_DesktopMonitor

Property	Description
Bandwidth	Monitor's bandwidth in Mega Hertz. If unknown, enter 0.
Brightness	This property represents the brightness/Luminance of the video output. The property value is from 0 to the MaxBrightness property value. If the Brightness property is implemented but the brightness is unknown at the time, the property has a value 0x80000000.
Caption	The Caption property is a short textual description (one- line string) of the object.
ColorCodeFormatSupported	Color code format supported.
ColorDepthBits	Color Bit Depth.
ColorModePreset	This property defines a specified color temperature of the display.
	Possible values are:
	• 0 = Unknown
	• 2 = sRGB
	• 3 = Display Native
	• 4 = 4000K
	<ul><li>5 = 5000K</li><li>6 = 6500K</li></ul>
	• 7 = 7500K
	• 8 = 8200K
	• 9 = 9300K
	• 1011 = 10000K
	• 12 = 11500K
	• 13 = User 1
	• 14 = User
	<ul><li>2 = User 3</li><li>3276865535 = DMTF Reserved</li></ul>
ColorModePresetCapabilities	This property lists the allowed values for ColorModePreset.

Possible values are:

- 0 = Unknown
- 2 = sRGB
- 3 = Display Native
- 4 = 4000K
- 5 = 5000K
- 6 = 6500K
- 7 = 7500K
- 8 = 8200K
- 9 = 9300K
- 1011 = 10000K
- 12 = 11500K
- 13 = User 1
- 14 = User
- .. = User 3
- 32768..65535 = DMTF Reserved

CommunicationStatus

Indicates the ability of the instrumentation to communicate with the underlying ManagedElement. A Null return indicates the implementation (provider) does not implement this property.

## Possible values are:

- 0 = Unknown Indicates that the implementation is in general capable of returning this property, but is unable to do so now.
- 1 = Not Available Indicates that the implementation (provider) is capable of returning a value for this property, but not ever for this particular piece of hardware/software or the property is intentionally not used because it adds no meaningful information (as in the case of a property that is intended to add additional info to another property).
- 2 = Communication OK indicates that communication is established with the element, but does not convey any quality of service.
- 3 = Lost Communication Indicates that the Managed Element is known to exist and has been contacted successfully in the past, but is unreachable.
- 4 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

Property	Description
CompositSyncSignalOnGreenVideoSupported	Composite Sync Signal on Green video is supported.
CompositSyncSignalOnHorizontalSupported	Composite Sync Signal on Horizontal is supported.
ContinuousFrequency	For EDID 1.3, this bit indicated support for or no support for GTF(using the default GTF parameter values). For EDID 1.4 this bit has been redefined to indicate Continuous frequency(1) or Non-Continuous Frequency(0).
Contrast	This property represents the contrast of the video output. The property value is from 0 to the MaxContrast property value. If the Contrast property is implemented but the contrast is unknown at the time, the property has a value 0x80000000.
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
CurrentResolutionH	This property indicated the current horizontal resolution in pixels.
CurrentResolutionV	This property indicated the current vertical resolution in pixels.
Description	Provides a textual description of the object.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
DisplayCharacteristics	This array property represents various characteristics of a video output device. value.
	StandbyModeSupported: the video output device can go into a stand by mode,
	SuspendModeSupported: the video output device can go into a suspend mode,
	VeryLowPowerSupported: the video output goes into a low power mode. If DisplayCharacteristics is implemented but the value is unknown, the property has an Unknown
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = StandbyModeSupported</li> <li>3 = SuspendModeSupported</li> <li>4 = VeryLowPowerSupported</li> <li> = DMTF Reserved</li> </ul>

Property	Description
	• 3276865535 = Vendor Reserved
DisplayMode	This property permits the selection of a preset optimized by manufacturer for an application type or the selection of a user-defined setting.
	Possible values are:
	<ul> <li>2 = Standard/default mode</li> <li>3 = Productivity</li> <li>4 = Mixed</li> <li>5 = Movie</li> <li>6 = User defined</li> <li>7 = Games</li> <li>8 = Sports</li> <li>9 = Professional</li> <li>10 = Standard (intermediate power)</li> <li>11 = Standard(low power)</li> </ul>
DisplayModeCapabilities	<ul> <li>11 = Standard(tow power)</li> <li>12 = demonstration</li> <li>13 = Dynamic contrast</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul> This property lists the allowed values for
DisplayModeCapabilities	DisplayMode.
	Possible values are:  2 = Standard/default mode  3 = Productivity  4 = Mixed  5 = Movie  6 = User defined  7 = Games  8 = Sports  9 = Professional  10 = Standard (intermediate power)  11 = Standard(low power)  12 = demonstration  13 = Dynamic contrast  = DMTF Reserved  3276865535 = Vendor Reserved
EDIDGamma	Display transfer characteristics(GAMMA).Range is from 1.00->3.54. GAMMA = (EDID Value + 100) / 100
EDIDVersionNumber	EDID version and reversion number.

#### **ElementName**

A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled** (value = 2).

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

## Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not run commands and drops any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state

# **EnabledDefault**

# EnabledState

**Property** Description 5 = Not Applicable — Indicates that the element does not support being enabled or disabled. 6 = Enabled but Offline — Indicates that the element may be completing commands, and drops any new requests. 7 = In Test - Indicates that the element is in atest state. 8 = Deferred - Indicates that the element maybe completing commands, but queues any new requests. 9 = Quiesce — Indicates that the element is enabled but in a restricted mode. 10 = Starting — Indicates that the element is in the process of going to an Enabled state. New requests are queued. 11..32767 = DMTF Reserved 32768..65535 = Vendor Reserved This property is a horizontal synchronization signal FrequencyH frequency in Hz as determined by the display. This property is a vertical synchronization signal FrequencyV frequency in Hz as determined by the display.

HealthState

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

## Possible values are:

- 0 = Unknown The implementation cannot report on HealthState now. DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is nonfunctional and recovery may not be possible.
- 30 = Non-recoverable error The element has failed, and recovery is not possible. All functionality provided by this element has been lost

Property	Description
	• = DMTF Reserved
Identifying Descriptions	An array of free-form strings providing explanations and details behind the entries in the OtherldentifyingInfo array. Each entry of this array is related to the entry in OtherldentifyingInfo that is located at the same index.
InputAnalog	Input is an analog video signal interface.
InputDigital	Input is a digital video signal interface.
InputDisplayPort	DisplayPort is supported.
InputDVI	DVI is supported.
InputHDMI	HDMI is supported.
InputSource	An enumerated value identifying the current input source. Writing a new value into this property changes the device's input source to the specified value, if the value is supported as specified in InputSourceCapabilities. If the requested value is not in InputSourceCapabilities, then the current value of InputSource is unchanged.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Analog Video (R/G/B) #1</li> <li>3 = Analog Video (R/G/B) #2</li> <li>4 = Digital Video (TMDS) #1</li> <li>5 = Digital Video (TMDS) #2</li> <li>6 = Composite Video #1</li> <li>7 = Composite Video #2</li> <li>8 = S-video #1</li> <li>9 = S-video #2</li> <li>1011 = Tuner - Analog #1</li> <li>12 = Tuner - Analog #2</li> <li>13 = Tuner - Digital #1</li> <li>14 = Tuner - Digital #2</li> <li>15 = Component Video #1</li> <li>16 = Component Video #3</li> <li>18 = Digital Video (DisplayPort)</li> <li>#1 = Digital Video (DisplayPort)</li> <li>#2 32768.65535 = DMTF Reserved</li> </ul>
InputSourceCapabilities	This property lists the allowed values for InputSource.

Property	Description
	Possible values are:
	• 2 = Analog Video (R/G/B) #1
	• 3 = Analog Video (R/G/B) #2
	<ul> <li>4 = Digital Video (TMDS) #1</li> </ul>
	• 5 = Digital Video (TMDS) #2
	• 6 = Composite Video #1
	<ul><li>7 = Composite Video #2</li></ul>
	• 8 = S-video #1
	• 9 = S-video #2
	<ul> <li>1011 = Tuner - Analog #1</li> </ul>
	<ul><li>12 = Tuner - Analog #2</li></ul>
	<ul> <li>13 = Tuner - Digital #1</li> </ul>
	<ul> <li>14 = Tuner - Digital #2</li> </ul>
	<ul> <li>15 = Component Video #1</li> </ul>
	<ul> <li>16 = Component Video #2</li> </ul>
	<ul> <li>17 = Component Video #3</li> </ul>
	<ul> <li>18 = Digital Video (DisplayPort)</li> </ul>
	<ul><li>#1 = Digital Video (DisplayPort)</li></ul>
	• #2 3276865535 = DMTF Reserved
MaxBrightness	This property defines the maximum value of brightness of the video output device. Different manufacturers may have different values.
MaxContrast	This property represents the maximum value of contrast of the video output device. Different manufacturers may have different values.
MaxQuiesceTime	The use of this property has been deprecated. When evaluating the use of Quiesce, it was determined that this single property is not adequate for describing when a device will automatically exit a quiescent state. In fact, the most likely scenario for a device to exit a quiescent state was determined to be based on the number of outstanding requests queued rather than on a maximum time. This decision is reevaluated and later. Deprecated description: Maximum time, in milliseconds, that a Device can run in a <b>Quiesced</b> state. The state is defined in its Availability and AdditionalAvailability properties, where <b>Quiesced</b> is conveyed by the value 21. What occurs at the end of the time limit is device-specific. The Device can unquiesce, can be offline, or can take other actions. A value of 0 indicates that a Device can remain quiesced indefinitely.
MCCSVersionNumber	This property represents the version number of the Monitor Command and Control Set (MCCS) standard recognized by the display.

## **OperationalStatus**

Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are self-explanatory.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = OK
- 3 = Degraded
- 4 = Stressed Indicates that the element is functioning, but needs attention. Examples of Stressed states are overload, overheated, and so on
- 5 = Predictive Failure Indicates that an element is functioning nominally but predicting a failure soon.
- 6 = Error
- 7 = Non-Recoverable Error
- 8 = Starting
- 9 = Stopping
- 10 = Stopped Implies a clean and orderly stop
- 11 = In Service Describes an element being configured, maintained, cleaned, or otherwise administered.
- 12 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- 13 = Lost Communication Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is unreachable.
- 14 = Aborted Implies an abrupt stop where the state and configuration of the element may need to be updated.
- 15 = Dormant Indicates that the element is inactive or quiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.
- 17 = Completed Indicates that the element has completed its operation. This value should be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).
- 18 = Power Mode Indicates that the element has additional power model information

contained in the Associated PowerManagementService association.

- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

OperationalStatus replaces the Status property on ManagedSystemElement to provide a consistent approach to enumerations, to address implementation needs for an array property, and to provide a migration path from today's environment to the future. This change was not made earlier because it required the deprecated qualifier. Due to the widespread use of the existing Status property in management applications, it is recommended that providers or instrumentation provide both the Status and Operational Status properties. Further, the first value of OperationalStatus should contain the primary status for the element. When instrumented, Status (because it is single-valued) should also provide the primary status of the element.

**PhysicalSizeH** 

**PhysicalSizeV** 

**PrimaryStatus** 

Horizontal screen size in cm.

Vertical screen size in cm.

Provides a high-level status value, intended to align with Red-Yellow-Green type representation of status. It should be used with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.

PrimaryStatus consists of one of the following values:

- 0 = Unknown Indicates that the implementation is in general capable of returning this property, but is unable to do so now
- 1 = OK Indicates the ManagedElement is functioning normally.
- 2 = Degraded Indicates the ManagedElement is functioning below normal.
- 3 = Error Indicates the ManagedElement is in an Error condition.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

ProductCode

RequestedState

Product code of this monitor.

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is

provided to compare the last requested and current enabled or disabled states. When EnabledState is set to 5 (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration. **Unknown (0)** indicates that the last requested state for the element is unknown.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). Offline (6) indicates that the element has been requested to transition to the Enabled but Offline EnabledState. There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11). Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 Not Applicable.

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first Disabled and then Enabled.

Property	Description
	• 12 = Not Applicable
	<ul><li> = DMTF Reserved</li></ul>
	• 3276865535 = Vendor Reserved
ScalerManufacturer	The name of the manufacturer of the controller chip used in a particular display.
	Possible values are:
	• 1 = Other
	• 2 = Conexant
	• 3 = Genesis
	• 4 = Macronix
	• 5 = MRT
	• 6 = Mstar
	• 7 = Myson
	• 8 = Philips
	• 9 = Pixelworks
	• 10 = RealTek
	• 11 = Sage
	• 12 = SiliconImage
	• 13 = SmartASIC
	<ul> <li>14 = STMicroelectronics</li> </ul>
	• 15 = Topro
	• 16 = Trumpion
	• 17 = WellTrend
	• 18 = Samsung
	• 19 = Novatek
	• 20 = STK
	• = DMTF Reserved
	<ul> <li>3276865535 = Vendor Reserved</li> </ul>
	• 32/0603333 – Veridor Reserved
SerialNumber	Serial number of the monitor. Come from EDID.
SeparateSyncHVSupported	Separate Sync H & V Signals are supported.
s RGB Standard Default Color Space	If this bit is set to 1, the display uses the sRGB standard default color space as its primary color space.
StandbyModeSupported	This property represents if the video output device can go into a stand by mode.
	Possible values are:
	• 0 = Unknown
	• 2 = Supported
	• 3 = Not Supported
	• = DMTF Reserved
	Diffit Nescryeu

Property	Description
	• 3276865535 = Vendor Reserved
SuspendModeSupported	This property represents if the video output device can go into a suspend mode.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Supported</li> <li>3 = Not Supported</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
SystemCreationClassName	The creation class name of the scoping system.
SystemName	The system name of the scoping system.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates that the implementation does not support representing ongoing transitions.</li> <li>A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.</li> </ul>
VeryLowPowerSupported	This property represents if the video output device can go into a low power mode.  Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Supported</li> <li>3 = Not Supported</li> <li> = DMTF Reserved</li> </ul>

• 32768..65535 = Vendor Reserved

# DCIM\_DHCPProtocolEndpoint

Property	Description
ClientState	ClientState represents the current state of the DHCP client. See RFC1541 for more information on the meaning of each state.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = DMTF Reserved</li> <li>2 = Init</li> <li>3 = Selecting</li> <li>4 = Requesting</li> <li>5 = Rebinding</li> <li>6 = Init-Reboot</li> <li>7 = Rebooting</li> <li>8 = Bound</li> <li>932767 = DMTF Reserved</li> <li>3276865535 = Vendor specified</li> </ul>
	• 3270003333 – Vendor specified
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> </ul>

Property	Description
	• 3276865535 = Vendor Reserved
	By default, the element is <b>Enabled</b> (va

## By default, the element is **Enabled** (value = 2).

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 =Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queue'd.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### Name

A string that identifies this ProtocolEndpoint with either a port or an interface on a device. To ensure uniqueness, the Name property should be prepended or appended with information from the Type or OtherTypeDescription properties. The method selected is described in the NameFormat property of this class.

#### NameFormat

Contains the naming heuristic that is selected to ensure that the value of the Name property is unique. For example, you may choose to prepend the name of the port or interface with the Type of ProtocolEndpoint (for example, IPv4) of this instance followed by an underscore.

#### OtherTypeDescription

A string that describes the type of ProtocolEndpoint when the Type property of this class (or any of its subclasses) is set to 1 (Other). This property should be set to null when the Type property is any value other than 1.

#### **Property**

#### Description

### ProtocolIFType

An enumeration that is synchronized with the IANA ifType MIB. The ifType MIB is maintained at the URL, iana.org/assignments/ianaiftype-mib. Also, additional values defined by the DMTF are included. The property is used to categorize and classify instances of the ProtocolEndpoint class.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Regular 1822
- 3 = HDH 1822
- 4 = DDN X.25
- 5 = RFC877 X.25
- 6 = Ethernet CSMA/CD
- 7 = ISO 802.3 CSMA/CD
- 8 = ISO 802.4 Token Bus
- 9 = ISO 802.5 Token Ring
- 10 = ISO 802.6 MAN
- 11 = StarLAN
- 12 = Proteon 10Mbit
- 13 = Proteon 80Mbit
- 14 = HyperChannel
- 15 = FDDI
- 16 = LAP-B
- 17 = SDLC
- 18 = DS1
- 19 = E1
- 20 = Basic ISDN
- 21 = Primary ISDN
- 22 = Proprietary Point-to-Point Serial
- 23 = PPP
- 24 = Software Loopback
- 25 = EON
- 26 = Ethernet 3Mbit
- 27 = NSIP
- 28 = SLIP
- 29 = Ultra
- 30 = DS3
- 31 = SIP
- 32 = Frame Relay
- 33 = RS-232
- 34 = Parallel
- 35 = ARCNet
- 36 = ARCNet Plus
- 37 = ATM
- 38 = MIO X.25

- 39 = SONET
- 40 = X.25 PLE
- 41 = ISO 802.211c
- 42 = LocalTalk
- 43 = SMDS DXI
- 44 = Frame Relay Service
- 45 = V.35
- 46 = HSSI
- 47 = HIPPI
- 48 = Modem
- 49 = AAL5
- 50 = SONET Path
- 51 = SONET VT
- 52 = SMDS ICIP
- 53 = Proprietary Virtual/Internal
- 54 = Proprietary Multiplexor
- 55 = IEEE 802.12
- 56 = Fibre Channel
- 57 = HIPPI Interface
- 58 = Frame Relay Interconnect
- 59 = ATM Emulated LAN for 802.3
- 60 = ATM Emulated LAN for 802.5
- 61 = ATM Emulated Circuit
- 62 = Fast Ethernet (100BaseT)
- 63 = ISDN
- 64 = V.11
- 65 = V.36
- 66 = G703 at 64K
- 67 = G703 at 2Mb
- 68 = QLLC
- 69 = Fast Ethernet 100BaseFX
- 70 = Channel
- 71 = IEEE 802.11
- 72 = IBM 260/370 OEMI Channel
- 73 = ESCON
- 74 = Data Link Switching
- 75 = ISDN S/T Interface
- 76 = ISDN U Interface
- 77 = LAP-D
- 78 = IP Switch
- 79 = Remote Source Route Bridging
- 80 = ATM Logical
- 81 = DS0
- 82 = DS0 Bundle
- 83 = BSC

- 84 = Async
- 85 = Combat Net Radio
- 86 = ISO 802.5r DTR
- 87 = Ext Pos Loc Report System
- 88 = AppleTalk Remote Access Protocol
- 89 = Proprietary Connectionless
- 90 = ITU X.29 Host PAD
- 91 = ITU X.3 Terminal PAD
- 92 = Frame Relay MPI
- 93 = ITU X.213
- 94 = ADSL
- 95 = RADSL
- 96 = SDSL
- 97 = VDSL
- 98 = ISO 802.5 CRFP
- 99 = Myrinet
- 100 = Voice Receive and Transmit
- 101 = Voice Foreign Exchange Office
- 102 = Voice Foreign Exchange Service
- 103 = Voice Encapsulation
- 104 = Voice over IP
- 105 = ATM DXI
- 106 = ATM FUNI
- 107 = ATM IMA
- 108 = PPP Multilink Bundle
- 109 = IP over CDLC
- 110 = IP over CLAW
- 111 = Stack to Stack
- 112 = Virtual IP Address
- 113 = MPC
- 114 = IP over ATM
- 115 = ISO 802.5j Fibre Token Ring
- 116 = TDLC
- 117 = Gigabit Ethernet
- 118 = HDLC
- 119 = LAP-F
- 120 = V.37
- 121 = X.25 MLP
- 122 = X.25 Hunt Group
- 123 = Transp HDLC
- 124 = Interleave Channel
- 125 = FAST Channel
- 126 = IP (for APPN HPR in IP Networks)
- 127 = CATV MAC Layer
- 128 = CATV Downstream

- 129 = CATV Upstream
- 130 = Avalon 12MPP Switch
- 131 = Tunnel
- 132 = Coffee
- 133 = Circuit Emulation Service
- 134 = ATM SubInterface
- 135 = Layer 2 VLAN using 802.1Q
- 136 = Layer 3 VLAN using IP
- 137 = Layer 3 VLAN using IPX
- 138 = Digital Power Line
- 139 = Multimedia Mail over IP
- 140 = DTM
- 141 = DCN
- 142 = IP Forwarding
- 143 = MSDSL
- 144 = IEEE 1394
- 145 = IF-GSN/HIPPI-6400
- 146 = DVB-RCC MAC Layer
- 147 = DVB-RCC Downstream
- 148 = DVB-RCC Upstream
- 149 = ATM Virtual
- 150 = MPLS Tunnel
- 151 = SRP
- 152 = Voice over ATM
- 153 = Voice over Frame Relay
- 154 = ISDL
- 155 = Composite Link
- 156 = SS7 Signaling Link
- 157 = Proprietary P2P Wireless
- 158 = Frame Forward
- 159 = RFC1483 Multiprotocol over ATM
- 160 = USB
- 161 = IEEE 802.3ad Link Aggregate
- 162 = BGP Policy Accounting
- 163 = FRF .16 Multilink FR
- 164 = H.323 Gatekeeper
- 165 = H.323 Proxy
- 166 = MPLS
- 167 = Multi-Frequency Signaling Link
- 168 = HDSL-2
- 169 = S-HDSL
- 170 = DS1 Facility Data Link
- 171 = Packet over SONET/SDH
- 172 = DVB-ASI Input
- 173 = DVB-ASI Output

- 174 = Power Line
- 175 = Non Facility Associated Signaling
- 176 = TR008
- 177 = GR303 RDT
- 178 = GR303 IDT
- 179 = ISUP
- 180 = Proprietary Wireless MAC Layer
- 181 = Proprietary Wireless Downstream
- 182 = Proprietary Wireless Upstream
- 183 = HIPERLAN Type 2
- 184 = Proprietary Broadband Wireless Access Point to Mulipoint
- 185 = SONET Overhead Channel
- 186 = Digital Wrapper Overhead Channel
- 187 = ATM Adaptation Layer 2
- 188 = Radio MAC
- 189 = ATM Radio
- 190 = Inter Machine Trunk
- 191 = MVL DSL
- 192 = Long Read DSL
- 193 = Frame Relay DLCI Endpoint
- 194 = ATM VCI Endpoint
- 195 = Optical Channel
- 196 = Optical Transport
- 197 = Proprietary ATM
- 198 = Voice over Cable
- 199 = Infiniband
- 200 = TE Link
- 201 = Q.2931
- 202 = Virtual Trunk Group
- 203 = SIP Trunk Group
- 204 = SIP Signaling
- 205 = CATV Upstream Channel
- 206 = Econet
- 207 = FSAN 155Mb PON
- 208 = FSAN 622Mb PON
- 209 = Transparent Bridge
- 210 = Line Group
- 211 = Voice E&M Feature Group
- 212 = Voice FGD EANA
- 213 = Voice DID
- 214 = MPEG Transport
- 215 = 6To4
- 216 = GTP
- 217 = Paradyne EtherLoop 1
- 218 = Paradyne EtherLoop 2

- 219 = Optical Channel Group
- 220 = HomePNA
- 221 = GFP
- 222 = ciscoISLvlan
- 223 = actelisMetaLOOP
- 224 = Fcip
- 225..4095 = IANA Reserved
- 4096 = IPv4
- 4097 = IPv6
- 4098 = IPv4/v6
- 4099 = IPX
- 4100 = DECnet
- 4101 = SNA
- 4102 = CONP
- 4103 = CLNP
- 4104 = VINES
- 4105 = XNS
- 4106 = ISDN B Channel Endpoint
- 4107 = ISDN D Channel Endpoint
- 4108 = BGP
- 4109 = OSPF
- 4110 = UDP
- 4111 = TCP
- 4112 = 802.11a
- 4113 = 802.11b
- 4114 = 802.11g
- 4115 = 802.11h
- 4200 = NFS
- 4201 = CIFS
- 4202 = DAFS
- 4203 = WebDAV
- 4204 = HTTP
- 4205 = FTP
- 4300 = NDMP
- 4400 = Telnet
- 4401 = SSH
- 4402 = SM CLP
- 4403 = SMTP
- 4404 = LDAP
- 4405 = RDP
- 4406 = HTTPS
- .. = DMTF Reserved
- 32768.. = Vendor Reserved



**NOTE:** If the ProtocollFType is set to 1 (Other), then the type information should be provided in the OtherTypeDescription string property.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.



**NOTE:** When EnabledState is set to **5 (Not Applicable)**, then this property has no meaning. See the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5).

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 Not Applicable.

### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to performing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first Disabled and then Enabled.
- 12 = Not Applicable

Property	Description
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
SystemCreationClassName	The CreationClassName of the scoping System.
SystemName	The Name of the scoping System.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> <li>A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.</li> </ul>

# DCIM\_EthernetPort

Property	Description	
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.	
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.	
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.	
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.	

#### **Property**

#### Description

#### **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled** (value = 2).

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element does not run commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of moving to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode. Starting (10) indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 10 = Starting
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### Linktechnology

An enumeration of the types of links. When set to **1** (Other), the related property OtherLinkTechnology contains a string description of the type of link.

#### Possible values are:

• 0 = Unknown

#### **Property**

#### Description

- 1 = Other
- 2 = Ethernet
- 3 = IB
- 4 = FC
- 5 = FDDI
- 6 = ATM
- 7 = Token Ring
- 8 = Frame Relav
- 9 = Infrared
- 10 = Bluetooth
- 11 = Wireless LAN

#### Name

The Name property defines the label by which the object is known. When subclassed, the Name property can be overridden to be a Key property.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to 5 (**Not Applicable**), then this property has no meaning. See the EnabledState property description for explanations of the values in the RequestedState enumeration. **Unknown** (0) indicates the last requested state for the element is unknown.



**NOTE:** The value **No Change** (5) has been deprecated instead of indicating the last requested state is **Unknown** (0). If the last requested or desired state is unknown, RequestedState should have the value **Unknown** (0), but may have the value **No Change** (5). There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot** (10) and **Reset** (11).

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 Not Applicable.

### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.

### **Property** Description • 7 = Test 8 = Deferred 9 = Ouiesce 10 = Reboot — Refers to performing a **Shut Down** and then moving to an Enabled state. 11 = Reset — Indicates that the element is first **Disabled** and then Enabled. 12 = Not Applicable .. = DMTF Reserved 32768..65535 = Vendor Reserved SystemCreationClassNa The creation classname of the scoping system. me **SystemName** The system name of the scoping system. **TOEEnabledState** An integer enumeration that indicates the enabled and disabled states of the TOE. Possible values are: 0 = Unknown 1 = Other 2 = Enabled — Indicates that the TOE is enabled and running. 3 = Disabled — Indicates that the TOE is disabled. 4 = Not Applicable — Indicates that the ethernet port does not have TOE capability. 5..32767 = DMTF Reserved 32768..65535 = Vendor Reserved **TransitioningToState** Indicates the target state to which the instance is transitioning. Possible values are: 0 = Unknown2 = Enabled3 = Disabled 4 = Shut Down 5 = No Change - Indicates that no transition is in progress.6 = Offline 7 = Test 8 = Defer 9 = Quiesce

10 = Reboot 11 = Reset

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

12 = Not Applicable — Indicates that the implementation does not

support representing ongoing transitions.

### DCIM FlatPanel

Property	Description
Brightness	The percentage $(0-100)$ of total brightness of the video output device for system running on battery and AC power. The property is in the format BatteryBrightness:ACBrightness BuiltIn Defines whether the video output device is built in. <b>True</b> indicates that flat panel is directly attached to a portable computer and <b>False</b> means that flat panel is externally connected through graphics cable (such as VGA) to a computer.
	Possible values are:
	• 0 = Unknown
	• 2 = True
	• 3 = False
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
CreationClassName	Indicates the name of the class or the subclass used in the creation an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
DisplayType	An integer enumeration describing the type of flat panel display.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	• 2 = Passive Matrix LCD
	• 3 = Active Matrix LCD
	• 4 = Cholesteric LCD
	• 5 = Field Emission Display
	<ul> <li>6 = Electro Luminescent Display</li> </ul>
	• 7 = Gas Plasma 8 = LED
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencie Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

Property	Description
HorizontalResolution	The horizontal resolution in Pixels of the flat panel.
MaxQuiesceTime	The use of this property has been deprecated. When evaluating the use of <b>Quiesce</b> , it was determined that this single property is not adequate for describing when a device will automatically exit a quiescent state. In fact, the most likely scenario for a device to exit a quiescent state was determined to be based on the number of outstanding requests queued rather than on a maximum time. This decision will be re-evaluated and repositioned later. Deprecated description: Maximum time, in milliseconds, that a Device can run in a <b>Quiesced</b> state. The state is defined in its Availability and Additional Availability properties, where <b>Quiesced</b> is conveyed by the value <b>21</b> . What occurs at the end of the time limit is device-specific. The Device can unquiesce, can be offline, or can take other actions. A value of 0 indicates that a Device can remain <b>quiesced</b> indefinitely.
ScanMode	The scan mode of a flat panel indicating either single (value = $2$ ) or dual scan $\bf 3$ .
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	<ul><li>2 = Single Scan</li><li>3 = Dual Scan</li></ul>
SystemCreationClassName	The creation class name of the scoping system.
SystemName	The system name of the scoping system.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates that the implementation does not support representing ongoing transitions.</li> <li>A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.</li> </ul>

Vertical resolution in Pixels of a flat panel.

VerticalResolution

## DCIM\_IPProtocolEndpoint

Property	Description
Address Origin	Identifies the method by which the IP Address, Subnet Mask, and Gateway were assigned to the IPProtocolEndpoint.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	<ul> <li>2 = Not Applicable</li> </ul>
	<ul> <li>3 = Static — Indicates the values were assigned manually.</li> </ul>
	<ul> <li>4 = DHCP — Indicates the values were assign utilizing the Dynamic Host Configuration Protocol. See RFC 2131 and related.</li> </ul>
	<ul> <li>5 = BOOTP — Indicates the values were assigned utilizing BOOTP. See RFC 951 and related.</li> </ul>
	<ul> <li>6 = IPv4 Link Local — Indicates the values we assigned using the IPv4 Link Local protocol. See RFC 3927.</li> </ul>
	<ul> <li>7 = DHCPv6 — Indicates the values were assigned using DHCPv6. See RFC 3315.</li> </ul>
	<ul> <li>8 = IPv6AutoConfig — Indicates the values were assigned using the IPv6 AutoConfig Protocol. See RFC 4862.</li> </ul>
	<ul><li> = DMTF Reserved</li></ul>
	• 3276865535 = Vendor Reserved
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity dated and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-class to be a Key. It is not reasonable that the samproperty can convey both identity and a use friendly name, without inconsistencies. When

Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name

and ElementName properties.

Property	Description
Enabled Default	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> <li>By default, the element is Enabled (value = 2) .</li> </ul>
EnabledState	An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	<ul> <li>2 = Enabled — Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.</li> </ul>
	<ul> <li>3 = Disabled — Indicates that the element will not execute commands and will drop any new requests.</li> </ul>
	<ul> <li>4 = Shutting Down — Indicates that the element is in the process of going to a Disabled state.</li> </ul>
	<ul> <li>5 = Not Applicable — Indicates the element does not support being enabled or disabled.</li> </ul>
	<ul> <li>6 = Enabled but Offline — Indicates that the element may be completing commands, and drop any new requests.</li> </ul>
	<ul> <li>7 = In Test — Indicates that the element is in a test state.</li> </ul>
	<ul> <li>8 = Deferred — Indicates that the element may be completing commands, but will queue any new requests.</li> </ul>
	<ul> <li>9 = Quiesce — Indicates that the element is enabled but in a restricted mode.</li> </ul>
	• 10 = Starting — Indicates that the element is in the process of going to an Enabled state. New requests are queued.

11..32767 = DMTF Reserved32768..65535 = Vendor Reserved

Property	Description
	For example, shutting down (value = <b>4</b> ) and starting (value = <b>10</b> ) are transient states between enabled and disabled.
IPv4Address	The IPv4 address that this ProtocolEndpoint represents.
IPv6Address	The IPv6 address that this ProtocolEndpoint represents.
IPv6AddressType	Identifies the type of address found in the IPv6Address property. The values of this property are interpreted according to RFC4291, Section 2.4
	Possible values are:
	• 2 = Unspecified
	• 3 = Loopback
	• 4 = Multicast
	• 5 = Link Local Unicast
	• 6 = Global Unicast
	<ul> <li>7 = Embedded IPv4 Address</li> </ul>
	8 = Site Local Unicast
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
IPv6SubnetPrefixLength	Identifies the prefix length of the IPv6Address property that is used to specify a subnet
IPVersion Support	This property explicitly defines support for different versions of the IP protocol, for this Endpoint. It is deprecated since the ProtocolIFType also provides this functionality by describing an endpoint as IPv4 only (value = <b>4096</b> ), IPv6 only (value = <b>4097</b> ), or IPv4/v6 (value = <b>4098</b> ).
	Possible values are:
	• 0 = Unknown
	• 1 = IPv4 Only
	• 2 = IPv6 Only
	• 3 = Both IPv4 and IPv6
Name	A string that identifies this ProtocolEndpoint with either a port or an interface on a device. To ensure uniqueness, the Name property should be prepended or appended with information from the Type or OtherTypeDescription properties. The method selected is described in the NameFormat property of this class.

Property	Description
NameFormat	Contains the naming heuristic that is selected to ensure that the value of the Name property is unique. For example, you may choose to prepend the name of the port or interface with the Type of ProtocolEndpoint (for example, IPv4) of this instance followed by an underscore.
ProtocolIFType	ProtocolIFType's enumeration is limited to IP-related and reserved values for this subclass of ProtocolEndpoint.
	Possible values are:
	• 1 = Other
	• 2254095 = IANA
	<ul> <li>Reserved 4096 = IPv4</li> </ul>
	• 4097 = IPv6
	• 4098 = IPv4/v6
	• 430132767 = DMTF Reserved
	• 32768 = Vendor Reserved
ProtocolType	This property is deprecated instead of the ProtocollFType enumeration. This deprecation was done to have better alignment between the IF-MIB of the IETF and this CIM class. Deprecated description: ProtocolType is an enumeration that provides information to categorize and classify different instances of this class. For most instances information in this enumeration and the definition of the subclass overlap. However, there are several cases where a specific subclass of ProtocolEndpoint is not required (for example, there is no Fibre Channel subclass of ProtocolEndpoint). Therefore, this property is needed to define the type of Endpoint.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = IPv4</li> <li>3 = IPv6</li> <li>4 = IPX</li> <li>5 = AppleTalk</li> </ul>
	• 6 = DECnet
	• 7 = SNA
	• 8 = CONP
	• 9 = CLNP
	• 10 = VINES
	• 11 = XNS

12 = ATM13 = Frame Relay

- 14 = Ethernet
- 15 = TokenRing
- 16 = FDDI
- 17 = Infiniband
- 18 = Fibre Channel
- 19 = ISDN BRI Endpoint
- 20 = ISDN B Channel Endpoint
- 21 = ISDN D Channel Endpoint
- 22 = IPv4/v6
- 23 = BGP
- 24 = OSPF
- 25 = MPLS
- 26 = UDP
- 27 = TCP

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to performing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to **5** (Not Applicable), then this property has no meaning. See the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11).

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or have the value 12 Not Applicable.

A string indicating the current status of the object. Various operational and non-operational statuses are defined. This property is deprecated instead of OperationalStatus, which includes the same semantics in its enumeration. This change is made for the following reasons:

- Status is more correctly defined as an array.
  This definition overcomes the limitation of
  describing status using a single value, when it is
  really a multi-valued property (for example, an
  element may be OK AND Stopped.
- A MaxLen of 10 is too restrictive and leads to unclear enumerated values.
- The change to a uint16 data type was discussed when CIM V2.0 was defined. However, existing V1.0 implementations used the string property and did not want to modify their code. Therefore, Status was grandfathered into the Schema. Use of the deprecated qualifier allows the maintenance of the existing property, but also permits an improved definition using OperationalStatus.

Possible values are:

- OK
- Error
- Degraded
- Unknown

Status

Property	Description
	Pred Fail
	• Starting
	• Stopping
	• Service
	• Stressed
	<ul> <li>NonRecover</li> </ul>
	No Contact
	• Lost
	• Comm
	• Stopped
SubnetMask	The mask for the IPv4 address of this
	ProtocolEndpoint, if one is defined.
SystemCreationClassName	The creation class name of the scoping System.
SystemName	The Name of the scoping System.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	• 0 = Unknown
	• 2 = Enabled
	• 3 = Disabled
	• 4 = Shut Down
	• 5 = No Change — Indicates that no transition is in progress.
	• 6 = Offline
	• 7 = Test
	• 8 = Defer
	• 9 = Quiesce
	• 10 = Reboot
	• 11 = Reset
	<ul> <li>12 = Not Applicable — Indicates that the implementation does not support representing ongoing transitions.</li> </ul>
	A value other than 5 or 12 identifies the state to which the element is in the process of

## DCIM\_ControllerView

Property	Description
BusType	The property represents the type of the PCI bus.

transitioning.

Property	Description
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>3 = PCI Bus</li> <li>4 = PCMCIA Bus</li> <li>0x8000 = DMTF Reserved</li> <li>0xffff = Vendor Reserved</li> </ul>
ControllerFirmwareVersion	This property represents the firmware version.
Device	This property represents the device name.
Driver Version	This property represents the version of the driver.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.  NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-classed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
InstanceID	This property contains the value of the Fully Qualified Device Description (FQDD).
PrimaryStatus	This property represents the status of the device.
	Possible values are:  • 0 = Unknown  • 1 = OK  • 2 = Degraded  • 3 = Error
ProductName	This property represents the family name of the controller.

# DCIM\_PhysicalDiskView

Property	Description
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.

**Property** Description **NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-classed to be a Key. It is not reasonable that the same property can convey both identity and a userfriendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties. InstanceID The property contains the value of the Fully Qualified Device Description (FQDD). This property represents the status of the device. **PrimaryStatus** Possible values are: 0 = Unknown1 = OK 2 = Degraded 3 = Error4 = Rebuilding 5 = Offline • 0x8000 = DMTF Reserved 0xFFFF = Vendor Reserved DriveUsage This property indicates if the physical disk is in a RAID set. Possible values are: • 0 = Not in a RAID Set • 1 = In a RAID Set • 2 = Hot Spare Model This property represents the model name of the physical disk. This property represents the serial number of the SerialNumber physical disk. **DriveAFStatus** This property indicates if the physical disk is an advanced format drive.

Possible values are:

0 - Non AF Drive 1 - AF Drive 2 - Unknown

# DCIM\_VirtualDiskView

Property	Description
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-classed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
InstanceID	The property contains the value of the Fully Qualified Device Description (FQDD).
PrimaryStatus	This property represents the status of the device.
	Possible values are:
	• 0 = Unknown
	• 1 = OK
	<ul> <li>2 = Degraded</li> <li>3 = Error</li> </ul>
	• 4 = Rebuilding
	• 5 = Offline
RAIDStatus	This property represents the RAID specific status.
	Possible values are:
	• 0 = Unknown
	• 1 = Ready
	• 2 = Online
	<ul><li> 3 = Foreign</li><li> 4 = Offline</li></ul>
	• 5 = Blocked
	• 6 = Failed
	• 7 = Degraded
	• 8 = Rebuilding
RAIDTypes	This property represents the current RAID level.
	Possible values are:
	• 1 = No RAID
	• 2 = RAID-0

Property	Description
	• 4 = RAID-1
	• 64 = RAID-5
	• 128 = RAID- 6
	• 2048 = RAID-10
	• 8192 = RAID-50
	• 16384 = RAID- 60
Sizein Megabytes	The property represents the size of the virtual disk in megabytes.
StripeSize	This property represents the current strip size.
	Possible values are:
	• 0 = Default
	• 1 = 512Bytes
	• 2 = 1KB
	• 4 = 2KB
	• 8 = 4 KB
	• 16 = 8 kB
	• 32 = 16 KB
	• 64 = 32 KB
	• 128 = 64 KB
	• 256 = 128 KB
	• 512 = 256 KB
	• 1024 = 512 KB
	• 2048 = 1 MB
	• 4096 = 2 MB
	• 8192 = 4 MB
	• 16384 = 8 MB
	• 32768 = 16 MB
PhysicalDiskIDs	The property represents the array of physical disk FQDDs.

# DCIM\_PhysicalMemory

Property	Description
BankLabel	A string identifying the physically labeled bank where the Memory is located. For example, <b>Bank 0</b> or <b>Bank A</b> .
CanBeFRUed	Boolean that indicates whether this PhysicalElement can be FRUed (TRUE) or not (FALSE).
Capacity	The total capacity of this Physical Memory, in bytes.

<ul> <li>NOTE: The Name property of         ManagedSystemElement is also defined as a         user-friendly name. But, it is often sub-classed         to be a Key. It is not reasonable that the same         property can convey both identity and a user-</li> </ul>
width of 0 and a TotalWidth of 8 would indicate that the Memory is solely used to provide error correction bits.  A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.  NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-classed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where
allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.  NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-classed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where
ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-classed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where
instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
The implementation form factor for the Chip.
Possible values are:
<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = SIP</li> <li>3 = DIP 4 = ZIP</li> <li>5 = SOJ</li> <li>6 = Proprietary</li> <li>7 = SIMM</li> <li>8 = DIMM</li> <li>9 = TSOP</li> <li>10 = PGA</li> <li>11 = RIMM</li> <li>12 = SODIMM</li> <li>13 = SRIMM</li> <li>14 = SMD</li> <li>15 = SSMP</li> </ul>

19 = LCC20 = PLCC

### **Property** Description • 21 = BGA 22 = FPBGA 23 = LGAFor example, values such as SIMM (7), TSOP (9), or PGA (10) can be specified. Indicates if the Speed property or the IsSpeedInMhz MaxMemorySpeed contains the value of the memory speed. A value of TRUE indicates that the speed is represented by the MaxMemorySpeed property. A value of FALSE indicates that the speed is represented by the Speed property. ManufactureDate The date this PhysicalElement was manufactured. Manufacturer The name of the organization responsible for producing the PhysicalElement. This organization may be the entity from where the Element is purchased, but this is not necessarily true. The latter information is contained in the Vendor property of CIM\_Product. MemoryType The type of Physical Memory. Synchronous DRAM is also known as SDRAM. Cache DRAM is also known as CDRAM. BRAM is also known as Block RAM. Possible values are: 0 = Unknown1 = Other2 = DRAM3 = Synchronous DRAM 4 = Cache DRAM 5 = EDO6 = EDRAM7 = VRAM8 = SRAM9 = RAM10 = ROM 11 = Flash12 = EEPROM 13 = FEPROM14 = EPROM 15 = CDRAM 16 = 3DRAM17 = SDRAM18 = SGRAM19 = RDRAM20 = DDR

Property	Description
	<ul> <li>21 = DDR-2</li> <li>22 = BRAM</li> <li>23 = FB-DIMM</li> <li>24 = DDR3</li> <li>25 = FBD2</li> <li>2632567 = DMTF Reserved</li> <li>3256865535 = Vendor Reserved</li> </ul>
Model	The name by which the PhysicalElement is generally known.
PartNumber	The part number assigned by the organization that is responsible for producing or manufacturing the PhysicalElement.
SerialNumber	A manufacturer-allocated number used to identify the Physical Element.
SKU	The stock-keeping unit number for this PhysicalElement.
Speed	The speed of the PhysicalMemory, in nanoseconds.
Tag	An arbitrary string that uniquely identifies the Physical Element and serves as the key of the Element. The Tag property can contain information such as asset tag or serial number data. The key for PhysicalElement is placed very high in the object hierarchy to independently identify the hardware or entity, regardless of physical placement in or on Cabinets, Adapters, and so on. For example, a hotswappable or removable component can be taken from its containing (scoping) Package and be temporarily unused. The object still continues to exist and can even be inserted into a different scoping container. Therefore, the key for Physical Element is an arbitrary string and is defined independently of any placement or location-oriented hierarchy.

# DCIM\_PhysicalPackage

Property	Description
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this

Description
property allows all instances of this class and its subclasses to be uniquely identified.
A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
MOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
The date that this PhysicalElement was manufactured.
The name of the organization responsible for producing the PhysicalElement. This organization may be the entity from whom the Element is purchased, but this is not necessarily true. The latter information is contained in the Vendor property of CIM_Product.
The name by which the PhysicalElement is generally known.
The Name property defines the label by which the object is known. When subclassed, the Name property can be overridden to be a Key property.
A string describing the package when the instance's PackageType property is 1 (Other).
Enumeration defining the type of the PhysicalPackage.
Possible values are:
0 = Unknown — Indicates that the package type is not known.
<ul> <li>1 = Other — The package type does not correspond to an existing enumerated value. The value is specified using the OtherPackageType property.</li> <li>2 = Rack</li> <li>3 = Chassis/Frame</li> <li>4 = Cross Connect/Backplane</li> <li>5 = Container/Frame Slot</li> </ul>

- 7 = Fan
- 8 = Sensor
- 9 = Module/Card
- 10 = Port/Connector
- 11 = Battery
- 12 = Processor
- 13 = Memory
- 14 = Power Source/Generator
- 15 = Storage Media Package (example, Disk or Tape Drive)
- 16 = Blade
- 17 = Blade Expansion



NOTE: This enumeration expands on the list in the Entity MIB (the attribute, entPhysicalClass). The numeric values are consistent with CIM's enum numbering guidelines, but are slightly different than the MIB's values. The values Rack through Port/Connector are defined per the Entity-MIB (where the semantics of rack are equivalent to the MIB's stack value). The other values (for battery, processor, memory, power source/generator and storage media package) are self-explanatory.

A value of **Blade** should be used when the PhysicalPackage contains the operational hardware aspects of a ComputerSystem, without the supporting mechanicals such as power and cooling. For example, a Blade Server includes processor(s) and memory, and relies on the containing chassis to supply power and cooling. In many respects, a Blade can be considered a Module/Card. However, it is tracked differently by inventory systems and differs in terms of service philosophy. For example, a Blade is intended to be hot-plugged into a hosting enclosure without requiring additional cabling, and does not require a cover to be removed from the enclosure for installation. Similarly, a Blade Expansion has characteristics of a Blade and a Module/Card. However, it is distinct from both due to inventory tracking and service philosophy, and because of its hardware dependence on a Blade. A Blade Expansion must be attached to a Blade prior to inserting the resultant assembly into an enclosure.

PartNumber The part number assigne

The part number assigned by the organization that is responsible for producing or manufacturing the PhysicalElement.

Property	Description
SerialNumber	A manufacturer-allocated number used to identify the Physical Element.
SKU	The stock-keeping unit number for this PhysicalElement.
Tag	An arbitrary string that uniquely identifies the Physical Element and serves as the key of the Element. The Tag property can contain information such as asset tag or serial number data. The key for PhysicalElement is placed very high in the object hierarchy in order to independently identify the hardware or entity, regardless of physical placement in or on Cabinets, Adapters, and so on. For example, a hotswappable or removable component can be taken from its containing (scoping) Package and be temporarily unused. The object still continues to exist and can even be inserted into a different scoping container. Therefore, the key for Physical Element is an arbitrary string and is defined independently of any placement or location-oriented hierarchy.
Version	A string that indicates the version of the PhysicalElement.

# DCIM\_ParallelPort

Property	Description
BaselOAddress	An integer value that represents the base I/O address used by the parallel port.
ConnectorType	ConnectorType is defined to force consistent naming of the 'connector type' property in subclasses and to guarantee unique enum values for all instances of ParallelPort. When set to <b>3</b> ( <b>Proprietary</b> ), the related property OtherConnectorType contains a string description of the type of port.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Centronics</li> <li>2 = Mini-Centronics</li> <li>3 = Proprietary</li> <li>4 = DB-25 Female</li> <li>5 = DB-25 Male</li> <li> = DMTF Reserved</li> <li>32768 = Vendor Reserved</li> </ul>

Property	Description
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	• 2 = Enabled
	• 3 = Disabled
	• 5 = Not Applicable
	6 = Enabled but Offline
	• 7 = No Default
	• 9 = Quiesce = DMTF Reserved
	• 3276865535 = Vendor Reserved
	By default, the element is <b>Enabled (value = 2)</b> .
EnabledState	An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value $=$ 4) and starting (value $=$ 10) are transient states between enabled and disabled.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	<ul> <li>2 = Enabled — Indicates that the element is or could be executing commands, will process</li> </ul>

any queued commands, and queues new requests.

- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode. Starting (10) indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 10 = Starting
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

An integer value that represents the IRQ level used by the parallel port.

The pinout used by the I/O device on this parallel port.

Possible values are:

- 0 = Unknown
- 1 = XT/AT
- 2 = PS/2
- 3 = ECP
- 4 = EPP
- 5 = IEEE 1284
- 25 = PC-98
- 26 = PC-98-Hireso
- .. = DMTF Reserved

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to **5** (Not Applicable), then this

**IRQLevel** 

**Pinout** 

RequestedState

property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration. **Unknown (0)** indicates the last requested state for the element is unknown.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). Offline (6) indicates that the element has been requested to transition to the Enabled but Offline EnabledState. There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11). Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the pro

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved

Description
• 3276865535 = Vendor Reserved
An enumeration indicating the operational security for the Controller. For example, information that the Device's external interface is locked out (valuemap = 3) or <b>Boot Bypass (valuemap = 5)</b> can be described using this property.
Possible values are:
<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = None</li> <li>3 = External Interface Locked Out</li> <li>4 = External Interface Enabled</li> <li>5 = Boot Bypass</li> <li> = DMTF Reserved</li> <li>32768 = Vendor Reserved</li> </ul>
The bandwidth of the Port in Bits per Second.
The creation class name of the scoping system.
The system name of the scoping system.
Indicates the target state to which the instance is transitioning.
Possible values are:
<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> <li>A value other than 5 or 12 identifies the state to which the element is in the process of</li> </ul>

## DCIM\_RemoteServiceAccessPoint

Property	Description
AccessContext	The AccessContext property identifies the role this RemoteServiceAccessPoint is playing in the hosting system.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	<ul> <li>2 = Default Gateway</li> </ul>
	• 3 = DNS Server
	• 4 = SNMP Trap Destination
	<ul> <li>5 = MPLS Tunnel Destination</li> </ul>
	• 6 = DHCP Server
	• 7 = SMTP Server
	8 = LDAP Server
	• 9 = Network Time Protocol (NTP) Server
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
AccessInfo	Access or addressing information or a combination of this information for a remote connection. This information can be a host name, network address, or similar information.
Creation Class Name	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-classe to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled

State of an element.

Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

**EnabledState** 

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.

Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = **4**) and starting (value = **10**) are transient states between enabled and disabled.

### **Property** Description An enumerated integer that describes the format InfoFormat and interpretation of the AccessInfo property. Possible values are: 1 = Other 2 = Host Name 3 = IPv4 Address 4 = IPv6 Address 5 = IPX Address 6 = DECnet Address 7 = SNA Address 8 = Autonomous System Number 9 = MPLS Label 10 = IPv4 Subnet Address 11 = IPv6 Subnet Address 12 = IPv4 Address Range 13 = IPv6 Address Range 100 = Dial String 101 = Ethernet Address 102 = Token Ring Address 103 = ATM Address 104 = Frame Relay Address 200 = URL 201 = FQDN 202 = User FQDN 203 = DER ASN1 DN 204 = DER ASN1 GN 205 = Key ID .. = DMTF Reserved 32768..65535 = Vendor Reserved The Name property uniquely identifies the Name ServiceAccessPoint and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object. RequestedState An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

NOTE: When EnabledState is set to 5 (Not

the RequestedState enumeration.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5).

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 Not Applicable.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### System Creation Class Name

The CreationClassName of the scoping System.

Property	Description
SystemName	The Name of the scoping System.
TransitioningToState	Indicates the target state to which the instance is transitioning. A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in-progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions</li> </ul>

## DCIM\_Slot

Property	Description
ConnectorLayout	Describes the type of packaging normally associated with this type of connector.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = RS232</li> <li>3 = BNC</li> <li>4 = RJ11</li> <li>5 = RJ45</li> <li>6 = DB9</li> <li>7 = Slot</li> <li>8 = SCSI High Density</li> <li>9 = SCSI Low Density</li> <li>10 = Ribbon</li> </ul>
	• 11 = AUI
	<ul><li>12 = Fiber SC</li><li>13 = Fiber ST</li></ul>
	<ul><li>14 = FDDI-MIC</li><li>15 = Fiber-RTMJ</li></ul>

- 16 = PCI Describes the generic PCI connector layout.
- 17 = PCI-X Describes the PCI Extended connector layout.
- 18 = PCI-E Describes the PCI Express connector layout, where the actual layout with respect to the length is unknown.
- 19 = PCI-E x1
- 20 = PCI-E x2
- 21 = PCI-E x4
- 22 = PCI-E x8
- 23 = PCI-E x16
- 24 = PCI-E x32
- 25 = PCI-E x64
- 26..32567 = DMTF Reserved
- 32568..65535 = Vendor Reserved

19-25 (PCI-E xN) — Describes the PCI Express connector layout, where N is the lane count that appropriately describes the length of the PCI-E connector.

An array of integers defining the type of PhysicalConnector. An array is specified to allow the description of **combinations** of Connector information.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Male
- 3 = Female
- 4 = Shielded

5 = Unshielded

- 6 = SCSI (A) High-Density (50 pins)
- 7 = SCSI (A) Low-Density (50 pins)
- 8 = SCSI (P) High-Density (68 pins)
- 9 = SCSI SCA-I (80 pins)
- 10 = SCSI SCA-II (80 pins)
- 11 = Fibre Channel (DB-9, Copper)
- 12 = Fibre Channel (Optical Fibre)
- 13 = Fibre Channel SCA-II (40 pins)
- 14 = Fibre Channel SCA-II (20 pins)
- 15 = Fibre Channel BNC
- 16 = ATA 3-1/2 Inch (40 pins)
- 17 = ATA 2-1/2 Inch (44 pins)
- 18 = ATA-2
- 19 = ATA-3
- 20 = ATA/66

#### ConnectorType

- 21 = DB-9
- 22 = DB-15
- 23 = DB-25
- 24 = DB-36
- 25 = RS-232C
- 26 = RS-422
- 27 = RS-423
- 28 = RS-48529 = RS-449
- 70 \/75
- 30 = V.35
- 31 = X.21
- 32 = IEEE-488
- 33 = AUI
- 34 = UPT Category 3
- 35 = UPT Category 4
- 36 = UPT Category 5
- 37 = BNC
- 38 = RJ11
- 39 = RJ45
- 40 = Fiber MIC
- 41 = Apple AUI
- 42 = Apple GeoPort
- 43 = PCI
- 44 = ISA
- 45 = EISA
- 46 = VESA
- 47 = PCMCIA
- 48 = PCMCIA Type I
- 49 = PCMCIA Type II
- 50 = PCMCIA Type III
- 51 = ZV Port
- 52 = CardBus
- 53 = USB
- 54 = IEEE 1394
- 55 = HIPPI
- 56 = HSSDC (6 pins)
- 57 = GBIC
- 58 = DIN
- 59 = Mini-DIN
- 60 = Micro-DIN
- 61 = PS/2
- 62 = Infrared
- 63 = HP-HIL
- 64 = Access.bus
- 65 = NuBus

- 66 = Centronics
- 67 = Mini-Centronics
- 68 = Mini-Centronics Type-14
- 69 = Mini-Centronics Type-20
- 70 = Mini-Centronics Type-26
- 71 = Bus Mouse
- 72 = ADB
- 73 = AGP
- 74 = VME Bus
- 75 = VME64
- 76 = Proprietary
- 77 = Proprietary Processor Card Slot
- 78 = Proprietary Memory Card Slot
- 79 = Proprietary I/O Riser Slot
- 80 = PCI-66MHZ
- 81 = AGP2X
- 82 = AGP4X
- 83 = PC-98
- 84 = PC-98-Hireso
- 85 = PC-H98
- 86 = PC-98Note
- 87 = PC-98Full
- 88 = SSA SCSI
- 89 = Circular
- 90 = On Board IDE Connector
- 91 = On Board Floppy Connector
- 92 = 9 Pin Dual Inline
- 93 = 25 Pin Dual Inline
- 94 = 50 Pin Dual Inline
- 95 = 68 Pin Dual Inline
- 96 = On Board Sound Connector
- 97 = Mini-jack
- 98 = PCI-X
- 99 = Sbus IEEE 1396-1993 32 bit
- 100 = Sbus IEEE 1396-1993 64 bit
- 101 = MCA
- 102 = GIO
- 103 = XIO
- 104 = HIO
- 105 = NGIO
- 106 = PMC
- 107 = MTRJ
- 108 = VF-45
- 109 = Future I/O
- 110 = SC

**Property** Description • 111 = SG 112 = Electrical 113 = Optical 114 = Ribbon115 = GLM 116 = 1x9117 = Mini SG 118 = LC 119 = HSSC 120 = VHDCI Shielded (68 pins) 121 = InfiniBand 122 = AGP8X For example, one array entry could specify RS-232 (value = 25), another DB-25 (value = 23) and a third entry define the Connector as Male (value = 2). This single property is being deprecated instead of using separate properties to describe the various aspects of the connector. The separation allows for a more generic means of describing the connectors. Obsolete connectors were intentionally removed from the new list. CreationClassName Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified. A user-friendly name for the object. This property **ElementName** allows each instance to define a user-friendly name in addition to its key properties, identify data, and description information.

NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often sub-classed to be a Key. It is not reasonable that the same property can convey both identity and a userfriendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

The Number property indicates the physical slot number, which can be used as an index into a system slot table, whether or not that slot is physically occupied.

Boolean indicating whether the Slot supports hotplug of adapter Cards.

#### SupportsHotPlug

Property	Description
Tag	An arbitrary string that uniquely identifies the Physical Element and serves as the key of the Element. The Tag property can contain information such as asset tag or serial number data. The key for PhysicalElement is placed very high in the object hierarchy to independently identify the hardware or entity, regardless of physical placement in or on Cabinets, Adapters, and so on. For example, a hotswappable or removable component can be taken from its containing (scoping) Package and be temporarily unused. The object still continues to exist and can even be inserted into a different scoping container. Therefore, the key for Physical Element is an arbitrary string and is defined independently of any placement or location-oriented hierarchy.
VendorCompatibilityStrings	An array of strings that identify the components that are compatible and can be inserted in a slot. This allows vendors to provide clues to the system administrators by providing sufficient information to request the appropriate hardware that can populate the slot. To ensure uniqueness within the NameSpace, each value defined by the vendor for use in the VendorCompatibilityStrings property SHOULD be constructed using the following 'preferred' algorithm: : Where and are separated by a colon ':', and where MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the _ structure of Schema class names.) In addition, to ensure uniqueness MUST NOT contain a colon ':'. When using this algorithm, the first colon to appear in InstanceID MUST appear between and . is chosen by the business entity and SHOULD not be re-used to identify different underlying (real-world) elements.

## DCIM\_SerialPort

Property	Description
BaselOAddress	An integer value that represents the base I/O address used by the serial port. Caption The Caption property is a short textual description (one- line string) of the object.
ConnectorType	ConnectorType is defined to force consistent naming of the <b>connector type</b> property in subclasses and to guarantee unique enum values for all instances of SerialPort. When set to 1 ( <b>Other</b> ), related property OtherConnectorType

contains a string description of the type of port. A range of values, DMTF\_Reserved, has been defined that allows subclasses to override and define their specific types of ports.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Not Applicable
- 3..15999 = DMTF Reserved
- 16003 = DB9Male
- 16004 = DB9Female
- 16005 = DB25Male1
- 16006 = DB25Female1
- 16007 = RJ11
- 16008 = RJ45
- 16009 = Proprietary
- 16010 = CircularDIN8Male
- 16011 = CircularDIN8Female
- 16160 = MiniCentronicsType14
- 16161 = MiniCentronicsType26
- 16162..65535 = Vendor Reserved

#### CreationClassName

DeviceID

**ElementName** 

Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.

An address or other identifying information used to uniquely name the Logical Device.

A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

Property	Description
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	• 2 = Enabled
	• 3 = Disabled
	• 5 = Not Applicable
	<ul> <li>6 = Enabled but Offline</li> </ul>
	• 7 = No Default
	• 9 = Quiesce
	• = DMTF Reserved

#### **EnabledState**

An integer enumeration that indicates the enabled

By default, the element is **Enabled (value = 2)**.

• 32768..65535 = Vendor Reserved

and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 =Enabled Indicates that the element is or could be executing commands, processes any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element willnot run commands and drops any new requests.
- 4 =Shutting Down Indicates that the element is in the process of going to a Disabled
- 5 = Not Applicable Indicates that the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and drops any new requests.
- 7 = In Test Indicates that the element is in atest state.
- 8 = Deferred Indicates that the element maybe completing commands, but queues any new
- 9 = Quiesce Indicates that the element isenabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved

Property	Description
	• 3276865535 = Vendor Reserved
HealthState	Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.
	Possible values are:
	<ul> <li>0 = Unknown — The implementation cannot report on HealthState now. DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.</li> </ul>
	<ul> <li>5 = OK — The element is fully functional and is operating within normal operational parameters and without error.</li> </ul>
	<ul> <li>10 = Degraded/Warning — The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.</li> </ul>
	• 15 = Minor failure — All functionality is available but some may be degraded.
	<ul> <li>20 = Major failure — The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.</li> </ul>
	<ul> <li>25 = Critical failure — The element is nonfunctional and recovery may not be possible.</li> </ul>
	• 30 = Non-recoverable error
	<ul> <li> = DMTF Reserved — The element has failed, and recovery is not possible. All functionality provided by this element has been lost.</li> </ul>
IRQLevel	An integer value that represents the IRQ level used by the serial port.
MaxSpeed	The maximum bandwidth of the Port in Bits per Second.
OperationalStatus	Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are self-explanatory. However, a few are not and are described here in more detail.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	• 2 = OK
	• 3 = Degraded
	<ul> <li>4 = Stressed — Indicates that the element is functioning, but needs attention. Examples of Stressed states are overload, overheated, and so on.</li> </ul>

- 5 = Predictive Failure Indicates that an element is functioning nominally but predicting a failure soon.
- 6 = Error
- 7 = Non-Recoverable Error
- 8 = Starting
- 9 = Stopping
- 10 = Stopped Implies a clean and orderly stop.
- 11 = In Service Describes an element being configured, maintained, cleaned, or otherwise administered.
- 12 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- 13 = Lost Communication Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is unreachable
- 14 = Aborted Implies an abrupt stop where the state and configuration of the element may need to be updated.
- 15 = Dormant Indicates that the element is inactive or quiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.
- 17 = Completed Indicates that the element has completed its operation. This value should be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).
- 18 = Power Mode Indicates that the element has additional power model information contained in the Associated PowerManagementService association.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

Operational Status replaces the Status property on Managed System Element to provide a consistent approach to enumerations, to address implementation needs for an array property, and to provide a migration path from today's environment to the future. This change was not made earlier because it required the deprecated qualifier. Due to the widespread use of the existing Status property in management applications, it is recommended that providers or instrumentation

Description

provide both the Status and OperationalStatus properties. Further, the first value of OperationalStatus should contain the primary status for the element. When instrumented, Status (because it is single-valued) should also provide the primary status of the element.

#### PortType

PortType is defined to force consistent naming of the **type** property in subclasses and to guarantee unique enum values for all instances of NetworkPort. When set to 1 (**Other**), related property OtherPortType contains a string description of the type of port. A range of values, DMTF\_Reserved, has been defined that allows subclasses to override and define their specific types of ports.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Not Applicable
- 3..15999 = DMTF Reserved
- 16192 = Parallel Port
- 16193 = Serial Port
- 16194 = Pointing Device
- 16195 = Keyboard
- 16196 = Processor
- 16197 = Memory Device
- 16198 = USB
- 16199 = Monitor
- 16200 = SCSI
- 16201..65535 = Vendor Reserved

#### **PrimaryStatus**

Provides a high-level status value, intended to align with Red-Yellow-Green type representation of status. It should be used with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Not Applicable
- 3..15999 = DMTF Reserved
- 16192 = Parallel Port
- 16193 = Serial Port
- 16194 = Pointing Device
- 16195 = Keyboard
- 16196 = Processor
- 16197 = Memory Device

**Property** Description 16198 = USB 16199 = Monitor 16200 = SCSI16201..65535 = Vendor Reserved **PrimaryStatus** Provides a high-level status value, intended to align with Red-Yellow-Green type representation of status. It should be used with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents. Possible values are: 0 = Unknown - Indicates that theimplementation is in general capable of returning this property, but is unable to do so 1 = OK - Indicates the ManagedElement isfunctioning normally. 2 = Degraded — Indicates the ManagedElement is functioning below normal. 3 = Error — Indicates the ManagedElement is in an Error condition. .. = DMTF Reserved 0x8000.. = Vendor Reserved The requested bandwidth of the Port in Bits per RequestedSpeed Second. The actual bandwidth is reported in LogicalPort.Speed.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. When EnabledState is set to 5 (Not Applicable), then this

property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value No Change (5)has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11).

Shut Down requests an orderly transition to the Disabled state, and may involve removing power,

to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

#### Possible values are:

- 0 = Unknown Indicates that the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

An enumeration indicating the operational security for the Controller. For example, information that the Device's external interface is locked out (value = 4) or **Boot Bypass** (value = 6) can be described using this property.

#### Possible values are:

- 1 = Other
- 2 = Unknown
- 3 = None
- 4 = External Interface Locked Out
- 5 = External Interface Enabled
- 6 = Boot Bypass

Security

Property	Description
SerialPortCapabilities	The capabilities of this Serial port.
	Possible values are:
	<ul> <li>1 = Other</li> <li>2 = Unknown</li> <li>3 = XT/AT compatible</li> <li>4 = 16450 compatible</li> <li>5 = 16550 compatible</li> <li>6 = 16550A compatible</li> <li>160 = 8251 compatible</li> <li>161 = 8251FIFO compatible</li> </ul>
SystemCreationClassName	The creation class name of the scoping system.
SystemName	The system name of the scoping system.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates that the implementation does not support representing ongoing transitions.</li> <li>A value other than 5 or 12 identifies the state to which the element is in the process of</li> </ul>
	which the element is in the process of transitioning.

## DCIM\_USBPort

Property	Description
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used
	with the other key properties of this class, this

Property	Description
	property allows all instances of this class and its subclasses to be uniquely identified.
DeviceID	An address or other identifying information used to uniquely name the Logical Device.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating a configuration of an administrator for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
	By default, the element is <b>Enabled (value = 2)</b> .
EnabledState	An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Enabled — Indicates that the element is or could be running commands, will process any queued commands, and queues new requests.</li> </ul>
	- B. H.

• 3 = Disabled — Indicates that the element will not run commands and will drop any new requests.

- 4 = Shutting Down Indicates that the element is in the process of going to a disabled state
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = **4**) and starting (value = **10**) are transient states between enabled and disabled.

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

#### Possible values are:

- 0 = Unknown The implementation cannot report on HealthState at this time. DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is nonfunctional and recovery may not be possible.
- 30 = Non-recoverable error The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.
- .. = DMTF Reserved

#### HealthState

Property	Description
Identifying Descriptions	An array of free-form strings providing explanations and details behind the entries in the OtherldentifyingInfo array. Note that each entry of this array is related to the entry in OtherldentifyingInfo that is located at the same index.
RequestedState	An integer enumeration that indicates the last requested or desired state for the element,

requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to 5 (Not Applicable), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration. Unknown (0) indicates the last requested state for the element is unknown.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5).

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 Not Applicable.

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change

Property	Description
	6 = Offline — Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
	• 7 = Test
	• 8 = Deferred
	• 9 = Quiesce
	• 10 = Reboot — Refers to doing a <b>Shut Down</b> and then moving to an <b>Enabled</b> state.
	• 11 = Reset — Indicates that the element is first <b>Disabled</b> and then <b>Enabled</b> .
	• 12 = Not Applicable
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
Speed	USB Port Speed in bits per second. This speed is determined and set by the attached Device. The <b>attached Device</b> is indicated using the USBConnection association. At this time, only several Port speeds are valid. These are: 1.5Mbps and 12Mbps. The value 0 can also be specified to indicate that the current speed is <b>unknown</b> or 1 to indicate that the speed is <b>other</b> than 1.5 or 12Mbps. Possible values are: 0, 1, 1500000, 12000000
SystemCreationClassName	The CreationClassName of the scoping system.
SystemName	The System Name of the scoping system.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	• 0 = Unknown
	• 2 = Enabled
	• 3 = Disabled
	• 4 = Shut Down
	• 5 = No Change — Indicates that no transition is in progress.
	• 6 = Offline
	• 7 = Test
	• 8 = Defer
	• 9 = Quiesce
	• 10 = Reboot
	• 11 = Reset
	<ul> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> </ul>

Property	Description
	A value other than <b>5</b> or <b>12</b> identifies the state to which the element is in the process of transitioning.

## DCIM\_Memory

Property	Description
Access	Access describes whether the media is readable (value = 1), writeable (value = 2), or both (value = 3). <b>Unknown (0)</b> and <b>Write Once (4)</b> can also be defined.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Readable</li> <li>2 = Writeable</li> <li>3 = Read/Write Supported</li> <li>4 = Write Once</li> </ul>
BlockSize	Size in bytes of the blocks which form this StorageExtent. If variable block size, then the maximum block size in bytes should be specified. If the block size is unknown or if a block concept is not valid (for example, for AggregateExtents, Memory or LogicalDisks), enter a 1.
ConsumableBlocks	The maximum number of blocks, of size BlockSize, which are available for consumption when layering StorageExtents using the BasedOn association. This property only has meaning when this StorageExtent is an Antecedent reference in a BasedOn relationship. For example, a StorageExtent could be composed of 120 blocks. However, the Extent itself may use 20 blocks for redundancy data. If another StorageExtent is BasedOn this Extent, only 100 blocks would be available to it. This information (100 blocks is available for consumption) is indicated in the ConsumableBlocks property.
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly

name in addition to its key properties, identity data, and description information.



NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Ouiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = **4**) and starting (value = **10**) are transient states between enabled and disabled.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.

#### **EnabledDefault**

#### **EnabledState**

Property	Description
	• 7 = In Test — Indicates that the element is in a test state.
	<ul> <li>8 = Deferred — Indicates that the element may be completing commands, but will queue any new requests.</li> </ul>
	<ul> <li>9 = Quiesce — Indicates that the element is enabled but in a restricted mode.</li> </ul>
	<ul> <li>10 = Starting — Indicates that the element is in the process of going to an Enabled state. New requests are queued.</li> </ul>
	• 1132767 = DMTF Reserved
	• 3276865535 = Vendor Reserved
ErrorMethodology	ErrorMethodology for Memory is a string property that indicates whether parity or CRC algorithms, ECC or other mechanisms are used. Details on the algorithm can also be supplied.
FailOverState	An integer enumeration indicating that active memory has failed and the spare or backup memory may have taken over.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	• 2 = None
	• 3 = Active
HealthState	Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.
	Possible values are:
	• $0 = Unknown - The implementation cannot$

- 0 = Unknown The implementation cannot report on HealthState at this time. DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is nonfunctional and recovery may not be possible.
- 30 = Non-recoverable error The element has completely failed, and recovery is not possible.

Property	Description

All functionality provided by this element has been lost.

• .. = DMTF Reserved

#### **NumberOfBlocks**

Total number of logically contiguous blocks, of size Block Size, which form this Extent. The total size of the Extent can be calculated by multiplying BlockSize by NumberOfBlocks. If the BlockSize is **1**, this property is the total size of the Extent.

# OperationalStatus Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are self-explanatory.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = OK
- 3 = Degraded
- 4 = Stressed Indicates that the element is functioning, but needs attention. Examples of Stressed states are overload, overheated, and so on
- 5 = Predictive Failure Indicates that an element is functioning nominally but predicting a failure in the near future.
- 6 = Error
- 7 = Non-Recoverable Error
- 8 = Starting
- 9 = Stopping
- 10 = Stopped
- 11 = In Service Describes an element being configured, maintained, cleaned, or otherwise administered.
- 12 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- 13 = Lost Communication Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is currently unreachable.
- 14 = Aborted
- 15 = Dormant Indicates that the element is inactive or quiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.
- 17 = Completed Indicates that the element has completed its operation. This value should

be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).

- 18 = Power Mode Indicates that the element has additional power model information contained in the Associated PowerManagementService association.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

OperationalStatus replaces the Status property on ManagedSystemElement to provide a consistent approach to enumerations, to address implementation needs for an array property, and to provide a migration path from today's environment to the future. This change was not made earlier because it required the deprecated qualifier. Due to the widespread use of the existing Status property in management applications, it is strongly recommended that providers or instrumentation provide both the Status and Operational Status properties. Further, the first value of OperationalStatus should contain the primary status for the element. When instrumented, Status (because it is single-valued) should also provide the primary status of the element.

#### OtherIdentifyingInfo

Captures data, in addition to DeviceID information, that could be used to identify a LogicalDevice. For example, you could use this property to hold the operating system's user-friendly name for the Device.

#### **PrimaryStatus**

Provides a high level status value, intended to align with Red-Yellow-Green type representation of status. It should be used in conjunction with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.

#### Possible values are:

- 0 = Unknown Indicates the implementation is in general capable of returning this property, but is unable to do so at this time.
- 1 = OK Indicates the ManagedElement is functioning normally.
- 2 = Degraded Indicates the ManagedElement is functioning below normal.
- 3 = Error Indicates the ManagedElement is in an Error condition.
- .. = DMTF Reserved

• 0x8000.. = Vendor Reserved

#### **Primordial**

If true, **Primordial** indicates that the containing System does not have the ability to create or delete this operational element. This is important because StorageExtents are assembled into higher-level abstractions using the BasedOn association. Although the higher-level abstractions can be created and deleted, the most basic, (that is, primordial), hardware-based storage entities cannot. They are physically realized as part of the System, or are actually managed by some other System and imported as if they were physically realized. In other words, a Primordial StorageExtent exists in, but is not created by its System and conversely a non-Primordial StorageExtent is created in the context of its System. For StorageVolumes, this property will generally be false. One use of this property is to enable algorithms that aggregate StorageExtent. ConsumableSpace across all, StorageExtents but that also want to distinguish the space that underlies Primordial StoragePools. Since implementations are not required to surface all Component StorageExtents of a StoragePool, this information is not accessible in any other way. Purpose A free form string describing the media and/or its use. RedundancyConfiguration is an integer enumeration indicating the redundancy configuration when active memory fails.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Disabled
- 3 = Spared
- 4 = Mirrored

5 = LockStep

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.



**NOTE:** When EnabledState is set to **5 (Not Applicable)**, then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5).

There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11). Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 (Not Applicable).

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first Disabled and then Enabled.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

The CreationClassName of the scoping system.

The System Name of the scoping system.

#### SystemCreationClassName

#### SystemName

Property	Description	
TransitioningToState	Indicates the target state to which the instance is transitioning.	
	Possible values are:	
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> </ul>	
	A value other than <b>5</b> or <b>12</b> identifies the state to which the element is in the process of transitioning.	
Volatile	Volatile is a property that indicates whether this memory is volatile or not.	

## DCIM\_PCIDevice

Property	Description
BusNumber	The bus number where this PCI device resides.
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
Description	Provides a textual description of the object.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
DeviceNumber	The device number assigned to this PCI device for this bus.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly

name in addition to its key properties, identity data, and description information.



NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Ouiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is Enabled (value = 2).

A number enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value =  $\bf 4$ ) and restarting (value =  $\bf 10$ ) are temporary states between enabled and disabled.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.

#### **EnabledDefault**

#### **EnabledState**

Property	Description
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- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

The function number for this PCI device.

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

#### Possible values are:

- 0 = Unknown The implementation cannot report on HealthState at this time. DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is nonfunctional and recovery may not be possible.
- 30 = Non-recoverable error The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.
- .. = DMTF Reserved

The use of this method is deprecated instead of a more clearly named property (EnabledState) that is inherited from ManagedSystemElement and that has additional enumerated values. Deprecated description: The StatusInfo property indicates

#### FunctionNumber

#### **HealthState**

#### StatusInfo

whether the Logical Device is in an enabled state (value =  $\mathbf{3}$ ), disabled state (value =  $\mathbf{4}$ ), some other state (value = 1), or an unknown state (value = 2). If this property does not apply to the LogicalDevice, the value 5 (Not Applicable) should be used. If a Device is **Enabled (value = 3)**, it has been powered up and is configured and operational. The Device may or may not be functionally active, depending on whether its Availability (or Additional Availability) indicates that it is Running/Full Power (value = 3) or Off line (value = 8). In an enabled but offline mode, a Device may be performing out-of-band requests, such as running Diagnostics. If StatusInfo is **Disabled (value = 4)**, a Device can only be enabled or powered off. In a personal computer environment, disabled means that the driver of the device is not available in the stack. In other environments, a Device can be disabled by removing its configuration file. A disabled device is physically present in a System and consuming resources, but it cannot be communicated with until a driver is loaded, a configuration file is loaded, or some other enabling activity has occurred.

#### Possible values are:

- 1 = Other
- 2 = Unknown
- 3 = Enabled
- 4 = Disabled
- 5 = Not Applicable

The CreationClassName of the scoping system.

The System Name of the scoping system.

Indicates the target state to which the instance is transitioning.

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset

#### SystemCreationClassName

#### **SystemName**

#### **TransitioningToState**

Property	Description
	12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.
	A value other than <b>5</b> or <b>12</b> identifies the state to which the element is in the process of transitioning.

# DCIM\_DisplayController

Property	Description
CapabilityDescriptions	An array of free-form strings providing more detailed explanations for any of the video Accelerator features indicated in the Capabilities array. Note, each entry of this array is related to the entry in the Capabilities array that is located at the same index.
CommunicationStatus	CommunicationStatus indicates the ability of the instrumentation to communicate with the underlying ManagedElement. CommunicationStatus consists of one of the following values: Unknown, None, Communication OK, Lost Communication, or No Contact. A Null return indicates the implementation (provider) does not implement this property.
	Possible values are:
	<ul> <li>0 = Unknown — Indicates the implementation is in general capable of returning this property, but is unable to do so at this time.</li> </ul>
	• 1 = Not Available — Indicates that the implementation (provider) is capable of returning a value for this property, but not ever for this particular piece of hardware/software or the property is intentionally not used because it adds no meaningful information (as in the case of a property that is intended to add additional info to another property).
	<ul> <li>2 = Communication OK — Indicates communication is established with the element, but does not convey any quality of service.</li> </ul>
	<ul> <li>3 = Lost Communication — Indicates that the Managed Element is known to exist and has been contacted successfully in the past, but is currently unreachable.</li> </ul>
	<ul> <li>4 = No Contact — Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.</li> </ul>
	• = DMTF Reserved
	• 0x8000 = Vendor Reserved
Creation Class Name	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
Description	Provides a textual description of the object.

Property	Description
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

#### **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element. By default, the element is **Enabled (value = 2)**.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will gueue any new requests.

#### Description

- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are gueued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### Name

The Name property defines the label by which the object is known. When subclassed, the Name property can be overridden to be a Key property.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to **5** (Not Applicable), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11).

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests. This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code. If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 Not Applicable.

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a Shut Down and then moving to an Enabled state.

Property	Description
	• 11 = Reset — Indicates that the element is first <b>Disabled</b> and then <b>Enabled</b> .
	• 12 = Not Applicable
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
SystemCreationClassName	The CreationClassName of the scoping system.
SystemName	The System Name of the scoping system.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> <li>A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.</li> </ul>

# DCIM\_Fan

Property	Description
ActiveCooling	ActiveCooling is a Boolean that indicates that the Cooling Device provides active (as opposed to passive) cooling.
Creation Class Name	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.

#### Description



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

#### **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled (value = 2)**.

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value =  $\mathbf{4}$ ) and starting (value =  $\mathbf{10}$ ) are transient states between enabled and disabled.

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved

Property	Description
	• 3276865535 = Vendor Reserved
ErrorCleared	The use of this method is deprecated. Deprecated description: ErrorCleared is a Boolean property that indicates that the error reported in LastErrorCode is now cleared.
Error Description	The use of this method is deprecated. Deprecated description: ErrorDescription is a free-form string that supplies more information about the error recorded in LastErrorCode and information on any corrective actions that can be taken.
HealthState	Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.
	Possible values are:
	• 0 = Unknown — The implementation cannot report on HealthState at this time. DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.
	<ul> <li>5 = OK — The element is fully functional and is operating within normal operational parameters and without error.</li> </ul>
	10 = Degraded/Warning — The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
	• 15 = Minor failure — All functionality is available but some may be degraded.
	<ul> <li>20 = Major failure — The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.</li> </ul>
	<ul> <li>25 = Critical failure — The element is non-functional and recovery may not be possible.</li> </ul>
	<ul> <li>30 = Non-recoverable error — The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.</li> </ul>
	• = DMTF Reserved
Operational Status	Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are self-explanatory. However, a few are not and are described here in more detail.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	• 2 = OK
	• 3 = Degraded
	<ul> <li>4 = Stressed — Indicates that the element is functioning, but needs attention. Examples of <b>Stressed</b> states are overload, overheated, and so on.</li> </ul>
	• 5 = Predictive Failure — Indicates that an element is functioning nominally but predicting a failure in the near future.
	6 - Error

• 6 = Error

#### Description

- 7 = Non-Recoverable Error
- 8 = Starting
- 9 = Stopping
- 10 = Stopped Implies a clean and orderly stop.
- 11 = In Service Describes an element being configured, maintained, cleaned, or otherwise administered.
- 12 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- 13 = Lost Communication Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is currently unreachable.
- 14 = Aborted Implies an abrupt stop where the state and configuration of the element may need to be updated.
- 15 = Dormant Indicates that the element is inactive or guiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.
- 17 = Completed Indicates that the element has completed its operation. This value should be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).
- 18 = Power Mode Indicates that the element has additional power model information contained in the Associated PowerManagementService association.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

#### **PrimaryStatus**

Provides a high level status value, intended to align with Red-Yellow-Green type representation of status. It should be used in conjunction with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.

#### Possible values are:

- 0 = Unknown Indicates the implementation is in general capable of returning this property, but is unable to do so at this time
- 1 = OK Indicates the ManagedElement is functioning normally.
- 2 = Degraded Indicates the ManagedElement is functioning below normal.
- 3 = Error Indicates the ManagedElement is in an Error condition.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

•

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by

#### Description

EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to **5** (Not Applicable), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration. **Unknown (0)** indicates the last requested state for the element is unknown.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). Offline (6) indicates that the element has been requested to transition to the Enabled but Offline EnabledState. There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11). Reboot refers to doing a Shut Down and then moving to an Enabled state. Reset indicates that the element is first Disabled and then Enabled. Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value **12 (Not Applicable)**.

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### SystemCreationClassName

The CreationClassName of the scoping system.

Property	Description
SystemName	The System Name of the scoping system.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> <li>A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.</li> </ul>
VariableSpeed	Indication of whether the fan supports variable speeds.

# DCIM\_IndicatorLED

Property	Description
Color	Color This property indicates the current color of the LED. If the value of the ActivationState property is <b>4 (Off)</b> this property indicates the color of the LED the last time it was lit, or has the value <b>2 (Not Applicable)</b> .
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Not Applicable</li> <li>3 = White</li> <li>4 = Red</li> <li>5 = Green</li> <li>6 = Blue</li> <li>7 = Orange</li> <li>8 = Yellow</li> </ul>
	<ul><li>9 = Black</li><li> = DMTF Reserved</li></ul>

Property	Description
	• 3276865535 = Vendor Reserved
ControlMode	ControlMode indicates the current control mode for the LED.
	Possible values are:
	• 2 = Automatic — Indicates the state of the LED is being controlled by the management infrastructure.
	• 3 = Manual — Indicates the state of the LED is being controlled by a management client.
	<ul> <li>4 = Test — Indicates the LED is in a test mode.</li> </ul>
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
ControlPattern	An LED may exhibit a range of behavior from very simple (ex. solid on) to very complicated (ex. a series of blinks of alternating color and duration). ControlPattern specifies the vendor or standard behavior exhibited by the LED if it cannot be described using one of the standard behaviors listed for the ActivationState property.
	If ActivationState has the value <b>5 (ControlPattern)</b> , the ControlPattern property is not NULL.
	The value of ControlPattern is constructed using the following <b>preferred</b> algorithm:
	<orgid>::<pattern></pattern></orgid>
	Where <orgid> and &lt; Pattern&gt; are separated by two colons (::), and</orgid>

Where <OrgID> and < Pattern> are separated by two colons (::), and where <OrgID> includes a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the ControlPattern or that is a registered ID assigned to the business entity by a recognized global authority. If the definition of the value is specified by the DMTF, the value of <OrgID> is **DMTF**. <Pattern> is chosen by the business entity and is not reused to identify different underlying (real-world) behaviors. If the behavior specified for the LED adheres to a standard or proprietary specification, <Pattern> is a uniquely assigned value identifying the behavior. If the behavior for the LED is described using a standard or proprietary grammar, <Pattern> is prefixed with a uniquely assigned identifier for the grammar.

#### CreationClassName

Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.

#### **DefaultActivationState**

Indicates the default state of an LED. See ActivationState for a description of the values.

- 2 = Lit
- 3 = Blinking
- 4 = Off
- 5 = Control Pattern

#### Property De

#### Description

- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### DeviceID

An address or other identifying information used to uniquely name the LogicalDevice.

#### **ElementName**

Specifies an identifier for the LED. The value of ElementName is constructed using the following **preferred** algorithm:

<OrgID>::<LocalID>

Where <OrgID> and <LocalID> are separated by two colons (::), and where <OrgID> includes a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the ControlPattern or that is a registered ID assigned to the business entity by a recognized global authority. <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements.

#### **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled (value = 2)**.

#### **EnabledState**

It is an integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value =4) and starting (value =10) are transient states between enabled and disabled.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.

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## **Property** Description 6 = Enabled but Offline — Indicates that the element may be completing commands, and will drop any new requests. 7 = In Test - Indicates that the element is in a test state.8 = Deferred - Indicates that the element may be completingcommands, but will queue any new requests. 9 = Quiesce — Indicates that the element is enabled but in a restricted mode. 10 = Starting — Indicates that the element is in the process of going to an Enabled state. New requests are queued. 11..32767 = DMTF Reserved 32768..65535 = Vendor Reserved **HealthState** Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents. Possible values are: 0 = Unknown - The implementation cannot report onHealthState at this time. 5 = OK - The element is fully functional and is operating within normal operational parameters and without error. 10 = Degraded/Warning — The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors. 15 = Minor failure — All functionality is available but some may be degraded. 20 = Major failure - The element is failing. It is possible that someor all of the functionality of this component is degraded or not 25 = Critical failure — The element is non-functional and recovery may not be possible. 30 = Non-recoverable error - The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost. .. = DMTF Reserved The CreationClassName of the scoping system. SystemCreationClassName **SystemName** The System Name of the scoping system.

#### Transitioning To State

Indicates the target state to which the instance is transitioning.

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test

# Property Description 8 = Defer 9 = Quiesce 10 = Reboot 11 = Reset 12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

## DCIM\_PowerSupply

Property	Description
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>

By default, the element is **Enabled (value = 2)**.

#### Description

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, processes any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not run commands and drops any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates that the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and drops any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but queues any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### HealthState

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

- 0 = Unknown The implementation cannot report on HealthState now.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is nonfunctional and recovery may not be possible.

#### Description

- 30 = Non-recoverable error The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.
- .. = DMTF Reserved

DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested.

#### Possible values are:

- 0 = Unknown Indicates that the last requested state for the element is unknown.
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Requests an immediate disabling of the element, such that it will not run or accept any commands or processing requests.
- 4 = Shut Down Requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state.
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to 5 (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**. This property is set as the result of a method invocation (such as Start or

Property	Description
	StopService on CIM_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.
	If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 <b>Not Applicable</b> .
SystemCreationClassName	The CreationClassName of the scoping system.
SystemName	The System Name of the scoping system.
TotalOutputPower	Represents the total output power of the PowerSupply in milli Watts. 0 denotes <b>unknown</b> .
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates that the implementation does not support representing ongoing transitions.</li> <li>A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.</li> </ul>
TypeOfRangeSwitching	Describes the kind of input voltage range switching that is implemented in this PowerSupply.
	Possible values are:
	<ul> <li>1 = Other</li> <li>2 = Unknown</li> <li>3 = Manual</li> <li>4 = Autoswitch</li> <li>5 = Wide Range</li> <li>6 = Not Applicable</li> </ul>

A value other than  ${\bf 5}$  or  ${\bf 12}$  identifies the state to which the element is in the process of transitioning.

# DCIM\_Battery

Property	Description
BatteryStatus	Description of the charge status of the Battery.
	Possible values are:
	• 1 = Other
	• 2 = Unknown
	3 = Fully Charged
	• 4 = Low
	• 5 = Critical
	• 6 = Charging
	<ul> <li>7 = Charging</li> <li>7 = Charging and High</li> </ul>
	8 = Charging and Low
	<ul> <li>9 = Charging and Critical</li> </ul>
	• 10 = Undefined
	• 11 = Partially Charged
	• 12 = Learning
	3
	• 13 = Overcharged
	Values such as <b>Fully Charged</b> (value = <b>3</b> ) or <b>Partially Charged</b> (value = <b>11</b> ) can be specified. The value, <b>10</b> , is not valid in the CIM Schema because in DMI it represents that no battery is installed. In this case, this object should not be instantiated.
ChargingStatus	This property defines status information about the AC line in the notebook.
	Possible values are:
	• 1 = Other
	• 2 = Unknown
	• 3 = Off- Line
	• 4 = On-Line
	• 5 = On Backup Power
Chemistry	An enumeration that describes the chemistry of the Battery.
	• 1 = Other
	• 2 = Unknown
	• 3 = Lead Acid
	• 4 = Nickel Cadmium
	• 5 = Nickel Metal Hydride
	• 6 = Lithium-ion
	• 7 = Zinc air
	• 8 = Lithium Polymer
CreationClassName	Indicates the name of the class or the subclass used in the creation o an instance. When used with the other key properties of this class,

Property	Description
	this property allows all instances of this class and its subclasses to be uniquely identified.
DesignCapacity	The design capacity of the battery in m Watt-hours. If this property is not supported, enter 0.
DesignVoltage	The design voltage of the battery in mVolts. If this attribute is not supported, enter 0.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> <li>By default, the element is Enabled (value = 2).</li> </ul>
EnabledState	An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Enabled — Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.</li> </ul>

• 3 = Disabled — Indicates that the element will not execute commands and will drop any new requests.

#### Description

- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### EstimatedChargeRemaining

An estimate of the percentage of full charge remaining.

#### **EstimatedRunTime**

An estimate in minutes of the time that battery charge depletion will occur under the present load conditions if the utility power is off, or is lost and remains off, or a Laptop is disconnected from a power source.

#### **HealthState**

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.

#### Possible values are:

- 0 = Unknown The implementation cannot report on HealthState at this time.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is non-functional and recovery may not be possible.
- 30 = Non-recoverable error The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.

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Property	Description
	• = DMTF Reserved

#### **Identifying Descriptions**

An array of free-form strings providing explanations and details behind the entries in the OtherldentifyingInfo array. Note that each entry of this array is related to the entry in OtherldentifyingInfo that is located at the same index.

#### Name

The Name property defines the label by which the object is known. When subclassed, the Name property can be overridden to be a Key property.

#### **OperationalStatus**

Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are self-explanatory.

- 0 = Unknown
- 1 = Other
- 2 = OK
- 3 = Degraded
- 4 = Stressed Indicates that the element is functioning, but needs attention. Examples of **Stressed** states are overload, overheated, and so on.
- 5 = Predictive Failure Indicates that an element is functioning nominally but predicting a failure in the near future.
- 6 = Error
- 7 = Non-Recoverable Error
- 8 = Starting
- 9 = Stopping
- 10 = Stopped Implies a clean and orderly stop
- 11 = In Service Describes an element being configured, maintained, cleaned, or otherwise administered.
- 12 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- 13 = Lost Communication Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is currently unreachable.
- 14 = Aborted Implies an abrupt stop where the state and configuration of the element may need to be updated.
- 15 = Dormant Indicates that the element is inactive or quiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.
- 17 = Completed Indicates that the element has completed its operation. This value should be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).

#### Description

- 18 = Power Mode Indicates that the element has additional power model information contained in the Associated PowerManagementService association.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

OperationalStatus replaces the Status property on ManagedSystemElement to provide a consistent approach to enumerations, to address implementation needs for an array property, and to provide a migration path from today's environment to the future. This change was not made earlier because it required the deprecated qualifier. Due to the widespread use of the existing Status property in management applications, it is strongly recommended that providers or instrumentation provide both the Status and OperationalStatus properties. Further, the first value of OperationalStatus should contain the primary status for the element. When instrumented, Status (because it is single-valued) should also provide the primary status of the element.

#### OtherldentifyingInfo

OtherIdentifyingInfo captures data, in addition to DeviceID information, that could be used to identify a LogicalDevice. For example, you could use this property to hold the operating system's user-friendly name for the Device.

#### **PrimaryStatus**

Provides a high level status value, intended to align with Red-Yellow-Green type representation of status. It should be used in conjunction with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.

#### Possible values are:

- 0 = Unknown Indicates the implementation is in general capable of returning this property, but is unable to do so at this time.
- 1 = OK Indicates the ManagedElement is functioning normally.
- 2 = Degraded Indicates the ManagedElement is functioning below normal.
- 3 = Error Indicates the ManagedElement is in an Error condition.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

#### RemainingCapacityMaxError

The maximum error (as a percentage) in the mWatt-hour data reported by RemainingCapacity property.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled

#### Description

- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to **5** (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



**NOTE:** The value **No Change** (5) has been deprecated instead of indicating the last requested state is **Unknown** (0). If the last requested or desired state is unknown, RequestedState should have the value **Unknown** (0), but may have the value **No Change** (5)

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot** (10) and **Reset** (11).

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

#### **SmartBatteryVersion**

The Smart Battery Data Specification version number that is supported by this Battery. If the Battery does not support this function, the value should be left blank.

#### **Status**

A string indicating the current status of the object. Various operational and non-operational statuses are defined. This property is deprecated instead of OperationalStatus, which includes the same semantics in its enumeration. This change is made for three reasons:

#### Description

- 1. Status is more correctly defined as an array. This definition overcomes the limitation of describing status using a single value, when it is really a multi-valued property (for example, an element may be OK AND Stopped.
- 2. A MaxLen of 10 is too restrictive and leads to unclear enumerated values.
- 3. The change to a uint16 data type was discussed when CIM V2.0 was defined. However, existing V1.0 implementations used the string property and did not want to modify their code. Therefore, Status was grandfathered into the Schema. Use of the deprecated qualifier allows the maintenance of the existing property, but also permits an improved definition using OperationalStatus.

#### Possible values are:

- OK
- Error
- Degraded
- Unknown
- Pred Fail
- Starting
- Stopping
- Service
- Stressed
- NonRecover
- No Contact
- Lost Comm
- Stopped

#### SystemCreationClassName

The CreationClassName of the scoping system.

#### **SystemName**

The System Name of the scoping system.

#### TransitioningToState

Indicates the target state to which the instance is transitioning.

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

Property	Description
	A value other than <b>5</b> or <b>12</b> identifies the state to which the element is
	in the process of transitioning

# DCIM\_Processor

Property	Description
Caption	The Caption property is a short textual description (one-line string) of the object.
CPUStatus	The CPUStatus property that indicates the current status of the Processor.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = CPU Enabled</li> <li>2 = CPU Disabled by User</li> <li>3 = CPU Disabled By BIOS (POST Error)</li> <li>4 = CPU Is Idle</li> <li>7 = Other</li> </ul>
	For example, the Processor may be disabled by the user (value = $2$ ), or disabled due to a POST error (value = $3$ ). Information in this property can be obtained from SMBIOS, the Type 4 structure, and the Status attribute.
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
CurrentClockSpeed	The current speed (in MHz) of this Processor.
Description	Provides a textual description of the object.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

Property	Description
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	• 2 = Enabled
	• 3 = Disabled
	• 5 = Not Applicable
	• 6 = Enabled but Offline
	• 7 = No Default
	• 9 = Quiesce
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
	By default, the element is <b>Enabled (value = 2)</b> .
EnabledState	An integer enumeration that indicates the enabled and disabled stat of an element. It can also indicate the transitions between these requested states.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	<ul> <li>2 = Enabled — Indicates that the element is or could be executir commands, will process any queued commands, and queues ne requests.</li> </ul>
	<ul> <li>3 = Disabled — Indicates that the element will not execute commands and will drop any new requests.</li> </ul>
	<ul> <li>4 = Shutting Down — Indicates that the element is in the proces of going to a Disabled state.</li> </ul>
	<ul> <li>5 = Not Applicable — Indicates the element does not support being enabled or disabled.</li> </ul>
	<ul> <li>6 = Enabled but Offline — Indicates that the element may be completing commands, and will drop any new requests.</li> </ul>
	• $7 = In Test - Indicates that the element is in a test state.$
	<ul> <li>8 = Deferred — Indicates that the element may be completing commands, but will queue any new requests.</li> </ul>
	<ul> <li>9 = Quiesce — Indicates that the element is enabled but in a restricted mode.</li> </ul>
	<ul> <li>10 = Starting — Indicates that the element is in the process of going to an Enabled state. New requests are queued.</li> </ul>
	• 1132767 = DMTF Reserved
	• 3276865535 = Vendor Reserved
	For example, shutting down (value = $4$ ) and starting (value = $10$ ) are transient states between enabled and disabled.
ExternalBusClockSpeed	The speed (in MHz) of the external bus interface (also known as the front side bus).

The Processor family type.

Family

- 1 = Other
- 2 = Unknown
- 3 = 8086
- 4 = 80286
- 5 = 80386
- 6 = 80486
- 7 = 8087
- 8 = 80287
- 9 = 80387
- 10 = 80487
- 11 = Pentium(R) brand
- 12 = Pentium(R) Pro
- 13 = Pentium(R) II
- 14 = Pentium(R) processor with MMX(TM) technology
- 15 = Celeron(TM)
- 16 = Pentium(R) II Xeon(TM)
- 17 = Pentium(R) III
- 18 = M1 Family
- 19 = M2 Family
- 20 = Intel(R) Celeron(R) M processor
- 21 = Intel(R) Pentium(R) 4 HT processor
- 24 = K5 Family
- 25 = K6 Family
- 26 = K6-2
- 27 = K6-3
- 28 = AMD Athlon(TM) Processor Family
- 29 = AMD(R) Duron(TM) Processor
- 30 = AMD29000 Family
- 31 = K6-2+
- 32 = Power PC Family
- 33 = Power PC 601
- 34 = Power PC 603
- 35 = Power PC 603+
- 36 = Power PC 60437 = Power PC 620
- 38 = Power PC X704
- 39 = Power PC 750
- 40 = Intel(R) Core(TM) Duo processor
- 41 = Intel(R) Core(TM) Duo mobile processor
- 42 = Intel(R) Core(TM) Solo mobile processor
- 43 = Intel(R) Atom(TM) processor
- 48 = Alpha Family
- 49 = Alpha 21064
- 50 = Alpha 21066

- 51 = Alpha 21164
- 52 = Alpha 21164PC
- 53 = Alpha 21164a
- 54 = Alpha 21264
- 55 = Alpha 21364
- 56 = AMD Turion(TM) II Ultra Dual-Core Mobile M Processor Family
- 57 = AMD Turion(TM) II Dual-Core Mobile M Processor Family
- 58 = AMD Athlon(TM) II Dual-Core Mobile M Processor Family
- 59 = AMD Opteron(TM) 6100 Series Processor
- 60 = AMD Opteron(TM) 4100 Series Processor
- 64 = MIPS Family
- 65 = MIPS R4000
- 66 = MIPS R4200
- 67 = MIPS R4400
- 68 = MIPS R4600
- 69 = MIPS R10000
- 80 = SPARC Family
- 81 = SuperSPARC
- 82 = microSPARC II
- 83 = microSPARC Ilep
- 84 = UltraSPARC
- 85 = UltraSPARC II
- 86 = UltraSPARC IIi
- 87 = UltraSPARC III
- 88 = UltraSPARC IIIi
- 96 = 68040
- 97 = 68xxx Family
- 98 = 68000
- 99 = 68010
- 100 = 68020
- 101 = 68030
- 112 = Hobbit Family
- 120 = Crusoe(TM) TM5000 Family
- 121 = Crusoe(TM) TM3000 Family
- 122 = Efficeon(TM) TM8000 Family
- 128 = Weitek
- 130 = Itanium(TM) Processor
- 131 = AMD Athlon(TM) 64 Processor Family
- 132 = AMD Opteron(TM) Processor Family
- 133 = AMD Sempron(TM) Processor Family
- 134 = AMD Turion(TM) 64 Mobile Technology
- 135 = Dual-Core AMD Opteron(TM) Processor Family
- 136 = AMD Athlon(TM) 64 X2 Dual-Core Processor Family
- 137 = AMD Turion(TM) 64 X2 Mobile Technology
- 138 = Quad-Core AMD Opteron(TM) Processor Family

- 139 = Third-Generation AMD Opteron(TM) Processor Family
- 140 = AMD Phenom(TM) FX Quad-Core Processor Family
- 141 = AMD Phenom(TM) X4 Quad-Core Processor Family
- 142 = AMD Phenom(TM) X2 Dual-Core Processor Family
- 143 = AMD Athlon(TM) X2 Dual-Core Processor Family
- 144 = PA-RISC Family
- 145 = PA-RISC 8500
- 146 = PA-RISC 8000
- 147 = PA-RISC 7300LC
- 148 = PA-RISC 7200
- 149 = PA-RISC 7100LC
- 150 = PA-RISC 7100
- 160 = V30 Family
- 161 = Quad-Core Intel(R) Xeon(R) processor 3200 Series
- 162 = Dual-Core Intel(R) Xeon(R) processor 3000 Series
- 163 = Quad-Core Intel(R) Xeon(R) processor 5300 Series
- 164 = Dual-Core Intel(R) Xeon(R) processor 5100 Series
- 165 = Dual-Core Intel(R) Xeon(R) processor 5000 Series
- 166 = Dual-Core Intel(R) Xeon(R) processor LV
- 167 = Dual-Core Intel(R) Xeon(R) processor ULV
- 168 = Dual-Core Intel(R) Xeon(R) processor 7100 Series
- 169 = Quad-Core Intel(R) Xeon(R) processor 5400 Series
- 170 = Quad-Core Intel(R) Xeon(R) processor
- 171 = Dual-Core Intel(R) Xeon(R) processor 5200 Series
- 172 = Dual-Core Intel(R) Xeon(R) processor 7200 Series
- 173 = Quad-Core Intel(R) Xeon(R) processor 7300 Series
- 174 = Quad-Core Intel(R) Xeon(R) processor 7400 Series
- 175 = Multi-Core Intel(R) Xeon(R) processor 7400 Series
- 176 = Pentium(R) III Xeon(TM)
- 177 = Pentium(R) III Processor with Intel(R) SpeedStep(TM) Technology
- 178 = Pentium(R) 4
- 179 = Intel(R) Xeon(TM)
- 180 = AS400 Family
- 181 = Intel(R) Xeon(TM) processor MP
- 182 = AMD Athlon(TM) XP Family
- 183 = AMD Athlon(TM) MP Family
- 184 = Intel(R) Itanium(R) 2
- 185 = Intel(R) Pentium(R) M processor
- 186 = Intel(R) Celeron(R) D processor
- 187 = Intel(R) Pentium(R) D processor
- 188 = Intel(R) Pentium(R) Processor Extreme Edition
- 189 = Intel(R) Core(TM) Solo Processor
- 190 = Intel(R) Core(TM)
- 191 = Intel(R) Core(TM)2 Duo Processor
- 192 = Intel(R) Core(TM)2 Solo processor

- 193 = Intel(R) Core(TM)2 Extreme processor
- 194 = Intel(R) Core(TM)2 Quad processor
- 195 = Intel(R) Core(TM)2 Extreme mobile processor
- 196 = Intel(R) Core(TM)2 Duo mobile processor
- 197 = Intel(R) Core(TM)2 Solo mobile processor
- 198 = Intel(R) Core(TM) i7 processor
- 199 = Dual-Core Intel(R) Celeron(R) Processor
- 200 = S/390 and zSeries Family
- 201 = ESA/390 G4
- 202 = ESA/390 G5
- 203 = ESA/390 G6
- 204 = z/Architectur base
- 205 = Intel(R) Core(TM) i5 processor
- 206 = Intel(R) Core(TM) i3 processor
- 210 = VIA C7(TM)-M Processor Family
- 211 = VIA C7(TM)-D Processor Family
- 212 = VIA C7(TM) Processor Family
- 213 = VIA Eden(TM) Processor Family
- 214 = Multi-Core Intel(R) Xeon(R) processor
- 215 = Dual-Core Intel(R) Xeon(R) processor 3xxx Series
- 216 = Quad-Core Intel(R) Xeon(R) processor 3xxx Series
- 217 = VIA Nano(TM) Processor Family
- 218 = Dual-Core Intel(R) Xeon(R) processor 5xxx Series
- 219 = Quad-Core Intel(R) Xeon(R) processor 5xxx Series
- 221 = Dual-Core Intel(R) Xeon(R) processor 7xxx Series
- 222 = Quad-Core Intel(R) Xeon(R) processor 7xxx Series
- 223 = Multi-Core Intel(R) Xeon(R) processor 7xxx Series
- 224 = Multi-Core Intel(R) Xeon(R) processor 3400 Series
- 230 = Embedded AMD Opteron(TM) Quad-Core Processor Family
- 231 = AMD Phenom(TM) Triple-Core Processor Family
- 232 = AMD Turion(TM) Ultra Dual-Core Mobile Processor Family
- 233 = AMD Turion(TM) Dual-Core Mobile Processor Family
- 234 = AMD Athlon(TM) Dual-Core Processor Family
- 235 = AMD Sempron(TM) SI Processor Family
- 236 = AMD Phenom(TM) II Processor Family
- 237 = AMD Athlon(TM) II Processor Family
- 238 = Six-Core AMD Opteron(TM) Processor Family
- 239 = AMD Sempron(TM) M Processor Family
- 250 = i860
- 251 = i960
- 254 = Reserved (SMBIOS Extension)
- 255 = Reserved (Un-initialized Flash Content Lo)
- 260 = SH-3
- 261 = SH-4
- 280 = ARM

#### Description

- 281 = StrongARM
- 300 = 6x86
- 301 = MediaGX
- 302 = MII
- 320 = WinChip
- 350 = DSP
- 500 = Video Processor
- 65534 = Reserved (For Future Special Purpose Assignment)
- 65535 = Reserved (Un-initialized Flash Content Hi)

For example, values include Pentium(R) processor with MMX(TM) technology (value = 14) and 68040 (value = 96).

#### **HealthState**

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.

#### Possible values are:

- 0 = Unknown The implementation cannot report on HealthState at this time.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working
- 25 = Critical failure The element is non-functional and recovery may not be possible.
- 30 = Non-recoverable error The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.
- .. = DMTF Reserved

#### MaxClockSpeed

The maximum speed (in MHz) of this Processor.

#### NumberOfEnabledCores

Number of processor cores enabled for processor.

#### **OperationalStatus**

Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are self-explanatory. However, a few are not and are described here in more detail.

Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = OK
- 3 = Degraded
- 4 = Stressed Indicates that the element is functioning, but needs attention. Examples of **Stressed** states are overload, overheated, and so on.
- 5 = Predictive Failure Indicates that an element is functioning nominally but predicting a failure in the near future.
- 6 = Error
- 7 = Non-Recoverable Error
- 8 = Starting
- 9 = Stopping
- 10 = Stopped Implies a clean and orderly stop.
- 11 = In Service Describes an element being configured, maintained, cleaned, or otherwise administered.
- 12 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- 13 = Lost Communication Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is currently unreachable.
- 14 = Aborted Implies an abrupt stop where the state and configuration of the element may need to be updated.
- 15 = Dormant Indicates that the element is inactive or guiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.
- 17 = Completed Indicates that the element has completed its operation. This value should be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).
- 18 = Power Mode Indicates that the element has additional power model information contained in the Associated PowerManagementService association.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

OperationalStatus replaces the Status property on ManagedSystemElement to provide a consistent approach to enumerations, to address implementation needs for an array property, and to provide a migration path from today's environment to the future. This change was not made earlier because it required the deprecated qualifier. Due to the widespread use of the existing Status property in management applications, it is strongly recommended that providers or instrumentation provide both the Status and OperationalStatus properties. Further, the first value of OperationalStatus should contain the primary status for the element.

#### Description

When instrumented, Status (because it is single-valued) should also provide the primary status of the element.

#### **PrimaryStatus**

Provides a high level status value, intended to align with Red-Yellow-Green type representation of status. It should be used in conjunction with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.

#### Possible values are:

- 0 = Unknown Indicates the implementation is in general capable of returning this property, but is unable to do so at this time
- 1 = OK Indicates the ManagedElement is functioning normally.
- 2 = Degraded Indicates the ManagedElement is functioning below normal.
- 3 = Error Indicates the ManagedElement is in an Error condition.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to 5 (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration. **Unknown** (0) indicates the last requested state for the element is unknown.

#### Description



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). Offline (6) indicates that the element has been requested to transition to the Enabled but Offline EnabledState. There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11). Reboot refers to doing a Shut Down and then moving to an Enabled state. Reset indicates that the element is first Disabled and then Enabled.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

#### Stepping

Stepping is a free-form string that indicates the revision level of the Processor within the Processor.Family.

#### SystemCreationClassName

The CreationClassName of the scoping system.

#### **SystemName**

The System Name of the scoping system.

#### Transitioning To State

Indicates the target state to which the instance is transitioning.

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

Property	Description
	A value other than <b>5</b> or <b>12</b> identifies the state to which the element is in the process of transitioning.
UniqueID	A global unique identifier for the processor. This identifier can be unique only within a processor family.
Upgrade Method	CPU socket information that includes data on how the processor can be upgraded (if upgrades are supported). This property is an integer enumeration.
	Possible values are:
	• 1 = Other
	• 2 = Unknown
	• 3 = Daughter Board
	• 4 = ZIF Socket
	• 5 = Replacement/Piggy Back
	• 6 = None
	• 7 = LIF Socket
	• 8 = Slot 1
	• 9 = Slot 2
	• 10 = 370 Pin Socket
	• 11 = Slot A
	• 12 = Slot M
	• 13 = Socket 423
	<ul> <li>14 = Socket A (Socket 462)</li> </ul>
	• 15 = Socket 478
	• 16 = Socket 754
	• 17 = Socket 940
	• 18 = Socket 939
	• 19 = Socket mPGA604
	• 20 = Socket LGA771
	• 21 = Socket LGA775
	• 22 = Socket S1
	• 23 = Socket AM2
	• 24 = Socket F (1207)
	• 25 = Socket LGA1366
	• 26 = Socket G34
	• 27 = Socket AM3
	• 28 = Socket C32
	• 29 = Socket LGA1156
	• 30 = Socket LGA1567
	• 31 = Socket PGA988A
	• 32 = Socket BGA1288
	• 33 = rPGA988B
	• 34 = BGA1023

35 = BGA1224 36 = LGA1155

### Description **Property**

- 37 = LGA1356
- 38 = LGA2011
- 39 = Socket FS1
- 40 = Socket FS2
- 41 = Socket FM1
- 42 = Socket FM2
- 43 = Socket LGA2011-3
- 44 = Socket LGA1356-3
- 45 = Socket LGA1150
- 46 = Socket BGA1168

#### DCIM\_NumericSensor

#### **Property** Description

#### **BaseUnits**

The base unit of the values returned by this Sensor. All the values returned by this Sensor are represented in the units obtained by (BaseUnits \* 10 raised to the power of the UnitModifier). For example, if BaseUnits is Volts and the UnitModifier is -6, then the units of the values returned are MicroVolts. However, if the RateUnits property is set to a value other than **None**, then the units are further qualified as rate units. In the above example, if RateUnits is set to Per Second, then the values returned by the Sensor are in MicroVolts/Second. The units apply to all numeric properties of the Sensor, unless explicitly overridden by the Units qualifier.

- 0 = Unknown
- 1 = Other
- 2 = Degrees C
- 3 = Degrees F
- 4 = Degrees K
- 5 = Volts
- 6 = Amps
- 7 = Watts
- 8 = Joules
- 9 = Coulombs
- 10 = VA
- 11 = Nits
- 12 = Lumens
- 13 = Lux
- 14 = Candelas
- 15 = kPa
- 16 = PSI
- 17 = Newtons
- 18 = CFM
- 19 = RPM
- 20 = Hertz

#### Property Description

- 21 = Seconds
- 22 = Minutes
- 23 = Hours
- 24 = Days
- 25 = Weeks
- 26 = Mils
- 27 = Inches
- 28 = Feet
- 29 = Cubic Inches
- 30 = Cubic Feet
- 31 = Meters
- 32 = Cubic Centimeters
- 33 = Cubic Meters
- 34 = Liters
- 35 = Fluid Ounces
- 36 = Radians
- 37 = Steradians
- 38 = Revolutions
- 39 = Cycles
- 40 = Gravities
- 41 = Ounces
- 42 = Pounds
- 43 = Foot-Pounds
- 44 = Ounce-Inches
- 45 = Gauss
- 46 = Gilberts
- 47 = Henries
- 48 = Farads
- 49 = Ohms
- 50 = Siemens
- 51 = Moles
- 52 = Becquerels
- 53 = PPM (parts/million)
- 54 = Decibels
- 55 = DbA
- 56 = DbC
- 57 = Grays
- 58 = Sieverts
- 59 = Color Temperature Degrees K
- 60 = Bits
- 61 = Bytes
- 62 = Words (data)
- 63 = DoubleWords
- 64 = QuadWords
- 65 = Percentage

66 = Pascals  Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be
The current value indicated by the Sensor.
The current state indicated by the Sensor. This is always one of the <b>PossibleStates</b> .
An address or other identifying information used to uniquely name the LogicalDevice.
A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties. We have introduced new elements for Temperature sensor, Fan Speed Sensor, Current Supply and Voltage Numeric Sensor.
An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
Possible values are:
<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> <li>By default, the element is Enabled (value = 2).</li> </ul>
An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.
Possible values are:
• 0 = Unknown

• 1 = Other

#### Description

- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### **HealthState**

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

#### Possible values are:

- 0 = Unknown The implementation cannot report on HealthState at this time.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is non-functional and recovery may not be possible.
- 30 = Non-recoverable error The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.
- .. = DMTF Reserved

DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.

#### **Property** Description The Sensor's threshold values specify the ranges (min and max values) LowerThresholdCritical for determining whether the Sensor is operating under Normal. NonCritical or Critical conditions. The CurrentState is Critical once the CurrentReading is below LowerThresholdCritical. LowerThresholdNonCritical The Sensor's threshold values specify the ranges (min and max values) for determining whether the Sensor is operating under Normal. NonCritical, Critical conditions. If Current Reading is between LowerThresholdNonCritical and Upper ThresholdNonCritical, then the Sensor is reporting a normal value. If CurrentReading is between LowerThresholdNonCritical and LowerThresholdCritical, then the CurrentState is NonCritical. Example for Set command: wmic /namespace:\\root\dcim\sysman path dcim\_numericsensor Where **ElementName like '%Temperature** Sensor:%' set LowerThresholdNonCritical = 30. This sets the all temperature probes (lower threshold non critical) in the system to 30 degree Celsius. **OperationalStatus** Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are selfexplanatory. Possible values are: 0 = Unknown1 = Other2 = OK3 = Degraded4 = Stressed — Indicates that the element is functioning, but needs attention. Examples of **Stressed** states are overload, overheated, and so on. 5 = Predictive Failure — Indicates that an element is functioning nominally but predicting a failure in the near future. 7 = Non-Recoverable Error 8 = Starting9 = Stopping 10 = Stopped — Implies a clean and orderly stop 11 = In Service — Describes an element being configured, maintained, cleaned, or otherwise administered.

communications with it.

 13 = Lost Communication — Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is currently unreachable.

12 = No Contact — Indicates that the monitoring system has knowledge of this element, but has never been able to establish

- the past, but is currently unreachable.

  14 = Aborted Implies an abrupt stop where the state and
- configuration of the element may need to be updated.
- 15 = Dormant Indicates that the element is inactive or quiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.

#### Description

- 17 = Completed Indicates that the element has completed its operation. This value should be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).
- 18 = Power Mode Indicates that the element has additional power model information contained in the Associated PowerManagementService association.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

OperationalStatus replaces the Status property on ManagedSystemElement to provide a consistent approach to enumerations, to address implementation needs for an array property, and to provide a migration path from today's environment to the future. This change was not made earlier because it required the deprecated qualifier. Due to the widespread use of the existing Status property in management applications, it is strongly recommended that providers or instrumentation provide both the Status and OperationalStatus properties. Further, the first value of OperationalStatus should contain the primary status for the element. When instrumented, Status (because it is single-valued) should also provide the primary status of the element.

#### **PossibleStates**

Enumerates the string outputs of the Sensor.

Example 1 - A **Switch** Sensor may output the states **On**, or **Off**. Another implementation of the Switch may output the states **Open**, and **Close**.

Example 2 - Is a NumericSensor supporting thresholds. This Sensor can report the states like **Normal**, **Upper Non-Critical**, **Lower Non-Critical**, and so on. A NumericSensor that does not publish readings and thresholds, but stores this data internally, can still report its states.

#### **RateUnits**

Specifies if the units returned by this Sensor are rate units. All the values returned by this Sensor are represented in the units obtained by (BaseUnits \* 10 raised to the power of the UnitModifier). This is true unless this property (RateUnits) has a value different than **None**. For example, if BaseUnits is Volts and the UnitModifier is -6, then the units of the values returned are MicroVolts. But, if the RateUnits property is set to a value other than **None**, then the units are further qualified as rate units. In the above example, if RateUnits is set to **Per Second**, then the values returned by the Sensor are in MicroVolts/Second. The units apply to all numeric properties of the Sensor, unless explicitly overridden by the Units qualifier. Any implementation of CurrentReading should be qualified with either a Counter or a Gauge qualifier, depending on the characteristics of the sensor being modeled.

#### Possible values are:

- 0 = None
- 1 = Per MicroSecond
- 2 = Per MilliSecond
- 3 = Per Second

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#### Description

- 4 = Per Minute
- 5 = Per Hour
- 6 = Per Day
- 7 = Per Week
- 8 = Per Month
- 9 = Per Year

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to **5** (Not Applicable), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). Offline (6) indicates that the element has been requested to transition to the Enabled but Offline EnabledState.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value **12 Not Applicable**.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- 7 = Test
- 8 = Deferred
- 9 = Quiesce

#### Description

- 10 = Reboot Refers to doing a Shut Down and then moving to an Enabled state.
- 11 = Reset Indicates that the element is first **Disabled** and then Enabled.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### SensorType

The Type of the Sensor, e.g. Voltage or Temperature Sensor. If the type is set to **Other**, then the OtherSensorType Description can be used to further identify the type, or if the Sensor has numeric readings, then the type of the Sensor can be implicitly determined by the Units. A description of the different Sensor types is as follows: A Temperature Sensor measures the environmental temperature. Voltage and Current Sensors measure electrical voltage and current readings. A Tachometer measures speed/revolutions of a Device. For example, a Fan Device can have an associated Tachometer which measures its speed. A Counter is a general purpose Sensor that measures some numerical property of a Device. A Counter value can be cleared, but it never decreases. A Switch Sensor has states like Open/Close, On/Off, or Up/Down. A Lock has states of Locked/ Unlocked. Humidity, Smoke Detection and Air Flow Sensors measure the equivalent environmental characteristics. A Presence Sensor detects the presence of a Physical Element. A Power Consumption Sensor measures the instantaneous power consumed by a managed element. A Power Production Sensor measures the instantaneous power produced by a managed element such as a power supply or a voltage regulator. A pressure sensor is used to report pressure. Intrusion sensor reports an intrusion of an enclosure regardless whether it was authorized or not.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Temperature
- 3 = Voltage
- 4 = Current
- 5 = Tachometer
- 6 = Counter
- 7 = Switch
- 8 = Lock
- 9 = Humidity
- 10 = Smoke Detection
- 11 = Presence
- 12 = Air Flow
- 13 = Power Consumption
- 14 = Power Production
- 15 = Pressure
- 16 = Intrusion
- .. = DMTF Reserved

Property	Description
	• 3276865535 = Vendor Reserved
SystemCreationClassName	The CreationClassName of the scoping system.
SystemName	The System Name of the scoping system.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	• 0 = Unknown
	• 2 = Enabled
	• 3 = Disabled
	• 4 = Shut Down
	• 5 = No Change — Indicates that no transition is in progress.
	• 6 = Offline
	• 7 = Test
	• 8 = Defer
	• 9 = Quiesce
	• 10 = Reboot
	• 11 = Reset
	<ul> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> </ul>
	A value other than ${\bf 5}$ or ${\bf 12}$ identifies the state to which the element is in the process of transitioning.
UnitModifier	The unit multiplier for the values returned by this Sensor. All the values returned by this Sensor are represented in the units obtained by (BaseUnits * 10 raised to the power of the UnitModifier).
	For example, if BaseUnits is Volts and the Unit Modifier is -6, then the units of the values returned are MicroVolts. However, if the RateUnits property is set to a value other than <b>None</b> , then the units are further qualified as rate units.
	In the above example, if RateUnits is set to <b>Per Second</b> , then the values returned by the Sensor are in MicroVolts/Second. The units apply to all numeric properties of the Sensor, unless explicitly overridden by the Units qualifier.
UpperThresholdCritical	The Sensor's threshold values specify the ranges (min and max values) for determining whether the Sensor is operating under Normal, NonCritical, Critical conditions. If the CurrentReading is above UpperThresholdCritical, then the Current State is critical.
UpperThresholdNonCritical	The Sensor's threshold values specify the ranges (min and max values) for determining whether the Sensor is operating under Normal, NonCritical or Critical conditions. If the CurrentReading is between LowerThresholdNonCritical and UpperThresholdNonCritical, then the Sensor is reporting a normal value. If the CurrentReading is between UpperThreshold NonCritical and UpperThresholdCritical, then the CurrentState is NonCritical.

Property	Description
	Example for Set command: wmic /namespace:\\root\dcim\sysman path dcim_numericsensor Where <b>ElementName like '%Temperature Sensor:%'</b> set UpperThresholdNonCritical = <b>70</b>
ValueFormulation	Indicates the method used by the sensor to produce its reading.
	Possible values are:
	• 0 = Unknown
	• 2 = Measured - Indicates the value is measured directly by the sensor.
	• 3 = Derived - Indicates the value is derived from other measured values that are not reported discretely by this sensor.
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
SupportedThresholds	SupportedThresholds property is an array that contains the list of the implemented thresholds: LowerThresholdNonCritical, UpperThresholdNonCritical, LowerThresholdCritical, UpperThresholdCritical. When the implementation does not support any of these threshold properties, the CIM_NumericSensor.SupportedThresholds property shall be an empty array.
SettableThresholds	SettableThresholds property is an array that contains the list of the settable implemented thresholds: LowerThresholdNonCritical, UpperThresholdNonCritical. The CIM_NumericSensor.SettableThresholds array shall contain the subset of values in the CIM_NumericSensor.SupportedThresholds array. When the implementation does not support any of the settable threshold properties, the CIM_NumericSensor.SettableThresholds property shall be an empty array.
Caption	A short textual description of an object.
Description	A short textual description of an object.

#### DCIM\_Sensor

Property	Description
Caption	The Caption property is a short textual description (one-line string) of the object.
Creation Class Name	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
CurrentState	The current state indicated by the Sensor. This is always one of the <b>PossibleStates</b> .

Property	Description
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul> By default, the element is Enabled (value = 2).
EnabledState	An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Enabled — Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.</li> <li>3 = Disabled — Indicates that the element will not execute commands and will drop any new requests.</li> </ul>

6 = Enabled but Offline — Indicates that the element may be completing commands, and will drop any new requests.

of going to a Disabled state.

- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.

4 =Shutting Down - Indicates that the element is in the process

5 = Not Applicable — Indicates the element does not support being enabled or disabled.

#### Description

- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are gueued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### HealthState

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.

#### Possible values are:

- 0 = Unknown The implementation cannot report on HealthState at this time.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is non-functional and recovery may not be possible.
- 30 = Non-recoverable error The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.
- .. = DMTF Reserved

#### **OperationalStatus**

Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are self-explanatory. However, a few are not and are described here in more detail.

Stressed, Predictive Failure, In Service, No Contact, Lost Communication, Stopped and Aborted are similar, although the former , while the latter Dormant, Supporting Entity in Error, Completed, Power Mode, OperationalStatus replaces the Status property on ManagedSystemElement to provide a consistent approach to enumerations, to address implementation needs for an array property, and to provide a migration path from today's environment to the future. This change was not made earlier because it required the deprecated qualifier. Due to the widespread use of the existing Status property in management applications, it is strongly

#### Description

recommended that providers or instrumentation provide both the Status and OperationalStatus properties. Further, the first value of OperationalStatus should contain the primary status for the element. When instrumented, Status (because it is single-valued) should also provide the primary status of the element.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = OK
- 3 = Degraded
- 4 = Stressed Indicates that the element is functioning, but needs attention. Examples of **Stressed** states are overload, overheated, and so on.
- 5 = Predictive Failure Indicates that an element is functioning nominally but predicting a failure in the near future.
- 6 = Error
- 7 = Non-Recoverable Error
- 8 = Starting
- 9 = Stopping
- 10 = Stopped Implies a clean and orderly stop.
- 11 = In Service Describes an element being configured, maintained, cleaned, or otherwise administered.
- 12 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- 13 = Lost Communication Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is currently unreachable.
- 14 = Aborted Implies an abrupt stop where the state and configuration of the element may need to be updated.
- 15 = Dormant Indicates that the element is inactive or quiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.
- 17 = Completed Indicates that the element has completed its operation. This value should be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).
- 18 = Power Mode Indicates that the element has additional power model information contained in the Associated PowerManagementService association.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

#### **PossibleStates**

Enumerates the string outputs of the Sensor. For example, a **Switch** Sensor may output the states **On**, or **Off**. Another implementation of the Switch may output the states **Open**, and **Close**. Another example is a NumericSensor supporting thresholds. This Sensor can report the

#### Description

states like **Normal**, **Upper Fatal**, **Lower Non-Critical**, and so on. A NumericSensor that does not publish readings and thresholds, but stores this data internally, can still report its states.

#### **PrimaryStatus**

Provides a high level status value, intended to align with Red-Yellow-Green type representation of status. It should be used in conjunction with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.

#### Possible values are:

- 0 = Unknown Indicates the implementation is in general capable of returning this property, but is unable to do so at this time
- 1 = OK Indicates the ManagedElement is functioning normally.
- 2 = Degraded Indicates the ManagedElement is functioning below normal.
- 3 = Error Indicates the ManagedElement is in an Error condition.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to 5 (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration. **Unknown (0)** indicates the last requested state for the element is unknown.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). Offline (6) indicates that the element has been requested to transition to the Enabled but Offline EnabledState. There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11). Reboot refers to doing a Shut Downand then moving to an Enabled state. Reset indicates that the element is first Disabled and then Enabled.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

#### Description

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### SensorType

The Type of the Sensor, e.g. Voltage or Temperature Sensor. If the type is set to Other, then the OtherSensorType Description can be used to further identify the type, or if the Sensor has numeric readings, then the type of the Sensor can be implicitly determined by the Units. A description of the different Sensor types is as follows: A Temperature Sensor measures the environmental temperature. Voltage and Current Sensors measure electrical voltage and current readings. A Tachometer measures speed/revolutions of a Device. For example, a Fan Device can have an associated Tachometer which measures its speed. A Counter is a general purpose Sensor that measures some numerical property of a Device. A Counter value can be cleared, but it never decreases. A Switch Sensor has states like Open/Close, On/Off, or Up/Down. A Lock has states of Locked/ Unlocked. Humidity, Smoke Detection and Air Flow Sensors measure the equivalent environmental characteristics. A Presence Sensor detects the presence of a Physical Element. A Power Consumption Sensor measures the instantaneous power consumed by a managed element. A Power Production Sensor measures the instantaneous power produced by a managed element such as a power supply or a voltage regulator. A pressure sensor is used to report pressure. Intrusion sensor reports an intrusion of an enclosure regardless whether it was authorized or not.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Temperature
- 3 = Voltage
- 4 = Current
- 5 = Tachometer
- 6 = Counter

Description
<ul> <li>7 = Switch</li> <li>8 = Lock</li> <li>9 = Humidity</li> <li>10 = Smoke Detection</li> <li>11 = Presence</li> <li>12 = Air Flow</li> <li>13 = Power Consumption</li> <li>14 = Power Production</li> <li>15 = Pressure</li> <li>16 = Intrusion</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
The CreationClassName of the scoping system.
The System Name of the scoping system.
Indicates the target state to which the instance is transitioning.
Possible values are:
<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> <li>A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.</li> </ul>

#### DCIM\_DeviceBay

Property	Description
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
Description	Defines the physical location of the device bay. Provides a textual description of the object.

Property	Description
DeviceBayLocation	Defines the type of Device Bay.
	Possible values are:
	<ul> <li>0 = Other</li> <li>1 = Unknown</li> <li>2 = Proprietary Bay</li> <li>3 = Standard Desktop Device Bay</li> <li>4 = Standard Mobile Device Bay</li> <li>5 = Standard Ultra-Mobile Device Bay</li> <li>632767 = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
DeviceBayType	Defines the type of Device Bay.
	Possible values are:
	<ul> <li>0 = Other</li> <li>1 = Unknown</li> <li>2 = Proprietary Bay</li> <li>3 = Standard Desktop Device Bay</li> <li>4 = Standard Mobile Device Bay</li> <li>5 = Standard Ultra-Mobile Device Bay</li> <li>632767 = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
DeviceCurrentlyAttached	An address or other identifying information used to uniquely name the LogicalDevice.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
DeviceSupported	Defines a string containing a list of devices supported in this bay separated by commas.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
Enabled Default	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:

• 2 = Enabled

#### Description

- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled (value = 2)**.

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### IdentifyingDescriptions

An array of free-form strings providing explanations and details behind the entries in the OtherldentifyingInfo array. Note that each entry of this array is related to the entry in OtherldentifyingInfo that is located at the same index.

#### LogicalModuleType

Identifies the type of Logical Module this instance represents.

#### Possible values are:

- 0 = Unknown Indicates that the LogicalModuleType is unknown.
- 1 = Other Indicates that the value is not one of the enumerated values. OtherLogicalModuleTypeDescription should contain additional information.

#### Description

- 2 = Device Tray Indicates that the device is a device or media tray, for example in a modular system.
- 3 = Line Card Indicates that the module is a line card in a switch.
- 4 = Blade Indicates the module is a blade inserted into a switch.
- 5..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### ModuleNumber

Logical modules are often named by the physical or logical slot that they occupy within the containing device. ModuleNumber is the number assigned to the module by its parent.

#### OtherldentifyingInfo

OtherIdentifyingInfo captures data, in addition to DeviceID information, that could be used to identify a LogicalDevice. For example, you could use this property to hold the operating system's user-friendly name for the Device.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a Shut Down and then moving to an Enabled state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to **5 (Not Applicable)**, then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.

#### Description



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

#### SystemCreationClassName

The CreationClassName of the scoping system.

#### **SystemName**

The System Name of the scoping system.

#### Transitioning To State

Indicates the target state to which the instance is transitioning.

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

#### DCIM\_VideoHead

Property	Description
Caption	The Caption property is a short textual description (one-line string) of the object.
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
CurrentBitsPerPixel	The number of bits used to display each pixel.
CurrentHorizontalResolution	Current number of horizontal pixels.
CurrentNumberOfColumns	If in character mode, number of columns for this DisplayController. Otherwise, enter 0.
CurrentNumberOfRows	If in character mode, number of rows for this Video Controller. Otherwise, enter 0.
CurrentScanMode	Current scan mode.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Not Supported</li> <li>3 = Non-Interlaced Operation</li> <li>4 = Interlaced Operation</li> </ul>
CurrentVerticalResolution	Current number of vertical pixels.
Description	Provides a textual description of the object.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
Enabled Default	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Description

Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled (value = 2)**.

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.

Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not run commands and drops any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates that the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and drops any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but queues any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Description

Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to 5 (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

#### SystemCreationClassName

The CreationClassName of the scoping system.

#### SystemName

The System Name of the scoping system.

## Property Description TransitioningToState Indicates the

Indicates the target state to which the instance is transitioning.

Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates that the implementation does not support representing ongoing transitions.

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

#### DCIM\_Button

Property	Description
ButtonPurpose	The ButtonPurpose property identifies or defines the use of the button represented by the instance. If the type is set to <b>Other</b> , then the OtherButtonPurpose property can be used to further identify the purpose. Descriptions of the different Button purposes are as follows: A Power Button changes the power state of a device. A reset button is used to reset the state of a device. Undock is used to undock or disconnect a device or entire system from a separate device or system. An Open or Close button is used on a device that has an object that usually moves such as a drawer, door, or tray.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Power</li> <li>3 = Reset</li> <li>4 = Undock</li> <li>5 = Open/Close</li> <li>632767 = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
ButtonType	The ButtonType property identifies or defines the type the button represented by the instance.
	Possible values are:
	• 0 = Unknown

#### Description

- 1 = Other
- 2 = Momentary
- 3 = Toggle
- 4..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

If the type is set to **Other**, then the OtherButtonType property can be used to further identify the type. A momentary button is one that depressed for a moment to cause the desired affect the target device or circuit A toggle type button is one that will remain in a switched or depressed position until it is depressed or switched again.

#### CreationClassName

Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.

#### DeviceID

An address or other identifying information used to uniquely name the LogicalDevice.

#### **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled** (value = 2).

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.

#### Description

- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are gueued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a Shut Down and then moving to an Enabled state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to **5 (Not Applicable)**, then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5).

#### Property Description

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value **12 Not Applicable**.

#### SystemCreationClassName

The CreationClassName of the scoping system.

#### **SystemName**

The System Name of the scoping system.

#### **TransitioningToState**

Indicates the target state to which the instance is transitioning.

Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

#### DCIM\_LCDPanel

Property	Description
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class,

Property	Description
	this property allows all instances of this class and its subclasses to be uniquely identified.
DeviceID	An address or other identifying information used to uniquely name the LogicalDevice.
DisplayDataCategory	Identifies the category of data to be displayed on the LCD Panel.
	Possible values are:
	<ul> <li>2 = None</li> <li>3 = User Specified</li> <li>4 = Default</li> <li>5 = IPv4 Address</li> <li>6 = IDRAC MAC Address</li> <li>7 = Service Tag</li> <li>8 = System Name</li> <li>9 = IPv6 Address</li> <li>10 = Ambient</li> <li>11 = System Power</li> </ul>
DisplayModeUserString	Contains a user configurable string to be displayed on the LCD panel if DisplayDataCategory has the value <b>3</b> .
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
	By default, the element is <b>Enabled (value = 2)</b> .
EnabledState	An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Enabled — Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.</li> </ul>

#### Description

- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### LocalConfigurationEnabled

Indicates if the LCD panel may be used to modify the system configuration. A value of **true** indicates system configuration via the LCD panel is enabled. A value of **false** indicates system configuration via the LCD panel is disabled.

#### SystemCreationClassName

The CreationClassName of the scoping system.

#### **SystemName**

The System Name of the scoping system.

#### **TransitioningToState**

Indicates the target state to which the instance is transitioning.

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

#### DCIM\_NetworkPortConfigurationService

Property	Description
CreationClassName	Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul> By default, the element is <b>Enabled (value = 2)</b> .
EnabledState	An integer enumeration that indicates the enabled and disabled state of an element. It can also indicate the transitions between these requested states.
	Possible values are:
	• 0 = Unknown
	<ul> <li>1 = Other</li> <li>2 = Enabled — Indicates that the element is or could be executin commands, will process any queued commands, and queues never requests.</li> </ul>
	<ul> <li>3 = Disabled — Indicates that the element will not run command and drops any new requests.</li> </ul>
	<ul> <li>4 = Shutting Down — Indicates that the element is in the process of going to a Disabled state.</li> </ul>
	= Not Applicable Indicator that the element does not suppo

= Not Applicable — Indicates that the element does not support being enabled or disabled.

#### Description

- 6 = Enabled but Offline Indicates that the element may be completing commands, and drops any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but queues any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### Name

The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Possible values are:

- 0 = Unknown Indicates that the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

Note that when EnabledState is set to **5 (Not Applicable)**, then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.

#### Description



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value **12 (Not Applicable)**.

#### SystemCreationClassName

The CreationClassName of the scoping System.

#### **SystemName**

The Name of the scoping System.

#### Transitioning To State

Indicates the target state to which the instance is transitioning.

Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates that the implementation does not support representing ongoing transitions

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

#### DCIM\_TimeService

# Property Description Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.

#### **FlementName**

A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties. EnabledDefault An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled (value = 2)**.

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value =  $\mathbf{4}$ ) and starting (value =  $\mathbf{10}$ ) are transient states between enabled and disabled.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.

#### Description

- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### Name

## The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to 5 (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.

#### Description



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5). There are two new values in RequestedState that build on the statuses of EnabledState. These are Reboot (10) and Reset (11). Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

#### SystemCreationClassName

The CreationClassName of the scoping System.

#### **SystemName**

The Name of the scoping System.

#### **TransitioningToState**

Indicates the target state to which the instance is transitioning.

#### Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

#### DCIM\_AccountManagementService

Property	Description
Creation Class Name	Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> <li>By default, the element is Enabled (value = 2).</li> </ul>
EnabledState	An integer enumeration that indicates the enabled and disabled state of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = $4$ ) and starting (value = $10$ ) are transient states between enabled and disabled.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Enabled — Indicates that the element is or could be executin commands, processes any queued commands, and queues new requests.</li> </ul>

• 3 = Disabled — Indicates that the element will not run commands and drops any new requests.

• 4 = Shutting Down — Indicates that the element is in the process of going to a Disabled state.

5 = Not Applicable — Indicates that the element does not support being enabled or disabled.

#### Description

- 6 = Enabled but Offline Indicates that the element may be completing commands, and drops any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but queues any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are gueued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### Name

## The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Possible values are:

- 0 = Unknown Indicates that the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then Enabled.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to 5 (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.

#### Description



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**. Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not run or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

## SystemCreationClassName

The CreationClassName of the scoping System.

## **SystemName**

The Name of the scoping System.

# TransitioningToState

Indicates the target state to which the instance is transitioning.

Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates that the implementation does not support representing ongoing transitions.

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

# DCIM\_RoleBasedAuthorizationService

Property	Description
CreationClassName	Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul> By default, the element is Enabled (value = 2).
Name	The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.
RequestedState	An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.
	<ul> <li>Possible values are:</li> <li>0 = Unknown — Indicates the last requested state for the element is unknown.</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change</li> </ul>

#### Description

- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then Enabled
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to 5 (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

#### SystemCreationClassName

The CreationClassName of the scoping System.

# SystemName

The Name of the scoping System.

# TransitioningToState

Indicates the target state to which the instance is transitioning.

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down

# Property Description

- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset

Description

• 12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

# DCIM\_PowerManagementService

# \_\_\_\_\_

# CreationClassName

Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.

#### **ElementName**

**Property** 

A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

# **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

# Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled (value = 2)**.

Property	Description
EnabledState	An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value $=$ 4) and starting (value $=$ 10) are transient states between enabled and disabled.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	<ul> <li>2 = Enabled — Indicates that the element is or could be executing commands, processes any queued commands, and queues new requests.</li> </ul>
	• 3 = Disabled — Indicates that the element will not run commands and drops any new requests.
	<ul> <li>4 = Shutting Down — Indicates that the element is in the process of going to a Disabled state.</li> </ul>
	<ul> <li>5 = Not Applicable — Indicates that the element does not support being enabled or disabled.</li> </ul>
	<ul> <li>6 = Enabled but Offline — Indicates that the element may be completing commands, and drops any new requests.</li> </ul>
	• 7 = In Test — Indicates that the element is in a test state.
	<ul> <li>8 = Deferred — Indicates that the element may be completing commands, but queues any new requests.</li> </ul>
	• 9 = Quiesce — Indicates that the element is enabled but in a restricted mode.
	10 = Starting — Indicates that the element is in the process of going to an Enabled state. New requests are queued.
	• 1132767 = DMTF Reserved
	• 3276865535 = Vendor Reserved
Name	The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.
OtherEnabledState	A string that describes the enabled or disabled state of the element when the EnabledState property is set to <b>1 (Other)</b> . This property must be set to null when EnabledState is any value other than 1.
PrimaryOwnerContact	A string that provides information on how the primary owner of the Service can be reached (for example, phone number, e-mail address and so on).
PrimaryOwnerName	The name of the primary owner for the service, if one is defined. The primary owner is the initial support contact for the Service.
PrimaryStatus	Provides a high-level status value, intended to align with Red-Yellow-Green type representation of status. It should be used with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.
	Possible values are:
	• 0 = Unknown — Indicates that the implementation is in general
	capable of returning this property, but is unable to do so now.

• 1 = OK - Indicates the ManagedElement is functioning normally.

#### Description

- 2 = Degraded Indicates the ManagedElement is functioning below normal.
- 3 = Error Indicates the ManagedElement is in an Error condition.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

# RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Possible values are:

- 0 = Unknown Indicates that the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then Enabled.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to **5 (Not Applicable)**, then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not run or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as

Property	Description
	WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.
	If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 <b>Not Applicable</b> .
SystemCreationClassName	The CreationClassName of the scoping System.
SystemName	The Name of the scoping System.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates that the implementation does not support representing ongoing transitions.</li> </ul>
	A value other than <b>5</b> or <b>12</b> identifies the state to which the element is in the process of transitioning.

# DCIM\_BootService

Property	Description
Creation Class Name	Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.

#### Description



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

#### **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element. By default, the element is **Enabled (value = 2)**.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value =  $\mathbf{4}$ ) and starting (value =  $\mathbf{10}$ ) are transient states between enabled and disabled.

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will gueue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

Property	Description
Name	The Name p

The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to **5 (Not Applicable)**, then this property has no meaning. See the EnabledState property description for explanations of the values in the RequestedState enumeration.



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**. Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

Property	Description
	If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value <b>12 Not Applicable</b> .
SystemCreationClassName	The CreationClassName of the scoping System.
SystemName	The Name of the scoping System.
TransitioningToState	Indicates the target state to which the instance is transitioning.  Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> </ul> A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.

# DCIM\_IPConfigurationService

CreationClassName	Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.  NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

Description

Property

Property	Description
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element. By default, the element is <b>Enabled (value = 2)</b> .
	Possible values are:
	• 2 = Enabled
	• 3 = Disabled
	• 5 = Not Applicable
	• 6 = Enabled but Offline
	• 7 = No Default
	• 9 = Quiesce
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
EnabledState	An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = $\bf 4$ ) and starting (value = $\bf 10$ ) are transient states between enabled and disabled.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	2 = Enabled — Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
	• 3 = Disabled — Indicates that the element will not execute commands and will drop any new requests.
	• 4 = Shutting Down — Indicates that the element is in the process of going to a Disabled state.
	<ul> <li>5 = Not Applicable — Indicates the element does not support being enabled or disabled.</li> </ul>
	<ul> <li>6 = Enabled but Offline — Indicates that the element may be completing commands, and will drop any new requests.</li> </ul>
	• $7 = In Test - Indicates that the element is in a test state.$
	<ul> <li>8 = Deferred — Indicates that the element may be completing commands, but will queue any new requests.</li> </ul>
	<ul> <li>9 = Quiesce — Indicates that the element is enabled but in a restricted mode.</li> </ul>
	<ul> <li>10 = Starting — Indicates that the element is in the process of going to an Enabled state. New requests are queued.</li> </ul>
	• 1132767 = DMTF Reserved
	• 3276865535 = Vendor Reserved
Name	The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.
SystemCreationClassName	The CreationClassName of the scoping System.

The Name of the scoping System.

SystemName

Property	Description
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> </ul>
	A value other than <b>5</b> or <b>12</b> identifies the state to which the element is in the process of transitioning.

# ${\tt DCIM\_PowerUtilizationManagementService}$

Property	Description
CreationClassName	Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element. By default, the element is <b>Enabled (value = 2)</b> .
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> <li>7 = No Default</li> <li>9 = Quiesce</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
EnabledState	An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### Description

Possible values are:

- 0 = Unknown
- 1 = Other
- 2 =Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new
- 3 = Disabled Indicates that the element will not executecommands and will drop any new requests.
- 4 =Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will queue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### Name

The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.

# hm

PendingPowerUtilizationAlgorit This property describes the pending requested algorithm to be employed by the service for power utilization.

- 0 = Unknown
- 2 = None Indicates that currently the service is not employingany power utilization algorithm. If the property value is 2 (None), then the PowerUtilizationMode is equal to 2 (None).
- 3 = Custom Settings Based Indicates that the service is employing power utilization algorithm based on a specific settings. This settings may be represented by the DCIM\_PowerUtilizationSettingData instance associated
- 4 = Maximum Performance Indicates that the service is employing a power utilization that yields the maximum performance for the affected managed elements. If the property value is 4 (Maximum Performance), then the PowerUtilizationMode is equal to 4 (Static).
- 5 = Minimum Performance Indicates that the service is employing a power utilization that yields the minimum power consumption for the affected managed elements. If the property value is 5 (Minimum Performance), then the PowerUtilizationMode is equal to 4 (Static).
- 6 = OS Specific Indicates that the service is employing a power utilization defined by the operating system. If the property value is 6 (OS Specific), then the PowerUtilizationMode is equal to 3 (Dynamic).

#### Description

 7 = Active Power Utilization — Indicates that the service is employing a specific algorithm to yield the best power conumption and performance for the affected managed elements. If the property value is 7 (Active Power Utilization), then the PowerUtilizationMode is equal to 3 (Dynamic).

## **PowerUtilizationAlgorithm**

Describes the algorithm employed by the service for power utilization. Depending on the performance and power needs of the managed element, the selection could be made for the appropriate algorithm to be deployed for the power utilization.

#### Possible values are:

- 0 = Unknown(**Dynamic**).
- 2 = None Indicates that currently the service is not employing any power utilization algorithm. If the property value is 2 (**None**), then the PowerUtilizationMode is equal to 2 (**None**).
- 3 = Custom Settings Based Indicates that the service is employing power utilization algorithm based on a specific settings. This settings may be represented by the DCIM\_PowerUtilizationSettingData instance associated
- 4 = Maximum Performance Indicates that the service is employing a power utilization that yields the maximum performance for the affected managed elements. If the property value is 4 (Maximum Performance), then the PowerUtilizationMode is equal to 4 (Static).
- 5 = Minimum Performance Indicates that the service is employing a power utilization that yields the minimum power consumption for the affected managed elements. If the property value is 5 (Minimum Performance), then the PowerUtilizationMode is equal to 4 (Static).
- 6 = OS Specific Indicates that the service is employing a power utilization defined by the operating system. If the property value is 6 (OS Specific), then the PowerUtilizationMode is equal to 3 (Dynamic)
- 7 = Active Power Utilization Indicates that the service is employing a specific algorithm to yield the best power conumption and performance for the affected managed elements. If the property value is 7 (Active Power Utilization), then the PowerUtilizationMode is equal to 3

# **PowerUtilizationMode**

Indicates the current power utilization mode implemented by the service. The mode selection is a generally made infrequently as part of element configuration.

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred

## Description

- 9 = Quiesce
- 10 = Reboot Refers to doing a Shut Down and then moving to an Enabled state.
- 11 = Reset Indicates that the element is first **Disabled** and then Enabled.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

## RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved



**NOTE:** When EnabledState is set to **5 (Not Applicable)**, then this property has no meaning. See the EnabledState property description for explanations of the values in the RequestedState enumeration.



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**. Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such

Property	Description
	that it will not execute or accept any commands or processing requests.
	This property is set as the result of a method invocation (such as Start or StopService on CIM_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.
	If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 <b>Not Applicable</b> .
SystemCreationClassName	The CreationClassName of the scoping System.
SystemName	The Name of the scoping System.
TransitioningToState	Indicates the target state to which the instance is transitioning.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> </ul>
	A value other than ${\bf 5}$ or ${\bf 12}$ identifies the state to which the element is in the process of transitioning.

# DCIM\_BIOSService

Property	Description
CreationClassName	Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.

#### Description



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

#### **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element. By default, the element is **Enabled** (value = **2**).

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value =  $\mathbf{4}$ ) and starting (value =  $\mathbf{10}$ ) are transient states between enabled and disabled.

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be running commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not run commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will gueue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

Property	Description
Name	The Name p

The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.

# RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested. The actual state of the element is represented by EnabledState.

#### Possible values are:

- 0 = Unknown Indicates that the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then **Enabled**.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to **5** (**Not Applicable**), then this property has no meaning. See the EnabledState property description for explanations of the values in the RequestedState enumeration.



**NOTE:** The value **No Change** (5) has been deprecated instead of indicating the last requested state is **Unknown** (0). If the last requested or desired state is unknown, RequestedState should have the value **Unknown** (0), but may have the value **No Change** (5).

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot** (10) and **Reset** (11). Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered

Property	Description	
	superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.	
	If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value <b>12 Not Applicable</b> .	
SystemCreationClassName	The CreationClassName of the scoping System.	
SystemName	The Name of the scoping System.	
TransitioningToState	Indicates the target state to which the instance is transitioning.	
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — Indicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates that the implementation does not support representing ongoing transitions.</li> </ul> A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.	
SetBIOSAttributes (Method)	This method is called to modify a group of BIOSAttribute instances associated with this BIOSService. The method may return the following errors:	
	• <b>0 (Completed with No Error)</b> — If the method is supported and has completed successfully.	
	• <b>1 (Not Supported)</b> — If the method is not supported by the implementation.	
	<ul> <li>2 (Authentication failure) — If the method is supported, but authentication fails.</li> </ul>	
	<ul> <li>4294967295 — If the method is supported, but wrong possible value is provided.</li> </ul>	
	The method may return an instance of CIM_Error.	
RemoteBIOSUpdate (Method)	This method is called to remotely update the BIOS image. It takes the hdr file of the BIOS image as the only parameter.	

# DCIM\_SoftwareInstallationService

Indicates the name of the class or the subclass that is used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.  An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
Possible values are:
<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>5 = Not Applicable</li> <li>6 = Enabled but Offline</li> </ul>
• 7 = No Default
• 9 = Quiesce
<ul><li> = DMTF Reserved</li><li>32768.65535 = Vendor Reserved</li></ul>
• 52/6865555 = Vendor Reserved
By default, the element is <b>Enabled (value = 2)</b> .
An integer enumeration that indicates the enabled and disabled state of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = $4$ ) and startin (value = $10$ ) are transient states between enabled and disabled.
Possible values are:
• 0 = Unknown
• 1 = Other
<ul> <li>2 = Enabled — Indicates that the element is or could be executin commands, will process any queued commands, and queues ne requests.</li> </ul>
<ul> <li>3 = Disabled — Indicates that the element will not execute commands and will drop any new requests.</li> </ul>
<ul> <li>4 = Shutting Down — Indicates that the element is in the process of going to a Disabled state.</li> </ul>
• 5 = Not Applicable — Indicates the element does not support being enabled or disabled.
<ul> <li>6 = Enabled but Offline — Indicates that the element may be completing commands, and will drop any new requests.</li> </ul>
• 7 = In Test — Indicates that the element is in a test state.
• 8 = Deferred — Indicates that the element may be completing commands, but will queue any new requests.
• 9 = Quiesce — Indicates that the element is enabled but in a restricted mode.
<ul> <li>10 = Starting — Indicates that the element is in the process of going to an Enabled state. New requests are queued.</li> </ul>

• 11..32767 = DMTF Reserved

Property	Description
	• 3276865535 = Vendor Reserved
Name	The Name property uniquely identifies the Service and provides an indication of the functionality that is managed. This functionality is described in more detail in the Description property of the object.
PrimaryOwnerContact	A string that provides information on how the primary owner of the Service can be reached (for example, phone number, e-mail address, and so on).
PrimaryOwnerName	The name of the primary owner for the service, if one is defined. The primary owner is the initial support contact for the Service.
PrimaryStatus	Provides a high level status value, intended to align with Red-Yellow-Green type representation of status. It should be used in conjunction with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.
	Possible values are:
	• 0 = Unknown — Indicates the implementation is in general capable of returning this property, but is unable to do so at this time.
	• $1 = OK - Indicates$ the ManagedElement is functioning normally.
	<ul> <li>2 = Degraded — Indicates the ManagedElement is functioning below normal.</li> </ul>
	• 3 = Error — Indicates the ManagedElement is in an Error condition.
	• = DMTF Reserved
	• 0x8000 = Vendor Reserved
RequestedState	An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested.
	Possible values are:
	• 0 = Unknown — Indicates the last requested state for the element is unknown.
	• 2 = Enabled
	• 3 = Disabled
	• 4 = Shut Down
	<ul> <li>5 = No Change</li> <li>6 = Offline — Indicates that the element has been requested to</li> </ul>
	<ul> <li>transition to the Enabled but Offline EnabledState.</li> <li>7 = Test</li> </ul>
	8 = Deferred
	• 9 = Quiesce
	<ul> <li>10 = Reboot — Refers to doing a Shut Down and then moving to an Enabled state.</li> </ul>
	• 11 = Reset — Indicates that the element is first <b>Disabled</b> and then <b>Enabled</b> .
	• 12 = Not Applicable

#### Description

- ... = DMTF Reserved
- 32768..65535 = Vendor Reserved

The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to 5 (Not Applicable), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5)

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**. Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 **Not Applicable**.

# SystemCreationClassName

The CreationClassName of the scoping System.

#### **SystemName**

The Name of the scoping System.

## **TransitioningToState**

Indicates the target state to which the instance is transitioning.

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset

#### Description

 12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

# DCIM\_ComputerSystem

# **Property**

# Description

#### CreationClassName

Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.

### **Dedicated**

Enumeration indicating the purpose(s) for which the ComputerSystem is dedicated, if any, and the functionality provided. For example, one could specify that the System is dedicated to **Print** (value = 11) or acts as a **Hub** (value = 8).

Also, a value = 0 indicates this is a general purpose system, **Not Dedicated** but that it also hosts **Print** (**value = 11**) or mobile phone **Mobile User Device** (**value = 17**) services.

A clarification is needed with respect to the value **17 (Mobile User Device)**. An example of a dedicated user device is a mobile phone or a barcode scanner in a store that communicates via radio frequency. These systems are quite limited in functionality and programmability, and are not considered **general purpose** computing platforms. Alternately, an example of a mobile system that is **general purpose** (that is, is NOT dedicated) is a hand-held computer. Although limited in its programmability, new software can be downloaded and its functionality expanded by the user.

The management scope of a **Management Controller** is typically a single managed system in which it is contained.

- 0 = Not Dedicated
- 1 = Unknown
- 2 = Other
- 3 = Storage
- 4 = Router
- 5 = Switch
- 6 = Layer 3 Switch
- 7 = Central Office Switch
- 8 = Hub
- 9 = Access Server
- 10 = Firewall
- 11 = Print
- 12 = I/O
- 13 = Web Caching

#### Description

- 14 = Management Indicates this instance is dedicated to hosting system management software.
- 15 = Block Server
- 16 = File Server
- 17 = Mobile User Device
- 18 = Repeater
- 19 = Bridge/Extender
- 20 = Gateway
- 21 = Storage Virtualizer
- 22 = Media Library
- 23 = ExtenderNode
- 24 = NAS Head
- 25 = Self-contained NAS
- 26 = UPS
- 27 = IP Phone
- 28 = Management Controller Indicates this instance represents specialized hardware dedicated to systems management (i.e., a Baseboard Management Controller (BMC) or service processor).
- 29 = Chassis Manager Indicates this instance represents a system dedicated to management of a blade chassis and its contained devices. This value would be used to represent a Shelf Controller. A **Chassis Manager** is an aggregation point for management and may rely on subordinate management controllers for the management of constituent parts.
- 30 = Host-based RAID controller Indicates this instance represents a RAID storage controller contained within a host computer.
- 31 = Storage Device Enclosure Indicates this instance represents an enclosure that contains storage devices.
- 32 = Desktop
- 33 = Laptop
- 34 = Virtual Tape Library Is the emulation of a tape library by a Virtual Library System.
- 35 = Virtual Library System Uses disk storage to emulate tape libraries.
- 36..32567 = DMTF Reserved
- 32568..65535 = Vendor Reserved

# **ElementName**

A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

#### Description

#### **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

#### Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled (value = 2)**.

#### **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will gueue any new requests.
- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are queued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### HealthState

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.

#### Description

#### Possible values are:

- 0 = Unknown The implementation cannot report on HealthState at this time.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is non-functional and recovery may not be possible.
- 30 = Non-recoverable error The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.
- .. = DMTF Reserved

# IdentifyingDescriptions

An array of free-form strings providing explanations and details behind the entries in the Otherldentifying Info array. Note, each entry of this array is related to the entry in OtherldentifyingInfo that is located at the same index.

#### Name

The inherited Name serves as the key of a system instance in an enterprise environment.

#### **OperationalStatus**

Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are self-explanatory.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = OK
- 3 = Degraded
- 4 = Stressed Indicates that the element is functioning, but needs attention. Examples of **Stressed** states are overload, overheated, and so on
- 5 = Predictive Failure Indicates that an element is functioning nominally but predicting a failure in the near future.
- 6 = Frror
- 7 = Non-Recoverable Error
- 8 = Starting
- 9 = Stopping
- 10 = Stopped Implies a clean and orderly stop.
- 11 = In Service Describes an element being configured, maintained, cleaned, or otherwise administered.

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#### Description

- 12 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- 13 = Lost Communication Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is currently unreachable.
- 14 = Aborted Implies an abrupt stop where the state and configuration of the element may need to be updated.
- 15 = Dormant Indicates that the element is inactive or guiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.
- 17 = Completed Indicates that the element has completed its operation. This value should be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).
- 18 = Power Mode Indicates that the element has additional power model information contained in the Associated PowerManagementService association.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

OperationalStatus replaces the Status property on ManagedSystemElement to provide a consistent approach to enumerations, to address implementation needs for an array property, and to provide a migration path from today's environment to the future. This change was not made earlier because it required the deprecated qualifier. Due to the widespread use of the existing Status property in management applications, it is strongly recommended that providers or instrumentation provide both the Status and OperationalStatus properties. Further, the first value of OperationalStatus should contain the primary status for the element. When instrumented, Status (because it is single-valued) should also provide the primary status of the element.

## OtherldentifyingInfo

Captures additional data, beyond System Name information, that could be used to identify a ComputerSystem. One example would be to hold the Fibre Channel World-Wide Name (WWN) of a node.



**NOTE:** If only the Fibre Channel name is available and is unique (able to be used as the System key), then this property would be NULL and the WWN would become the System key, its data placed in the Name property.

# PrimaryStatus

Provides a high level status value, intended to align with Red-Yellow-Green type representation of status. It should be used in conjunction with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.

# Possible values are:

• 0 = Unknown — Indicates the implementation is in general capable of returning this property, but is unable to do so at this time.

#### Description

- 1 = OK Indicates the ManagedElement is functioning normally.
- 2 = Degraded Indicates the ManagedElement is functioning below normal.
- 3 = Error Indicates the ManagedElement is in an Error condition.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

# RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a Shut Down and then moving to an Enabled state.
- 11 = Reset Indicates that the element is first **Disabled** and then Enabled.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to **5** (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**. **Offline (6)** indicates that the element has been requested to transition to the Enabled but Offline EnabledState.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**. Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

#### Description

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value **12 Not Applicable**.

# **TransitioningToState**

Indicates the target state to which the instance is transitioning.

Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions

A value other than **5** or **12** identifies the state to which the element is in the process of transitioning.

# RequestStateChange (Method)

Requests that the state of the element be changed to the value specified in the RequestedState parameter. When the requested state change takes place, the EnabledState and RequestedState of the element will be the same. Invoking the RequestStateChange method multiple times could result in earlier requests being overwritten or lost.

A return code of 0 shall indicate the state change was successfully initiated.

A return code of 3 shall indicate that the state transition cannot complete within the interval specified by the TimeoutPeriod parameter.

A return code of 4096 (0x1000) shall indicate the state change was successfully initiated, a ConcreteJob has been created, and its reference returned in the output parameter Job. Any other return code indicates an error condition.

# DCIM\_RecordLog

## **Property**

#### Description

#### **ElementName**

ElementName A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

## **EnabledDefault**

An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.

Possible values are:

- 2 = Enabled
- 3 = Disabled
- 5 = Not Applicable
- 6 = Enabled but Offline
- 7 = No Default
- 9 = Quiesce
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

By default, the element is **Enabled (value = 2)**.

# **EnabledState**

An integer enumeration that indicates the enabled and disabled states of an element. It can also indicate the transitions between these requested states. For example, shutting down (value = 4) and starting (value = 10) are transient states between enabled and disabled.

- 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.
- 3 = Disabled Indicates that the element will not execute commands and will drop any new requests.
- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled state.
- 5 = Not Applicable Indicates the element does not support being enabled or disabled.
- 6 = Enabled but Offline Indicates that the element may be completing commands, and will drop any new requests.
- 7 = In Test Indicates that the element is in a test state.
- 8 = Deferred Indicates that the element may be completing commands, but will gueue any new requests.

#### Description

- 9 = Quiesce Indicates that the element is enabled but in a restricted mode.
- 10 = Starting Indicates that the element is in the process of going to an Enabled state. New requests are gueued.
- 11..32767 = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### HealthState

Indicates the current health of the element. This attribute expresses the health of this element but not necessarily that of its subcomponents.

DMTF has reserved the unused portion of the continuum for additional HealthStates in the future.

#### Possible values are:

- 0 = Unknown The implementation cannot report on HealthState at this time.
- 5 = OK The element is fully functional and is operating within normal operational parameters and without error.
- 10 = Degraded/Warning The element is in working order and all functionality is provided. However, the element is not working to the best of its abilities. For example, the element may not be operating at optimal performance or it may be reporting recoverable errors.
- 15 = Minor failure All functionality is available but some may be degraded.
- 20 = Major failure The element is failing. It is possible that some or all of the functionality of this component is degraded or not working.
- 25 = Critical failure The element is non-functional and recovery may not be possible.
- 30 = Non-recoverable error The element has completely failed, and recovery is not possible. All functionality provided by this element has been lost.
- .. = DMTF Reserved

## InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID>: <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above

#### Description

**preferred** algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

# LogState

LogState is an integer enumeration that indicates the current state of a log represented by CIM\_Log subclasses. LogState is to be used in conjunction with the EnabledState property to fully describe the current state of the log.

#### Possible values are:

- 0 = Unknown Indicates the state of the log is unknown.
- 2 = Normal Indicates that the log is or could be executing logging commands, will process any queued log entries, and will queue new logging requests.
- 3 = Erasing Indicates that the log is being erased.
- 4 = Not Applicable Indicates the log does not support representing a log state.
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### **MaxNumberOfRecords**

Maximum number of records that can be captured in the Log. If undefined, a value of zero should be specified.

# **OperationalStatus**

Indicates the current statuses of the element. Various operational statuses are defined. Many of the enumeration's values are self-explanatory.

- 0 = Unknown
- 1 = Other
- 2 = OK
- 3 = Degraded
- 4 = Stressed Indicates that the element is functioning, but needs attention. Examples of **Stressed** states are overload, overheated, and so on.
- 5 = Predictive Failure Indicates that an element is functioning nominally but predicting a failure in the near future.
- 6 = Error
- 7 = Non-Recoverable Error
- 8 = Starting
- 9 = Stopping
- 10 = Stopped Implies a clean and orderly stop
- 11 = In Service Describes an element being configured, maintained, cleaned, or otherwise administered.
- 12 = No Contact Indicates that the monitoring system has knowledge of this element, but has never been able to establish communications with it.
- 13 = Lost Communication Indicates that the ManagedSystem Element is known to exist and has been contacted successfully in the past, but is currently unreachable.

#### Description

- 14 = Aborted Implies an abrupt stop where the state and configuration of the element may need to be updated.
- 15 = Dormant Indicates that the element is inactive or guiesced.
- 16 = Supporting Entity in Error Indicates that this element may be **OK** but that another element, on which it is dependent, is in error. An example is a network service or endpoint that cannot function due to lower-layer networking problems.
- 17 = Completed Indicates that the element has completed its operation. This value should be combined with either OK, Error, or Degraded so that a client can tell if the complete operation Completed with OK (passed), Completed with Error (failed), or Completed with Degraded (the operation finished, but it did not complete OK or did not report an error).
- 18 = Power Mode Indicates that the element has additional power model information contained in the Associated PowerManagementService association.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

OperationalStatus replaces the Status property on ManagedSystemElement to provide a consistent approach to enumerations, to address implementation needs for an array property, and to provide a migration path from today's environment to the future. This change was not made earlier because it required the deprecated qualifier. Due to the widespread use of the existing Status property in management applications, it is strongly recommended that providers or instrumentation provide both the Status and OperationalStatus properties. Further, the first value of OperationalStatus should contain the primary status for the element. When instrumented, Status (because it is single-valued) should also provide the primary status of the element.

# OverwritePolicy

OverwritePolicy is an integer enumeration that indicates whether the log, represented by the CIM\_Log subclasses, can overwrite its entries.

# Possible values are:

- 0 = Unknown Indicates the log's overwrite policy is unknown.
- 2 = Wraps When Full Indicates that the log overwrites its entries with new entries when the log has reached its maximum capacity.
- 7 = Never Overwrites Indicates that the log never overwrites its entries by the new entries
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

#### **PrimaryStatus**

Provides a high level status value, intended to align with Red-Yellow-Green type representation of status. It should be used in conjunction with DetailedStatus to provide high level and detailed health status of the ManagedElement and its subcomponents.

- 0 = Unknown Indicates the implementation is in general capable of returning this property, but is unable to do so at this time
- 1 = OK Indicates the ManagedElement is functioning normally.

#### Description

- 2 = Degraded Indicates the ManagedElement is functioning below normal.
- 3 = Error Indicates the ManagedElement is in an Error condition.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

#### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a **Shut Down** and then moving to an **Enabled** state.
- 11 = Reset Indicates that the element is first **Disabled** and then Enabled.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to 5 (Not Applicable), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



**NOTE:** The value **No Change (5)** has been deprecated instead of indicating the last requested state is **Unknown (0)**. If the last requested or desired state is unknown, RequestedState should have the value **Unknown (0)**, but may have the value **No Change (5)**.

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**. Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element, such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior

Property	Description
	to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.
	If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value 12 <b>Not Applicable</b> .
TransitioningToState	Indicates the target state to which the instance is transitioning.
	<ul> <li>0 = Unknown</li> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>5 = No Change — ndicates that no transition is in progress.</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> <li>12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.</li> </ul>
	A value other than <b>5</b> or <b>12</b> identifies the state to which the element is in the process of transitioning.

# DCIM\_OperatingSystem

Property	Description
CreationClassName	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.
CSCreationClassName	The scoping ComputerSystem's CreationClassName.
CSName	The scoping ComputerSystem's Name.
EnabledDefault	An enumerated value indicating an administrator's default or startup configuration for the Enabled State of an element.
	Possible values are:
	• 1 = Other
	<ul> <li>2 = Enabled — Indicates that the element is or could be executing commands, will process any queued commands, and queues new requests.</li> </ul>
	<ul> <li>3 = Disabled — Indicates that the element will not execute commands and will drop any new requests.</li> </ul>
	<ul> <li>4 = Shutting Down — Indicates that the element is in the process of going to a Disabled state.</li> </ul>

# **Property** Description 5 = Not Applicable — Indicates the element does not support being enabled or disabled. 6 = Enabled but Offline — Indicates that the element may be completing commands, and will drop any new requests. 7 = In Test - Indicates that the element is in a test state.8 = Deferred — Indicates that the element may be completing commands, but will queue any new requests. 9 = Quiesce - Indicates that the element is enabled but in arestricted mode. 10 = Starting — Indicates that the element is in the process of going to an Enabled state. New requests are queue'd. 11..32767 = DMTF Reserved 32768..65535 = Vendor Reserved By default, the element is Enabled (value = 2). LastBootUpTime Time when the operating system was last booted. Operating system's notion of the local date and time of day. LocalDateTime The inherited Name serves as key of an operating system instance Name within a computer system. **OSType** A integer indicating the type of operating system. Possible values are: 0 = Unknown1 = Other2 = MACOS

- 4 = DGUX
- 5 = DECNT 6 = Tru64 UNIX
- 7 = OpenVMS
- 8 = HPUX
- 9 = AIX
- 10 = MVS
- 11 = OS400
- 12 = OS/2
- 13 = JavaVM
- 14 = MSDOS
- 15 = WIN3x
- 16 = WIN9517 = WIN98
- 18 = WINNT
- 19 = WINCE
- 20 = NCR3000
- 21 = NetWare

### Property Description

- 22 = OSF
- 23 = DC/OS
- 24 = Reliant UNIX
- 25 = SCO UnixWare
- 26 = SCO OpenServer
- 27 = Sequent
- 28 = IRIX
- 29 = Solaris
- 30 = SunOS
- 31 = U6000
- 32 = ASERIES
- 33 = HP NonStop OS
- 34 = HP NonStop OSS
- 35 = BS2000
- 36 = LINUX
- 37 = Lynx
- 38 = XENIX
- 39 = VM
- 40 = Interactive UNIX
- 41 = BSDUNIX
- 42 = FreeBSD
- 43 = NetBSD
- 44 = GNU Hurd
- 45 = OS9
- 46 = MACH Kernel
- 47 = Inferno
- 48 = QNX
- 49 = EPOC
- 50 = IxWorks
- 51 = VxWorks
- 52 = MiNT
- 53 = BeOS
- 54 = HP MPE
- 55 = NextStep
- 56 = PalmPilot
- 57 = Rhapsody
- 58 = Windows 2000
- 59 = Dedicated
- 60 = OS/390
- 61 = VSE
- 62 = TPF
- 63 = Windows (R) Me
- 64 = Caldera Open UNIX
- 65 = OpenBSD
- 66 = Not Applicable

Property Description

- 67 = Windows XP
- 68 = z/OS
- 69 = Microsoft Windows Server 2003
- 70 = Microsoft Windows Server 2003 64-Bit
- 71 = Windows XP 64-Bit
- 72 = Windows XP Embedded
- 73 = Windows Vista
- 74 = Windows Vista 64-Bit
- 75 = Windows Embedded for Point of Service
- 76 = Microsoft Windows Server 2008
- 77 = Microsoft Windows Server 2008 64-Bit
- 78 = FreeBSD 64-Bit
- 79 = RedHat Enterprise Linux
- 80 = RedHat Enterprise Linux 64-Bit
- 81 = Solaris 64-Bit
- 82 = SUSE
- 83 = SUSE 64-Bit
- 84 = SLES
- 85 = SLES 64-Bit
- 86 = Novell OES
- 87 = Novell Linux Desktop
- 88 = Sun Java Desktop System
- 89 = Mandriva
- 90 = Mandriva 64-Bit
- 91 = TurboLinux
- 92 = TurboLinux 64-Bit
- 93 = Ubuntu
- 94 = Ubuntu 64-Bit
- 95 = Debian
- 96 = Debian 64-Bit
- 97 = Linux 2.4.x
- 98 = Linux 2.4.x 64-Bit
- 99 = Linux 2.6.x
- 100 = Linux 2.6.x 64-Bit
- 101 = Linux 64-Bit
- 102 = Other 64-Bit
- 103 = Microsoft Windows Server 2008 R2
- 104 = VMware ESXi
- 105 = Microsoft Windows 7
- 106 = CentOS 32-bit
- 107 = CentOS 64-bit
- 108 = Oracle Enterprise Linux 32-bit
- 109 = Oracle Enterprise Linux 64-bit
- 110 = eComStation 32-bitx
- 111 = Microsoft Windows Server 2011

### **Property**

### Description

- 113 = Microsoft Windows Server 2012
- 114 = Microsoft Windows 8
- 115 = Microsoft Windows 8 64-bit
- 116 = Microsoft Windows 8.1
- 117 = Microsoft Windows 8.1 64-bit
- 118 = Microsoft Windows 10
- 119 = Microsoft Windows 10 64-bit

### RequestedState

An integer enumeration that indicates the last requested or desired state for the element, irrespective of the mechanism through which it was requested.

#### Possible values are:

- 0 = Unknown Indicates the last requested state for the element is unknown.
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline Indicates that the element has been requested to transition to the Enabled but Offline EnabledState.
- 7 = Test
- 8 = Deferred
- 9 = Quiesce
- 10 = Reboot Refers to doing a Shut Down and then moving to an Enabled state.
- 11 = Reset Indicates that the element is first Disabled and then Enabled.
- 12 = Not Applicable
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

The actual state of the element is represented by EnabledState. This property is provided to compare the last requested and current enabled or disabled states. Note that when EnabledState is set to **5** (**Not Applicable**), then this property has no meaning. Refer to the EnabledState property description for explanations of the values in the RequestedState enumeration.



NOTE: The value No Change (5) has been deprecated instead of indicating the last requested state is Unknown (0). If the last requested or desired state is unknown, RequestedState should have the value Unknown (0), but may have the value No Change (5).

There are two new values in RequestedState that build on the statuses of EnabledState. These are **Reboot (10)** and **Reset (11)**.

Shut Down requests an orderly transition to the Disabled state, and may involve removing power, to completely erase any existing state. The Disabled state requests an immediate disabling of the element,

# Property Description such that it w requests. This property

such that it will not execute or accept any commands or processing requests.

This property is set as the result of a method invocation (such as Start or StopService on CIM\_Service), or can be overridden and defined as WRITEable in a subclass. The method approach is considered superior to a WRITEable property, because it allows an explicit invocation of the operation and the return of a result code.

If knowledge of the last RequestedState is not supported for the EnabledLogicalElement, the property is NULL or has the value **12 (Not Applicable)**.

### **TransitioningToState**

Indicates the target state to which the instance is transitioning.

Possible values are:

- 0 = Unknown
- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

### Version

A string describing the Operating System's version number. The format of the version information is as follows: <Major Number>.<Minor Number>.<Revision> or <Major Number>.<Revision Letter>.

### DCIM\_SoftwareIdentity

Property	Description
ClassificationDescriptions	An array of free-form strings providing more detailed explanations for any of the entries in the Classifications array. Note that each entry is related to one in the Classifications array located at the same index.
Classifications	An array of enumerated integers that classify this software. For example, the software MAY be instrumentation (value = 5) or firmware and diagnostic software (10 and 7). The use of value 6, Firmware/BIOS, is being deprecated. Instead, either the value 10 (Firmware) and/or 11 (BIOS/FCode) SHOULD be used. The value 13, Software Bundle, identifies a software package consisting of multiple discrete software instances that can be installed individually or together.

#### **Property**

#### Description

Each contained software instance is represented by an instance of SoftwareIdentity that is associated to this instance of SoftwareIdentityinstance via a Component association.

### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Driver
- 3 = Configuration Software
- 4 = Application Software
- 5 = Instrumentation
- 6 = Firmware/BIOS
- 7 = Diagnostic Software
- 8 = Operating System
- 9 = Middleware
- 10 = Firmware
- 11 = BIOS/FCode
- 12 = Support/Service Pack
- 13 = Software Bundle
- .. = DMTF Reserved
- 0x8000..0xFFFF = Vendor Reserved

### **ElementName**

A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID> : <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused

Property	Description
	to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid>set to CIM.</orgid>
IsEntity	The IsEntity property is used to indicate whether the SoftwareIdentity corresponds to a discrete copy of the software component or is being used to convey descriptive and identifying information about software that is not present in the management domain. A value of TRUE indicates that the SoftwareIdentity instance corresponds to a discrete copy of the software component. A value of FALSE indicates that the SoftwareIdentity instance does not correspond to a discrete copy of the Software.
Manufacturer	Manufacturer of this software.
ReleaseDate	The date the software was released.
Revision Number	The revision or maintenance release component of the software's version information. For example, <b>3</b> from version 12.1(3)T. This property is defined as a numeric value to allow the determination of <b>newer</b> versus <b>older</b> releases. A <b>newer</b> revision is indicated by a larger numeric value.
TargetTypes	An array of strings that describes the compatible installer(s). The purpose of the array elements is to establish compatibility between a SoftwareIdentity and a SoftwareInstallationService that can install the SoftwareIdentity by comparing the values of the array elements of this property to the values of SoftwareInstallationServiceCapabilities.SupportedTargetTypes[] property's array elements.
VersionString	A string representing the complete software version information. For example, <b>12.1(3)T</b> . This string and the numeric major/minor/revision/build properties are complementary. Since vastly different representations and semantics exist for versions, it is not assumed that one representation is sufficient to permit a client to perform computations (i.e., the values are numeric) and a user to recognize the software's version (i.e., the values are understandable and readable). Hence, both numeric and string representations of version are provided.

### DCIM\_BIOSElement

Property	Description
Manufacturer	The name used to identify this SoftwareElement. Manufacturer of this SoftwareElement.
Name	The name used to identify this SoftwareElement.
ReleaseDate	Date that this BIOS was released.

### **Property** Description SoftwareElementID This is an identifier for the Software Element and is designed to be used in conjunction with other keys to create a unique representation of the element. SoftwareElementState The SoftwareElementState is defined in this model to identify various states of a Software Element's life cycle. Possible values are: 0 = Deployable - Describes the details necessary to successfullydistribute it and the details (Checks and Actions) required to move it to the installable state (i.e, the next state). 1 = Installable — Describes the details necessary to successfully install it and the details (Checks and Actions) required to create an element in the executable state (i.e., the next state). 2 = Executable — Describes the details necessary to successfully start it and the details (Checks and Actions) required to move it to the running state (i.e., the next state). 3 = Running - Describes the details necessary to manage thestarted element. **TargetOperatingSystem** The TargetOperatingSystem property specifies the element's operating system environment. The value of this property does not ensure that it is binary executable. Two other pieces of information are needed. First, the version of the OS needs to be specified using the class, CIM\_OSVersion Check. The second piece of information is the architecture that the OS runs on. This information is verified using CIM\_ArchitectureCheck. The combination of these constructs clearly

identifies the level of OS required for a particular SoftwareElement.

### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = MACOS
- 3 = ATTUNIX
- 4 = DGUX
- 5 = DECNT
- 6 = Tru64 UNIX
- 7 = OpenVMS
- 8 = HPUX
- 9 = AIX
- 10 = MVS
- 11 = OS400
- 12 = OS/2
- 13 = JavaVM
- 14 = MSDOS
- 15 = WIN3x
- 16 = WIN95
- 17 = WIN98
- 18 = WINNT
- 19 = WINCE

Property Description

- 20 = NCR3000
- 21 = NetWare
- 22 = OSF
- 23 = DC/OS
- 24 = Reliant UNIX
- 25 = SCO UnixWare
- 26 = SCO OpenServer
- 27 = Sequent
- 28 = IRIX
- 29 = Solaris
- 30 = SunOS
- 31 = U6000
- 32 = ASERIES
- 33 = HP NonStop OS
- 34 = HP NonStop OSS
- 35 = BS2000
- 36 = LINUX
- 37 = Lynx
- 38 = XENIX
- 39 = VM
- 40 = Interactive UNIX
- 41 = BSDUNIX
- 42 = FreeBSD
- 43 = NetBSD
- 44 = GNU Hurd
- 45 = OS9
- 46 = MACH Kernel
- 47 = Inferno
- 48 = QNX
- 49 = EPOC
- 50 = IxWorks
- 51 = VxWorks
- 52 = MiNT
- 53 = BeOS
- 54 = HP MPE
- 55 = NextStep
- 56 = PalmPilot
- 57 = Rhapsody
- 58 = Windows 2000
- 59 = Dedicated
- 60 = OS/390
- 61 = VSE
- 62 = TPF
- 63 = Windows (R) Me
- 64 = Caldera Open UNIX

Property	Description
	• 65 = OpenBSD
	• 66 = Not Applicable
	• 67 = Windows XP
	• 68 = z/OS
	<ul> <li>69 = Microsoft Windows Server 2003</li> </ul>
	<ul> <li>70 = Microsoft Windows Server 2003 64-Bit</li> </ul>
	• 71 = Windows XP 64-Bit
	• 72 = Windows XP Embedded
	• 73 = Windows Vista
	• 74 = Windows Vista 64-Bit
	<ul> <li>75 = Windows Embedded for Point of Service</li> </ul>
	<ul> <li>76 = Microsoft Windows Server 2008</li> </ul>
	• 77 = Microsoft Windows Server 2008 64-Bit
Version	Displays the version of the BIOS.

### DCIM\_ConcreteJob

Property	Description
Description	Provides a textual description of the object.
ErrorCode	A vendor-specific error code. The value must be set to zero if the Job completed without error. Note that this property is also present in the JobProcessingStatistics class. This class is necessary to capture the processing information for recurring Jobs, because only the 'last' run error can be stored in this single-valued property.
Error Description	A free-form string that contains the vendor error description. Note that this property is also present in the JobProcessingStatistics class. This class is necessary to capture the processing information for recurring Jobs, because only the <b>last</b> run error can be stored in this single-valued property.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid> . <localid> is chosen by the business entity and should not</localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>

Property	Description
	be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid>set to CIM.</orgid>
JobRunTimes	The number of times that the Job should be run. A value of 1 indicates that the Job is not recurring, while any non-zero value indicates a limit to the number of times that the Job will recur. Zero indicates that there is no limit to the number of times that the Job can be processed, but that it is terminated either after the UntilTime or by manual intervention. By default, a Job is processed once.
JobStatus	A free-form string that represents the status of the job. The primary status is reflected in the inherited OperationalStatus property. JobStatus provides additional, implementation-specific details.
Name	The user-friendly name for this instance of a Job. In addition, the user-friendly name can be used as a property for a search or query.
	<b>NOTE:</b> Name does not have to be unique within a namespace.
Priority	Indicates the urgency or importance of execution of the Job. The lower the number, the higher the priority. Note that this property is also present in the JobProcessingStatistics class. This class is necessary to capture the setting information that would influence the results of a job.
TimeBeforeRemoval	The amount of time that the Job is retained after it has finished executing, either succeeding or failing in that execution. The job must remain in existence for some period of time regardless of the value of the DeleteOnCompletion property. The default is five minutes.

### DCIM\_BootSourceSetting

Property	Description
BIOSBootString	A string identifying the boot source which corresponds to the string used by the BIOS to uniquely name the boot source. For example, in systems which implement the BIOS Boot Specification, the string could correspond to the descString string for entries in the IPL Table or BCV Table.
ElementName	The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.
	<b>NOTE:</b> The name does not have to be unique within a namespace.
FailThroughSupported	An enumeration indicating the behavior when the attempt to boot using the boot source fails (no media, timeout).

#### **Property**

#### Description

Possible values are:

- 0 = Unknown
- 1 = Is Supported Indicates that next boot source the boot order is used
- 2 = Not Supported Indicates that the boot order is terminated and no other boot sources associated to the same CIM\_BootConfigSetting are used).

The default value is **1** (is supported).

#### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm: <OrgID> : <LocalID> Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID>. <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID> set to CIM.

### StructuredBootString

A string identifying the boot source using the format **<OrgID>:<identifier>:<index>**, in which neither<OrgID>, <identifier> or <index> contains a colon (:). The value of <OrgID>is a copyrighted, trademarked or otherwise unique name that is owned by the entity defining the <identifier>, or is a registered ID that is assigned to the entity by a recognized global authority. For DMTF defined identifiers, the <OrgID> is set to **CIM**.

The <identifiers> are:

- Floppy
- Hard-Disk
- CD/DVD
- Network
- PCMCIA
- USB

The value of <index> is a non-zero integer.

### DCIM\_BootConfigSetting

### Property Description

#### **ElementName**

The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.



**NOTE:** The name does not have to be unique within a namespace.

### InstanceID

Within the scope of the instantiating Namespace, InstancelD opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm: <OrgID> <LocalID> Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name>structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID>. <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID> set to CIM.

### ChangeBootOrder (Method)

This method is called to change the boot order within a boot configuration. An ordered array of BootSourceSetting instances is passed to this method. Each BootSourceSetting instance MUST already be associated with this BootConfigSetting instance via an instance of OrderedComponent. If not, the implementation MUST return a value of Invalid Parameter. Upon execution of this method, the value of the Assigned Sequence property on each instance of OrderedComponent will be updated such that the values are monotonically increasing in correlation with the position of the referenced BootSourceSetting instance in the source input parameter. That is, the first position in the array will have the lowest value for AssignedSequence. The second position will have the second lowest value, and so on. For BootSourceSetting instances which are associated with the BootConfigSetting instance via OrderedComponent and not present in the input array, the AssignedSequence property on the OrderedComponent association will be assigned a value of **0**.

Property	Description
AddressOrigin	AddressOrigin identifies the method by which the IP Address, Subnet Mask, and Gateway were assigned to the IPProtocolEndpoint.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	<ul> <li>2 = Not Applicable — Indicates that the application of the IPAssignmentSettingData instance does not affect these properties.</li> </ul>
	• 3 = Static — Indicates that values for the properties are contained in the IPAssignmentSettingData instance.
	• 4 = DHCP — Indicates that the values will be assigned via DHCP.
	<ul> <li>5 = BOOTP — Indicates that the values will be assigned via BOOTP.</li> </ul>
	• 632767 = DMTF Reserved
	• 32768 = Vendor Reserved
ElementName	The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.
	<b>NOTE:</b> The name does not have to be unique within a namespace.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquel and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <i ocalid=""></i></orgid></orgid></class></schema></orgid></localid></orgid>

appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above **preferred** algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

### DCIM\_PowerAllocationSettingData

### Property Description ElementName The user-frie

The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.



**NOTE:** The name does not have to be unique within a namespace.

### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID> : <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

### Limit

This property specifies the upper bound, or maximum amount of resource that is granted for this allocation. For example, a system which supports memory paging may support setting the Limit of a Memory allocation below that of the VirtualQuantity, thus forcing paging to occur for this allocation.

### PowerAllocationSettingPurpos

When power is consumed by or allocated to a ManagedSystemElement, there may be well-known or meaningful levels of allocation or consumption for the ManagedSystemElement. The PowerAllocationSettingPurpose property may be used to identify the well known level or provide context for the interpretation of the other values of the PowerAllocationSettingData instance. A value of MaxConAuxiliary indicates that the instance provides information about the maximum power allocated or consumed by the ManagedSystemElement as currently configured, while the ManagedSystemElement is turned off and drawing auxiliary power. Note that an alternate name for auxiliary power is trickle power.

Possible values are:

- 1 = Other
- 2 = MaxConAuxiliary
- 3 = MinWhenOn Indicates the instance provides information about the minimum value for power consumption for which a

### **Property**

#### Description

configuration of the ManagedSystemElement exists such that when it is powered on and operating in that configuration, the power consumption of the ManagedSystemElement is guaranteed not to exceed the specified amount.

- 4 = MaxAsConfigured Indicates that the instance provides information about the maximum power that may be allocated to or consumed by the ManagedSystemElement as currently configured while powered on. The actual power consumed may he less
- 5 = MaxIfAllHotPlug Indicates that the instance provides information about the maximum power allocated or consumed by the ManagedSystemElement if all components that could be added to the ManagedSystemElement without requiring a power cycle of the ManagedSystemElement were added to the ManagedSystemElement.
- 6 = MaxIfAllColdPlug Indicates that the instance provides information about the maximum power allocated or consumed by the ManagedSystemElement if all components that could be added to the ManagedSystemElement, including those that require a power cycle of the ManagedSystemElement, were added to the ManagedSystemElement.
- 7 = Allocated Indicates that the instance provides information about the current power allocated to the ManagedSystemElement.
- 8 = MinWithoutDegradation Indicates that the instance provides information about the minimum power allocated or consumed by the ManagedSystemElement without causing performance degradation.
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

### ResourceType

The type of resource this allocation setting represents.

### Possible values are:

- 1 = Other
- 2 = Computer System
- 3 = Processor
- 4 = Memory
- 5 = IDE Controller
- 6 = Parallel SCSI HBA
- 7 = FC HBA
- 8 = iSCSI HBA
- 9 = IB HCA
- 10 = Ethernet Adapter
- 11 = Other Network Adapter
- 12 = I/O Slot
- 13 = I/O Device
- 14 = Floppy Drive
- 15 = CD Drive
- 16 = DVD drive
- 17 = Disk Drive
- 18 = Tape Drive

Property	Description
	• 19 = Storage Extent
	<ul> <li>20 = Other storage device</li> </ul>
	• 21 = Serial port
	• 22 = Parallel port
	• 23 = USB Controller
	• 24 = Graphics controller
	• 25 = IEEE 1394 Controller
	• 26 = Partitionable Unit
	• 27 = Base Partitionable Unit
	• 28 = Power
	<ul> <li>29 = Cooling Capacity</li> </ul>
	• 30 = Ethernet Switch Port
	• 31 = Logical Disk
	• 32 = Storage Volume
	• 33 = Ethernet Connection
	• = DMTF reserved
	<ul> <li>0x80000xFFFF = Vendor Reserved</li> </ul>

### DCIM\_AssetAcquisition

Property	Description
CostCenter	Identifying information for the accounting unit withinthe purchasing company that authorized the purchase.
ElementName	The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.
	<b>NOTE:</b> The name does not have to be unique within a namespace.
InstallationDate	Date the system was put into service by the purchasing company.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid> .<localid> is chosen by the business entity and should not</localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>

Property	Description
	be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid> set to CIM.</orgid>
PurchaseCost	The Purchase Cost field accepts whole numbers only.Entering commas, decimal points, or dollar signsresults in an error message. Value expressed in currency unit that was paid for the system, for example, 25000.
	Possible values are:
	<ul><li>032767 = DMTF Reserved</li><li>3276865535 = Vendor Reserved</li></ul>
PurchaseDate	Date the transaction for acquiring the system was completed.
ReferenceToDeliverySlip	Identifying information for the waybill or delivery slip, such as a waybill number.
	Possible values are:
	<ul><li>032767 = DMTF Reserved</li><li>3276865535 = Vendor Reserved</li></ul>
ReferenceToPONumber	Number of the purchase order that authorized buying the system.
	Possible values are:
	<ul><li>032767 = DMTF Reserved</li><li>3276865535 = Vendor Reserved</li></ul>

### ${\tt DCIM\_AssetExtendedWarrantyInformation}$

Property	Description
Cost	Displays the total cost of the warranty service on a system.
	Possible values are:
	<ul><li>032767 = DMTF Reserved</li><li>3276865535 = Vendor Reserved</li></ul>
ElementName	The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.
	<b>NOTE:</b> The name does not have to be unique within a namespace.
EndDate	Displays the date that extended warranty service ends.

Property	Description
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid>. <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <orgid> set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
ProviderName	Displays the name of the business that is providing warranty service to the system owner.
StartDate	Displays the date that extended warranty service begins. This date usually follows the standard warranty service.

### DCIM\_AssetOwnerInformation

Property	Description
ElementName	The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.
	<b>NOTE:</b> The name does not have to be unique within a namespace.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <locaiid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness,</class></schema></orgid></locaiid></orgid>

Property	Description
	<orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid> . <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <orgid>set to CIM.</orgid></localid></localid></orgid></orgid>
InsuranceCompany	The company that insures the system against theft or other loss.
OwnerName	The individual or business entity that holds legal title to the system.
Туре	The individual or business entity that holds legal title to the system. Type Whether the system is owned, rented, leased, managed by transfer, or off-lease.
	Possible values are:
	<ul> <li>0 = Owned</li> <li>1 = Leased</li> <li>3 = Rented</li> <li>4 = Off Lease</li> <li>532767 = Transfer</li> <li>3276865535 = DMTF Reserved</li> </ul>
Set Asset Owner Information (Method)	This method allows the user to change the Insurance Company and Owner Name of the system.

### DCIM\_AssetSupportInformation

Property	Description
AutomaticFix	Method used to fix the problem.
ElementName	The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.
	<b>NOTE:</b> The name does not have to be unique within a namespace.
HelpDesk	Name of the help desk that provides technical support for your system;information provided by the help desk.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid>:<localid></localid></orgid>

Property	Description
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid>. <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <orgid> set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
Outsourced	Indicates whether you have contracted with an outside business entity to provide technical support for your system.
Туре	Indicates whether a support request is for a problem with your system's network connectivity or with a particular system component.
	Possible values are:
	<ul> <li>0 = Network</li> <li>1 = Storage</li> <li>232767 = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>

### DCIM\_AssetWarrantyInformation

Property	Description
Cost	The total cost of the warranty service on a system.
	Possible values are:
	<ul> <li>032767 = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
Duration	The number of days or months that the warranty is to be in force.
	Possible values are:
	<ul><li>032767 = DMTF Reserved</li><li>3276865535 = Vendor Reserved</li></ul>
ElementName	The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.
	<b>NOTE:</b> The name does not have to be unique within a namespace.

Property	Description
EndDate	The date that extended warranty service ends.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid>. <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid> set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
UnitType	Indicates whether the length of the warranty is measured in days or months.
	Possible values are:
	<ul> <li>0 = Days</li> <li>1 = Months</li> <li>232767 = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>

### DCIM\_AssetSystemInformation

Property	Description
ChassisAssetTag	Chassis Asset Tag of the system.
ElementName	The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.
	<b>NOTE:</b> The name does not have to be unique within a namespace.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:

Property	Description
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name="">structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid>. <localid> chosen by the business entity and should not be reused to identify different underlying (realworld) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid> set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
PrimaryUserName	Text that provides the name for the person responsible for managing the system.
PrimaryUserPhone	Telephone number for the person responsible for managing the system.
SystemLocation	Alphanumeric text that specifies where the system is, such as building and room.
SystemName	Alphanumeric text that uniquely identifies the system.

### DCIM\_AMTSettings

Property	Description
AMTSupported	Defines if Intel AMT is supported.
Description	Provides a textual description of the object.
IDEREnabled	Defines if IDE redirection is enabled.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness,</class></schema></orgid></localid></orgid>

Property	Description
	<orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid>. <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b>algorithm must be used with the <orgid> set to CIM.</orgid></localid></localid></orgid></orgid>
SOLEnabled	Defines if Serial Over LAN capability is enabled.

### DCIM\_ASFSettings

Property	Description
ASFEnabled	Defines if Intel ASF is enabled.
Description	Provides a textual description of the object.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm: <orgid>:<localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid>. <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid> set to CIM.</orgid></localid></localid></orgid></orgid></orgid></localid></orgid>
StructureVersion	Defines the version of the Intel ASF structure.

### DCIM\_VProSettings

Property	Description
BIOSS upported Maximum VAVe rsion	Defines the maximum VA version supported by the BIOS. A value of 0 means the the highest version supported by BIOS is VA 2.6. A value of 1 means the the highest version supported by BIOS is VA 3.0.
Description	Provides a textual description of the object.

#### **Property**

#### Description

#### **ElementName**

The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.



**NOTE:** The name does not have to be unique within a namespace.

### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID> : <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

#### **LTTXTEnabledState**

Defines CPU LT/TXT enabled state for vPro brand.

Possible values are:

- 2 = Enabled
- 3 = Disabled
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

### SMXState

Defines CPU SMX state for vPro brand.

Possible values are:

- 2 = Enabled
- 3 = Disabled
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

### SPIFlashhasPlatformDataRegionReserved

SPIFlashhasPlatformDataRegio Defines if SPI flash has a platform data region reserved.

Possible values are:

- 2 = Enabled
- 3 = Disabled
- .. = DMTF Reserved

Property	Description
	• 3276865535 = Vendor Reserved
SupportedBIOSsetup	SupportedBIOSsetup defines if BIOS setup properties are supported.
	Possible values are:
	• 2 = SupportsMEinBIOSSetup — Defines if ME is supported in BIOS setup.
	<ul> <li>3 = SupportsTPMinBIOSSetup — Defines if TPM is supported in BIOS setup.</li> </ul>
	<ul> <li>4 = SupportsTXTinBIOSSetup — Defines if TXT is supported in BIOS setup.</li> </ul>
	<ul> <li>5 = SupportsVAExtensions — Defines if VA extensions are supported by the BIOS.</li> </ul>
	<ul> <li>6 = SupportsVTdinBIOSSetup — Defines if VT-d is supported in BIOS setup.</li> </ul>
	<ul> <li>7 = SupportsVTxinBIOSSetup — Defines if VT-x is supported in BIOS setup</li> </ul>
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
TXTStateInMCHState	Defines TXT state in MCH for vPro brand.
	Possible values are:
	• 2 = Enabled
	• 3 = Disabled
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
VMXState	Defines CPU VMX state for vPro brand.
	Possible values are:
	• 2 = Enabled
	• 3 = Disabled
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved
VProCharacteristics	VProCharacteristics defines if VPro setup properties are supported.
	Possible values are:
	<ul> <li>2 = CPUSupportsVTx — CPUSupportsVTx:Defines if the CPU supports VT-x for vPro brand.</li> </ul>
	<ul> <li>3 = MCHSupportForVTd — MCHSupportForVTd:Defines if the MCH supports TXT for vPro brand.</li> </ul>
	<ul> <li>4 = LTTXTCapability — LTTXTCapability:Defines CPU LT/TXT capability for vPro brand.</li> </ul>
	<ul> <li>5 = SupportsTPMOnBoard — SupportsTPMOnBoard:Defines if an on board TPM is supported for vPro brand.</li> </ul>
	• = DMTF Reserved
	• 3276865535 = Vendor Reserved

Property	Description
VTdState	Defines VT-d state for vPro brand.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li> = DMTF Reserved</li> </ul>
	• 3276865535 = Vendor Reserved
VTxEnabledState	Defines CPU VT-x state for vPro brand.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>

### ${\tt DCIM\_AlertIndicationSettingData}$

Property	Description
J ,	The identifying information of the entity (instance) for which this Indication is generated. The property contains the path of an instance, encoded as a string parameter — if the instance is modeled in the CIM Schema. If not a CIM instance, the property contains some identifying string that names the entity for which the Alert is generated. The path or identifying string is formatted per the AlertingElementFormat property.
AlertType	Primary classification of the Indication.
	Possible values are:
	<ul> <li>1 = Other — The Indication's OtherAlertType property conveys its classification. Use of <b>Other</b> in an enumeration is a standard CIM convention. It means that the current Indication does not fit into the categories described by this enumeration.</li> </ul>
	<ul> <li>2 = Communications Alert — An Indication of this type is principally associated with the procedures and/or processes required to convey information from one point to another.</li> </ul>
	<ul> <li>3 = Quality of Service Alert — An Indication of this type is principally associated with a degradation or errors in the performance or function of an entity.</li> </ul>
	<ul> <li>4 = Processing Error — An Indication of this type is principally associated with a software or processing fault.</li> </ul>
	<ul> <li>5 = Device Alert — An Indication of this type is principally associated with an equipment or hardware fault.</li> </ul>
	<ul> <li>6 = Environmental Alert — An Indication of this type is principally associated with a condition relating to an enclosure in which the hardware resides, or other environmental considerations.</li> </ul>
	<ul> <li>7 = Model Change — The Indication addresses changes in the Information Model. For example, it may embed a Lifecycle Indication to convey the specific model change being alerted.</li> </ul>

## Property Description • 8 = Security of Se

• 8 = Security Alert — An Indication of this type is associated with security violations, detection of viruses, and similar issues.

### **ElementName**

The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.



**NOTE:** The name does not have to be unique within a namespace.

#### **EventID**

The identification number for events of this type.

### IndicationIdentifier

An identifier for the Alert indication. This property is similar to a key value in that it can be used for identification, when correlating Alert indications (see the Correlated indications array). Its value should be unique as long as Alert correlations are reported, but may be reused or left NULL if no future Alert indications will reference it in their Correlated indications array.

### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID> : <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <OrgID> set to CIM.LocalOnly.

### LocalOnly

This property shows if the events from this the event source should be reported to the local indication consumer only or should be reported to CIMOM as an indication. TRUE for reporting to local consumer only, and FALSE for reporting as an indication.

### MaxDisplayNotifications

The maximum number of indications of this type that will be sent to the local display.

### MaxNTEventLogNotifications

The maximum number of indications of this type that will be sent to the local display.

#### Name

The label by which the Configuration object is known.

Property	Description
OtherAlertType	A string describing the Alert type - used when the Alert type property is set to 1, <b>Other State Change</b> .
PollEnabled	This property shows if status-polling of the event source is enabled or not. TRUE for enable, and FALSE for disabled.
PollingInterval	The polling interval for event source, in seconds.
ProbableCause	An enumerated value that describes the probable cause of the situation which resulted in the AlertIndication.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	• 2 = Adapter/Card Error
	• 3 = Application Subsystem Failure
	• 4 = Bandwidth Reduced
	• 5 = Connection Establishment Error
	6 = Communications Protocol Error
	• 7 = Communications Subsystem Failure
	8 = Configuration/Customization Error     Consection
	9 = Congestion
	<ul> <li>10 = Corrupt Data</li> <li>11 = CPU Cycles Limit Exceeded</li> </ul>
	• 12 = Dataset/Modem Error
	• 13 = Degraded Signal
	• 14 = DTE-DCE Interface Error
	• 15 = Enclosure Door Open
	• 16 = Equipment Malfunction
	• 17 = Excessive Vibration
	• 18 = File Format Error
	• 19 = Fire Detected
	• 20 = Flood Detected
	• 21 = Framing Error
	• 22 = HVAC Problem
	• 23 = Humidity Unacceptable
	• 24 = I/O Device Error
	<ul> <li>25 = Input Device Error</li> <li>26 = LAN Error</li> </ul>
	<ul> <li>26 = LAN Error</li> <li>27 = Non-Toxic Leak Detected</li> </ul>
	27 = Non-Toxic Leak Detected     28 = Local Node Transmission Error
	<ul> <li>28 = Local Node Transmission Error</li> <li>29 = Loss of Frame</li> </ul>
	• 30 = Loss of Signal
	• 31 = Material Supply Exhausted
	• 32 = Multiplexer Problem
	• 33 = Out of Memory
	• 34 = Output Device Error
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### Property Description

- 35 = Performance Degraded
- 36 = Power Problem
- 37 = Pressure Unacceptable
- 38 = Processor Problem (Internal Machine Error)
- 39 = Pump Failure
- 40 = Queue Size Exceeded
- 41 = Receive Failure
- 42 = Receiver Failure
- 43 = Remote Node Transmission Error
- 44 = Resource at or Nearing Capacity
- 45 = Response Time Excessive
- 46 = Retransmission Rate Excessive
- 47 = Software Error
- 48 = Software Program Abnormally Terminated
- 49 = Software Program Error (Incorrect Results)
- 50 = Storage Capacity Problem
- 51 = Temperature Unacceptable
- 52 = Threshold Crossed
- 53 = Timing Problem
- 54 = Toxic Leak Detected
- 55 = Transmit Failure
- 56 = Transmitter Failure
- 57 = Underlying Resource Unavailable
- 58 = Version MisMatch
- 59 = Previous Alert Cleared
- 60 = Login Attempts Failed
- 61 = Software Virus Detected
- 62 = Hardware Security Breached
- 63 = Denial of Service Detected
- 64 = Security Credential MisMatch
- 65 = Unauthorized Access
- 66 = Alarm Received
- 67 = Loss of Pointer
- 68 = Payload Mismatch
- 69 = Transmission Error
- 70 = Excessive Error Rate
- 71 = Trace Problem
- 72 = Element Unavailable
- 73 = Element Missing
- 74 = Loss of Multi Frame
- 75 = Broadcast Channel Failure
- 76 = Invalid Message Received
- 77 = Routing Failure
- 78 = Backplane Failure
- 79 = Identifier Duplication

Property Description

- 80 = Protection Path Failure
- 81 = Sync Loss or Mismatch
- 82 = Terminal Problem
- 83 = Real Time Clock Failure
- 84 = Antenna Failure
- 85 = Battery Charging Failure
- 86 = Disk Failure
- 87 = Frequency Hopping Failure
- 88 = Loss of Redundancy
- 89 = Power Supply Failure
- 90 = Signal Quality Problem
- 91 = Battery Discharging
- 92 = Battery Failure
- 93 = Commercial Power Problem
- 94 = Fan Failure
- 95 = Engine Failure
- 96 = Sensor Failure
- 97 = Fuse Failure
- 98 = Generator Failure
- 99 = Low Battery
- 100 = Low Fuel
- 101 = Low Water
- 102 = Explosive Gas
- 103 = High Winds
- 104 = Ice Buildup
- 105 = Smoke
- 106 = Memory Mismatch
- 107 = Out of CPU Cycles
- 108 = Software Environment Problem
- 109 = Software Download Failure
- 110 = Element Reinitialized
- 111 = Timeout
- 112 = Logging Problems
- 113 = Leak Detected
- 114 = Protection Mechanism Failure
- 115 = Protecting Resource Failure
- 116 = Database Inconsistency
- 117 = Authentication Failure
- 118 = Breach of Confidentiality
- 119 = Cable Tamper
- 120 = Delayed Information
- 121 = Duplicate Information
- 122 = Information Missing
- 123 = Information Modification
- 124 = Information Out of Sequence

Property	Description
	• 125 = Key Expired
	<ul> <li>126 = Non-Repudiation Failure</li> </ul>
	• 127 = Out of Hours Activity
	• 128 = Out of Service
	• 129 = Procedural Error
	<ul> <li>130 = Unexpected Information</li> </ul>
StartDelay	The start delay before polling the event source, in seconds.

### DCIM HDDAlertIndicationSettingData

Property	Description
ElementName	The user-friendly name for this instance of SettingData. In addition, the user-friendly name can be used as an index property for a search or query.
	<b>NOTE:</b> The name does not have to be unique within a namespace.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid>. <localid> is chosen by the business entity and should no be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assurthat the resulting InstanceID is not reused across any InstanceIDs</localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>

### DCIM\_BaseMetricValue

Property	Description
Duration	Property that represents the time duration over which this metric value is valid. This property should not exist for timestamps that apply only to a point in time but should be defined for values that are considered valid for a certain time period (ex. sampling). If the

produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

Property	Description
	<b>Duration</b> property exists and is non null, the TimeStamp is to be considered the end of the interval.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. In order to ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid>. <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid> set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
MetricDefinitionId	The key of the BaseMetricDefinition instance for this CIM_BaseMetricValue instance value.
MetricValue	The value of the metric represented as a string. Its original data type is specified in CIM_BaseMetricDefinition.
TimeStamp	Identifies the time when the value of a metric instance is computed. Note that this is different from the time when the instance is created. For a given CIM_BaseMetricValue instance, the TimeStamp changes whenever a new measurement snapshot is taken if Volatile is true. A managmenet application may establish a time series of metric data by retrieving the instances of CIM_BaseMetricValue and sorting them according to their TimeStamp.
Volatile	If true, Volatile indicates that the value for the next point in time may use the same object and just change its properties (such as the value or timestamp). If false, the existing objects remain unchanged and a new object is created for the new point in time.

### DCIM\_LogEntry

Property	Description
CreationTimeStamp	A LogEntry may include a timestamp for the entry.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid> . <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid>set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
RecordData	A string containing LogRecord data. If the corresponding RecordFormat property is <empty>, or cannot be parsed according to the recommended format, RecordData should be interpreted as a free-form string. If the RecordFormat property contains parseable format information (as recommended in the RecordFormat Description qualifier), the RecordData string SHOULD be parsed in accordance with this format. In this case, RecordData SHOULD begin with the delimiter character and this character SHOULD be used to separate substrings in the manner described. The RecordData string can then be parsed by the data consumer and appropriately typed.</empty>
RecordFormat	A string describing the data structure of the information in the property, RecordData. If the RecordFormat string is <empty>, RecordData should be interpreted as a free-form string.</empty>

Property	Description
	To describe the data structure of RecordData, the RecordFormat string should be constructed as follows:
RecordID	RecordID may be used to provide a representation of log entry ordering or pointers/handles for log entries.

### DCIM\_IndicatorLEDCapabilities

Property	Description
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid> . <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid>set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
SupportedActivationStates	SupportedActivationStates indicates the supported activation states for the associated IndicatorLED. See CIM_IndicatorLED.ActivationState for descriptions of the values.
	Possible values are:
	<ul> <li>2 = Lit</li> <li>3 = Blinking</li> <li>4 = Off</li> <li>5 = Control Pattern</li> <li> = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
SupportedColors	This property indicates the colors supported by the associated instance of CIM_IndicatorLED.
	Possible values are:
	<ul> <li>1 = Other</li> <li>3 = White</li> <li>4 = Red</li> </ul>

### **Property**

### Description

- 5 = Green
- 6 = Blue
- 7 = Orange
- 8 = Yellow
- 9 = Black
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

### **SupportedControlModes**

SupportedControlModes indicates the control modes supported for the LED.See CIM\_IndicatorLED.CurrentControlMode for more information.

#### Possible values are:

- 2 = Automatic
- 3 = Manual
- 4 = Test
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

### **SupportedControlPatterns**

SupportedControlPatterns describes the control patterns supported by the associated LED. The values of SupportedControlPatterns may be an exact match for values allowed for

CIM\_IndicatorLED.ControlPatterns or may indicate general categories of behavior. The interpretation of value is specific to the business entity identified by <OrgID>. Each value of SupportedControlPatterns is constructed using the following preferred algorithm: <OrgID>::<Pattern>Where <OrgID> and <</pre> Pattern> are separated by two colons (::), and where <OrgID> includes a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the ControlPattern or that is a registered ID assigned to the business entity by a recognized global authority. <Pattern> is chosen by the business entity and is not reused to identify different underlying (realworld) behaviors. If the behavior specified for the LED adheres to a standard or proprietary specification, <Pattern> is a uniquely assigned value identifying the behavior. If the behavior for the LED is described using a standard or proprietary grammar, <Pattern>is prefixed with a uniquely assigned identifier for the grammar.

### SupportedIndicatedConditions

The conditions that may be indicated by the LED.See CIM\_IndicatorLED.IndicatedCondition for a description of the values.

### Possible values are:

- 1 = Other
- 3 = Location
- 4 = Attention
- 5 = Activity
- 6 = Powered On
- 7 = Fault
- .. = DMTF Reserved

Property	Description
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• 32768..65535 = Vendor Reserved

### DCIM\_ProcessorCapabilities

Property	Description
ElementNameEditSupported	Boolean indicating whether the ElementName can be modified.
ElementNameMask	This string expresses the restrictions on ElementName. The mask is expressed as a regular expression. See DMTF standard ABNF with the Profile Users Guide, appendix C for the regular expression syntax permitted. Since the ElementNameMask can describe the maximum length of the ElementName, then the requirements expressed in this property takes precidence of any length expressed in MaxElementNameLen.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid> . <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid>set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
Number Of Hardware Threads	Number of hardware threads available for the processor. May be obtained from SMBIOS v2.5 4 offset 25h.
Number Of Processor Cores	Number of processor cores available for processor. This number would not include cores disabled by hardware and may be obtained from SMBIOS 2.5 Type 4 offset 23h.

### DCIM\_AccountManagementCapabilities

Property	Description
ElementNameEditSupported	Boolean indicating whether the ElementName can be modified.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. In order to ensure uniqueness within the NameSpace, the value of InstanceID SHOULD be constructed using the following <b>preferred</b> algorithm:
	<orgid>:<localid></localid></orgid>
	Where <orgid> and <localid>are separated by a colon ':', and where MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the <schema_name>_<class_name>structure of Schema class names.) In addition, to ensure uniqueness MUST NOT contain a colon (':'). When using this algorithm, the first colon to appear in InstanceID MUST appear between <orgid> and <localid>. <localid> is chosen by the business entity and SHOULD not be re-used to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity MUST assure that the resultant InstanceID is not re-used across any InstanceIDs produced by this or other providers for this instance's NameSpace. For DMTF defined instances, the <b>preferred</b> algorithm MUST be used with the <orgid>set to 'CIM'.</orgid></localid></localid></orgid></class_name></schema_name></localid></orgid>
Operations Supported	OperationsSupported describes the type of operations that are supported for an Account associated with the AccountManagementService.
	Possible values are:
	<ul> <li>2 = Create — Indicates the AccountManagementService may be used to create new accounts.</li> <li>3 = Modify — Indicates that the associated Accounts may be modified.</li> <li>4 = Delete — Indicates that associated Accounts may be deleted.</li> <li> = DMTF Reserved</li> <li>0x80000xFFFF = Vendor Reserved</li> </ul>
	• UXOUUUUXFFFF = VEHUUI RESEIVEU

### ${\tt DCIM\_BootServiceCapabilities}$

Property	Description
BootStringsSupported	An enumeration indicating the boot string properties in the CIM_BootSourceSetting which are supported. If the array contains a value, then all the BootSourceSetting instances managed by the service are guaranteed to have a non-null value for the corresponding property. Since this is an array, multiple values may be specified.

### **Property** Description Possible values are:

- 2 = BootString
- 3 = BIOSBootString
- 4 = StructuredBootString

#### **ElementName**

The user friendly name for this instance of Capabilities. In addition, the user friendly name can be used as a index property for a search of query.



NOTE: Name does not have to be unique within a namespace.

#### ElementNameEditSupported

Boolean indicating whether the ElementName can be modified.

#### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. In order to ensure uniqueness within the NameSpace, the value of InstanceID SHOULD be constructed using the following **preferred** algorithm: <OrgID> : <LocalID> Where <OrgID> and <LocalID> are separated by a colon ':', and where <OrgID> MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness <OrgID> MUST NOT contain a colon (':'). When using this algorithm, the first colon to appear in InstanceID MUST appear between <OrgID> and <LocalID>. <LocalID>is chosen by the business entity and SHOULD not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity MUST assure that the resultant InstanceID is not re-used across any InstanceIDs produced by this or other providers for this instance's NameSpace. For DMTF defined instances, the preferred algorithm MUST be used with the <OrgID> set to 'CIM'.

#### DCIM\_PlatformWatchdogServiceCapabilities

Property	Description
ActionOnExpirationSupported	ActionOnExpirationSupported indicates the actions which can be performed when the watchdog timer expires. See CIM_PlatformWatchdogService.ActionOnExpiration for a description of the values.
	Possible values are:
	• 2 = None - Status Only
	• 3 = System Reset
	• 4 = System Power Off
	• 5 = System Power Off, then On
	• 6 = Generate System NonMaskableInterrupt (NMI)
	• 7 = Generate System Management Interrupt (SMI)

#### Description

• 8 = Reset Monitored Entity

#### **ElementName**

The user friendly name for this instance of Capabilities. In addition, the user friendly name can be used as a index property for a search of query.



NOTE: Name does not have to be unique within a namespace.

#### ElementNameEditSupported

Boolean indicating whether the ElementName can be modified.

#### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID>: <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

#### LastExpirationDataSupported

LastExpirationDataSupported indicates the data which is provided on the last expiration of the watchdog timer. The values in the enumeration are: A value set to 2 **(Time)**indicates that the time of the last expiration is provided.

#### RequestedStatesSupported

RequestedStatesSupported indicates the possible states that can be requested when using the method RequestStateChange on the EnabledLogicalElement.

Possible values are:

- 2 = Enabled
- 3 = Disabled
- 4 = Shut Down
- 6 = Offline
- 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset

Property	Description
Watelanda a Tima a Data Carra a sala d	\

**WatchdogTimerDataSupported** WatchdogTimerDataSupported indicates the data which is provided on the value of the watchdog timer.

Possible values are:

- 2 = Current Value Indicates that the time of the current value of the timer is provided.
- 3 = Timer Resolution Indicates that the timer resolution for the last expiration is provided.

#### DCIM\_DHCPCapabilities

Property	Description
ElementName	The user friendly name for this instance of Capabilities. In addition, the user friendly name can be used as an index property for a search of query.
	<b>NOTE:</b> Name does not have to be unique within a namespace.
ElementNameEditSupported	Boolean indicating whether the ElementName can be modified.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This</orgid></localid></orgid>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above **preferred** algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

### $DCIM\_PowerUtilizationManagementCapabilities$

Property	Description
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:

#### Description

<OrgID>: <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <OrgID>set to CIM.

#### RequiredCustomSettings

Array of custom power utilization algorithm settings required by the RequestPowerUtilizationAlgorithm and RequestPowerUtilizationAlgorithmEI methods' CustomSettingNames parameter, if the RequestedAlgorithm parameter has value of 2 (Custom Settings Based).

Possible values are:

- 0 = Unknown
- 2 = CPUPowerMode
- 3 = MemoryPowerMode
- 4 = OtherMemoryPowerMode
- 5 = FanPowerMode

#### SupportedMethods

Each enumeration corresponds to support for the like-named method of the MetricService.

Possible values are:

- .. = DMTF Reserved
- 32768 = RequestPowerUtilizationLimit
- 32769 = RequestPowerUtilizationAlgorithm
- 32770 = RequestPowerUtilizationAlgorithmEI
- 32771..65535 = Vendor Specific

### SupportedRequestedAlgorithm

Array of power utilization algorithms supported by the RequestPowerUtilizationAlgorithm and RequestPowerUtilizationAlgorithmEI methods RequestedAlgorithm parameter of the associated Service.

#### SupportedUtilizationLimitUnits

Array of programmatic units for power utilization limit supported by the RequestPowerUtilizationLimit method's UtilizationLimit parameter.

### DCIM\_EnabledLogicalElementCapabilities

#### **Property** Description **ElementName** The user friendly name for this instance of Capabilities. In addition. the user friendly name can be used as a index property for a search of query. **NOTE:** Name does not have to be unique within a namespace. **ElementNameEditSupported** Boolean indicating whether the ElementName can be modified. InstanceID Within the scope of the instantiating Namespace, InstancelD opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm: <OrgID> : <LocalID> Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <OrgID>set to CIM. RequestedStatesSupported indicates the possible states that can be RequestedStatesSupported requested when using the method RequestStateChange on the EnabledLogicalElement. Possible values are: 2 = Enabled3 = Disabled 4 = Shut Down 6 = Offline 7 = Test8 = Defer

9 = Quiesce 10 = Reboot 11 = Reset

### DCIM\_ButtonCapabilities

Property	Description
ElementNameEditSupported	Boolean indicating whether the ElementName can be modified.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid> . <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the <b>preferred</b> algorithm must be used with the <orgid>set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
RequestedStatesSupported	RequestedStatesSupported indicates the possible states that can be requested when using the method RequestStateChange on the EnabledLogicalElement.
	Possible values are:
	<ul> <li>2 = Enabled</li> <li>3 = Disabled</li> <li>4 = Shut Down</li> <li>6 = Offline</li> <li>7 = Test</li> <li>8 = Defer</li> <li>9 = Quiesce</li> <li>10 = Reboot</li> <li>11 = Reset</li> </ul>

## DCIM\_LCDPanelCapabilities

Property	Description
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:

#### Description

<OrgID> : <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <OrgID>set to CIM.

## Supported Display Data Categories

**SupportedDisplayDataCategori** Identifies the category of data to be displayed on the LCD Panel.

Possible values are:

- 2 = None
- 3 = User Specified
- 4 = Default
- 5 = IPv4 Address
- 6 = IDRAC MAC Address
- 7 = Service Tag
- 8 = System Name
- 9 = IPv6 Address
- 10 = Ambient
- 11 = System Power

### DCIM\_PowerManagementCapabilities

# ElementName

**Property** 

#### Description

The user friendly name for this instance of Capabilities. In addition, the user friendly name can be used as a index property for a search of query.



**NOTE:** Name does not have to be unique within a namespace.

#### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID>: <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or

#### Description

otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above **preferred** algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

#### **PowerChangeCapabilities**

An enumeration indicating the specific power-related capabilities of a managed element. Since this is an array, multiple values may be specified.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Power Saving Modes Entered Automatically Indicates that a managed element can change its power state based on usage or other criteria
- 3 = Power State Settable Indicates that the RequestPowerStateChange method is supported
- 4 = Power Cycling Supported Indicates that the RequestPowerStateChange method can be invoked with the PowerState input variable set to Power Cycle (Off Soft)
- 5 = Timed Power On Supported Indicates that the RequestPowerStateChange method can be invoked with the PowerState input variable set to 'Power On' and the Time parameter set to a specific date and time, or interval, for power on
- 6 = Off Hard Power Cycling Supported
- 7 = HW Reset Supported
- 8 = Graceful Shutdown Supported Indicates that the managed element can be sent a hardware signal requesting an orderly shutdown prior to the requested power state change.

#### **PowerStatesSupported**

An enumeration that indicates the power states supported by a managed element. Because this is an array, multiple values can be specified. The current values in the enumeration are:

- 2 = On Corresponds to ACPI state G0 or S0 or D0.
- 3 = Sleep Light C orresponds to ACPI state G1, S1/S2, or D1.
- 4 = Sleep Deep Ccorresponds to ACPI state G1, S3, or D2.
- 5 = Power Cycle (Off Soft) Corresponds to ACPI state G2, S5, or D3, but where the managed element is set to return to power state On at a pre-determined time.
- 6 = Off Hard, corresponding to ACPI state G3, S5, or D3.
- 7 = Hibernate (Off Soft) Corresponds to ACPI state S4, where the state of the managed element is preserved and will be recovered upon powering on.

#### Property Description

- 8 = Off Soft, corresponding to ACPI state G2, S5, or D3.
- 9 = Power Cycle (Off-Hard) Corresponds to the managed element reaching the ACPI state G3 followed by ACPI state S0.
- 10 = Master Bus Reset, corresponds to the system reaching ACPI state S5 followed by ACPI state S0. This is used to represent system master bus reset.
- 11 = Diagnostic Interrupt (NMI) Corresponds to the system reaching ACPI state S5 followed by ACPI state S0. This is used to represent system non-maskable interrupt.
- 12 = Off Soft Graceful Equivalent to Off Soft but preceded by a request to the managed element to perform an orderlyshutdown.
- 13 = Off Hard Graceful Equivalent to Off Hard but preceded by a request to the managed element to perform an orderly shutdown.
- 14 = Master Bus Rest Graceful Equivalent to Master Bus Reset but preceded by a request to the managed element to perform an orderly shutdown.
- 15 = Power Cycle (Off Soft Graceful) Equivalent to Power Cycle (Off - Soft) but preceded by a request to the managed element to perform an orderly shutdown.
- 16 = Power Cycle (Off Hard Graceful) Equivalent to Power Cycle (Off - Hard) but preceded by a request to the managed element to perform an orderly shutdown.
- .. = DMTF Reserved.
- 0x7FFF..0xFFFF = Vendor Specific.

#### DCIM\_PhysicalAssetCapabilities

### **Property ElementName** The user friendly name for this instance of Capabilities. In addition, the user friendly name can be used as a index property for a search of **NOTE:** Name does not have to be unique within a namespace. Boolean indicating whether the PartNumber, Serial Number, Model, **FRUInfoSupported** Manufacturer, and SKU properties of PhysicalElement are non-null, non-blank values, and the availability of the complete FRU information. InstanceID Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm: <OrgID> : <LocalID> Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This

#### Description

requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above **preferred** algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

#### DCIM\_RoleBasedManagementCapabilities

#### Property

#### Description

#### **ElementName**

The user friendly name for this instance of Capabilities. In addition, the user friendly name can be used as a index property for a search of query.



NOTE: Name does not have to be unique within a namespace.

#### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID> : <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <OrgID>set to CIM.

#### **SharedPrivilegeSupported**

Set to TRUE if this PrivilegeManagementService supports association of multiple subjects or targets to a particular Privilege. If False, the AssignAccess method supports at most one entry each in the Subjects and Targets parameters.

#### DCIM\_AllocationCapabilities

#### Property Description

#### **ElementName**

The user friendly name for this instance of Capabilities. In addition, the user friendly name can be used as a index property for a search of query.



NOTE: Name does not have to be unique within a namespace.

#### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. In order to ensure uniqueness within the NameSpace, the value of InstanceID SHOULD be constructed using the following **preferred** algorithm:

<OrgID> : <LocalID>

Where <OrgID> and <LocalID> are separated by a colon ':', and where <OrgID> MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the <Schema Name> \_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness <OrgID> MUST NOT contain a colon (':'). When using this algorithm, the first colon to appear in InstanceID MUST appear between <OrgID> and <LocalID>. <LocalID> is chosen by the business entity and SHOULD not be re-used to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity MUST assure that the resultant InstanceID is not re-used across any InstanceIDs produced by this or other providers for this instance's NameSpace. For DMTF defined instances, the 'preferred' algorithm MUST be used with the <OrgID> set to 'CIM'.

#### ResourceType

The type of resource this allocation setting represents.

Possible values are:

- 1 = Other
- 2 = Computer System
- 3 = Processor
- 4 = Memory
- 5 = IDE Controller
- 6 = Parallel SCSI HBA
- 7 = FC HBA
- 8 = iSCSI HBA
- 9 = IB HCA
- 10 = Ethernet Adapter
- 11 = Other Network Adapter
- 12 = I/O Slot
- 13 = I/O Device
- 14 = Floppy Drive
- 15 = CD Drive
- 16 = DVD drive

Property	Description
	<ul> <li>17 = Disk Drive</li> <li>18 = Tape Drive</li> <li>19 = Storage Extent</li> <li>20 = Other Storage Device</li> <li>21 = Serial port</li> <li>22 = Parallel port</li> <li>23 = USB Controller</li> <li>24 = Graphics controller</li> <li>25 = IEEE 1394 Controller</li> <li>26 = Partitionable Unit</li> <li>27 = Base Partitionable Unit</li> <li>28 = Power</li> <li>29 = Cooling Capacity</li> <li>30 = Ethernet Switch Port</li> <li>31 = Logical Disk</li> <li>32 = Storage Volume</li> <li>33 = Ethernet Connection</li> <li> = DMTF reserved</li> <li>0x8000.0xFFFF = Vendor Reserved</li> </ul>
Sharing Mode	Indicates how access to underlying resource is granted.  Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Dedicated — Exclusive access to underlying resource</li> <li>3 = Shared — Shared use of underlying resource.</li> <li> = DMTF reserved</li> <li>0x80000xFFFF = Vendor Reserved</li> </ul>

### ${\tt DCIM\_BIOSServiceCapabilities}$

Property	Description
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. In order to ensure uniqueness within the NameSpace, the value of InstanceID SHOULD be constructed using the following <b>preferred</b> algorithm: <orgid>: <localid> Where <orgid>and <localid> are separated by a colon ':', and where <orgid> MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness <orgid> MUST NOT contain a colon (':'). When using this algorithm, the first colon to</orgid></class></schema></orgid></localid></orgid></localid></orgid>

Actual quantity is controlled by min, max size, weights, and so on.

#### Description

appear in InstanceID MUST appear between <OrgID>and <LocalID>. <LocalID> is chosen by the business entity and SHOULD not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity MUST assure that the resultant InstanceID is not re-used across any InstanceIDs produced by this or other providers for this instance's NameSpace. For DMTF defined instances, the preferred algorithm MUST be used with the <OrgID> set to 'CIM'.

#### MethodsSupported

This property advertises the methods that are supported by the service.

Possible values are:

- 0 = SetBIOSAttribute
- 1 = RestoreBIOSDefaults
- 2 = SetBIOSAttributeEmbeddedInstance
- 3 = ReadRawBIOSData
- 4 = WriteRawBIOSData
- 5 = SetBIOSAttributes
- 6..65535 = DMTF Reserved
- 65536..4294967295 = Vendor Specified

#### DCIM\_SoftwareInstallationServiceCapabilities

#### **Property**

#### Description

#### InstanceID

Within the scope of the instantiating Namespace, InstancelD opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following preferred algorithm:

<OrgID>: <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <OrgID>set to CIM.

asynchronous jobs. If an operation is included in both this and SupportedSynchronousActions then the underlying implementation is

#### Description

indicating that it may or may not create a job. If a Job is created, then the methods in SoftwareInstallationService return a reference to that Job as the Job parameter.

#### Possible values are:

- 2 = Defer target/system reset
- 3 = Force installation
- 4 = Install
- 5 = Update
- 6 = Repair
- 7 = Reboot
- 8 = Password
- 9 = Uninstall
- 10 = Log
- 11 = SilentMode
- 12 = AdministrativeMode
- .. = DMTF Reserved
- 32768..65535 = Vendor Specific

#### SupportedInstallOptions

An enumeration indicating the specific install related optionssupported by this service. Since this is an array, multiple values may be specified. See the InstallOptions parameter of theSoftwareInstallationService.InstallFromSoftwareIdentity method for the description of these values.

#### Possible values are:

- 2 = Defer target/system reset
- 3 = Force installation
- 4 = Install
- 5 = Update
- 6 = Repair
- 7 = Reboot
- 8 = Password
- 9 = Uninstall
- 10 = Log
- 11 = SilentMode
- 12 = AdministrativeMode
- .. = DMTF Reserved
- 32768..65535 = Vendor Specific

#### **SupportedTargetTypes**

An array containing a list of SoftwareIdentity. TargetType properties that this service 'knows' how to install. TargetType is an application specific string which is invariant across version or name changes of the SoftwareIdentity and so can be used by a client to select Software Identities compatible with this service. If the service is generic (for example an OS installer), this array will be empty.

#### Description

#### SupportedURISchemes

This property lists the URI schemes supported by the SoftwareInstallationService.

Possible values are:

- 2 = data
- 3 = file
- 4 = ftp
- 5 = http
- 6 = https
- 7 = nfs
- 8 = tftp
- .. = DMTF Reserved
- 0x8000..0xFFFF = Vendor Specific

#### DCIM\_ConcreteCollection

#### **Property**

#### Description

#### **ElementName**

A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

#### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID> : <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this

#### Description

instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

#### DCIM\_RedundancySet

#### **Property**

#### Description

#### **ElementName**

ElementName A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.



**NOTE:** The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.

#### InstanceID

Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following **preferred** algorithm:

<OrgID> : <LocalID>

Where <OrgID> and <LocalID> are separated by a colon (:), and where <OrgID> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <OrgID> and <LocalID> . <LocalID> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <OrgID>set to CIM.

#### MinNumberNeeded

MinNumberNeeded indicates the smallest number of elements that MUST be operational in order to function. For example, in an N+1 redundancy relationship, the MinNumberNeeded property is set equal to N. In a 'LimitedSparing' environment, this property is meaningless and SHOULD be set to zero.

#### RedundancyStatus

RedundancyStatus provides information on the state of the RedundancyGroup.

Possible values are:

- 0 = Unknown
- 1 = DMTF Reserved

# Property Description • 2 = Fully

- 2 = Fully Redundant Indicates that all of the configured redundancy is still available
- 3 = Degraded Redundancy Indicates that some configured elements are degraded, missing or failed but that the number of elements in the set is still greater than the minimum required (MinNumberNeeded):
- 4 = Redundancy Lost Indicates that sufficient configured elements are missing or failed that no redundancy is available and the next failure experienced will cause overall failure.
- 5 = Overall Failure Indicates that there has been an overall failure of the RedundancySet.

#### **TypeOfSet**

TypeOfSet provides information on the type of redundancy. - N+1 (=2) indicates all members are active, are unaware and function independent of one another. However, there exist at least one extra member to achieve functionality. **Sparing** is implied (i.e. each member can be a spare for the other(s). An example of N+1 is a system that has 2 power supplies, but needs only 1 power supply to functioning properly.

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = N+1
- 3 = Load Balanced Indicates all members are active. However, there functionality is not independent of each other. Their functioning is determined by some sort of load balancing algorithm (implemented in hardware and/or software). **Sparing** is implied (i.e. each member can be a spare for the other(s).
- 4 = Sparing Indicates that all members are active and are aware
  of each others. However, their functionality is independent until
  failover. Each member can be a spare for the other(s).
- 5 = Limited Sparing Indicates that all members are active, and they may or may not be aware of each and they are not spares for each other. Instead, their redundancy is indicated by the IsSpare relationship.
- .. = DMTF Reserved
- 0x8000.. = Vendor Reserved

#### DCIM\_Role

Property	Description
CommonName	A Common Name is a (possibly ambiguous) name by which the role is commonly known in some limited scope (such as an organization) and conforms to the naming conventions of the country or culture with which it is associated.
Creation Class Name	Indicates the name of the class or the subclass used in the creation of an instance. When used with the other key properties of this class, this property allows all instances of this class and its subclasses to be uniquely identified.

### **Property** Description A user-friendly name for the object. This property allows each **ElementName** instance to define a user-friendly name in addition to its key properties, identity data, and description information. NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of Logical Device), the same information can be present in both the Name and ElementName properties. The Name property defines the label by which the object is known. In Name the case of an LDAP-derived instance, the Name property value may be set to the distinguished name of the LDAP-accessed object instance. RoleCharacteristics RoleCharacteristics provides descriptive information about the intended usage of the Role. Possible values are: 2 = Static 3 = Opaque .. = DMTF Reserved

32000..65535 = Vendor Specific

When the value 2 **Static** is specified, no modification to the role is allowed. Any requests by client to change the privileges or the scope of the role by modifying the associated instances of CIM\_Privilege or referencing associations fails.

When the value 2 **Static** is not specified, the instance of CIM\_Role may be modified by a client. The modification may include changing the scope of the role or rights granted. When the value 3 **Opaque** is specified, the rights granted by the CIM\_Role instance is not explicitly modeled through aggregation of instances of CIM\_Privilege.

When the value 3 **Opaque** is not specified, the rights granted by the instance of CIM\_Role is explicitly modeled through aggregation of instances of CIM\_Privilege.

### ${\tt DCIM\_IndicationSettingCollection}$

Property	Description
ElementName Human user oriented identifier for this instance.	
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstanceID should be constructed using the following <b>preferred</b> algorithm:
	<orgid> : <localid></localid></orgid>

Property	Description	
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must include a copyrighted, trademarked, or otherwise unique name that is owned by the business entity that is creating or defining the InstanceID or that is a registered ID assigned to the business entity by a recognized global authority. (This requirement is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness, <orgid> must not contain a colon (:). When using this algorithm, the first colon to appear in InstanceID must appear between <orgid> and <localid> . <localid> is chosen by the business entity and should not be reused to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity must assure that the resulting InstanceID is not reused across any InstanceIDs produced by this or other providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <orgid>set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>	
Name	The name of the product-defined event sources.	
OccurrencesCount	Defines TXT state in MCH for vPro brand (on/off).	

Property	Description
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both th Name and ElementName properties.
Increment	Increment in which Elements must be added or removed.
MaximumCapacity	Maximum number of Elements of type, ObjectType, that may be installed.
Name	The inherited Name serves as a part of the Configuration Capacity object key.
ObjectType	The type of object (power supply, fan, disk drive,) whose capacities are indicated. This information is part of the class' key.
	Possible values are:
	<ul> <li>0 = Other</li> <li>1 = Processors</li> <li>2 = Power Supplies</li> <li>3 = Fans</li> </ul>

#### Description

- 4 = Batteries
- 5 = I/O Slots
- 6 = Memory Slots
- 7 = MediaAccessDevices (Drives)
- 8 = StorageMediaLocation Slots
- 9 = StorageMediaLocation Magazines
- 10 = StorageMediaLocation Panels
- 11 = StorageMediaLocation InterLibrary Ports
- 12 = StorageMediaLocation Limited Access Ports
- 13 = Doors
- 14 = MediaTransferDevice Pickers
- 15 = MediaTransferDevice Changers
- 16 = LabelReaders
- 17 = Contained Chassis
- 18 = Connected Chassis
- 19 = Connected Frames
- 20 = Front Side I/O Slots
- 21 = Back Side I/O Slots
- 22 = Cache Memory
- 23 = NVS Memory
- 24 = Volatile Memory
- 25 = Multi-Purpose

#### UsedCapacity

This property defines the total capacity in use.

#### **VendorCompatibilityStrings**

An array of strings that identifies the compatibility of the elements within the configuration capacity. This allows vendors to provide information to the system administrators by providing sufficient information to request the appropriate hardware that can populate the configuration. In order to ensure uniqueness within the NameSpace, each value defined by the vendor for use in the VendorCompatibilityStrings property SHOULD be constructed using the following **preferred** algorithm:

<OrgID>:<LocalID>

Where <OrgID> and <LocalID> are separated by a colon ':', and where <OrgID> MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the <Schema Name>\_<Class Name> structure of Schema class names.) In addition, to ensure uniqueness <OrgID> MUST NOT contain a colon (':'). When using this algorithm, the first colon to appear in InstanceID MUST appear between <OrgID>and <LocalID>. <LocalID> is chosen by the business entity and SHOULD not be re-used to identify different underlying (real-world) elements.

### DCIM\_Location

Property	Description	
Address	Address is a free-form string indicating a street, building, or other type of address for the location of the PhysicalElement.	
Altitude	The altitude at which the managed resource is located.	
Building	Free form string identifying the building in which the managed element resides.	
Campus	Free form string identifying the campus in which the managed element resides.	
ChangeableType	Enumeration indicating intended usage of the DCIM_Location instance.	
	Possible values are:	
	<ul> <li>0 = Not Changeable — Persistent — Indicates the instance of DCIM_Location reports read only location information and is not modifiable.</li> </ul>	
	<ul> <li>1 = Changeable — Transient — Indicates the DCIM_Location reports location information that may be modified by the client but is not persisted.</li> </ul>	
	<ul> <li>2 = Changeable — Persistent — Indicates the DCIM_Location reports location information that may be modified by the client that is persisted.</li> </ul>	
	<ul> <li>3 = Not Changeable — Transient — Indicates the instance of DCIM_Location reports read only location information and is not modifiable.</li> </ul>	
City	Free form string identifying the city in which the managed element resides.	
Country	Free form string identifying the Countryin which the managed element resides.	
ElementName	Human user oriented identifier for this instance.	
Floor	Free form string identifying the floor in which the managed element resides.	
GPSLatitude	The latitude at which the managed resource is located.	
GPSLongitude	The longitude at which the managed resource is located.	
MaxStringLength	If ChangeableType has the value <b>1</b> or <b>2</b> , MaxStringLength specifies the maximum length for any property that may be modified by a client.	
Name	Name is a free-form string defining a label for the Location. It is a part of the key for the object.	

Property	Description
PhysicalPosition	Position is a free-form string that indicates the placement of a PhysicalElement. It can specify slot information on a HostingBoard, mounting site in a Cabinet, or latitude and longitude information, for example, from a GPS. It is part of the key of the Location object.
PostalCode	Free form string specifying postal code in which the managed element resides.
Province	Free form string identifying the province in which the managed element resides.
Rack	Free form string identifying the rack in which the managed element resides.
RackCluster	Free form string identifying the rack cluster in which the managed element resides.
RackTheta	Free form string identifying the rack theta.
RackUnit	A rack unit is a standard measurement of height used to denote the amount of space a physical component occupies in a rack. Rack capacity may be expressed in terms rack units. When used to indicate location, rack units indicate an offset from the bottom of rack. Thus RackUnit identifies a particular offset from the bottom of the rack that is occupied by the managed resource. It is implementation-specific whether the rack unit reported is the highest, lowest, or intermediate rack unit occuppied by the managed resource.
Row	Free form string identifying the row in which the managed element resides.
State	Free form string identifying the state in which the managed element resides.
Street Address One	Free form string for the first line of a street address.
StreetAddressTwo	Free form string for the second line of a street address. Uses of this property include consistency with form based address entry, or if the number of characters in the street address exceed MaxStringLength.
SetLocation (Method)	This method allows you to change the physical location of the system.

### DCIM\_BIOSEnumeration

Property	Description
AttributeName	A string identifying the structured element name for a BIOS attribute using the format <b><orgid></orgid></b> : <b><identifier></identifier></b> in which <b>&lt;</b> OrgID>, does contain a colon (:). The value of <b>&lt;</b> OrgID> is a copyrighted, trademarked or otherwise unique name that is owned by the entity defining the <b>&lt;</b> identifier>, or is a registered ID that is assigned to the entity by a recognized global authority. For DMTE defined identifiers

Property	Description
	the <orgid> is set to <b>DMTF</b> and the <identifier> is specified in the BIOS Attribute Registry. <identifier></identifier></identifier></orgid>
CurrentValue	An array of strings representing the current value or values of the BIOS Attribute.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. In order to ensure uniqueness within the NameSpace, the value of InstanceID SHOULD be constructed using the following <b>preferred</b> algorithm: <orgid>: <localid> Where <localid> and <orgid> are separated by a colon:, and where <orgid> MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/ defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness <orgid> MUST NOT contain a colon (:). When using this algorithm, the first colon to appear in InstanceID MUST appear between <orgid> and <localid>. <localid> is chosen by the business entity and SHOULD not be re-used to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity MUST assure that the resultant InstanceID is not re-used across any InstanceIDs produced by this or other providers for this instance's NameSpace. For DMTF defined instances, the <b>preferred</b> algorithm MUST be used with the <orgid> set to <b>CIM</b>.</orgid></localid></localid></orgid></orgid></class></schema></orgid></orgid></localid></localid></orgid>
IsReadOnly	This property specifies if the underlying system BIOS or BIOSService will not allow the Attribute to be modified through calls tothe methods CIM_BIOSService.SetBIOSAttribute or CIM_BIOSService.SetBIOSDefaults. This does not mean the Attribute can not be modified through other means. Only that the CIM interfaceis not capable of making a change.
PossibleValues	An array of strings containing possible value definitions for the Attribute. The first element SHOULD not be NULL and there SHOULD be no NULL or empty string elements intermixed with populated array element values. A Value of NULL indicates an element's value is unknown.
PossibleValuesDescription	An array of free-form strings providing explanations and details behind the entries in the CIM_BIOSEnumeration.PossibleValues array. Note that each entry of this array is related to the entry in PossibleValues array that is located at the same index.

### DCIM\_BIOSPassword

Property	Description
AttributeName	A string identifying the structured element name for a BIOS attribute using the format <b><orgid></orgid></b> : <b><identifier></identifier></b> in which <b>&lt;</b> OrgID> , does contain a colon (:). The value of <b>&lt;</b> OrgID> is a copyrighted, trademarked or otherwise unique name that is owned by the entity defining the <b><identifier></identifier></b> , or is a registered ID that is assigned to the entity by a recognized global authority. For DMTF defined identifiers,

Property	Description	
	the <orgid> is set to <b>DMTF</b> and the <identifier> is specified in the BIOS Attribute Registry.</identifier></orgid>	
CurrentValue	CurrentValue returns an empty array.	
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.	
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.	
InstanceID	Name and ElementName properties.  Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. In order to ensure uniqueness within the NameSpace, the value of InstanceID SHOULD be constructed using the following preferred algorithm: <orgid>: <localid>Where <orgid> and <localid> are separated by a colon ' : ',and where <orgid> MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the <schema name="">_<class name=""> structure of Schema class names.) In addition, to ensure uniqueness <orgid> MUST NOT contain a colon (:). When using this algorithm, the first colon to appear in InstanceID MUST appear between <orgid> and <localid>.<localid> is chosen by the business entity and SHOULD not be re-used to identify different underlying (real-world) elements. If the above preferred algorithm is not used, the defining entity MUST assure that the resultant InstanceID is not re-used across any InstanceIDs produced by this or other providers for this instance's NameSpace. For DMTF defined instances, the preferred algorithm MUST be used with the<orgid> set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid></localid></orgid>	
MaxLength	This property specifies the maximum string length allowed when modifying this BIOS attribute. A value of NULL defines the maximum length is unknown. A value of 0 defines the maximum length as 18446744073709551615, the limitation of the property definition as uint64.	
MinLength	This property specifies the minimum string length allowed when modifying this BIOS attribute. A value of NULL is defined as zero.	
PendingValue	PendingValue returns an empty array.	

### DCIM\_BIOSString

Property	Description
AttributeName	A string identifying the structured element name for a BIOS attribute using the format (:) in which , does contain a colon (:). The value of is a copyrighted, trademarked or otherwise unique name that is owned by the entity defining the , or is a registered ID that is assigned to the entity by a recognized global authority. For DMTF defined identifiers, the is set to <b>DMTF</b> and the is specified in the BIOS Attribute Registry.
CurrentValue	An array of strings representing the current value or values of the BIOS Attribute.
InstanceID	Within the scope of the instantiating Namespace, InstanceID opaquely and uniquely identifies an instance of this class. In order to ensure uniqueness within the NameSpace, the value of InstanceID SHOULD be constructed using the following <b>preferred</b> algorithm: :Where and are separated by a colon (:), and where MUST include a copyrighted, trademarked or otherwise unique name that is owned by the business entity creating/defining the InstanceID, or is a registered ID that is assigned to the business entity by a recognized global authority (This is similar to the _ structure of Schema class names.) In addition, to ensure uniqueness MUST NOT contain a colon (:). When using this algorithm, the first colon to appear in InstanceID MUST appear between and . is chosen by the business entity and SHOULD not be re-used to identify different underlying (real-world) elements. If the above <b>preferred</b> algorithm is not used, the defining entity MUST assure that the resultant InstanceID is not re-used across any InstanceIDs produced by this or other providers for this instance's NameSpace. For DMTF defined instances, the <b>preferred</b> algorithm MUST be used with the set to <b>CIM</b> .
MaxLength	This property specifies the maximum string length allowed when modifying this BIOS attribute. A value of NULL defines the maximum length is unknown. A value of 0 defines the maximum length as 18446744073709551615, the limitation of the property definition as uint64.
StringType	The StringType property provides management applications with information defining implementation's capabilities regarding string values. A value of ASCII indicates a plain text formatting with no tabs formatting or bolds, plain text. A value of hex indicates a simple encoding of the numerals 0 to 9 and the letters A to F and is not case sensitive. A value of unicode indicates fully multi-lingual text support. A string BIOS Attribute with value of regex is a regular expression and the CIM_BIOSString.ValueExpression is applied to values represented and any value that is attempted to be set by invoking SetBIOSAttribute().
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>2 = ASCII</li> <li>3 = hex</li> <li>4 = unicode</li> <li>5 = regex = DMTF Reserved</li> </ul>

Property	Description
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• 65536..4294967295 = Vendor Reserved

### DCIM\_MemoryError

Property	Description
DeviceCreationClassName	The scoping StorageExtent's CreationClassName.
DeviceID	The scoping StorageExtent's DeviceID.
ElementName	A user-friendly name for the object. This property allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.
	NOTE: The Name property of ManagedSystemElement is also defined as a user-friendly name. But, it is often subclassed to be a Key. It is not reasonable that the same property can convey both identity and a user-friendly name, without inconsistencies. Where Name exists and is not a Key (such as for instances of LogicalDevice), the same information can be present in both the Name and ElementName properties.
ErrorInfo	An integer enumeration describing the type of error that occurred most recently. For example, single (value = $\bf 6$ ) or double bit errors (7) can be specified using this property. The values, $12-14$ , are undefined in the CIM Schema since in DMI, they mix the semantics of the type of error and whether it was correctable or not. The latter is indicated in the property, CorrectableError.
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	• 2 = OK
	• 3 = Bad Read
	• 4 = Parity Error
	<ul><li>5 = Single-Bit Error</li><li>6 = Double-Bit Error</li></ul>
	<ul><li>6 = Double-Bit Error</li><li>7 = Multi-Bit Error</li></ul>
	8 = Nibble Error
	• 9 = Checksum Error
	• 10 = CRC Error
	32768 = DIMM Disabled via Spare Activation
Starting Address	Specifies the address of the memory error. The type of error is described by the ErrorInfo property. If the ErrorInfo property is equal to <b>3</b> , <b>OK</b> , then this property has no meaning.
SystemCreationClassName	The scoping System's CreationClassName.
SystemName	The scoping System's Name.

### DCIM\_IdentityContext

Property	Description
ElementInContext	An Identity whose context is defined.
ElementProvidingContext	The ManagedElement that provides context or scope for the Identity.

### DCIM\_OrderedComponent

Property	Description
AssignedSequence	AssignedSequence is an unsigned integer <b>n</b> that indicates the relative order of ManagedElement instances. When <b>n</b> is a positive integer, it indicates a place in the sequence of members, with smaller integers indicating earlier positions in the sequence. The special value <b>0</b> indicates <b>don't care</b> . If two or more members have the same nonzero sequence number, then the ordering between those members is irrelevant, but they must all be ordered at the appropriate place in the overall sequence. A series of examples will make ordering of members clearer: If all members have the same sequence number, regardless of whether it is <b>0</b> or non-zero, any order is acceptable. o The values: 1:MEMBER A 2:MEMBER B 1:MEMBER C 3:MEMBER D indicate two acceptable orders: A,C,B,D or C,A,B,D, since A and C can be ordered in either sequence, but only at the <b>1</b> position.  NOTE: The non-zero sequence numbers need not start with <b>1</b> , and they need not be consecutive. All that matters is their
	relative magnitude.
GroupComponent	The parent element in the association.
PartComponent	The child element in the association.

### DCIM\_Container

Property	Description
GroupComponent	The PhysicalPackage that contains other PhysicalElements, including other Packages.
LocationWithinContainer	A free-form string representing the positioning of the PhysicalElement within the PhysicalPackage. Information relative to stationary elements in the Container (for example, second drive bay from the top), angles, altitudes and other data may be recorded in this property. This string could supplement or be used in place of instantiating the CIM_Location object.
PartComponent	The PhysicalElement which is contained in the Package.

### DCIM\_ConcreteComponent

Property	Description
GroupComponent	The parent element in the association.
PartComponent	The child element in the association.

### DCIM\_SystemDevice

Property	Description
GroupComponent	The aggregating system also provides name scoping for the Account.
PartComponent	The subordinate Account.

### DCIM\_AccountOnSystem

Property	Description
GroupComponent	The aggregating system also provides name scoping for the Account.
PartComponent	The subordinate Account.

### DCIM\_InstalledOS

Property	Description
GroupComponent	The ComputerSystem.
PartComponent	The OperatingSystem installed on the ComputerSystem.
PrimaryOS	Boolean indicating that the OperatingSystem is the default OS for the ComputerSystem.

### DCIM\_SystemBIOS

Property	Description
GroupComponent	The ComputerSystem that boots from the BIOS.
PartComponent	The System's BIOS.

### DCIM\_SystemComponent

Property	Description
GroupComponent	The parent System in the Association.
PartComponent	The child element that is a component of a System.

### DCIM\_SettingsDefineCapabilities

Property	Description
GroupComponent	The Capabilities instance.
PartComponent	A Setting used to define the associated Capabilities instance.
PropertyPolicy	PropertyPolicy defines whether or not the non-null, non-key properties of the associated SettingData instance are treated independently or as a correlated set. For instance, an independent set of maximum properties may be defined, when there is no relationship between each property. On the other hand, several correlated sets of maximum properties may need to be defined when the maximum values of each are dependent on some of the others.
	Possible values are:
	• 0 = Independent
	• 1 = Correlated
	• 2 = DMTF Reserved
ValueRange	The ValueRange property indicates further semantics on the interpretation of all non-null, non-key properties of the Component SettingData. <b>Minimums</b> , <b>Maximums</b> , and <b>Increments</b> , are only evaluated against non-null, non-key, non-enumerated, non-boolean, numeric properties of the SettingData instance. Each property of that set is mathematically comparable to other instances of that property.
	Possible values are:
	<ul> <li>0 = Point — Indicates that this SettingData instance provides a single set of values.</li> </ul>
	1 = Minimums — Indicates that this SettingData instance provides minimum values for evaluated properties. When used with PropertyPolicy = Independent, only one such setting per particular SettingData instance is specified for any Capabilities. Unless restricted by a Maximums on the same set of properties, all values that compare higher than the specified values are also considered to be supported by the associated capabilities instance.
	<ul> <li>2 = Maximums — Indicates that this SettingData instance provides maximum values for evaluated properties. When used with PropertyPolicy = Independent, only one such setting per particular SettingData instance is specified for any Capabilities. Unless restricted by a Minimums on the same set of properties, all values that compare lower than the specified values are also considered to be supported by the associated capabilities instance.</li> </ul>

Property	Description
	• 3 = Increments — Indicates that this SettingData instance provides increment values for evaluated properties. For the associated Capabilities, if an evaluated property currently has no corresponding minimums or maximums, then the property has no affect. Otherwise, for each evaluated property: its value x is between the minimum and maximum, inclusively, and has the property that both the result of maximum minus x and the result of x minus minimum are each an integer multiple of the increment. If either minimum or maximum is not specified and the other is, then the missing value is respectively assumed to be the lowest or highest supported value for the property's data-type. Additionally, if both a minimum and a maximum are specified for an evaluated property, then the result of maximum minus minimum is an integer multiple of the increment.
	• 4 = DMTF Reserved
ValueRole	The ValueRole property indicates further semantics on the interpretation of the popular properties of the Component

The ValueRole property indicates further semantics on the interpretation of the non-null, non-key properties of the Component SettingData.

#### Possible values are:

- 0 = Default Indicates that property values of the component SettingData instance will be used as default values, when a new SettingData instance is created for elements whose capabilities are defined by the associated Capabilities instance. Across instances of settingdata, for particular properties having the same semantic purpose, at most one such settingdata instance is specified as a default.
- 1 = Optimal Indicates that the SettingData instance represents optimal setting values for elements associated with the associated capabilities instance. Multiple component SettingData instances may be declared as optimal.
- 2 = Mean Indicates that the non-null, non-key, non-enumerated, non-boolean, numeric properties of the associated SettingData instance represents an average point along some dimension. For different combinations of SettingData properties, multiple component SettingData instances may be declared as Mean.
- 3 = Supported Indicates that the non-null, non-key properties
  of the Component SettingData instance represents a set of
  supported property values that are not otherwise qualified.
- 4.. = DMTF Reserved

### DCIM\_DeviceSAPImplementation

Property	Description
Antecedent	The LogicalDevice.
Dependent	The ServiceAccessPoint implemented using the LogicalDevice.

### DCIM\_HostedAccessPoint

Property	Description
Antecedent	The hosting System.
Dependent	The SAPs that are hosted on this System.

### DCIM\_HostedCollection

Property	Description
Antecedent	The scoping system.
Dependent	The collection defined in the context of a system.

### DCIM\_HostedService

Property	Description
Antecedent	The hosting System.
Dependent	The Service hosted on the System.

### DCIM\_VideoHeadOnController

Property	Description
Antecedent	The video device that includes the head.
Dependent	The head on the video device.

### DCIM\_SAPSAPDependency

Property	Description
Antecedent	The required ServiceAccessPoint.
Dependent	The ServiceAccessPoint that is dependent on an underlying SAP.

### DCIM\_ReferencedProfile

Property	Description
Antecedent	The RegisteredProfile that is referenced by the Dependent Profile.
Dependent	A RegisteredProfile that references other profiles.

### DCIM\_MetricDefForME

Property	Description
Antecedent	The CIM_ManagedElement that can have metrics of this type associated with it.
Dependent	A CIM_BaseMetricDefinition for a CIM_ManagedElement.
MetricCollectionEnabled	MetricCollectionEnabled indicates whether the metric defined by the referenced CIM_BaseMetricDefinition is being collected for the referenced CIM_ManagedElement.
	Possible values are:
	<ul> <li>2 = Enabled - Indicates the metric is being collected.</li> <li>3 = Disabled - Indicates the metric is not being collected.</li> <li>4 = Reserved = DMTF Reserved</li> <li>3276865535 = Vendor Reserved</li> </ul>
	When collection of a metric is reenabled, the metric is re-initialized such that any values for a current access metric reflect data collected after the time at which collection was reenabled.
RecordedSince	If a metric is being collected for an instance of CIM_ManagedElement, the RecordedSince indicates when the capturing of the metric began. If MetricCollectionEnabled is <b>3 (Disabled)</b> , the RecordedSince property has a value of 99990101000000.000000+000. A value of NULL indicates the beginning of the metric capture period is unknown.

### DCIM\_MetricForME

Property	Description
Antecedent	ManagedElement to which the metric values belong.
Dependent	A metric value for the ManagedElement.

### DCIM\_MetricInstance

Property	Description
Antecedent	The CIM_BaseMetricDefinition for this particular CIM_BaseMetricValue.
Dependent	A CIM_BaseMetricValue instance holding the Value.

### DCIM\_ElementInConnector

Property	Description
Antecedent	The Connector into which the Element is inserted.
Dependent	The Element in the Connector.

### DCIM\_Docked

Property	Description
Antecedent	The Docking Station Chassis.
Dependent	The System Chassis.

### DCIM\_ConcreteDependency

Property	Description
Antecedent	Antecedent represents the independent object in this association.
Dependent	Dependent represents the object that is dependent on the Antecedent.

### DCIM\_Realizes

Property	Description
Antecedent	The physical component that implements the Device.
Dependent	The LogicalDevice.

### DCIM\_ComputerSystemPackage

Property	Description
Antecedent	Antecedent The PhysicalPackage(s) that realize a Unitary ComputerSystem.
Dependent	The UnitaryComputerSystem.
PlatformGUID	A Gloabally Unique Identifier for the System's Package.

### DCIM\_RunningOS

Property	Description
Antecedent	The OperatingSystem currently running on the ComputerSystem.
Dependent	The ComputerSystem.

### DCIM\_UseOfLog

Property	Description
Antecedent	The Log.
Dependent	The ManagedSystemElement whose information is recorded in the Log.
RecordedData	A free-form string describing the use of the Log by the ManagedSystemElement.

### DCIM\_AssociatedIndicatorLED

Property	Description
Antecedent	The ManagedSystemElement that has an associated LED.
Dependent	The LED.

### DCIM\_AssociatedCacheMemory

Property	Description
Antecedent	Memory installed on or associated with a Device.
Associativity	An integer enumeration defining the system cache associativity. For example, 5 indicates a fully associative cache.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Direct Mapped</li> <li>3 = 2-way Set-Associative</li> <li>4 = 4-way Set-Associative</li> <li>5 = Fully Associative</li> <li>6 = 8-way Set-Associative</li> </ul>
	• 7 = 16-way Set-Associative

Property	Description
CacheType	Defines whether this is for instruction caching (value = 2), data caching (value = 3) or both (value = 4, Unified). Also, Other (1) and Unknown (0) can be defined.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Instruction</li> </ul>
	• 3 = Data
	• 4 = Unified
Dependent	The LogicalElement.
ReadPolicy	Policy that is employed by the Cache for handling read requests. For example, <b>Read</b> , <b>Read-Ahead</b> or both can be specified using the values, 2, 3 or 4, respectively. If the read policy is determined individually (ie, for each request), then the value 5 ( <b>Determination per I/O</b> ) should be specified. <b>Other (1)</b> and <b>Unknown (0)</b> are also valid values.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Read</li> <li>3 = Read-Ahead</li> <li>4 = Read and Read-Ahead</li> <li>5 = Determination Per I/O</li> </ul>
WritePolicy	Defines whether this is write-back (value = 2) or write-through (value = 3) Cache, or whether this information <b>Varies with Address (4)</b> or is defined individually for each I/O (5). Also, Other and <b>Unknown (0)</b> can be specified.
	Possible values are:
	<ul> <li>0 = Unknown</li> <li>1 = Other</li> <li>2 = Read</li> <li>3 = Read-Ahead</li> <li>4 = Read and Read-Ahead</li> <li>5 = Determination Per I/O</li> </ul>

### DCIM\_AssociatedSensor

Property	Description
Antecedent	The Sensor.
Dependent	The ManagedSystemElement for which information is measured by the Sensor.

### DCIM\_RemoteAccessAvailableToElement

Property	Description
Antecedent	The remote server or system.
Dependent	The EnabledLogicalElement which has knowledge of the remote server or system.
IsDefault	Indicates that this access information is defined as a default configuration for the system.
OrderOfAccess	When an element is accessing remote services and systems, it MAY be necessary to order those accesses. This property defines that ordering — where lower numbers indicate a higher priority for access. A value of 0 (default) indicates that ordering does not apply. If multiple RemoteAccessPoint instances have the same value for OrderOfAccess, then these AccessPoints MAY be used in any sequence defined by the implementation.

# DCIM\_ServiceServiceDependency

Property	Description
Antecedent	The required Service
Dependent	The Service that is dependent on an underlying Service.

# DCIM\_DeviceConnection

Property	Description
Antecedent	A LogicalElement's Software Asset.
Dependent	The ManagedElement that requires or uses the software.

# DCIM\_ElementSoftwareIdentity

Property	Description
Antecedent	A LogicalElement's Software Asset.
Dependent	The ManagedElement that requires or uses the software.

# DCIM\_ElementCapabilities

Property	Description
Capabilities	The Capabilities object associated with the element.
ManagedElement	The managed element.

# ${\bf DCIM\_ElementSettingData}$

Property	Description
IsCurrent	An enumerated integer that indicates that the referenced SettingData represents the last requested values for attributes of the Managed Element or that this information is unknown. Attributes of the SettingData itself indicate whether it represents the last configuration applied to the ManagedElement or is a transient snapshot of the requested settings. Current operational characteristics of a ManagedElement should be represented with properties of the ManagedElement. element or that this information is unknown. For a given ManagedElement and all instances of a SettingData subclass, there is at most one instance of ElementSettingData which references the ManagedElement and an instance of the SettingData sub-class where there is a specified non-null, non-key property of the SettingData sub-class, and the IsMaximum property on the referencing ElementSettingData instance has a value of Is Maximum or the IsMinimum property on the referencing ElementSettingData instance has a value of Is Current. There is at most one instance of ElementSettingData which references a ManagedElement and an instance of a SettingData subclass where the IsCurrent property has a value of Is Current and the IsMinimum property does not have a value of Is Minimum and the IsMinimum property does not have a value of Is Minimum.
	Possible values are:  • 0 = Unknown  • 1 = Is Current  • 2 = Is Not Current
IsDefault	An enumerated integer that indicates that the referenced setting is a default setting for the element or that this information is unknown.
	Possible values are:
	• 0 = Unknown

#### **Property**

#### Description

- 1 = Is Default
- 2 = Is Not Default

#### **IsMaximum**

This property affects the interpretation of all non-null, non-enumerated, non-binary, numeric, non-key properties of the associated SettingData instance. All other properties of the associated SettingData instance are not affected by this property.



NOTE: It is assumed that the semantics of each property of this set are designed to be compared mathematically. When IsMaximum = Is Maxiumum, this property indicates that the affected property values specified in the associated SettingData instance defines desired maximum setting values. The operational maximum values should be modeled as a properties of the CIM\_ManagedElement instance. When IsMaximum = Is Not Maxiumum, this property indicates that the affected property values specified in the associated SettingData instance does not define desired maximum setting values. When IsMaximum = **Unknown**, this property indicates that the affected property values specified in the associated SettingData instance may correspond to maximum desired setting values. When IsMaximum = **Not Applicable**, this property indicates that the affected property values specified in the associated SettingData instance is not interpreted with respect to whether each defines a desired maximum.

#### Possible values are:

- 0 = Unknown
- 1 = Not Applicable
- 2 = Is Maximum
- 3 = Is Not Maximum

### IsMinimum

This property affects the interpretation of all non-null, non-enumerated, non-binary, numeric, non-key properties of the associated SettingData instance. All other properties of the associated SettingData instance are not affected by this property.

#### Description



NOTE: It is assumed that the semantics of each property of this set are designed to be compared mathematically. When IsMinimum = Is Miniumum, this property indicates that the affected property values specified in the associated SettingData instance defines desired minimum setting values. The operational minimum values should be modeled as a properties of the CIM ManagedElement instance. When IsMinimum = Is Not Miniumum, this property indicates that the affected property values specified in the associated SettingData instance does not define desired minimum setting values. When IsMinimum = **Unknown**, this property indicates that the affected property values specified in the associated SettingData instance may correspond to minimum desired setting values. When IsMinimum = **Not Applicable**, this property indicates that the affected property values specified in the associated SettingData instance is not interpreted with respect to whether each defines a desired minimum.

#### Possible values are:

- 0 = Unknown
- 1 = Not Applicable
- 2 = Is Minimum
- 3 = Is Not Minimum

IsNext

An enumerated integer indicating whether or not the referenced setting is the next setting to be applied. For example, the application could take place on a re-initialization, reset, reconfiguration request. This could be a permanent setting, or a setting used only one time, as indicated by the flag. If it is a permanent setting then the setting is applied every time the managed element reinitializes, until this flag is manually reset. However, if it is single use, then the flag is automatically cleared after the settings are applied. Also note that if this flag is specified (i.e. set to value other than **Unknown**), then this takes precedence over any SettingData that may have been specified as Default. For example: If the managed element is a computer system, and the value of this flag is Is Next, then the setting will be effective next time the system resets. And, unless this flag is changed. it will persist for subsequent system resets. However, if this flag is set to Is Next For Single Use, then this setting will only be used once and the flag would be reset after that to Is Not Next. So, in the above example, if the system reboots in a quick succession, the setting will not be used at the second reboot.

#### Possible values are:

- 0 = Unknown
- 1 = Is Next
- 2 = Is Not Next
- 3 = Is Next For Single Use

**IsPending** 

An enumerated integer that indicates whether or not the referenced CIM\_SettingData instance represents outstanding changes to the configuration of the referenced CIM\_ManagedElement that are

#### **Property**

#### Description

known to be pending and are in the process of being applied. A value of 0 **Unknown** indicates that the referenced instance of CIM\_SettingData may represent the last configuration applied to the referenced CIM\_ManagedElement. A value of **2** (**Is Pending**) indicates that the referenced instance of CIM\_SettingData represents outstanding changes to the configuration of the referenced CIM\_ManagedElement that are known to be pending. A value of **3** (**Is Not Pending**) indicates that the referenced instance of CIM\_SettingData does not represent outstanding changes to the configuration of the referenced CIM\_ManagedElement.

Possible values are:

- 0 = Unknown
- 2 = Is Pending
- 3 = Is Not Pending
- ... = DMTF Reserved
- 32768.. = Vendor Reserved

### ManagedElement

The managed element.

#### **SettingData**

The SettingData object that is associated with the element.

### DCIM\_OrderedMemberOfCollection

#### **Property**

#### Description

### AssignedSequence

AssignedSequence is an unsigned integer **n** that indicates the relative position of members within a Collection. When **n** is a positive integer, it indicates a place in the sequence of members, with smaller integers indicating earlier positions in the sequence. The special value **0** indicates **don't care**. If two or more members have the same non-zero sequence number, then the ordering between those members is irrelevant, but they must all be ordered at the appropriate place in the overall sequence. A series of examples will make ordering of members clearer: If all members have the same sequence number, regardless of whether it is **0** or non-zero, any order is acceptable. The values are: 1:MEMBER A 2:MEMBER B 1:MEMBER C 3:MEMBER D indicate two acceptable orders: A,C,B,D or C,A,B,D, because A and C can be ordered in either sequence, but only at the **1** position.



**NOTE:** The non-zero sequence numbers do not need to start with **1**, and they do not need to be consecutive. However, the sequence numbers must reflect their relative magnitude.

### Collection

The Collection that aggregates members.

### Member

The aggregated member of the Collection.

### DCIM\_MemberOfCollection

Property	Description
Collection	The Collection that aggregates members.
Member	The aggregated member of the Collection.

### DCIM\_OwningCollectionElement

Property	Description
OwnedElement	The Collection owned or controlled by the ManagedElement.
OwningElement	The ManagedElement acting as the 'owner' or object that is responsible for the control of the Collection.

### DCIM\_ElementConformsToProfile

Property	Description
ConformantStandard	The RegisteredProfile to which the ManagedElement conforms.
ManagedElement	The ManagedElement that conforms to the RegisteredProfile.

# DCIM\_RoleLimitedToTarget

Property	Description
DefiningRole	The Role whose target set is explicitly defined.
TargetElement	Reference to the target set that can be accessed from the Role.

### DCIM\_ElementCapacity

Property	Description
Capacity	PhysicalCapacity describes the minimum and maximum requirements, and ability to support different types of hardware for a PhysicalElement.
Element	The PhysicalElement being described.

### DCIM\_ServiceAffectsElement

Property	Description
AffectedElement	The Managed Element that is affected by the Service.
AffectingElement	The Service that is affecting the ManagedElement.

#### **Property**

#### Description

#### **AssignedSequence**

AssignedSequence is an unsigned integer 'n' that indicates the relative sequence in which order the Managed Element instances are affected by the Service, which is associated to the ManagedElement instances through this class. The implementation of the Service uses the relative sequence to order all the managed elements represented by ManagedElements associated through this class for servicing or prioritizing. When **n** is a positive integer, it indicates a place in the sequence of affected elements, with smaller integers indicating earlier positions in the sequence. NULL or the special value 0 indicates don't care. If two or more affected elements have the same non-zero sequence number, then the ordering between those elements is irrelevant, but they must all be serviced in the appropriate order in the overall sequence. A series of examples will make order of elements clearer: If all elements affected have the same sequence number, regardless of whether it is 0 or non-zero, any order is acceptable. The values, 1:ELEMENT A 2:ELEMENT B 1:ELEMENT C 3:ELEMENT D, indicate two acceptable orders: A,C,B,D or C,A,B,D, since A and C can be ordered in either sequence, but only at the 1 position.



**NOTE:** The non-zero sequence numbers need not start with **1**, and they need not be consecutive. All that matters is their relative magnitude.

#### **ElementEffects**

An enumeration that describes the effect on the ManagedElement. This array corresponds to the OtherElementEffectsDescriptions array, where the latter provides details that are related to the high-level effects enumerated by this property. Additional detail is required if the ElementEffects array contains the value 1 (Other).

#### Possible values are:

- 0 = Unknown
- 1 = Other
- 2 = Exclusive Use Indicates that no other Service may have this association to the element.
- 3 = Performance Impact Deprecated in favor of **Consumes**, **Enhances Performance**, or **Degrades Performance**. Execution of the Service may enhance or degrade the performance of the element. This may be as a side-effect of execution or as an intended consequence of methods provided by the Service.
- 4 = Element Integrity Deprecated in favor of Consumes, Enhances Integrity, or Degrades Integrity. Execution of the Service may enhance or degrade the integrity of the element. This may be as a side-effect of execution or as an intended consequence of methods provided by the Service.
- 5 = Manages The Service manages the element.
- 6 = Consumes Execution of the Service consumes some or all of the associated element as a consequence of running the Service. For example, the Service may consume CPU cycles, which may affect performance, or Storage which may affect both performance and integrity. (For instance, the lack of free storage can degrade integrity by reducing the ability to save state.)
   Consumes may be used alone or in conjunction with other values, in particular, Degrades Performance and Degrades Integrity.
   Manages and not Consumes should be used to reflect allocation services that may be provided by a Service.

Property	Description
	• 7 = Enhances Integrity — The Service may enhance integrity of the associated element.
	• 8 = Degrades Integrity — The Service may degrade integrity of the associated element.
	• 9 = Enhances Performance — The Service may enhance performance of the associated element.
	• 10 = Degrades Performance — The Service may degrade performance of the associated element.
	• = DMTF Reserved
	• 0x80000xFFFF = Vendor Reserved
OtherElementEffectsDescriptions	Provides details for the effect at the corresponding array position in ElementEffects. This information is required if ElementEffects contains the value 1 (Other).

# ${\tt DCIM\_AssociatedPowerManagementService}$

<del>_</del>	
Property	Description
OtherPowerState	A string describing the additional power management state of the element, used when the PowerState is set to the value <b>1</b> , <b>Other</b> .
Other Requested Power State	A string describing the additional power management state of the element, used when the RequestedPowerState is set to the value <b>1</b> , <b>Other</b> .
PowerOnTime	The time when the element will be powered on again, used when the RequestedPowerState has the value 2, On, 5, Power Cycle (Off - Soft) or 6, Power Cycle (Off - Hard).
PowerState	The current power state of the associated Managed System Element.
	Possible values are:
	• 1 = Other
	• 2 = On
	• 3 = Sleep - Light
	• 4 = Sleep -Deep
	• 5 = Power Cycle (Off - Soft)
	• 6 = Off - Hard
	• 7 = Hibernate (Off - Soft)
	• 8 = Off - Soft
	• 9 = Power Cycle (Off-Hard)
	• 10 = Master Bus Reset
	<ul> <li>11 = Diagnostic Interrupt (NMI)</li> </ul>
	• 12 = Off - Soft Graceful
	• 13 = Off - Hard Graceful
	• 14 = Master Bus Reset Graceful
	• 15 = Power Cycle (Off - Soft Graceful)
	<ul> <li>16 = Power Cycle (Off - Hard Graceful)</li> </ul>

Property	Description
	• = DMTF Reserved
	• 0x7FFF0xFFFF = Vendor Specific
Requested Power State	The desired or the last requested power state of the associated Managed System Element, irrespective of the mechanism through which the request was made. If the requested power state is unknown, then the property has the value of <b>0 Unknown</b> . If the property has no meaning or is not supported, then the property has the value <b>12 Not Applicable</b> .
	Possible values are:
	• 0 = Unknown
	• 1 = Other
	• 2 = On
	• 3 = Sleep - Light
	• 4 = SleepDeep
	• 5 = Power Cycle (Off - Soft)
	• 6 = Off - Hard
	• 7 = Hibernate (Off - Soft)
	• 8 = Off - Soft
	• 9 = Power Cycle (Off-Hard)
	• 10 = Master Bus Reset
	• 11 = Diagnostic Interrupt (NMI)
	• 12 = Not Applicable
	• 13 = Off - Soft Graceful
	• 14 = Off - Hard Graceful
	• 15 = Master Bus Reset Graceful
	16 = Power Cycle (Off - Soft Graceful)  17 - Power Cycle (Off - Hand Graceful)
	17 = Power Cycle (Off - Hard Graceful)  DMTF Page 2014
	• = DMTF Reserved
	• 0x7FFF0xFFFF = Vendor Specific
ServiceProvided	The Service that is available.
UserOfService	The ManagedElement that can use the Service.

# DCIM\_ServiceAvailableToElement

Property	Description
ServiceProvided	The Service that is available.
UserOfService	The ManagedElement that can use the Service.

# DCIM\_LogManagesRecord

Property	Description
Log	The Log.
Record	The record managed by the Log.

### DCIM\_InstalledSoftwareIdentity

Property	Description
InstalledSoftware	The SoftwareIdentity that is installed.
System	The system on which the software is installed.

# DCIM\_ConcreteIdentity

Property	Description
SameElement	SameElement Another aspect of the ManagedElement.
SystemElement	One aspect of the ManagedElement. The use of 'System' in the name does not limit the scope of the association. This name is an artifact of the original definition of the association.

# ${\tt DCIM\_SettingsDefineState}$

Property	Description
ManagedElement	The managed element.
Setting Data	The SettingData object that provides additional information about the current state and configuration of the ManagedElement.

### DCIM\_ElementLocation

Property	Description
Element	The ManagedElement whose location is specified.
PhysicalLocation	The location of the element.

# DCIM\_CredentialContext

Property	Description
ElementInContext	A Credential whose context is defined.
ElementProvidingContext	The ManagedElement that provides context or scope for the Credential.

# ${\bf DCIM\_OwningJobElement}$

Property	Description
OwnedElement	The Job created by the ManagedElement.
OwningElement	The ManagedElement responsible for the creation of the Job.

# Tokens used in Dell Command | Monitor

Following is the list of Tokens used in Dell Command | Monitor.

Attribute Name	Description
AGP Slot	Enables or disables the on-board AGP slot.
	Possible values are:
	Disable
	• Enable
AC Power Recovery Mode	Sets AC Power Recovery Mode.
	Possible values are:
	• Off
	• Last
	• On
Admin Setup Lockout	If the value of Admin Setup Lockout is <b>Enabled</b> and the Admin Password is set, users will not be allowed to see any part of the Setup screens unless they enter the correct Admin Password. If the Admin password is NOT set and Admin Setup Lockout is <b>Enabled</b> , users will be able to access Setup normally.
	If the value of Admin Setup Lockout is <b>Disabled</b> and the Admin Password is or is not set, users will be allowed to enter Setup normally. However, many fields may still be inaccessible, depending on how other Setup security settings are configured.
	Possible values are:
	• Disable
	Enable
Advanced Battery Charging Mode	This configures all the batteries in the systems with Advance Battery Charging Mode to maximize the battery health.
	Possible values are:
	<ul><li>1 — Disable</li><li>2 — Enable</li></ul>

#### Description



NOTE: If Advanced Battery Charging Mode is disabled, Dell Command | Monitor shows the instances for Adv Battery Charge Cfg with all '0' values. User cannot set the values in Adv Battery Charge Cfg. When the Advanced Battery Charging Mode is enabled, instances for Adv Battery Charge Cfg reports the data retrieved from BIOS.

#### Adv Battery Charge Cfg Sun

This attribute configures the Advanced Battery charging configuration for Sunday.

### Possible values are:

- 0 23 Beginning of day Hour
- 0 59 Beginning of day Minute
- 0 23 Work Period Hour
- 0 59 Work Period Minute

### Attribute name for Set operation:

- Adv Battery Charge Cfg Sun BodHour
- Adv Battery Charge Cfg Sun BodMin
- Adv Battery Charge Cfg Sun WpHour
- Adv Battery Charge Cfg Sun WpMin



**NOTE:** The values defined for Minute field are 0,15,30 and 45. In case you set any other value, the value is round to the lower defined value.

### Adv Battery Charge Cfg Mon

This attribute configures the Advanced Battery charging configuration for Monday.

### Possible values are:

- 0 23 Beginning of day Hour
- 0 59 Beginning of day Minute
- 0 − 23 − Work Period Hour
- 0 − 59 − Work Period Minute

### Attribute name for Set operation:

- Adv Battery Charge Cfg Mon BodHour
- Adv Battery Charge Cfg Mon BodMin
- Adv Battery Charge Cfg Mon WpHour
- Adv Battery Charge Cfg Mon WpMin

#### Adv Battery Charge Cfg Tue

This attribute configures the Advanced Battery charging configuration for Tuesday.

### Possible values are:

- 0-23 Beginning of day Hour
- 0 59 Beginning of day Minute
- 0 − 23 − Work Period Hour
- 0 − 59 − Work Period Minute

Attribute Name	Description
	Attribute name for Set operation:
	Adv Battery Charge Cfg Tue BodHour
	Adv Battery Charge Cfg Tue BodMin
	Adv Battery Charge Cfg Tue WpHour
	Adv Battery Charge Cfg Tue WpMin
Adv Battery Charge Cfg Wed	This attribute configures the Advanced Battery charging configuration for Wednesday.
	Possible values are:
	• 0 — 23 — Beginning of day Hour
	0 - 59 - Beginning of day Minute
	• 0 – 23 – Work Period Hour
	0 - 59 - Work Period Minute
	Attribute name for Set operation:
	Adv Battery Charge Cfg Wed BodHour  Adv Battery Charge Cfg Wed BodMin
	Adv Battery Charge Cfg Wed BodMin
	Adv Battery Charge Cfg Wed WpHour
	Adv Battery Charge Cfg Wed WpMin
Adv Battery Charge Cfg Thu	This attribute configures the Advanced Battery charging configuration for Thursday.
	Possible values are:
	• 0 — 23 — Beginning of day Hour
	0 — 59 — Beginning of day Minute
	0 — 23 — Work Period Hour
	0 – 59 – Work Period Minute
	Attribute name for Set operation:
	Adv Battery Charge Cfg Thu BodHour  Adv Battery Charge Cfg Thu BodMin
	Adv Battery Charge Cfg Thu BodMin  Adv Battery Charge Cfg The Welliam
	Adv Battery Charge Cfg Thu WpHour  Adv Battery Charge Cfg Thu WpMin
	Adv Battery Charge Cfg Thu WpMin
Adv Battery Charge Cfg Fri	This attribute configures the Advanced Battery charging configuration for Friday.
	Possible values are:
	• 0 — 23 — Beginning of day Hour
	0 - 59 - Beginning of day Minute
	0 – 23 – Work Period Hour
	0 – 59 – Work Period Minute
	Attribute name for Set operation:

Adv Battery Charge Cfg Fri BodHourAdv Battery Charge Cfg Fri BodMin

Attribute Name	Description
	<ul><li>Adv Battery Charge Cfg Fri WpHour</li><li>Adv Battery Charge Cfg Fri WpMin</li></ul>
Adv Battery Charge Cfg Sat	This attribute configures the Advanced Battery charging configuration for Saturday.
	Possible values are:
	<ul> <li>0 - 23 - Beginning of day Hour</li> <li>0 - 59 - Beginning of day Minute</li> <li>0 - 23 - Work Period Hour</li> <li>0 - 59 - Work Period Minute</li> </ul>
	<ul> <li>Attribute name for Set operation:</li> <li>Adv Battery Charge Cfg Sat BodHour</li> <li>Adv Battery Charge Cfg Sat BodMin</li> <li>Adv Battery Charge Cfg Sat WpHour</li> <li>Adv Battery Charge Cfg Sat WpMin</li> </ul>
Ambient Light Sensor	Enables or Disables the Ambient Light Sensor.
	Possible values are:  • Disable  • Enable
Adjacent Cache Line Prefetch	If sets to Disable then the CPU will only fetch the cache line that contains the data currently required by the CPU.
	If sets to Enable then it enables the CPU to fetch the adjacent cache line in the other half of the sector.
	Possible values are:
	• Disable
AudioMode	<ul> <li>Enable</li> <li>Onboard audio mode. Disabled mode completely un-assigns the onboard hardware resources. Half duplex mode allows only record or playback. Full duplex mode can record and playback sounds simultaneously.</li> </ul>
	Possible values are:
	<ul><li>Disable</li><li>Half Duplex</li><li>Full Duplex</li></ul>
Auto On	This property defines the auto-on configuration: disabled, everyday or weekdays (Monday — Friday).
	Possible values are:
	• Disable

Attribute Name	Description
	<ul><li>Everyday</li><li>Weekdays</li><li>Select days</li></ul>
Auto On Hour	This defines the hour when to turn on the system (0 $-$ 23).
Auto On Minute	This defines the minutes when to turn on the system (0 $-$ 59).
Auto-on Sunday	This defines that the system must be automatically turned on Sundays.
Auto-on Monday	This defines that the system must be automatically turned on Mondays.
Auto-on Tuesday	This defines that the system must be automatically turned on Tuesdays.
Auto-on Wednesday	This defines that the system must be automatically turned on Wednesdays.
Auto-on Thursday	This defines that the system must be automatically turned on Thursdays.
Auto-on Friday	This defines that the system must be automatically turned on Fridays.
Auto-on Saturday	This defines that the system must be automatically turned on Saturdays.
Back Camera	Enables or disables the rearward facing camera.
	Possible values are:
	<ul> <li>Disable — Disables the rearward facing camera.</li> <li>Enable — Enables the rearward facing camera.</li> </ul>
Battery Slice Charge	Configures the battery slice charging
Configuration	Possible values are:
	1 - Standard Charge — Charges the battery over a long period of time
	2 - Express Charge — Switches the battery slice to Express Charge mode using the express charging algorithm
BIOS Recovery	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 BIOS image when system BIOS fails.
	Possible values are:
	<ul> <li>Enable — BIOS stores the recovery image on primary hard disk drive storage. So BIOS recovery image is available both from primary hard disk drive permanent storage and via an external USB.</li> </ul>
	<ul> <li>Disable — BIOS does not store the recovery image on primary hard disk drive storage. So BIOS recovery image is available only via an external USB.</li> </ul>

Attribute Name	Description
Bitsmart	Enables or disable the Bitsmart.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Bluetooth Devices	Enable or disable Bluetooth Devices
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Blink PSU LED 1	Provides the alert for the PSU 1. The Power Supply Unit(PSU) 1 LED starts to blink when it is enabled.
	Possible value:
	Enable
Blink PSU LED 2	Provides the alert for the PSU 2. The Power Supply Unit(PSU) 2 LED starts to blink when it is enabled.
	Possible value:
	• Enable
BlockS3	Enables or disables the Block S3 sleep state. If this option is Disabled, the system BIOS supports OSPM/ACPI S3 (suspend to RAM) operation. This moves the system authentication into the operating system and bypasses any Preboot Authentication on resume.
	If this option is Enabled, the system BIOS blocks all OSPM/ACPI S3 (suspend to RAM) requests and enforces Preboot Authentication on all non-S3 resumes.
	Possible values are:
	• Disable
	• Enable
Boot Mode	Enables booting to Unified Extensible Firmware Interface (UEFI) capable operating systems. This ensures compatibility with operating systems that do not support UEFI.
	Possible values are:
	<ul><li>Bios</li><li>UEFI</li></ul>
Boot-time Video	Sets the Primary Video source.
	Possible values are:
	On board
	• Add-in

Attribute Name	Description
<b>Boot Speed</b>	Sets CPU speed to default or compatible (low speed). This feature is implementation dependent. There is no set speed for Compatible, only that it is significantly slower than default. Some platforms implement this by turning off cache and others by STPCLK throttling.
	Possible values are:
	Default
	• Compatible
Broadcom ASF	Sets the ASF (Alert Standard Format) mode.
	Possible values are:
	• Disable
	Enable
	Alert only
	Dash and ASF
Bus Ratio	Sets Bus Ratio.
	Possible values are:
	• Max
	• 6.0
	• 7.0
	• 7.5
	• 8.0
	• 8.5
	• 9.0
	• 9.5
Camera	Enables or disables the camera.
	Possible values are:
	• Disable
	Enable
CAN Bus	Enables or disables the Controller Area Network (CAN) Bus.
	Possible values are:
	• Disable
	• Enable
Cellular Radio	Enables or Disables the cellular radio, that is, the WWAN module.
	Possible values are:
	• Disable
	Enable

Attribute Name	Description
Charger	This property define the charger details.
	Possible values are:
	• Disable
	• Enable
Chassis Intrusion	Enables the system to detect and report Chassis Intrusion events to the system display on boot-up.
	Possible values are:
	• Disable
	Enable
	• Silent
Chassis Intrusion Status	This property shows the status of the system with regards to Chassis Intrusion (Detected or Not Detected). A value of Unknown indicates one of two things: either Chassis Intrusion is not supported by this system, or Chassis Intrusion event reporting has been disabled by the user. If the value is Detected, the user may set it to Not Detected to enable the system to receive the next event and to stop generating events for now.
	Possible values are:
	<ul><li>Tripped</li><li>Door open</li><li>Door closed</li><li>Trip reset</li></ul>
Clear System Event Log	Prevents or causes the system event log to be cleared in the next boot.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Cool and Quiet	Enables or disables AMD Cool and Quiet processor feature.
	Possible values are:
	• Disable
	• Enable
CPU Virtualization Technology	Enables or disables CPU Virtualization.
	Possible values are:
	• Disable
	• Enable
Deep Sleep Control	Configures the system power mode when the system is in S4 and S5 state. If set to S5only, the system moves to the lowest-Power Off

Attribute Name	Description
	mode only in S5 state. If set to S4 and S5 state, the system moves to the lowest-Power Off mode in both S4 and S5 states. When the system is in low-power mode, it turns off most of the power-consuming circuitry, to meet the 1 W power limit. It disables PME, USB power, etc.
	Possible values are:
	• S5 only
	• S4 and S5
	• Disable
Dell Reliable Memory Technology	Configures the system to detect and correct the software errors in a block of RAM. When enabled, the system detects and corrects the software errors.
	Possible values are:
	Disable
	• Enable
Dell Wyse P25 Bios Access	Turns on or off the access to the BIOS setup through Dell Wyse P25 PCoIP client.
	Possible values are:
	• On
	• Off
Diskette	This property defines whether the built-in Floppy controller is enabled, auto or read-only.
	Possible values are:
	Disable
	• Auto
	Read Only
	USB Internal
Dock Display Port 1 Video Source	Configures the Dock Display Port 1 Video Source. This option enables or disables switchable graphics technologies.
	Possible values are:
	Integrated
	External
DRAM Prefetcher	Drayonts DDAM references from triggering DDAM profetch requests /
DRAM Prefetcher	Prevents DRAM references from triggering DRAM prefetch requests./ Turns on the DRAM prefetch unit in the Northbridge.
	Possible values are:
	• Disable
	• Enable
Embedded SATA Controller	Sets the Integrated SATA Controller.

Attribute Name	Description
	Possible values are:
	<ul> <li>Off</li> <li>Combined</li> <li>ATA</li> <li>AHCI</li> <li>RAID</li> <li>QDMA</li> </ul>
Embedded Hypervisor	Enables/disables the embedded SD Card port.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Enable Legacy Option ROMs	Enables or disables detecting the BIOS and using the legacy expansion ROMs. This mode cannot be enabled with Secure Boot.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
e-SATA Ports	Enable/disable e-SATA Ports
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Express Card	This setting will enable the express card port, which allows the user to insert an express card into the slot and it will be configured.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Express Charge	This property define the express charging.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li><li>Enable once</li></ul>
Extend Post Time	Delays the time of action taken by the system after pressing function keys such as F2,F12, etc. during post time.
	Possible values are:
	0 — Does not delay the time of action.
	<ul> <li>5 — Delays the time of action by five seconds.</li> </ul>

Attribute Name	Description
	• 10 — Delays the time of action by ten seconds.
External Hotkey	Sets the External Hotkey to Scroll Lock or Disabled.
	Possible values are:
	<ul><li>Disable</li><li>Scroll lock</li></ul>
External USB Ports	Enable/disable external USB ports.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
External WLAN Activity LED	Enables or disables the external (lid-mounted) WLAN indicator LED.
	Possible values are:
	<ul> <li>Disable — LED does not displays the state of the WLAN source activity.</li> <li>Enable — LED displays the state of the WLAN source activity.</li> </ul>
F12 POST Display	Enables or disables the F12 key at POST.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
F2 POST Display	Enables or disables the F2 key at POST.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Fan Control Override	Controls the speed of the fan. When enabled the fan runs at full speed. When disabled, the fan controller uses the system environmental data to set the fan at its optimal speed.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Fan Speed	Sets the system fan speed.
	Possible values are:
	<ul><li>Auto</li><li>High</li><li>Medium High</li><li>Medium Low</li></ul>

Attribute Name	Description
	• Low
Fault-Tolerant Memory	Configures the system to detect and correct the software errors in a block of RAM. When enabled, the system detects and corrects the software errors.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Fn Lock	Controls the behavior of the dual-function keys ( $ - $ ), when $$ key is pressed.
	Possible values are:
	• Disable — If disabled, holding the <b><fn></fn></b> key enables the secondary functions associated with the particular key.
	<ul> <li>Enable — If enabled, holding the <fn> key enables the labeled functions of the keys (<f1> — <f12>).</f12></f1></fn></li> </ul>
Fn Lock Mode	Controls the behavior of the dual-function keys ( $ - $ ), when $$ key is pressed and when it is not.
	Possible values are:
	<ul> <li>Disable — Holding <fn> key enables the secondary functions associated with the particular key</fn></li> </ul>
	<ul> <li>Enable — Without holding <fn> key, the dual-function keys behave as labeled.</fn></li> </ul>
Force PXE on Next Boot	Enables or disables the Force PXE on next boot in BIOS.
	Possible values are:
	• Disable
	• Enable
Front Panel USB Ports	Enables or disables the USB ports on the front of the chassis.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
FX100 BIOS Access	Allows or blocks the remote user to access BIOS Setup via FX100 Portal.
	Possible values are:
	<ul><li>On</li><li>Off</li></ul>
General Purpose Encryption	Enables or disables the general purpose encryption (GPE) on the system.

Attribute Name	Description
	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
GPS Radio	Enables or disables the internal GPS radio.
	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
Hard Disk Acoustic Mode	Sets the Hard Disk Acoustic Mode.
	Possible values are:
	<ul><li>Bypass</li><li>Quiet</li><li>Suggested</li><li>Performance</li></ul>
Hard-Disk Failover	Specifies which devices in the Hard-Disk Drive Sequence menu are attempted in the boot sequence. When set to OFF, only the first device in the list is attempted. When set to ON, all devices are attempted in order, as listed in the Hard-Disk Drive Sequence.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Hardware Prefetcher	Enables or disables the CPU's HW prefetcher.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Hard Drive Free Fall Protection	Enables or disables hard drive free fall protection.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Hardware Prefetch Training on Software Prefetch	Prevents hardware prefetcher from considering software prefetches when detecting strides for prefetch requests./Hardware prefetcher considers software prefetches when detecting strides for prefetch requests.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>

Attribute Name	Description
HDD Protection	If setting <b>On</b> , the HDD Protection OPROM will be loaded. If setting <b>Off</b> , the HDD Protection OPROM will be not loaded.
	Possible values are:
	<ul><li>Off</li><li>On</li></ul>
HDD1 Fan Enable	Enables or disables checking errors on the fan controller FAN_HDD1. If the fan controller detects a valid fan, it enables it automatically.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
HDD2 Fan Enable	Enables or disables checking errors on the fan controller FAN_HDD2. If the fan controller detects a valid fan, it enables it automatically.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
HDD3 Fan Enable	Enables or disables checking errors on the fan controller FAN_HDD3. If the fan controller detects a valid fan, it enables it automatically.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Hot Undocking	Enables or disables warm and hot docking/undocking.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Hotkey to toggle WxAN Radio	Enables or disables the hotkey to toggle WxAN radio.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
I/O Module	Enables or disables I/O module
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Intel Smart Connect Technology	Disables or enables the Intel Smart Connect technology.

Attribute Name	Description
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Intel Platform Trust Technology	Displays or hides the Intel Platform Trust Technology (PTT) device from the operating system on the next reboot. 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.  Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Intel Ready Mode Technology	Enables or disables Intel Ready Mode Technology (iRMT). Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Intel Rapid Start Technology	Disables or enables the Intel Rapid Start Technology (iFFS) feature within the BIOS.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Intel Rapid Start Technology Timer	Allows configuring the time-out value for Intel Rapid Start Technology(IRST) mode.
	Possible value is:
	• 0 — 999
	<b>NOTE:</b> The value for IRST is a nonfixed value, which may change depending on the configuration.
Integrated RAID	Enables or disables the Integrated RAID Controller.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Integrated SAS	Enables or disables the Integrated SAS Controller.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Integrated USB Hub	Sets the Integrated USB Hub to Compatible or High Speed.

Attribute Name	Description
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Internal USB Port	Enable or d/isable the Internal USB.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
IDE	This property defines whether the IDE controller is enabled or disabled.
	Possible values are:
	<ul><li>Disable</li><li>Auto</li></ul>
Instant ON	Enables or disables the Latitude on Instant ON feature.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Keyboard Backlight Active Color	Displays or sets an active color for the keyboard backlight for the rugged systems.
	Possible values are:
	<ul> <li>0 — White</li> <li>1 — Red</li> <li>2 — Green</li> </ul>
	<ul><li>3 – Blue</li><li>4 – Customcolor1</li></ul>
	• 5— Customcolor2
Keyboard Backlight Custom Color 1	Displays and configures the custom color 1 by specifying the Red, Green and Blue (RGB) values. The color can be selected using RGB components by mentioning it in 'R,G,B' format. Each color component value ranges from 0 to 255.
	Possible value is:
	• 0-255, 0-255, 0-255 — Red, Green, Blue
Keyboard Backlight Custom Color 2	Displays and configures the custom color 2 by specifying the Red, Green and Blue (RGB) values. The color can be selected using RGB components by mentioning it in 'R,G,B' format. Each color component value ranges from 0 to 255.

Attribute Name	Description
	Possible value is:
	• 0-255, 0-255, 0-255 — Red, Green, Blue
Keyboard Backlight Enable Color	Displays or enables the supported colors on the keyboard backlight for the rugged systems. Press Fn+C to switch among the enabled colors.
	Possible values are:
	<ul> <li>0 - None</li> <li>1 - White</li> <li>2 - Red</li> <li>3 - Green</li> <li>4 - Blue</li> <li>5 - Customcolor1</li> <li>6 - Customcolor2</li> </ul>
	NOTE:
	You can enable multiple colors at a time.
	<ul> <li>If '0 — None' is selected, keyboard backlight color switching by pressing Fn+C will not be possible. The value '0 — None' cannot be combined with any other color.</li> </ul>
Keyboard Backlight with AC	Enables/Disables the keyboard backlight when the system is running on AC power / if an AC power adapter is plugged in. Note: If the keyboard backlight is disabled by pressing <fn><f10>, then the keyboard backlight stays off even if the AC power adapter is plugged in.</f10></fn>
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Keyboard Error Reporting	Enable/Disable reporting of Keyboard errors by POST.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Keyboard Click	Enable/Disable the keyboard to 'click' each time a key is pressed.
-	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>

Sets the Keyboard Illumination to Enable, Disable, or Auto.

Possible values are:

DisableEnable

**Keyboard Illumination** 

Attribute Name	Description
	<ul> <li>Auto</li> <li>25</li> <li>50</li> <li>75</li> <li>100</li> </ul>
Keypad	Changes the means of enabling the keypad.
	Possible values are:
	<ul><li>By numlock</li><li>BY FN key</li></ul>
Latitude ON	Enable/Disable Latitude On.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Latitude ON Flash	Enable/Disable Latitude On Flash.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Limit CPUID Value	Enables or Disables the Limit CPUID Value feature.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Management Driver	Sets to Present: the system-management instrumentation sets this attribute when it loads to instruct that BIOS that operating system level software is handling any out-of-range management condition — if a critical threshold is passed, the driver takes responsibility for shutting down the operating system and powering off the system. The instrumentation is responsible for de-registering itself via the Absent attribute when it unloads. Implementation Note: To maintain compatibility with Dell Command   Monitor, a BIOS that implements of this token via an Indexed I/O access method must ensure that an AND-mask of 0xFB and an OR-value of 0x04 maintains the <b>present</b> status— i.e. the status is in bit 2 of the indexed I/O location.
	Sets to Absent: this attribute indicates to the system BIOS that any system-management monitoring is its responsibility. If an out-of-range management condition occurs in the system, the BIOS powers off the system to prevent hardware damage. Implementation Note: To maintain compatibility with Dell Command   Monitor, a BIOS that implements of this token via an Indexed I/O access method must ensure that an AND-mask of 0xFB and an OR-value of 0x00

Attribute Name	Description
-	maintains the <b>absent</b> status — i.e. the status is in bit 2 of the indexed I/O location.
	Possible values are:
	<ul><li>Present</li><li>Absent</li></ul>
Media Card and 1394	Enables or Disables the Media Card and 1394 devices.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Microphone	Enable or disable notebook internal or external microphone.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
MiniPCI Device	Enables or Disables the internal PCI device.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Multiple CPU Cores	Enables or Disables Multiple CPU Core support on next boot. The Disabled state prevents the OS from seeing additional cores present on a single CPU package.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
MmioAbove4Gb	Enables or disables the Memory mapped I/O above 4GB option.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Module Bay Device	Enables or Disables the Module Bay Device.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Module Bay Battery Charge Configuration	Configures the module bay battery charging.

Attribute Name	Description
	Possible values are:
	• 1 - Standard Charge — Charges the battery over a long period of time
	2 - Express Charge — Switches the module bay battery to Express Charge mode using the express charging algorithm
Mouse	Sets the Pointing Device.
	Possible values are:
	• Disable
	• Enable
Monitor Toggling	Enables or Disables Monitor Toggling.
	Possible values are:
	• Disable
	• Enable
Multi-Display	Enables or disables the multi-display feature, that is integrated and add-in Gfx.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
NIC	This property defines whether the built-in NIC is enabled or disabled.
	Possible values are:
	• Disable
	<ul><li>Enable non PXE</li><li>Enable</li></ul>
	<ul><li>Enable</li><li>Enable iSCSI</li></ul>
	Enable RPL
	Enable image server
NIC 2	This property defines whether the built-in NIC2 is enabled or disabled.
	Possible values are:
	• Disable
	<ul><li>Enable non PXE</li><li>EnabledwithoutPXE</li></ul>
	<ul><li>EnabledwithoutPXE</li><li>Enable iSCSI</li></ul>
	Enable RPL
	Enable image server

Attribute Name	Description
Network Activity LED	This selection will allow the Activity LED to be controlled by an ACPI OS and driver/ set Activity LED as a wireless LAN radio on/off indicator/ force the Activity LED to be always OFF.
	Possible values are:
	<ul><li>Disable</li><li>Enable ACPI OS control</li><li>Wireless LAN Indicator</li></ul>
Node Interleaving	Enables or Disables Node Interleave.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
NMI Button	Enables or Disables the NMI Button.
	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
Num Lock	Enables or Disables Num Lock.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
On Reader	Enables or Disables the Reader feature.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Onboard 1394	Enables or Disables on-board 1394 controller on next boot.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Onboard Modem	Enables or Disables the Onboard Modem.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Onboard Sound Devices	Enables or disables the onboard sound devices.

Attribute Name	Description
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Onboard Unmanaged NIC	Configures the state of the Onboard Unmanaged Network Interface Card (NIC).
	Possible values are:
	<ul> <li>Disable — Disables the secondary, unmanaged network interface card.</li> <li>Enable — Enables the secondary, unmanaged network interface</li> </ul>
	<ul> <li>card.</li> <li>Enabled with PXE — Enables the secondary, unmanaged network interface card and supports the preboot execution environment for network boot.</li> </ul>
On-board Serial ATA 2	Enable or disables on-board Serial ATA 2 controller.
Controller	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
On-Screen Buttons	Configures the onscreen display (OSD) of All-In-One systems.
	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
Optical Drive Controller	Enable/Disable the Optical Drive Controller.
	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
Optimus	Enables or disables the Optimus.
	Possible values are:
	<ul><li>Enabled</li><li>Disabled</li></ul>
Optional Boot Sequence	Allows or prevents the installation of Windows operating system on client systems with more than one operating system volume.
	Possible values are:
	<ul><li>Enabled</li><li>Disabled</li></ul>

Attribute Name	Description
OpRomUlProtection	Prompts you to enter the administrator password to enter the OptionROM user interface if the password has been set.
	Possible values are:
	• Enable
	• Disable
OROM Keyboard Access	Sets an option to enter the Option ROM Configuration screens using hotkeys during boot.
	Possible values are:
	• Enable
	• Disable
	<ul> <li>Onetime Enable — Allows configuring the access to Option ROM using hotkeys during system startup.</li> </ul>
OS Install Mode	Enables or Disables OS Install Mode (Limit System Memory feature).
	Possible values are:
	• Enable
	• Disable
Parallel Mode	This property defines the parallel port mode.
	Possible values are:
	• AT
	• PS2
	• ECP
	• EPP
	• ECP DMA1
	• ECP DMA3
Parallel Port	This property defines the parallel port configuration.
	Possible values are:
	• LPT1
	• LPT2
	• LPT3
PartComponent	This defines the boot sequence for the next system boot. Boot Sequence information can be found under the class DCM_OrderedComponent.
	Possible values are:
	Diskette first
	HD only
	Device list
	CDROM first

Attribute Name	Description
Password Bypass	Sets the Password Bypass feature to one of the supported settings.
	Possible values are:
	<ul><li>Off</li><li>Reboot</li><li>Resume</li><li>Reboot and resume</li></ul>
Password Status Lock	Password Status lock/unlock.
	Possible values are:
	<ul><li>Locked</li><li>Unlocked</li></ul>
PC Card	Enables or Disables the PC Card.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
PC Card and 1394	Enables or Disables the PC Card and 1394 devices.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Pci Resource Allocation Ratio	Allocates PCI resources, buses, memory-mapped I/O (MMIO) space, and I/O space. If set to <b>Allocate Evenly</b> , equal amount of memory is allocated to all the resources when two CPUs are installed. When set to <b>Allocate More to CPU1</b> , larger amount of device-specific memory is allocated, which in turn reduces the usable memory on a system with a 32-bit operating system.  Possible values are:  • Allocate Evenly  • Allocate More to CPU1
Pci Mmio Space Size	It allows you to reserve large or small device-specific memory regions to decrease or increase the usable memory on systems with a 32-bit operating system.  Possible values are:  Small — Allocates a small region of memory to PCI memory mapped I/O.  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.
PCI Slots	Enables or Disables the PC Card.

Attribute Name	Description
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Pen Missing Indication	Enables or Disables the Missing Pen Indication.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Pen Resume On	Enables or Disables the Resume On Pen setting.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Peak Shift	Peak Shift can be used to minimize AC consumption during peak power times of day. For each weekday listed, set a start and end time to run in Peak Shift mode. During these times the system will run from the battery even if the AC is attached as long as the battery stays above the threshold specified in the Battery threshold field. After the end time specified the system will run from AC if attached but will not charge the battery. The system will again function normally using AC and recharging the battery after the Charge Start time is specified.
	Possible values are:
	<ul><li>1 – Disable</li><li>2 – Enable</li></ul>
Peak Shift Sun	This attribute configures the power usage configuration for Sunday.
	Possible values are:
	<ul> <li>0 - 23 - Start Hour</li> <li>0 - 59 - Start Minute</li> <li>0 - 23 - End Hour</li> <li>0 - 59 - End Minute</li> <li>0 - 23 - Charge Start Hour</li> <li>0 - 59 - Charge Start Min</li> </ul>
	Attribute names for Set operation:  Peak Shift Sun StartHour  Peak Shift Sun StartMin  Peak Shift Sun EndHour  Peak Shift Sun EndMin  Peak Shift Sun ChargeStartHour  Peak Shift Sun ChargeStartMin

#### **Attribute Name**

#### Description



**NOTE:** To use Peak Shift mode, the values of Peak Shift Start Time, Peak Shift End Time, Peak Shift Charge Start Time, and Peak Shift battery threshold are necessary.



NOTE: It is recommended to input values as per the following: Start Time <= End Time <= Charge Start Time. Dell Command | Monitor can set the out-of-range values. BIOS behavior is unknown at this point of time for such values.



**NOTE:** The values defined for Minute field are 0,15,30 and 45. In case you set any other value, the value is round to the lower defined value.

#### **Peak Shift Mon**

This attribute configures the power usage configuration for Monday.

#### Possible values are:

- 0 − 23 − Start Hour
- 0 − 59 − Start Minute
- 0 23 End Hour
- 0 − 59 − End Minute
- 0 23 -Charge Start Hour
- 0 59 Charge Start Min

#### Attribute names for Set operation:

- Peak Shift Mon StartHour
- Peak Shift Mon StartMin
- Peak Shift Mon EndHour
- Peak Shift Mon EndMin
- Peak Shift Mon ChargeStartHour
- Peak Shift Mon ChargeStartMin

#### **Peak Shift Tue**

This attribute configures the power usage configuration for Tuesday.

#### Possible values are:

- 0 23 Start Hour
- 0 − 59 − Start Minute
- 0 23 End Hour
- 0 − 59 − End Minute
- 0-23 Charge Start Hour
- 0-59 Charge Start Min

#### Attribute names for Set operation:

- Peak Shift Tue StartHour
- Peak Shift Tue StartMin
- Peak Shift Tue EndHour
- Peak Shift Tue EndMin
- Peak Shift Tue ChargeStartHour
- Peak Shift Tue ChargeStartMin

Attribute Name	Description
Peak Shift Wed	This attribute configures the power usage configuration for Wednesday.
	Possible values are:
	<ul> <li>0 - 23 - Start Hour</li> <li>0 - 59 - Start Minute</li> <li>0 - 23 - End Hour</li> <li>0 - 59 - End Minute</li> </ul>
	<ul> <li>0 - 23 - Charge Start Hour</li> <li>0 - 59 - Charge Start Min</li> </ul>
	Attribute names for Set operation:  Peak Shift Wed StartHour Peak Shift Wed StartMin Peak Shift Wed EndHour Peak Shift Wed EndMin Peak Shift Wed ChargeStartHour Peak Shift Wed ChargeStartMin
Peak Shift Thu	This attribute configures the power usage configuration for Thursday.
	Possible values are:
	<ul> <li>0 - 23 - Start Hour</li> <li>0 - 59 - Start Minute</li> <li>0 - 23 - End Hour</li> <li>0 - 59 - End Minute</li> <li>0 - 23 - Charge Start Hour</li> <li>0 - 59 - Charge Start Min</li> </ul>
	Attribute names for Set operation:  Peak Shift Thu StartHour Peak Shift Thu StartMin Peak Shift Thu EndHour Peak Shift Thu EndMin Peak Shift Thu ChargeStartHour Peak Shift Thu ChargeStartMin
Peak Shift Fri	This attribute configures the power usage configuration for Friday.
	Possible values are:
	<ul> <li>0 - 23 - Start Hour</li> <li>0 - 59 - Start Minute</li> <li>0 - 23 - End Hour</li> <li>0 - 59 - End Minute</li> <li>0 - 23 - Charge Start Hour</li> <li>0 - 59 - Charge Start Min</li> </ul>

Attribute Name	Description
	Attribute names for Set operation:  Peak Shift Fri StartHour Peak Shift Fri StartMin Peak Shift Fri EndHour Peak Shift Fri EndMin Peak Shift Fri ChargeStartHour Peak Shift Fri ChargeStartMin
Peak Shift Sat	This attribute configures the power usage configuration for Saturday.
	Possible values are:
	<ul> <li>0 - 23 - Start Hour</li> <li>0 - 59 - Start Minute</li> <li>0 - 23 - End Hour</li> <li>0 - 59 - End Minute</li> <li>0 - 23 - Charge Start Hour</li> <li>0 - 59 - Charge Start Min</li> </ul>
	Attribute names for Set operation:  Peak Shift Sat StartHour Peak Shift Sat StartMin Peak Shift Sat EndHour Peak Shift Sat EndMin Peak Shift Sat ChargeStartHour Peak Shift Sat ChargeStartMin
Peak Shift Battery Threshold	If Battery stays above the threshold system will run from battery even if AC is attached during the times as configured in Start/End/Charge Start time.
	Possible value is based on user input.
	• >= 15% Possible Value <= 100%.
	Attribute name for Set operation:  • Peak Shift Battery Threshold
Pointing Device	This property defines whether the built-in pointing device port is enabled or disabled.
	Possible values are:
	<ul><li>External serial</li><li>External PS2</li><li>SW TPAD</li></ul>
POST Help Desk Key	Enables or Disables POST MEBx Key.
	Possible values are:
	• On

Attribute Name	Description
	• Off
POST MEBx Key Setting	Enables or Disables POST MEBx Key.
	Possible values are:
	<ul><li>On</li><li>Off</li></ul>
POST Testing	Enables or Disables fast booting.
	Possible values are:
	<ul><li>Min</li><li>Max</li><li>Auto</li></ul>
Power Management	This property defines the power management settings.
	Possible values are:
	<ul><li>Disable</li><li>Min</li><li>Regular</li><li>Max</li></ul>
Processor CMP	Rolls the number of enabled cores in each processor. By default, the maximum number of cores per processor will be enabled.
	Possible values are:
	• All
	<ul><li>1</li><li>2</li></ul>
	• 4
	• 6
	<ul><li>8</li><li>10</li></ul>
	• 12
	<ul><li>14</li><li>16</li></ul>
Dua aaaaa Caya Cayad	
Processor Core Count	Enables the number of cores in each processor.
	Possible values are:
	<ul> <li>0 — Enables all cores.</li> <li>1-N — Enables the specified number of cores.</li> </ul>
Processor Execute Disable	Enables or Disables the No Execute (NX) flag.

Attribute Name	Description
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Processor HT Assist	Allow user the ability to disable the Probe Filter chipset option from BIOS setup. There are some applications that may have lower performance with the chipset feature enabled.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Processor Virtualization	Enables or Disables CPU Virtualization.
Technology	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Processor C State Control	Enable/Disable the C States Control.
	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
Processor Core Based Turbo	Enables or Disables Single Core Turbo Mode.
Mode	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Processor Logical Processor (HyperThreading)	Enables or Disables hyperthreading on next boot. On some Dell platforms, this property will show Enabled or Disabled despite the platform not supporting hyperthreading. The platforms in question are those that support Multi-Core processor technology, but do not support hyperthreading. In this case, the property actually toggles the multi-core capability on and off, rather than hyperthreading.
	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
Primary Battery Charge	Configures the primary battery charging.
Configuration	Possible values are:
	1 = Standard Charge — Charges the battery over a long period of time
	<ul> <li>2 = Express Charge — Switches the primary battery to Express Charge mode using the express charging algorithm</li> </ul>

#### **Attribute Name**

#### Description

- 3 = AC Use Recommended setting for users who primarily operate the battery when it is plugged in
- 4 = Auto Charge The battery places itself in a mode based on periodic evaluation of customer usage to deliver the best balance of capacity
- 5 = Custom Charge The battery starts and stops charging based on the user input

#### Primary Battery Custom Charge Limit

Primary Battery Custom Charge Charges the battery based on the user input.

Possible values are:

- 1 = Primary Battery Custom Charge Start Limit Is applicable to the DCIM\_BIOSService for setting the start limit for charging the battery.
- 2 = Primary Battery Custom Charge Stop Limit Is applicable to the DCIM\_BIOSService for setting the stop limit for charging the battery.

Possible values for the Start and Stop limit are:

- Start limit = 50 95
- Stop limit = 55 100
- Granularity Dead band in binary format. For example, if the dead band is 5%, the **stop charging** value is 5% greater than the **start charging** value, but is not allowed exceed 100.

# Primary IDE Channel, Master Device

Enables or Disables primary Parallel ATA master channel.

Possible values are:

- Off
- Auto

## Primary IDE Channel, Slave Device

Enables or Disables primary Parallel ATA slave channel.

Possible values are:

- Disable
- Enable

#### **Primary Video Device Slot**

Configures the slot for primary video display.

Possible values are:

- 0 Sets the onboard video device slot as primary video device slot.
- 1-15 Sets the specified slot number as a primary video device slot
- 255 Scans PCI buses and uses the first video device slot, found with video card as a primary video device slot.



**NOTE:** If a video card is not available in the specified slot number, the system will scan the PCI buses and uses the first video device slot, found with video card as a primary video device.

Attribute Name	Description
Prompt On Error	Enable/Disable the Prompt on Error.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Rear Single USB	This feature will allow the users to electrically enable or disable the Rear Single USB ports. If disabled, they are unusable in any OS.
	Possible values are:
	<ul><li>Off</li><li>On</li></ul>
Rear Dual USB 2nd stack	Enable/Disable the Rear Dual USB 2nd stack.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Rear Quad USB	This feature will allow the users to electrically enable or disable the Rear Quad USB ports. If disabled, they are unusable in any OS.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Rear USB Ports	Enables or disables all the rear ports.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Radio Transmission	Enables or Disables the radio transmission (MiniPCI Wireless or Bluetooth module).
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Rugged Dock Non-Video Devices	Enables or disables all the non-video devices (serial, audio, LAN, and USB ports) on a rugged dock.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Sata Controllers	Enable/Disable all SATA Controllers.

Attribute Name	Description
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
SATA DIPM	This property will allow users to disable or enable the feature that allows SATA HDDs to initiate link power management transitions.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
=	Enables or Disables secondary Parallel ATA master channel.
Device	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
Secondary IDE Channel, Slave	Enables or Disables secondary Parallel ATA slave channel.
Device	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
Selective USB	Enable Selective USB feature to disable all USB ports, except for the 2 Selective USB ports. This option will allow only keyboard/mouse connected to the Selective USB ports for the boot process to continue.
	Disable Selective USB feature to resume normal USB status and normal boot procedure.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
SATA Port 0	Enables or Disables Serial ATA channel 1.
	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
SATA Port 1	Enables or Disables Serial ATA channel 2.
	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
SATA Port 2	Enables or Disables Serial ATA channel 3.

Attribute Name	Description
	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
SATA Port 3	Enables or Disables Serial ATA channel 4.
	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
SATA Port 4	Enables or Disables Serial ATA channel 5.
	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
SATA Port 5	Enables or Disables Serial ATA channel 6.
	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
SATA Port 6	Enables or Disables Serial ATA channel 7.
	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
SATA Port 7	Enables or Disables Serial ATA channel 8.
SATA POIL /	Possible values are:
	• Off
	• Auto
Secure Boot	The BIOS performs a Secure Boot authentication while attempting to boot from a UEFI partition. It refers to this setting to decide on the POST behavior.
	Possible values are:
	<ul> <li>Enable — When enabled, BIOS only performs Secure Boot and boot in UEFI mode without loading the Compatibility Support Model (CSM).</li> </ul>
	<b>NOTE:</b> You can disable secure boot only from the BIOS setup screen.
Serial Communications	Sets the Serial Communication.

Attribute Name	Description
	Possible values are:
	<ul> <li>Off</li> <li>On without console redirection</li> <li>On with console redirection (COM1)</li> <li>On with console redirection (COM2)</li> <li>On with console redirection</li> </ul>
Serial Port 1	Configures the 1st serial port of the system.
	Possible values are:
	<ul><li>Disable</li><li>Auto</li><li>COM2</li><li>COM3</li><li>COM4</li></ul>
Serial Port 2	Configures the 2nd serial port of the system.
	Possible values are:
	<ul><li>Disable</li><li>Auto</li><li>COM2</li><li>COM4</li></ul>
Serial Port 3	Configures the 3rd serial port of the system.
	Possible values are:
	<ul> <li>Disable — Disables the 3rd serial port.</li> <li>Auto — Enables the auto-configuration of the 3rd serial port.</li> </ul>
Serial Port 4	Configures the 4th serial port of the system.
	Possible values are:
	<ul> <li>Disable — Disables the 4th serial port.</li> <li>Auto — Enables the auto-configuration of the 4th serial port.</li> </ul>
Serial Port 5	Configures the system's 5th serial port.
	Possible values are:
	<ul> <li>Disable — Disables the 5th serial port.</li> <li>Auto — Enables the auto-configuration of the 5th serial port.</li> </ul>
Serial Port 6	Configures the 6th serial port of the system.
	Possible values are:
	Disable — Disables the 6th serial port.

Attribute Name	Description
	Auto — Enables the auto-configuration of the 6th serial port.
SERR DMI Message	Enables or Disables SERR DMI Messages.
	Possible values are:
	<ul><li>Off</li><li>On</li></ul>
Set CMOS To Default	Request or don't request a default of CMOS values on the next boot.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Side USB Ports	Enables or disables all the side ports.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Signed Firmware Update	Enforces the verification of digital signatures in the BIOS update payload before updating the BIOS. Once enabled, the system BIOS cannot be updated to any revision that does not contain a valid digital signature.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
SmartCard Reader	Enables or Disables the Smart Card Reader.
	Possible values are:
	<ul><li>Off</li><li>Enable</li></ul>
SMART Errors	Enables or Disables SMART Errors.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Sound Device	Status of the system's built-in sound device.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>

Attribute Name	Description
Speaker	The volume of the speaker.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li><li>Low</li><li>Medium</li><li>High</li></ul>
SpeedStep	Sets SpeedStep to Automatic, Disabled, Max Performance, or Max Battery.
	Possible values are:
	<ul><li>Disable</li><li>Maximum performance</li><li>Maximum battery life</li><li>Auto</li></ul>
Splash Screen	Enable/Disable the Splash Screen.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Spread Spectrum	Tokens Used in Dell Command   Monitor.
	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
SR-IOV Global	Enable/Disable BIOS support for SRIOV devices.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Standby State	Selects the power management suspend mode.
	Possible values are:
	<ul><li>Standby S1</li><li>Standby S3</li></ul>
Stealth Mode	Enables or disables the pre-programmed stealth mode of operation of the system.
	Possible values are:
	ullet Disable — The system elements operate in the normal mode.

#### **Attribute Name**

#### Description

• Enable — The system elements operate in the pre-programmed stealth mode.

#### For example,

- If stealth mode is enabled and the device stealth mode is set to **Turn off**, it turns the device off while pressing Fn+F7 keys.
- If the stealth mode is enabled and the device stealth mode is set to **Unchanged**, then the device retains its status and remains unchanged while pressing Fn+F7 keys.
- If the stealth mode is disabled, then the state of the device cannot be changed by the individual device stealth modes.

Following are the system elements that have effect of stealth mode on them:

- Stealth Mode Quiet Bluetooth
- Stealth Mode Quiet Fans
- Stealth Mode Quiet GPS
- Stealth Mode Quiet LCD
- Stealth Mode Quiet LEDs
- Stealth Mode Quiet Speakers
- Stealth Mode Quiet WLAN
- Stealth Mode Quiet WWAN
- Stealth Mode WiGig Radio

#### Stealth Mode Quiet Bluetooth

Configures the state of the bluetooth radio depending on the Stealth mode is enabled or disabled.

#### Possible values are:

- Turn off Turns off the bluetooth radio if the stealth mode is enabled.
- Unchanged Retains the current state of the bluetooth.

#### **Stealth Mode Quiet Fans**

Configures the state of the fans depending on the Stealth mode is enabled or disabled.

#### Possible values are:

- Turn off Turns off the fan if the stealth mode is enabled.
- Unchanged Retains the current state of the fan.

#### Stealth Mode Quiet GPS

Configures the state of the GPS radio depending on the Stealth mode is enabled or disabled.

#### Possible values are:

- Turn off Turns off the GPS radio if the stealth mode is enabled.
- Unchanged Retains the current state of the GPS radio.

#### Stealth Mode Quiet LCD

Configures the state of the LCD screen backlight depending on the Stealth mode is enabled or disabled.

Attribute Name	Description
	Possible values are:
	Turn off - Turns off the LCD screen backlight if the stealth mode is enabled
	<ul> <li>Unchanged - Retains the current state of the LCD screen backlight.</li> </ul>
Stealth Mode Quiet LEDs	Configures the state of the LEDs depending on the Stealth mode is enabled or disabled.
	Possible values are:
	Turn off - Turns off the system LEDs if the stealth mode is enabled.
	Unchanged - Retains the current state of the system LEDs.
Stealth Mode Quiet Speakers	Configures the state of the onboard speakers depending on the Stealth mode is enabled or disabled.
	Possible values are:
	Turn off - Turns off the onboard speakers if the stealth mode is enabled.
	Unchanged - Retains the current state of the onboard speakers.
Stealth Mode Quiet WLAN	Configures the state of the WLAN (and WiGig) radio depending on the Stealth mode is enabled or disabled.
	Possible values are:
	<ul> <li>Turn off - Turns off the WLAN if the stealth mode is enabled.</li> <li>Unchanged - Retains the current state of the WLAN.</li> </ul>
Stealth Mode Quiet WWAN	Configures the state of the WWAN (and WiGig) radio depending on the Stealth mode is enabled or disabled.
	Possible values are:
	Turn off - Turns off the WWAN (and WiGig) radio if the stealth mode is enabled.
	• Unchanged - Retains the current state of the WWAN (and WiGig) radio.
Stealth Mode WiGig Radio	Configures or displays the state of Wireless Gigabit Alliance (WiGig) radio depending on the Unobtrusive mode or stealth mode is enabled or disabled.
	Possible values are:
	Turn off - Turns off the WiGig radio if the Unobtrusive mode or stealth mode is enabled.
	Unchanged - Retains the current state of the Wigig radio.
Strong Password	Enable/Disable Strong Password.

Attribute Name	Description
	Possible values are:
	• Disable
	Enable
Surround View	This feature will allow user to enable SurroundView that allow user to use an additional AMD PCIE video card in conjunction with the onboard graphics card which would give you ability to use multiple monitors at once. Notes: it's only for AMD platform/ disable SurroundView that disable multiple monitor support with additional AMD PCIE video card. Notes: it's only for AMD platform.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Switchable Graphics	Configures the Switchable Graphics technology.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Tablet Buttons	Enables or Disables Tablet Buttons.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
TCM Visibility	Hides or unhides the TCM from the operating system on the next boot.
	Possible values are:
	<ul><li>Hidden</li><li>Visible</li></ul>
Tertiary IDE Channel, Master	Enables or Disables tertiary Parallel ATA master channel.
Device	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
Tertiary IDE Channel, Slave	Enables or Disables tertiary Parallel ATA master channel.
Device	Possible values are:
	<ul><li>Off</li><li>Auto</li></ul>
Trusted Execution	New processor execution mode and BIOS hooks to enable a protected execution environment and main memory protection.

Attribute Name	Description
	Possible values are:
	• On
	• Off
Trusted Platform Module	Enables or Disables the Trusted Platform Module (TPM).
	Possible values are:
	Enable
	• Disable
Trusted Platform Module Activation	This property is used to activate the TPM if it is deactivated, unowned and a BIOS Admin password is set and has been verified; otherwise this property reports the status of the TPM Activation BIOS option.
	Possible values are:
	Deactivate
	Activate
TPM PPI ACPI Support	Enables or disables the TPM ACPI physical presence commands.
	Possible values are:
	Enable
	Disable
TPM PPI Provision Override	Enables or disables the physical presence for the ACPI TPM PPI provision operations.
	Possible values are:
	Enable
	Disable
TPM PPI Deprovision Override	Enables or disables the physical presence for the ACPI TPM PPI deprovision operations.
	Possible values are:
	Enable
	Disable
UART Power Down	Allow the operating system to power down or Prohibit OS from powering down UART.
	Possible values are:
	• Disable
	Enable
<b>UEFI Network Stack</b>	Possible values are:
	<ul> <li>Enable — UEFI networking protocols are available permitting preOS image of the network, including PXE.</li> </ul>

Attribute Name	Description
	Disable — UEFI networking protocols are not available in the preOS environment and network boot by PXE is disabled. This setting will improve boot times.
UEFI Capsule	Enables or disables BIOS updates via UEFI capsule update packages.
	POssible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
	<b>NOTE:</b> Disabling this option blocks the BIOS updates from services such as Microsoft Windows Update and Linux Vender Firmware Service (LVFS).
Unobtrusive Mode	Enables or disables the $<$ Fn> $<$ B> key combination, which controls the light emissions from the system.
	Possible values are:
	<ul> <li>Disable — Disables the <fn><b> key combination</b></fn></li> <li>Enable — Enables the <fn><b> key combination</b></fn></li> </ul>
USB	Enables, Disables, or sets the system's USB port to No Boot (if supported).
	Possible values are:
	• Disable
	<ul><li>Enable</li><li>No boot</li></ul>
USB Emulation	Enables or Disables USB keyboard and mouse support for Operating systems that do not natively support USB keyboards and mice.
	Possible values are:
	<ul><li>Enable</li><li>Disable</li></ul>
USB Flash Drive Emulation	Possible values are:
	<ul><li>Auto</li><li>Floppy</li></ul>
	HD only
USB Port 0	Enables or Disables USB Port 00.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 1	Enables or Disables USB Port 01.

Attribute Name	Description
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 2	Enables or Disables USB Port 02.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 3	Enables or Disables USB Port 03.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 4	Enables or Disables USB Port 04.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 5	Enables or Disables USB Port 05.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 6	Enables or Disables USB Port 06.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 7	Enables or Disables USB Port 07.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 8	Enables or Disables USB Port 08.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>

Attribute Name	Description
USB Port 9	Enables or Disables USB Port 09.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 10	Enables or Disables USB Port 10.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 11	Enables or Disables USB Port 11.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 12	Enables or Disables USB Port 12.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 13	Enables or Disables USB Port 13.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 14	Enables or Disables USB Port 14.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 15	Enables or Disables USB Port 15.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 20	Enables or Disables USB Port 20.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>

Attribute Name	Description
USB Port 21	Enables or Disables USB Port 21.
	Possible values are:
	• Disable
	• Enable
USB Port 22	Enables or Disables USB Port 22.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB Port 23	Enables or Disables USB Port 23.
	Possible values are:
	• Disable
	• Enable
USB 3.0	Enable or Disable USB 3.0
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
USB PowerShare	Enable/Disable the USB PowerShare feature.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
User Accessible USB Ports	Enables or Disables user accessible USB ports.
	Possible values are:
	• All off
	<ul><li>Back only</li><li>All on</li></ul>
Hen W. L. e	
USB Wake Support	Enables or Disables USB Wake setting.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Video Expansion	Enables or Disables Video Expansion.
	Possible values are:
	• Disable

Attribute Name	Description
	Enable
	5 11 8: 11 1/21 5
Video Memory Size	Enables or Disables Video Expansion.
	Possible values are:
	• Off
	• Auto
	• 1MB
	• 8MB
	• 16MB
	<ul><li>32MB</li><li>64MB</li></ul>
	• 128MB
	• 256MB
	• 512MB
	• 1GB
VT for Direct IO	Intel Virtualization Technology for Direct I/O (VT-d) — new chipset feature that enhances I/O support (DMA) when running a Virtual Machine Monitor.
	Possible values are:
	• Disable
	• Enable
Wake On LAN	Defines the wake-on-LAN feature. This property defines whether Wakeup On LAN is disabled, enabled for on-board NIC only or enabled for add-in NIC only. If Enabled with boot to NIC option is selected, the system boots from the NIC boot-ROM upon a remote wakeup.
	Possible values are:
	• Disable
	Enable_AIC
	Enable_OnBoard
	Enable All
	LAN or WLAN     WLAN orby
	<ul><li>WLAN only</li><li>LAN with PXE boot</li></ul>
Wake-On-LAN Boot Override	If enabled then when the system powers on due to a Wake-on-LAN event, the NIC boot-ROM is automatically given the highest boot priority, pre-pending the PXE boot-ROM to the system's current boot sequence. If the system powers on due to some other event, this selection does not influence the boot sequence. If disabled then the boot override feature is disabled and the system boot sequence is in effect for all types of system power on.

Attribute Name	Description
	Possible values are:
	• Disable
	Enable
Watchdog Timer	The system will/will not reboot/reset if the watchdog timer expires
	Possible values are:
	• Disable
	Enable
Wake-On-LAN Boot Override	If enabled then when the system powers on due to a Wake-on-LAN event, the NIC boot-ROM is automatically given the highest boot priority, pre-pending the PXE boot-ROM to the system's current boot sequence. If the system powers on due to some other event, this selection does not influence the boot sequence. If disabled then the boot override feature is disabled and the system boot sequence is in effect for all types of system power on.
	Possible values are:
	• Disable
	Enable
Watchdog Timer	The system will/will not reboot/reset if the watchdog timer expires
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Wireless Adapter	Enable/Disable Wireless Adapter.
	Possible values are:
	• Disable
	Enable
Wireless Device	If disabled then wireless devices are always disabled.
	If set to APP then wireless devices can be controlled by an application such as QuickSet
	If set to Hotkey then wireless devices can be controlled by an application such as QuickSet
	Possible values are:
	• Disable
	<ul><li>APP</li><li>Hotkey</li></ul>
MEET Code leave Cl	
WiFi Catcher Changes	Permits or Denies WiFi Catcher changes. If the administrator password is not set, this setting will have no effect.

Attribute Name	Description
	Possible values are:
	<ul><li>Deny</li><li>Permit</li></ul>
WiFi Locator	Enables or Disables the WiFi Locator.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Wireless LAN	Enables or Disables the wireless LAN module.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Wireless Radio Control Switch	Enables or disables the Wireless Gigabit (WiGig) radio control switch on the dock.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Wireless Switch Bluetooth	Enables or Disables wireless switch Bluetooth control.
Control	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Wireless Switch Cellular Control	Enables or Disables wireless switch cellular control. This switch has no effect on the state of the cellular radio for systems with a physical wireless on/off switch.
	Possible values are:
	<ul><li>Disable</li><li>Enable</li></ul>
Wireless Switch Change	Permits or Denies Wireless Switch changes. If the administrator password is not set, this setting will have no effect.
	Possible values are:
	<ul><li>Deny</li><li>Permit</li></ul>
Wireless Switch Wireless LAN Control	Enables or Disables wireless switch wireless LAN control. This switch has no effect on the state of the wireless LAN radio for systems with a physical wireless on/off switch.

Attribute Name	Description
	Possible values are:
	• Disable
	• Enable
Wireless Switch WLAN-WIGIG Control	Enables or disables the effect of physical wireless switch on wireless LAN and WiGig radio.
	Possible values are:
	Disable — The wireless physical switch does not effect the wireless LAN and WiGig radios.
	<ul> <li>Enable — If the wireless physical switch is on, turns the wireless LAN on and WiGig radio on. If the wireless switch is off, turns the wireless LAN on and WiGig radio off.</li> </ul>
Wireless UWB	Enable/Disable UWB card.
	Possible values are:
	• Disable
	• Enable
WxAN Radio	Possible values are:
	• Disable
	WLAN on     WAN are
	• WWAN on
	<ul> <li>If set to <b>Disable</b> then it disables both WLAN and WWAN;</li> <li>If set to <b>WLAN ON</b> then it toggles between WLAN radio on and WWAN radio off:</li> </ul>
	If set to <b>WWAN ON</b> then it toggles between WWAN radio on and WLAN radio off.
Wireless Switch GPS On WWAN Radio	Enables or disables the effect of physical wireless switch on the GPS radio of the wireless WAN card.
	Possible values are:
	• Disable — If disabled, wireless switch does not have any effect on the state of the GPS radio of the wireless WAN card.
	<ul> <li>Enable — If enabled, wireless switch turns the GPS radio of the wireless WAN card on or off.</li> </ul>
WWAN Connection Auto Sense	When the WWAN is enabled, this token enables the feature that automatically turns off the WWAN when it is connected to the network.
	Possible values are:
	Disable
	• Enable

# **Alerts in Dell Command | Monitor**

Alerts are generated when a system's state of interest changes. There are two basic types of alerting: local alerting to the current computer user and remote alerting to a management application. Dell Command | Monitor handles both types of alerting.

The Distributed Management Task Force (DMTF) has released the Alert Standard Format (ASF), which defines alerting and remote control interfaces that enable management of networked systems when their operating system is absent. This includes a networked computer that has an inactive or inoperable operating system or that is in a low-power system sleep state. The ASF specification is available at **www.dmtf.org**. ASF documentation is provided with systems that support ASF.

ASF handles remote alerting for environmental events, which are detected by sensors, such as temperature, electrical, and fan probes, and chassis intrusion sensors. ASF also handles additional alerting in the operating-system-absent environment. By default, Dell Command | Monitor handles remote alerting for all events.

ASF 2.0 adds important security measures to the ASF standard, which defines alerting and remote control interfaces to proactively manage networked devices when their operating system is absent. The first industry specification for operating system absent management, ASF allows a network administrator to be alerted to failures of specific components within a networked device, thereby minimizing on-site maintenance while maximizing remote visibility of and access to local systems. Without ASF, operating system absent problems require manual intervention to force a reboot of the system.

There are three settings in the system BIOS that Dell Command | Monitor allows for configuration:

- Off All ASF 2.0 features are turned off
- Alert Only ASF 2.0 alert is the only feature that is turned on
- On Alerts and remote control are turned on

The system network interface card (NIC) and basic input/output system (BIOS) support ASF 2.0. If the BIOS allows for any ASF 2.0 configuration, then the BIOS settings are exposed through the Microsoft Windows Management Instrumentation (WMI) by Dell Command | Monitor.

# **Dell Command | Monitor alerting**

Local alerting involves displaying user messages and writing to the Windows event log. Remote alerting is accomplished through WMI indications. When Dell Command | Monitor detects an event, it generates an alert, which can be transmitted through the WMI service to a remote management application that is subscribed to that alert type.

When an alert is generated, Dell Command | Monitor supports four types of notification:

- NT event log
- WMI event
- SNMP traps

In Dell Command | Monitor, each type of event (for example, CurrentProbe, TemperatureProbe, Smart, and so on) that gets logged is provided with an unique event ID number. The events have unique IDs to allow log scraping; this way you can programmatically look at the event log and determine what Dell Command | Monitor events have occurred.

You are also provided with an option to receive either a single alert or a limited number of alerts of the occurrence of an event, of a given type. You can mask out specific events and can generate single alert messages for only those events.

Dell Command | Monitor recognizes the following eight WMI severity levels (represented by integers 0 through 7):

- UNKNOWN = 0
- OTHER = 1
- INFORMATION = 2
- WARNING\_DEGRADED = 3
- MINOR = 4
- MAJOR = 5
- CRITICAL = 6
- FATAL\_NONRECOVERABLE = 7



**NOTE:** Events with CRITICAL severity will cause Dell Command | Monitor to shut down the local system after a 60-second delay.

The lowest WMI severity level that Dell Command | Monitor sends is WARNING\_DEGRADED and the highest is CRITICAL. The severities of Dell Command | Monitor events are listed in Table 2-1. Dell Command | Monitor sends local alerting and remote alerting for all the listed events.

Table 1. Events Polled by Dell Command | Monitor

· · · · · · · · · · · · · · · · · · ·	
Dell Command   Monitor Event (Windows Event Log Number)	Description
AlertTemperatureProbeWarnin g (1053)	Temperature probe has detected a warning value.
AlertTemperatureProbeFailure (1054)	Temperature probe has detected a failure value.
AlertTemperatureProbeNonRec overable (1055)	Temperature probe has detected a non-recoverable value.
FanProbe (1103)	A cooling device has exceeded a minor threshold.
AlertCoolingDeviceFailure (1104)	Cooling device sensor has detected a failure value.
AlertCoolingDeviceNonRecove rable (1105)	Cooling device sensor has detected a non-recoverable value.
AlertVoltageProbeWarning (1153)	Voltage probe has detected a warning value.
AlertVoltageProbeFailure (1154)	Voltage probe has detected a failure value.
AlertVoltageProbeNonRecover able (1155)	Voltage probe has detected a non-recoverable value.
CurrentProbe (1203)	An electrical current probe has exceeded a minor threshold.
	One of the hard-disk drive is running out of free space.
AlertAmperageProbeFailure (1204)	Amperage probe has detected a failure value.
AlertAmperageProbeNonRecov erable (1205)	Amperage probe has detected a non-recoverable value.
ChassisIntrusionNormal (1252)	Chassis intrusion has returned to normal.
ChassisIntrusion (1254)	System chassis intrusion alert.
EccMemory (1403)	A memory checksum failure has occurred.
RAIDControllerFailure (1801)	A RAID controller has failed.
RAIDControllerOffline (1802)	A RAID controller is offline.
RAIDControllerPowerOff (1803)	A RAID controller is turned off.
AlertRaidControllerDegraded (1804)	A Raid controller has degraded.
PhysicalDiskDegraded (1811)	A physical hard-disk drive is degraded.
AlertPhysicalDiskRebuilding (1812)	A physical hard-disk drive is rebuilding.

Dell Command   Monitor Event (Windows Event Log Number)	Description
PhysicalDiskFailed (1813)	A physical hard-disk drive has failed.
PhysicalDiskOffline (1814)	A physical hard-disk drive is offline.
VitualDiskDegraded (1821)	A virtual hard-disk drive is degraded.
VirtualDiskRebuilding (1822)	A virtual hard-disk drive is rebuilding.
VirtualDiskFailed (1823)	A virtual hard-disk drive has failed.
VirtualDiskOffline (1824)	A virtual hard-disk drive is offline.
Number Of Disks Increased (2030)	A hard-disk drive has been added.
Number Of Disks Decreased (2031)	A hard-disk drive has been removed.
MemorySizeIncreased (2032)	The memory size has been increased.
MemorySizeDecreased (2033)	The memory size has been decreased.
DiskCapacity (2034)	In the current version, two user-defined thresholds are used. An event is generated only when the conditions of both thresholds are met. The first threshold, expressed as an absolute value in megabytes, specifies the size of the hard-disk drive to be monitored. Hard-disk drives with a capacity smaller than the specified size are ignored. The second threshold is expressed as a percentage of the hard-disk drive size. An event is generated when the available free space on one of the monitored hard-disk drives falls below this percentage
Number Of Processors Increased (2035)	Number of processors on the system has increased
Number Of Processors Decrease d (2036)	A processor has been removed.
HDD Smart Failure(2037)	A hard-disk drive condition has occurred that may eventually lead to a hard-disk drive failure.
DiskSizeIncreased (2038)	The size of at least one hard-disk drive has increased.
DiskSizeDecreased (2039)	The size of at least one hard-disk drive has decreased.

# Sample scripts and BIOS settings

This section provides sample scripts for various functionalities in Dell Command | Monitor.

## **Getting BIOS settings**

'\*\*\* scripting, refer to applicable Microsoft documentation.

```
'*** Declare variables
Dim objWMIService
Dim strComputerName
Dim strNameSpace
Dim strClassName
Dim ColSystem
Dim fso
Dim txtfile
Dim outString
Dim iTKVal
Dim ArrayItem
Dim objInstance
Dim strSpecialTK1
Dim strSpecialTK2
'*** Check that the right executable was used to run the script
'*** and that all parameters were passed
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or _
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
'*** Initialize variables
Set fso = CreateObject("Scripting.FileSystemObject")
strComputerName = WScript.Arguments(0)
outString = ""
strNameSpace = "root/dcim/sysman"
strClassName = "DCIM_BIOSEnumeration"
strSpecialTK1 = "Auto On Hour"
strSpecialTK2 = "Auto On Minute"
iTKVal = -1
ArrayItem = 0
'*** Establish a connection to the dcim\sysman namespace
```

```
'*** Retrieve the instance of DCIM_BIOSEnumeration class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &
strNameSpace)
'*** Set up the output file
set txtfile = fso.Createtextfile("BIOS Output.csv", true)
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
outString = ""
For each objInstance in ColSystem
'*** Check every instance
iTKVal = objInstance.Properties .Item("CurrentValue").Value(0)
*** Auto On Hour and Auto On Minutes don't have PossibleValues and PossibleValuesDescription
properties
if (objInstance.AttributeName <> strSpecialTK1) and (objInstance.AttributeName
<> strSpecialTK2) Then
For Each element in objInstance.Properties .Item("PossibleValues").Value
if (objInstance.Properties .Item("PossibleValues").Value(ArrayItem) = iTKVal)
Then
outString = outString & objInstance.AttributeName & ", " &
(objInstance.Properties .Item
("PossibleValuesDescription"). Value (ArrayItem)) & VbCrLf
end if
ArrayItem = ArrayItem + 1
Next
else
'*** Auto On Hour and Auto On Minutes token copy the current value directly
outString = outString & objInstance.AttributeName & ", " &iTKVal & VbCrLf
end if
ArrayItem = 0
txtfile.WriteLine outString
'*** Close the file
txtfile.close
```

### **Changing BIOS password**

Below is a sample VBScript that changes the BIOS password on a Dell Command | Monitor client.

'\*

```
'*** Name: SampleSetAdminPassword.vbs
```

'\*\*\* Purpose: To Set/Change the BIOS Admin password on a Dell OMCI client.

'\*\*\* Usage: cscript.exe //nologo SampleSetAdminPassword.vbs <systemname>

'\*\*\*

'\*\*\* This sample script is provided as an example only, and has not been

'\*\*\* tested, nor is warranted in any way by Dell; Dell disclaims any

'\*\*\* liability in connection therewith. Dell provides no technical

'\*\*\* support with regard to such scripting. For more information on WMI

'\*\*\* scripting, refer to applicable Microsoft documentation.

'\*\*\*

W

returnValue = 0

**NOTE:** Replace <old\_password> and <new\_password> in line 45 and 44 '\*\*\* (inside the quotes) with the desired values

```
Option Explicit
'*** Declare variables
Dim strNameSpace
Dim strComputerName
Dim strClassName
Dim objInstance
Dim strAttributeName(2)
Dim strAttributeValue(2)
Dim strAuthorizationToken
Dim returnValue
Dim objWMIService
Dim ColSystem
Dim oInParams
'*** Check that the right executable was used to run the script
'*** and that all parameters were passed
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or _
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
'*** Initialize variables
strNameSpace = "root/dcim/sysman"
strComputerName = WScript.Arguments(0)
strClassName = "DCIM BIOSService"
strAttributeName(0) = "AdminPwd"
strAttributeValue(0) = "<new_password>"
strAuthorizationToken = "<old password>"
```

```
'*** Retrieve the instance of DCIM_BIOSService class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &
strNameSpace)
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
For each objInstance in ColSystem
Set oInParams=
objInstance.Methods ("SetBIOSAttributes").InParameters.SpawnInstance
oInParams.AttributeName = strAttributeName
oInParams.AttributeValue = strAttributeValue
oInParams.AuthorizationToken = strAuthorizationToken
Set returnValue = objInstance.ExecMethod ("SetBIOSAttributes", oInParams)
Next
'*** If any errors occurred, let the user know
If Err.Number <> 0 Then
WScript. Echo "Change admin password failed."
End If
'*** Sub used to display the correct usage of the script
Sub Usage()
Dim strMessage
strMessage = "incorrect syntax. You should run: " & vbCRLF &
"cscript.exe /nologo SampleSetAdminPassword.vbs <systemname>"
WScript.Echo strMessage
End Sub
'-----
====
' End
```

### Clear chassis intrusion status

Below is a sample VBScript that clears the chassis intrusion status of a system. This script can be run locally or remotely using the name of the system.

\*

<sup>&#</sup>x27;\*\*\* Name: SampleChassisIntrusionClear.vbs

```
'*** Purpose: To clear the chassis intrusion status on a Dell OMCI client.
```

'\*\*\* Usage: cscript.exe //nologo SampleChassisIntrusionClear.vbs <systemname>

- '\*\*\* This sample script is provided as an example only, and has not been
- '\*\*\* tested, nor is warranted in any way by Dell; Dell disclaims any
- '\*\*\* liability in connection therewith. Dell provides no technical
- '\*\*\* support with regard to such scripting. For more information on WMI
- '\*\*\* scripting, refer to applicable Microsoft documentation.



NOTE: Replace <Password>in line 57 (inside the quotes) with the desired values if there is any password set in the system. If both passwords (Admin and Boot) are set please replace it with Admin Password. If there is no password set in the system please leave it as empty.

```
Option Explicit
'*** Declare variables
Dim strNameSpace
Dim strComputerName
Dim strClassName
Dim strKeyValue
Dim objInstance
Dim strPropName
Dim oInParams
Dim objWMIService
Dim returnValue
Dim ColSystem
Dim strAttributeName(2)
Dim strAttributeValue(2)
Dim strAuthorizationToken
'*** Check that the right executable was used to run the script and that all parameters were passed.
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
```

```
*** Initialize variables
strNameSpace = "root/dcim/sysman"
strComputerName = WScript.Arguments(0)
strClassName = "DCIM BIOSService"
strAttributeName(0) = "Chassis Intrusion Status"
'*** All possible values for Chassis Intrusion Status are as follows:
'*** 1 = Tripped (Read-only)
'*** 2 = Door open (Read-only)
'*** 3 = Door closed (Read-only)
'*** 4 = Trip reset (Write-only)
strAttributeValue(0) = "4"
strAuthorizationToken = "<Password>"
returnValue = 0
'*** Retrieve the instance of DCIM_BIOSService class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &
strNameSpace)
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
For each objInstance in ColSystem
Set oInParams=
objInstance.Methods ("SetBIOSAttributes").InParameters.SpawnInstance
oInParams.AttributeName = strAttributeName
oInParams.AttributeValue = strAttributeValue
oInParams.AuthorizationToken = strAuthorizationToken
Set returnValue = objInstance.ExecMethod ("SetBIOSAttributes", oInParams)
Next
'*** If any errors occurred, let the user know
If Err.Number <> 0 Then
WScript. Echo "Clear chassis intrusion failed."
End If
```

### **Enabling Wakeup On LAN**

Below is a sample VBScript that enables Wakeup On LAN on a Dell Command | Monitor client.

'\*

'\*\*\* Name: SampleWuOLEnable.vbs

'\*\*\* Purpose: To clear the chassis intrusion status on a Dell OMCI client.

'\*\*\*Usage: cscript.exe //nologo SampleWuOLEnable.vbs <systemname>

'\*\*\* This sample script is provided as an example only, and has not been

'\*\*\* tested, nor is warranted in any way by Dell; Dell disclaims any

'\*\*\* liability in connection therewith. Dell provides no technical

'\*\*\* support with regard to such scripting. For more information on WMI

'\*\*\* scripting, refer to applicable Microsoft documentation.



**NOTE:** Replace <Password> in line 57 (inside the quotes) with the desired values if there is any password set in the system. If both passwords (Admin and Boot) are set please replace it with Admin Password. If there is no password set in the system please leave it as empty.

'\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Option Explicit

```
'*** Declare variables
Dim strNameSpace
Dim strComputerName
Dim strClassName
Dim strKeyValue
Dim objInstance
Dim strPropName
Dim strPropValue
Dim oInParams
Dim oInParams
Dim objWMIService
Dim returnValue
Dim ColSystem
Dim strAttributeName(2)
Dim strAttributeValue(2)
Dim strAuthorizationToken
'*** Check that the right executable was used to run the script and that all parameters were passed.
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or _
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
'*** Initialize variables
strNameSpace = "root/dcim/sysman"
strComputerName = WScript.Arguments(0)
strClassName = "DCIM BIOSService"
strAttributeName(0) = "Wake On LAN"
'*** All possible values for WOL are as follows:
'*** 1 = Disable
'*** 2 = Add-in
'*** 3 = On board
'*** 4 = LAN
'*** 5 = PXE boot enable
```

```
'*** 6 = LAN or WLAN
'*** 7 = WLAN only
strAttributeValue(0) = "4"
strAuthorizationToken = "<Password>"
returnValue = 0
'*** Retrieve the instance of DCIM BIOSService class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &
strNameSpace)
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
For each objInstance in ColSystem
Set oInParams=
objInstance.Methods ("SetBIOSAttributes").InParameters.SpawnInstance
oInParams.AttributeName = strAttributeName
oInParams.AttributeValue = strAttributeValue
oInParams.AuthorizationToken = strAuthorizationToken
Set returnValue = objInstance.ExecMethod ("SetBIOSAttributes", oInParams)
Next
'*** If any errors occurred, let the user know
If Err.Number <> 0 Then
WScript. Echo "Enabling Wake On LAN failed."
End If
'*** Sub used to display the correct usage of the script
Sub Usage()
Dim strMessage
strMessage = "incorrect syntax. You should run: " & vbCRLF &
"cscript.exe /nologo SampleWuOLEnable.vbs <systemname>"
WScript.Echo strMessage
End Sub
'-----
====
' End
====
```

#### Remote system shutdown

```
Below is a sample VBScript that shuts down a Dell Command | Monitor client remotely.
'*** Name: SampleShutdown.vbs
'*** Purpose: To clear the chassis intrusion status on a Dell OMCI client.
'*** Usage: cscript.exe //nologo SampleShutdown.vbs <systemname>
'*** This sample script is provided as an example only, and has not been
'*** tested, nor is warranted in any way by Dell; Dell disclaims any
'*** liability in connection therewith. Dell provides no technical
'*** support with regard to such scripting. For more information on WMI
'*** scripting, refer to applicable Microsoft documentation.
Option Explicit
'*** Declare variables
Dim strNameSpace
Dim strComputerName
Dim strClassName
Dim strKeyValue
Dim objInstance
Dim strPropName
Dim strPropValue
Dim oInParams
Dim objWMIService
Dim returnValue
Dim ColSystem
'*** Check that the right executable was used to run the script and that all parameters were passed
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or _
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
```

```
'*** Initialize variables
strNameSpace = "root/dcim/sysman"
strComputerName = WScript.Arguments(0)
strClassName = "DCIM ComputerSystem"
returnValue = 0
'*** Retrieve the instance of DCIM_ComputerSystem class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" & strNameSpace)
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
For each objInstance in ColSystem
Set oInParams=
objInstance.Methods ("RequestStateChange").InParameters.SpawnInstance
oInParams.RequestedState = 3
Set returnValue = objInstance.ExecMethod ("RequestStateChange", oInParams)
'*** If any errors occurred, let the user know
If Err.Number <> 0 Then
WScript. Echo "Operation failed."
End If
'*** Sub used to display the correct usage of the script
Sub Usage()
Dim strMessage
strMessage = "incorrect syntax. You should run: " & vbCRLF &
"cscript.exe /nologo SampleShutdown.vbs <systemname>"
WScript.Echo strMessage
End Sub
'-----
' End
'-----
====
Remote system restart
```

Below is a sample VBScript that restarts a Dell Command | Monitor client remotely.

'\*

```
'*** Name: SampleRestart.vbs
```

'\*\*\* Purpose: To clear the chassis intrusion status on a Dell OMCI client.

'\*\*\* Usage: cscript.exe //nologo SampleRestart.vbs <systemname>

\*\*\* This sample script is provided as an example only, and has not been tested, nor is warranted in any way by Dell; Dell disclaims any liability in connection therewith. Dell provides no technical support with regard to such scripting. For more information on WMI scripting, refer to applicable Microsoft documentation.

'\*

```
Option Explicit
'*** Declare variables
Dim strNameSpace
Dim strComputerName
Dim strClassName
Dim strKeyValue
Dim objInstance
Dim strPropName
Dim strPropValue
Dim oInParams
Dim objWMIService
Dim returnValue
Dim ColSystem
'*** Check that the right executable was used to run the script and that all parameters were passed.
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
'*** Initialize variables
strNameSpace = "root/dcim/sysman"
strComputerName = WScript.Arguments(0)
strClassName = "DCIM ComputerSystem"
returnValue = 0
```

```
'*** Retrieve the instance of DCIM_ComputerSystem class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &
strNameSpace)
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
For each objInstance in ColSystem
Set oInParams=
objInstance.Methods ("RequestStateChange").InParameters.SpawnInstance
oInParams.RequestedState = 11
Set returnValue = objInstance.ExecMethod ("RequestStateChange", oInParams)
Next
'*** If any errors occurred, let the user know
If Err.Number <> 0 Then
WScript.Echo "System restart failed."
'*** Sub used to display the correct usage of the script
Sub Usage()
Dim strMessage
strMessage = "incorrect syntax. You should run: " & vbCRLF &
"cscript.exe /nologo SampleRestart.vbs <systemname>"
WScript.Echo strMessage
End Sub
====
' End
'-----
Enabling PXE Boot on the next reboot
Below is a sample VBScript that forces a Dell Command | Monitor client to boot to PXE on next reboot.
'*** Name: SampleForcePXE.vbs
'*** Purpose: To clear the chassis intrusion status on a Dell OMCI client.
'*** Usage: cscript.exe //nologo SampleForcePXE.vbs <systemname>
```

- '\*\*\* This sample script is provided as an example only, and has not been
- '\*\*\* tested, nor is warranted in any way by Dell; Dell disclaims any
- '\*\*\* liability in connection therewith. Dell provides no technical
- '\*\*\* support with regard to such scripting. For more information on WMI
- '\*\*\* scripting, refer to applicable Microsoft documentation.



**NOTE:** Replace <Password> in line 53 (inside the quotes) with the desired values if there is any password set in the system. If both passwords (Admin and Boot) are set please replace it with Admin Password. If there is no password set in the system please leave it as empty.

'\*

```
Option Explicit
'*** Declare variables
Dim strNameSpace
Dim strComputerName
Dim strClassName
Dim strKeyValue
 Dim objInstance
Dim strPropName
Dim strPropValue
Dim oInParams
Dim objWMIService
Dim returnValue
Dim ColSystem
Dim strAttributeName(2)
Dim strAttributeValue(2)
 Dim strAuthorizationToken
'*** Check that the right executable was used to run the script and that all parameters were passed.
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or _
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
```

End If

```
'*** Initialize variables
strNameSpace = "root/dcim/sysman"
strComputerName = WScript.Arguments(0)
strClassName = "DCIM BIOSService"
strAttributeName(0) = "Force PXE on Next Boot"
'*** All possible values for Force PXE on Next Boot are as follows:
'*** 1 = Disable
'*** 2 = Enable
strAttributeValue(0) = "2"
strAuthorizationToken = "<Password>"
returnValue = 0
'*** Retrieve the instance of DCIM_BIOSService class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &
strNameSpace)
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
For each objInstance in ColSystem
Set oInParams=
objInstance.Methods ("SetBIOSAttributes").InParameters.SpawnInstance
oInParams.AttributeName = strAttributeName
oInParams.AttributeValue = strAttributeValue
oInParams.AuthorizationToken = strAuthorizationToken
Set returnValue = objInstance.ExecMethod ("SetBIOSAttributes", oInParams)
Next
'*** If any errors occurred, let the user know
If Err.Number <> 0 Then
WScript.Echo "Enabling Force PXE on Next Boot failed."
End If
'*** Sub used to display the correct usage of the script
Sub Usage()
Dim strMessage
strMessage = "incorrect syntax. You should run: " & vbCRLF &
"cscript.exe /nologo SampleForcePXE.vbs <systemname>"
WScript.Echo strMessage
End Sub
```



```
System summary
Below is a sample VBScript that contains details of the system summary.
'**********************
'*** Name: SampleSystemSummary.vbs
'*** Purpose: To check for BIOS Admin/Boot Password on a Dell OMCI client.
'*** Usage: cscript.exe //nologo SampleSystemSummary.vbs <systemname>
'*** This sample script is provided as an example only, and has not been
'*** tested, nor is warranted in any way by Dell; Dell disclaims any
'*** liability in connection therewith. Dell provides no technical
'*** support with regard to such scripting. For more information on WMI
'*** scripting, refer to applicable Microsoft documentation.
'***********************
Option Explicit
'*** Declare variables
Dim strNameSpace
Dim strComputerName
Dim strClassName
Dim strClassNameBIOS
Dim strKeyValueChassis
Dim objInstance
Dim ColSystem
```

Dim objWMIService
Dim strMessage

```
**** Check that the right executable was used to run the script and that all parameters were passed
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
'*** Initialize variables
strNameSpace = "root/dcim/sysman"
strComputerName = WScript.Arguments(0)
strClassName = "DCIM Chassis"
strClassNameBIOS = "DCIM BIOSElement"
strKeyValueChassis = "DCIM Chassis"
'*** Retrieve the instance of DCIM_Chassis class (there should only be 1 instance)
'*** Establish a connection to the dcim\sysman namespace
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &
strNameSpace)
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
For each objInstance in ColSystem
if (objInstance.CreationClassName = strKeyValueChassis) Then
strMessage = "Asset Tag: "
strMessage = strMessage & objInstance.Properties .Item("Tag").Value
strMessage = strMessage & vbCRLF & "Service Tag: "
strMessage = strMessage & objInstance.Properties .Item("ElementName").Value
End if
Next.
'*** Retrieve all instances of DCIM_BIOSElement (there should only be 1 instance).
Set ColSystem=objWMIService.execquery ("Select * from " & strClassNameBIOS)
For each objInstance in ColSystem
strMessage = strMessage & vbCRLF & "BIOS Version: "
strMessage = strMessage & objInstance.Properties .Item("Version").Value
Next
'*** Display the results
WScript.Echo strMessage
```

### Sample Get RAID type

```
'***Declare variables
Dim objWMIService
Dim strComputerName
Dim strNameSpace
Dim strClassName
Dim ColSystem
Dim fso
Dim txtfile
Dim outString
Dim iTKVal
Dim ArrayItem
Dim objInstance
'*** Check that the right executable was used to run the script and that all parameters were passed
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
'*** Initialize variables
Set fso = CreateObject("Scripting.FileSystemObject")
strComputerName = WScript.Arguments(0)
outString = ""
strNameSpace = "root/dcim/sysman"
strClassName = "DCIM VirtualDiskView"
iTKVal = -1
ArrayItem = 0
'*** Establish a connection to the dcim/sysman namespace
'*** Retrieve the instance of DCIM_ControllerView class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &_strNameSpace)
```

```
'*** Set up the output file
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
outString = "RAID Type = "
For Each objItem in ColSystem
For Each p in objItem.Properties
If p.Name = "RAIDTypes" Then
Select Case p. Value
Case 1
outString = outString & "No RAID" & VbCrLf
outString = outString & "RAIDO" & VbCrLf
Case 4
outString = outString & "RAID1" & VbCrLf
Case 64
outString = outString & "RAID5" & VbCrLf
outString = outString & "RAID6" & VbCrLf
Case 2048
outString = outString & "RAID10" & VbCrLf
Case 8192
outString = outString & "RAID50" & VbCrLf
Case 16384
outString = outString & "RAID60" & VbCrLf
Case Else
outString = outString & "UNSUPPORTED" & VbCrLf
End Select
End If
Next
Next
Wscript.StdOut.WriteLine outString
'*** If any errors occurred, let the user know
If Err.Number <> 0 Then
WScript.Echo "Enabling Trusted Platform Module failed."
End If
```

# Sample Get RAID settings

```
'*** Declare variables
Dim objWMIService
Dim strComputerName
Dim strNameSpace
Dim strClassName
Dim ColSystem
Dim fso
Dim txtfile
Dim outString
Dim iTKVal
Dim ArrayItem
Dim objInstance
Dim SupportedListCV(5)
SupportedListCV(0) = "InstanceID"
SupportedListCV(1) = "PrimaryStatus"
SupportedListCV(2) = "ControllerFirmwareVersion"
SupportedListCV(3) = "BusType"
SupportedListCV(4) = "Device"
SupportedListCV(5) = "ProductName"
'*** Check that the right executable was used to run the script and that all parameters were passed
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
'*** Initialize variables
Set fso = CreateObject("Scripting.FileSystemObject")
strComputerName = WScript.Arguments(0)
outString = ""
strNameSpace = "root/dcim/sysman"
strClassName = "DCIM_ControllerView"
iTKVal = -1
ArrayItem = 0
'*** Establish a connection to the dcim/sysman namespace
```

```
'*** Retrieve the instance of DCIM_ControllerView class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate," &
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &
strNameSpace)
'*** Set up the output file
set txtfile = fso.Createtextfile("RAID Output.csv", true)
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
outString = ""
For Each objItem in ColSystem
For Each p in objItem.Properties
For Each obj in SupportedListCV
If p.Name = obj Then
' Display the values of the Name and Value properties of the SWbemProperty
outString = outString & p.Name & "," & p.Value & VbCrLf
Next
Next
Next.
txtfile.WriteLine outString
'*** Close the file
txtfile.close
'*** If any errors occurred, let the user know
If Err.Number <> 0 Then
WScript.Echo "Enabling Trusted Platform Module failed."
End If
'*** Sub used to display the correct usage of the script
Sub Usage()
Dim strMessage
strMessage = "incorrect syntax. You should run: " & vbCRLF &
"cscript.exe /nologo SampleGetRAIDSettings.vbs <systemname>"
WScript. Echo strMessage
End Sub
```

Sample Get RAID status Below is a sample VBScript that contains details of the sample GetRAID status. '\* '\*\*\* Name: SampleGetRAIDStatus.vbs '\*\*\* Purpose: To get the current list of BIOS Settings on a Dell OMCI 8.2.1 client. '\*\*\* Usage: cscript.exe /nologo SampleGetRAIDStatus.vbs <systemname> '\*\*\* This sample script is provided as an example only, and has not been '\*\*\* tested, nor is warranted in any way by Dell; Dell disclaims any '\*\*\* liability in connection therewith. Dell provides no technical '\*\*\* support with regard to such scripting. For more information on WMI '\*\*\* scripting, refer to applicable Microsoft documentation. '\*\*\*Declare variables Dim objWMIService Dim strComputerName Dim strNameSpace Dim strClassName Dim ColSystem Dim fso Dim txtfile

Dim outString

Dim iTKVal

Dim ArrayItem

Dim objInstance

```
'*** Check that the right executable was used to run the script and that all parameters were passed
If (LCase(Right(WScript.FullName, 11)) = "wscript.exe" ) Or
(Wscript.Arguments.Count < 1) Then
Call Usage()
WScript.Quit
End If
'*** Initialize variables
Set fso = CreateObject("Scripting.FileSystemObject")
strComputerName = WScript.Arguments(0)
outString = ""
strNameSpace = "root/dcim/sysman"
strClassName = "DCIM VirtualDiskView"
iTKVal = -1
ArrayItem = 0
'*** Establish a connection to the dcim/sysman namespace
'*** Retrieve the instance of DCIM_ControllerView class
Set objWMIService = GetObject("winmgmts:{impersonationLevel=impersonate,"&
"AuthenticationLevel=pktprivacy}\\" & strComputerName & "\" &_
strNameSpace)
```

```
'*** Set up the output file
Set ColSystem=objWMIService.execquery ("Select * from " & strClassName)
outString = "RAID Status = "
For Each objItem in ColSystem
For Each p in objItem.Properties
If p.Name = "RAIDStatus" Then
Select Case p. Value
Case 0
outString = outString & "Unknown" & VbCrLf
outString = outString & "Ready" & VbCrLf
Case 2
outString = outString & "Online" & VbCrLf
Case 3
outString = outString & "Foreign" & VbCrLf
outString = outString & "Offline" & VbCrLf
Case 5
outString = outString & "Blocked" & VbCrLf
outString = outString & "Failed" & VbCrLf
outString = outString & "Degraded" & VbCrLf
Case 8
outString = outString & "Rebuilding" & VbCrLf
End Select
End If
Next
Next
Wscript.StdOut.WriteLine outString
'*** If any errors occurred, let the user know
If Err.Number <> 0 Then
WScript.Echo "Enabling Trusted Platform Module failed."
End If
```

##