Dell Command | Monitor

Version 10.2.1 Reference Guide



Notes, cautions, and warnings
NOTE: A NOTE indicates important information that helps you make better use of your product.
CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.
WARNING: A WARNING indicates a potential for property damage, personal injury, or death.
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Introduction for Dell Command | Monitor 10.2.1

The Dell Command | Monitor software enables remote management of client systems by using application programs to access information, monitor the status, or change the state of the system, such as remotely shutting down the system. Dell Command | Monitor exposes, through standard interfaces, key system parameters that enable administrators to manage, inventory, monitor system health, and gather information about deployed Dell client systems. Dell Command | Monitor is designed for Dell Enterprise client systems, Dell IoT Gateway systems, and for Dell Embedded PCs. For more information on supported Dell systems see Release notes available at **dell.com/dellclientcommandsuitemanuals**.

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

Dell Command | Monitor 10.2.1 Namespaces

Namespaces are standards-based with implementation of multiple profiles as defined by the Distributed Management Task Force (DMTF). The following namespaces are available in Dell Command | Monitor:

- root\dcim\sysman The CIM schema for this namespace is 2.17 and provides all the functionality of Dell Command | Monitor for Windows. Dell Command | Monitor for Windows, uses DASH-compliant namespace conventions. A DASH-compliant implementation uses a CIM-based data model for representing managed resources and services.
- root/dcim/sysman The CIM schema for this namespace is 2.32.0 and provides all the functionality of Dell Command | Monitor for Linux.

Profiles for Dell Command | Monitor 10.2.1

Dell Command | Monitor running on Microsoft Windows operating system uses industry standard profiles to represent the management data provided. These profiles are implemented either as defined or sometimes have Dell-specific extensions.

The following is a list of profiles that are implemented for Dell Command | Monitor for Windows:

Non-extended profiles:

- Base Metrics—The Base Metrics Profile is a component profile that defines the minimum object model that is needed to provide dynamic metrics that are associated to existing managed elements 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 settings, such as a Network Controller or IDE Controller. The individual BIOS settings' relationship with a respective device is also described.
- Boot Control—The Boot Control Profile describes the classes, associations, properties, and methods that are 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, and 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.
- · Operating system Status—The operating system 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 that are 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 that are 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 that are 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 about Profiles, see the website - dmtf.org/standards/profiles.

Classes for Dell Command | Monitor 10.2.1

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

For more information about CIM schema, classes and properties, see to the website - dmtf.org/standards/cim

Dell Command | Monitor 10.2.1 classes and properties

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

Topics:

- Classes supported for systems running Linux
- · Classes supported for systems running Windows

Classes supported for systems running Linux

For systems running Linux operating system, only the following classes are currently supported:

- DCIM_AlertIndication
- DCIM_AssetOwnerInformation
- DCIM_BIOSElement
- DCIM_BIOSEnumeration
- DCIM_BIOSPassword
- DCIM_BIOSService
- DCIM_Card
- DCIM_Chassis
- DCIM_ComputerSystem
- DCIM_ControllerView
- DCIM_Docked
- DCIM_Fan
- DCIM_LogEntry
- DCIM_Memory
- DCIM_Location
- DCIM_NumericSensor
- DCIM_PhysicalDiskView
- DCIM_Processor
- DCIM_VirtualDiskView

Classes supported for systems running Windows

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

The following tables describe the classes and properties associated with each class.

DCIM_AlertIndication

Table 1. AlertIndication

Property	Description	Supported Operating System(s)
AlertingElementFormat	The format of the AlertingManagedElement property is interpretable based on the value of this property.	Microsoft Windows, Linux
	Possible values are:	

Property	Description	Supported Operating
-	•	System(s)

- 0 = Unknown The format is unknown or not meaningfully interpretable by a CIM client application.
- 1 = Other The format is defined by the value of the OtherAlertingElementFormat property.
- 2 = CIMObjectPath The format is a CIMObjectPath, with format NamespacePath:ClassName.Prop1 = Value1, Prop2=Value2, . . . specifying an instance in the CIM Schema.

AlertingManagedElement

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.

Microsoft Windows, Linux

AlertType

Primary classification of the Indication.

Possible values are:

Microsoft Windows, Linux

- 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.

EventID

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

Microsoft Windows, Linux

Property	Description	Supported Operating System(s)
	Alert Indications with identical, non NULL values of SystemCreateClassName, SystemName, and ProviderName.	
IndicationIdentifier	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:	Microsoft Windows
	<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 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 (realworld) elements. If the above preferred 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.	Microsoft Windows
	(i) 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.	Microsoft Windows
MessageArguments	An array containing the dynamic content of the message.	Microsoft Windows, Linux
MessageID	A string that uniquely identifies, within the scope of the OwningEntity, the format of the Message.	Microsoft Windows
OtherAlertingElementFormat	A string defining Other values for AlertingElementFormat. This value MUST be set to a non NULL value when AlertingElementFormat is set to	Microsoft Windows, Linux

Property	Description	Supported Operating System(s)
	a value of 1 (Other). 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 .	Microsoft Windows, Linux
OtherSeverity	Holds the value of the user-defined severity value when PerceivedSeverity is 1 (Other).	Microsoft Windows, Linux
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.	Microsoft Windows, Linux
PerceivedSeverity	An enumerated value that describes the severity of the Alert Indication from the notifier's point of view:	Microsoft Windows, Linux
	Possible values are:	
	 2 and 0 — Information and Unknown (respectively) follow common usage. Literally, the AlertIndication is purely informational or its severity is unknown. 1 = Other — By CIM convention, is used to indicate that the Severity's value can be found in the OtherSeverity property. 3 = Degraded/Warning — Is used when it is appropriate to let the user decide if action is needed. 4 = Minor — Is used to indicate that action is needed, but the situation is not serious now. 5 = Major — Is used to indicate that action is needed NOW. 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). 7 = Fatal/Non recoverable — Is used to indicate that an error occurred, but it is too late to take remedial action. 	
ProbableCause	An enumerated value that describes the probable cause of the situation that resulted in the AlertIndication.	Microsoft Windows, Linux
	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 9 = Congestion 10 = Corrupt Data 	

- 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
- · 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

Property	Description	Supported Operating System(s)
	 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 125 = Key Expired 126 = Non-Repudiation Failure 127 = Out of Hours Activity 128 = Out of Service 129 = Procedural Error 130 = Unexpected Information 	
ProviderName	The name of the Provider generating this Indication.	Microsoft Windows, Linux
SystemCreationClassName	The scoping of the creation class name of the system for the provider, generating this indication.	Microsoft Windows, Linux
SystemName	The scoping name of the system for the provider, generating this indication.	Microsoft Windows, Linux
Trending	Provides information on trending — trending up, down, or no change.	Microsoft Windows, Linux
	Possible values are:	
	 0 = Unknown 1 = Not Applicable 2 = Trending Up 3 = Trending Down 4 = No Change 	

DCIM_ApplicationProxySetting

Table 2. ApplicationProxySetting

Property	Description
Proxy Address	Proxy Hostname used by application
Port Number	Proxy Port used by application
ChangeProxySetting (Method)	This method changes the proxy hostname and port number to be used by Dell Command Monitor
	Parameters:
	New Hostname value to be setNew Port value to be set
	Return Values:
	 A return code of 0 indicates the proxy settings that were updated successfully. A return code of 1 indicates the proxy settings that were not updated successfully.

DCIM_BaseMetricDefinition

Table 3. BaseMetricDefinition

Property	Description
Caption	The Caption property is a short textual description (one-line string) of the object.
Description	The Description property provides a textual description of the object.
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.
	(i) 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.
Accuracy	Indicates the accuracy of the values reported for this metric.
AccuracyUnits	The accuracy is expressed as the value of the Accuracy property in the units specified by the Accuracy Units property.
BreakdownDimensions	Defines one or more strings that can be used to refine (break down) queries against the BaseMetricValues along a certain dimension. An example is a transaction name, allowing the break down of the total value for all transactions into a set of values, one for each transaction name. Other examples might be application system or user group name. The strings are free format and should be meaningful to the end users of the metric data. The strings indicate which break down dimensions are supported for this metric definition, by the underlying instrumentation.
Calculable	An enumerated value that describes the characteristics of the metric, for purposes of performing calculations.
	Possible values are:
	· 1 = Non-calculable
	2 = Summable3 = Non-summable
ChangeType	ChangeType indicates how the metric value changes, in the form of typical combinations of finer grain attributes such as direction change, minimum and maximum values, and wrapping semantics.
	Possible values are:
	 0 = Unknown 2 = N/A 3 = Counter 4 = Gauge 532767 = DMTF Reserved 3276865535 = Vendor Reserved 3 = Counter
DataType	The data type of the metric. These types represent the datatypes defined for CIM.
	Possible values are:

Property	Description
	· 1 = boolean
	\cdot 2 = char16
	· 3 = datetime
	\cdot 4 = real32
	\cdot 5 = real64
	\cdot 6 = sint16
	\cdot 7 = sint32
	\cdot 8 = sint64
	\cdot 9 = sint8
	· 10 = string
	$\cdot 11 = uint16$
	· 12 = uint32
	\cdot 13 = uint64
	· 14 = uint8
GatheringType	GatheringType indicates how the metric values are gathered by the underlying instrumentation. This allows the client application to choose the right metric for the purpose.
	Possible values are:
	• 0 = Unknown
	· 2 = OnChange
	· 3 = Periodic
	· 4 = OnRequest
	• 532767 = DMTF Reserved
	· 3276865535 = Vendor Reserved
ld	A string that uniquely identifies the metric definition. The use of OSF UUID/GUIDs is recommended.
IsContinuous	True
Name	The name of the metric. This name does not have to be unique, but should be
	descriptive and may contain blanks.
ProgrammaticUnits	Identifies the specific units of a value. The value of this property shall be a legal value of the Programmatic Units qualifier as defined in Appendix C.1 of DSP0004 V2.4 or later.
SampleInterval	If metric values are collected at regular intervals, the SampleInterval property indicates the length of the interval. If non-null, the value of the SampleInterval shall be expressed in interval notation. A value of NULL shall indicate the SampleInterval is unknown. A value of 99990101000000.000000+000 shall indicate the sampling interval is irregular.
TimeScope	TimeScope indicates the time scope to which the metric value applies.
	Possible values are:
	· 0 = Unknown
	· 2 = Point
	· 3 = Interval
	 4 = StartupInterval
	• 532767 = DMTF Reserved
	• 3276865535 = Vendor Reserved

Units

Identifies the specific units of a value. Examples are Bytes, Packets, Jobs, Files, Milliseconds, and Amps.

DCIM_Card

Table 4. 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.
	(i) 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.
Hosting Board	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:
	 0 = Unknown — Indicates that the package type is not known. 1 = Other — The package type does not correspond to an existing enumerated value. The value is specified using the OtherPackageType property.
	· 2 = Rack
	• 3 = Chassis/Frame
	4 = Cross Connect/Backplane5 = 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

(i) 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.

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

The stock-keeping unit number for this PhysicalElement.

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.

PartNumber

SKU

Tag

DCIM_Chassis

Table 5. 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:

- \cdot 0 = Unknown
- 1 = Other
- · 2 = SMBIOS Reserved
- \cdot 3 = Desktop
- 4 = Low Profile Desktop
- 5 = Pizza Box
- 6 = Mini Tower
- \cdot 7 = Tower
- · 8 = Portable
- 9 = LapTop
- 10 = Notebook
- · 11 = Hand Held
- 12 = Docking Station
- 12 Booking Stati
- · 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
- · 29 = SMBIOS Reserved
- · 30 = Tablet
- · 31 = Convertible
- · 32 = Detachable
- 33 = IoT Gateway
- · .. = 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**.

A string providing more information on the ChassisPackageType.

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 allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.

(i) 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

ChassisTypeDescription

CreationClassName

ElementName

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.

Boolean indicating whether the Frame is protected with a lock.

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 sub-classed, the Name property can be overridden to be a Key property.

Enumeration defining the type of the PhysicalPackage.

Possible values are:

- 0 = Unknown Indicates that the package type is not known.
- 1 = Other The package type does not correspond to an existing enumerated value. The value is specified using the OtherPackageType property.
- \cdot 2 = Rack
- 3 = Chassis/Frame
- 4 = Cross Connect/Backplane
- 5 = Container/Frame Slot
- 6 = Power Supply
- \cdot 7 = Fan
- · 8 = Sensor
- 9 = Module/Card
- 10 = Port/Connector
- 11 = Batterv
- · 12 = Processor
- 13 = Memory
- 14 = Power Source/Generator
- 15 = Storage Media Package (example, Disk or Tape Drive)
- 16 = Blade
- 17 = Blade Expansion

(i) 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.

Model Name

PackageType

LockPresent

Manufacturer

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 is responsible for producing or manufacturing the PhysicalElement.

Property Ownership Tag of a system.

An enumerated, integer-valued property indicating whether a physical breach of the Frame was attempted but unsuccessful (value = $\mathbf{4}$) or attempted and successful (value = $\mathbf{5}$).

Possible values are:

- 1 = Other
- \cdot 2 = Unknown
- · 3 = No Breach
- 4 = Breach Attempted
- 5 = Breach Successful

The stock-keeping unit number for this PhysicalElement.

Manufacturer-allocated number is used to identify the physical element.

Indicates the version of the identified physical element.

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.

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 **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

PartNumber

PropertyOwnershipTag

SecurityBreach

SKU

Serial Number

Version

Tag

VendorCompatibilityStrings

Property	Description
	(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 (realworld) 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

Table 6. 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 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 latte 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. Therefore, the key for Physical Element is an arbitrary string and is defined independently of any placement or location-oriented hierarchy.

DCIM_DesktopMonitor

Table 7. 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 5 = 5000K 6 = 6500K 7 = 7500K 8 = 8200K 9 = 9300K 1011 = 10000K 12 = 11500K 13 = User 1 14 = User 2 = User 3 3276865535 = DMTF Reserved
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

Property	Description
	 8 = 8200K 9 = 9300K 1011 = 10000K 12 = 11500K 13 = User 1 14 = User = User 3 3276865535 = 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
0	0x8000 = Vendor Reserved
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.

Property Description 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:

- \cdot 0 = Unknown
- · 2 = StandbyModeSupported
- · 3 = SuspendModeSupported
- 4 = VeryLowPowerSupported
- · .. = DMTF Reserved
- · 32768..65535 = Vendor Reserved

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:

- · 2 = Standard/default mode
- 3 = Productivity
- \cdot 4 = Mixed
- 5 = Movie
- 6 = User defined
- · 7 = Games
- \cdot 8 = Sports
- 9 = Professional
- 10 = Standard (intermediate power)
- 11 = Standard(low power)
- 12 = demonstration
- 13 = Dynamic contrast
- · .. = DMTF Reserved
- · 32768..65535 = Vendor Reserved

This property lists the allowed values for DisplayMode.

Possible values are:

- · 2 = Standard/default mode
- 3 = Productivity
- \cdot 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

DisplayMode

DisplayModeCapabilities

EDIDGamma

EDIDVersionNumber

ElementName

EnabledDefault

EnabledState

· 32768..65535 = Vendor Reserved

Display transfer characteristics(GAMMA). Range is from 1.00->3.54. GAMMA = (EDID Value + 100) / 100

EDID version and reversion number.

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.

(i) 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.
- 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.

Property Description

• 10 = Star

 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 frequency in Hz as determined by the display.

This property is a vertical synchronization signal frequency in Hz as determined by the display.

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.
- .. = DMTF Reserved

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.

Input is an analog video signal interface.

Input is a digital video signal interface.

DisplayPort is supported.

DVI is supported.

HDMI is supported.

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:

FrequencyH

FrequencyV

HealthState

IdentifyingDescriptions

InputAnalog

InputDigital

InputDisplayPort

InputDVI

InputHDMI

InputSource

 \cdot 0 = Unknown

· 2 = Analog Video (R/G/B) #1

· 3 = Analog Video (R/G/B) #2

4 = Digital Video (TMDS) #1

5 = Digital Video (TMDS) #2

• 6 = Composite Video #1

7 = Composite Video #2

8 = S-video #1

• 9 = S-video #2

· 1011 = Tuner - Analog #1

• 12 = Tuner - Analog #2

 \cdot 13 = Tuner - Digital #1

• 14 = Tuner - Digital #2

• 15 = Component Video #1

• 16 = Component Video #2

• 17 = Component Video #3

• 18 = Digital Video (DisplayPort)

#1 .. = Digital Video (DisplayPort)

#2 32768..65535 = DMTF Reserved

This property lists the allowed values for InputSource.

Possible values are:

2 = Analog Video (R/G/B) #1

· 3 = Analog Video (R/G/B) #2

4 = Digital Video (TMDS) #1

• 5 = Digital Video (TMDS) #2

• 6 = Composite Video #1

• 7 = Composite Video #2

8 = S-video #1

• 9 = S-video #2

1011 = Tuner - Analog #1

• 12 = Tuner - Analog #2

· 13 = Tuner - Digital #1

• 14 = Tuner - Digital #2

• 15 = Component Video #1

16 = Component Video #217 = Component Video #3

17 = Component video #5
 18 = Digital Video (DisplayPort)

#1.. = Digital Video (DisplayPort)

• #2 32768..65535 = DMTF Reserved

This property defines the maximum value of brightness of the video output device. Different manufacturers may have different values.

This property represents the maximum value of contrast of the video output device. Different manufacturers may have different values.

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 **Quiesced** state.

InputSourceCapabilities

MaxBrightness

MaxContrast

MaxQuiesceTime

MCCSVersionNumber

OperationalStatus

The state is defined in its Availability and AdditionalAvailability properties, where **Quiesced** is conveyed by the value 21. What occurs at the end of the time limit is device-specific. The Device

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.

This property represents the version number of the Monitor Command and Control Set (MCCS) standard recognized by the display.

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

Possible values are:

- \cdot 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 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.

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

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.

(i) 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

PhysicalSizeH

PhysicalSizeV

PrimaryStatus

ProductCode

RequestedState

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:

- \cdot 0 = Unknown
- 2 = Enabled
- · 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- \cdot 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 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
- \cdot 7 = Myson
- · 8 = Philips
- 9 = Pixelworks
- · 10 = RealTek
- 11 = Sage
- 12 = SiliconImage
- 13 = SmartASIC
- 14 = STMicroelectronics
- 15 = Topro
- 16 = Trumpion
- 17 = WellTrend
- 18 = Samsung
- 19 = Novatek
- 20 = STK
- · .. = DMTF Reserved
- · 32768..65535 = Vendor Reserved

Serial number of the monitor. Come from EDID.

Separate Sync H & V Signals are supported.

ScalerManufacturer

SerialNumber

SeparateSyncHVSupported

Property	Description
sRGBStandardDefaultColorSpace	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
	• 3276865535 = Vendor Reserved
SuspendModeSupported	T1.
Сазренамочеочррогеч	This property represents if the video output device can go into a suspend mode.
	Possible values are:
	• 0 = Unknown
	· 2 = Supported
	3 = Not Supported = DMTF Reserved
	• 3276865535 = Vendor Reserved
SystemCreationClassName	
Systemoreation classivame	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:
	• 0 = Unknown
	· 2 = Enabled
	3 = Disabled4 = 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 ${\bf 5}$ or ${\bf 12}$ identifies the state to which the element is in the process of transitioning.
VeryLowPowerSupported	This property represents if the video output device can go into a low power mode.
	Possible values are:
	· 0 = Unknown
	· 2 = Supported
	• 3 = Not Supported
	· = DMTF Reserved
	· 3276865535 = Vendor Reserved

DCIM_DHCPProtocolEndpoint

Table 8. 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:

- \cdot 0 = Unknown
- 1 = DMTF Reserved
- \cdot 2 = Init
- · 3 = Selecting
- 4 = Requesting
- 5 = Rebinding
- · 6 = Init-Reboot
- · 7 = Rebooting
- 8 = Bound
- 9..32767 = DMTF Reserved
- · 32768..65535 = 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.

(i) 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:

- \cdot 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.

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
- 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

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.

ProtocolIFType

An enumeration that is synchronized with the IANA if Type MIB. The if Type 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
- \cdot 30 = DS3
- 31 = SIP
- · 32 = Frame Relay
- \cdot 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
- \cdot 45 = V.35
- 46 = HSSI
- 47 = HIPPI
- 48 = Modem
- 49 = AAL5
- 51 = SONET VT

50 = SONET Path

- 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
- \cdot 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 = ciscolSLvlan223 = actelisMetaLOOP
- · 224 = Fcip
- · 225..4095 = IANA Reserved
- · 4096 = IPv4
- \cdot 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
- \cdot 4113 = 802.11b
- \cdot 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.

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.
- (i) 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

RequestedState

Property	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 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 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: • 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

transitioning.

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

ongoing transitions.

Table 9. EthernetPort

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.	
	(i) 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	

Description

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.

Possible values are:

- \cdot 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.
- \cdot 10 = Starting
- · 11..32767 = DMTF Reserved
- · 32768..65535 = Vendor Reserved

Linktechnology

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

Possible values are:

- 0 = Unknown
- 1 = Other
- · 2 = Ethernet
- · 3 = IB
- 4 = FC
- 5 = FDDI
- 6 = ATM
- 7 = Token Ring
- 8 = Frame Relay
- 9 = Infrared
- 10 = Bluetooth

Property

Description

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.

(i) 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:

- \cdot 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.
- 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

SystemCreationClassName

The creation classname of the scoping system.

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:

- \cdot 0 = Unknown
- 1 = Other
- 2 = Enabled Indicates that the TOE is enabled and running.
- \cdot 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:

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

Table 10. 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. True indicates that flat panel is directly attached to a portable computer and False 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 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.
DisplayType	An integer enumeration describing the type of flat panel display.
	Possible values are:
	0 = Unknown1 = Other
	· 2 = Passive Matrix LCD
	• 3 = Active Matrix LCD
	• 4 = Cholesteric LCD
	 5 = Field Emission Display 6 = Electro Luminescent Display
	• 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.

Property

Description

(i) 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

HorizontalResolution

The horizontal resolution in Pixels of the flat panel.

Name and ElementName properties.

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 will be re-evaluated and repositioned later. Deprecated description: Maximum time, in milliseconds, that a Device can run in a **Quiesced** state. The state is defined in its Availability and Additional Availability properties, where **Quiesced** 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.

ScanMode

The scan mode of a flat panel indicating either single (value = 2) or dual scan 3.

Possible values are:

- \cdot 0 = Unknown
- 1 = Other
- 2 = Single Scan
- 3 = Dual Scan

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:

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

VerticalResolution

Vertical resolution in Pixels of a flat panel.

DCIM_IPProtocolEndpoint

Table 11. IPProtocolEndpoint

Property	Description
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AddressOrigin

Identifies the method by which the IP Address, Subnet Mask, and Gateway were assigned to the IPProtocolEndpoint.

Possible values are:

- \cdot 0 = Unknown
- 1 = Other
- 2 = Not Applicable
- 3 = Static Indicates the values were assigned manually.
- 4 = DHCP Indicates the values were assigned utilizing the Dynamic Host Configuration Protocol. See RFC 2131 and related.
- 5 = BOOTP Indicates the values were assigned utilizing BOOTP. See RFC 951 and related.
- 6 = IPv4 Link Local Indicates the values were assigned using the IPv4 Link Local protocol. See RFC 3927.
- 7 = DHCPv6 Indicates the values were assigned using DHCPv6. See RFC 3315.
- 8 = IPv6AutoConfig Indicates the values were assigned using the IPv6 AutoConfig Protocol. See RFC 4862.
- · .. = DMTF Reserved
- · 32768..65535 = Vendor Reserved

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 allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.

(i) 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)**.

CreationClassName

ElementName

EnabledDefault

Property

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

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 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.

The IPv4 address that this ProtocolEndpoint represents.

The IPv6 address that this ProtocolEndpoint represents.

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
- 7 = Embedded IPv4 Address
- 8 = Site Local Unicast
- · .. = DMTF Reserved
- · 32768..65535 = Vendor Reserved

Identifies the prefix length of the IPv6Address property that is used to specify a subnet

This property explicitly defines support for different versions of the IP protocol, for this Endpoint. It is deprecated since the ProtocollFType also provides this functionality by describing an endpoint as IPv4 only (value = 4096), IPv6 only (value = 4097), or IPv4/v6 (value = 4098).

Possible values are:

IPv4Address

IPv6Address

IPv6AddressType

IPv6SubnetPrefixLength

IPVersionSupport

- \cdot 0 = Unknown
- 1 = IPv4 Only
- · 2 = IPv6 Only
- 3 = Both IPv4 and IPv6

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.

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.

ProtocollFType's enumeration is limited to IP-related and reserved values for this subclass of ProtocolEndpoint.

Possible values are:

- 1 = Other
- · 225..4095 = IANA
- · Reserved 4096 = IPv4
- \cdot 4097 = IPv6
- 4098 = IPv4/v6
- 4301..32767 = DMTF Reserved
- · 32768.. = Vendor Reserved

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:

- 0 = Unknown
- 1 = Other
- 2 = IPv4
- 3 = IPv6
- 4 = IPX
- 5 = AppleTalk
- 6 = DECnet
- \cdot 7 = SNA
- 8 = CONP
- 9 = CLNP
- 10 = VINES
- 11 = XNS
- · 12 = ATM
- 13 = Frame Relay
- · 14 = Ethernet
- 15 = TokenRing
- 16 = FDDI

ProtocolType

Name

NameFormat

ProtocollFType

- 17 = Infiniband
- · 18 = Fibre Channel
- · 19 = ISDN BRI Endpoint
- · 20 = ISDN B Channel Endpoint
- · 21 = ISDN D Channel Endpoint
- 22 = IPv4/v6
- \cdot 23 = BGP
- · 24 = OSPF
- · 25 = MPLS
- · 26 = UDP
- · 27 = TCP

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
- (i) 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.
- (i) 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

RequestedState

Property	Description
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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
- Pred Fail
- Starting
- · Stopping
- ServiceStressed
- NonRecover
- No Contact
- · Lost
- · Comm
- · Stopped

The mask for the IPv4 address of this ProtocolEndpoint, if one is defined.

The creation class name of the scoping System.

The Name of the scoping System.

Indicates the target state to which the instance is transitioning.

Possible values are:

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

SubnetMask

Status

SystemCreationClassName

SystemName

TransitioningToState

- 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_ImprovementProgramConsent

Table 12. ImprovementProgramConsent

Property	Description
CurrentValue	CurrentValue displays the User's Consent to participate in the Dell Command Monitor improvement program. O NOTE: Improvement Program is available for DCM 10.2.1 x64 bit version only.
OverrideImprovementProgramConsent (Method)	This method sets the User consent for the Dell Command Monitor improvement program.
	Parameters and the current value:
	 0 - I don't want to participate in the program 1 - I want to participate in the program NOTE: Default Value is 0 (By default, you are not enrolled in Improvement Program).
	Return Values:
	 A return code of 0 indicates that the user consent was updated successfully A return code of 1 indicates that the user consent was not updated successfully

DCIM_ControllerView

Table 13. ControllerView

Property	Description
BusType	The property represents the type of the PCI bus.
	Possible values are:
	 0 = Unknown 3 = PCI Bus 4 = PCMCIA Bus 0x8000 = DMTF Reserved 0xffff = Vendor Reserved
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.

Property	Description

(i) 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

Table 14. 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.
	(1) 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	The property contains the value of the Fully Qualified Device Description (FQDD).
PrimaryStatus	This property represents the status of the device.
	Possible values are:
	\cdot 0 = Unknown
	1 = OK2 = Degraded
	2 = Degraded3 = Error
	· 4 = Rebuilding
	5 = Offline0x8000 = DMTF Reserved
	OxFFFF = Vendor Reserved
DriveUsage	This property indicates if the physical disk is in a RAID set.
	Possible values are:

Property	Description
	 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.
SerialNumber	This property represents the serial number of the physical disk.
DriveAFStatus	This property indicates if the physical disk is an advanced format drive.
	Possible values are:
	0 - Non AF Drive1 - AF Drive2 - Unknown

DCIM_VirtualDiskView

Table 15. 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.
	(i) 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	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
	2 = Degraded3 = Error
	· 4 = Rebuilding
	• 5 = Offline
RAIDStatus	This property represents the RAID specific status.
	Possible values are:
	 0 = Unknown 1 = Ready 2 = Online 3 = Foreign 4 = Offline 5 = Blocked 6 = Failed

Property	Description
	7 = Degraded8 = Rebuilding
RAIDTypes	This property represents the current RAID level.
	Possible values are:
	 1 = No RAID 2 = RAID-0 4 = RAID-1 64 = RAID-5 128 = RAID-6 2048 = RAID-10 8192 = RAID-50 16384 = RAID-60
SizeinMegabytes	The property represents the size of the virtual disk in megabytes.
StripeSize	This property represents the current strip size. Possible values are:
	 O = 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

PhysicalDiskIDs

The property represents the array of physical disk FQDDs.

DCIM_PhysicalMemory

Table 16. Physical Memory

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

16384 = 8 MB32768 = 16 MB

Property Description class, this property allows all instances of this class and its subclasses to be uniquely identified. DataWidth Data width of the Physical Memory, in bits. A data width of 0 and a TotalWidth of 8 would indicate that the Memory is solely used to provide error correction bits. **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. (i) 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. **FormFactor** The implementation form factor for the Chip. Possible values are: 0 = Unknown1 = Other 2 = SIP3 = DIP 4 = ZIP5 = SOJ6 = Proprietary 7 = SIMM8 = DIMM9 = TSOP10 = PGA11 = RIMM12 = SODIMM13 = SRIMM14 = SMD15 = SSMP16 = QFP 17 = TQFP 18 = SOIC19 = LCC 20 = PLCC21 = BGA 22 = FPBGA 23 = LGAFor example, values such as SIMM (7), TSOP (9), or PGA (10) can be specified.

IsSpeedInMhz

ManufactureDate

The date this Physical Element was manufactured.

Indicates if the Speed property or the 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	Description
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 PhysicalMemory. 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 = Unknown
	· 1 = Other
	· 2 = DRAM
	· 3 = Synchronous DRAM
	· 4 = Cache DRAM
	· 5 = EDO
	· 6 = EDRAM
	• 7 = VRAM
	• 8 = SRAM
	9 = RAM10 = ROM
	• 10 = ROM • 11 = Flash
	• 12 = EEPROM
	• 13 = FEPROM
	• 14 = EPROM
	• 15 = CDRAM
	· 16 = 3DRAM
	· 17 = SDRAM
	· 18 = SGRAM
	· 19 = RDRAM
	· 20 = DDR
	· 21 = DDR-2
	· 22 = BRAM
	· 23 = FB-DIMM
	• 24 = DDR3
	25 = FBD226 = DDR4
	• 27 = LPDDR
	· 28 = LPDDR2
	· 29 = LPDDR3
	· 30 = LPDDR4
	· 3132567 = DMTF Reserved
	· 3256865535 = Vendor Reserved
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.

Property	Description
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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.

0 = Unknown — Indicates that the package type is not known.
 1 = Other — The package type does not correspond to an existing enumerated value. The value is specified using the

OtherPackageType property.

DCIM_PhysicalPackage

Table 17. 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 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.
	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.
ManufactureDate	The date that this PhysicalElement was manufactured.
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 subclassed, the Name property can be overridden to be a Key property.
OtherPackageType	A string describing the package when the instance's PackageType property is 1 (Other).
PackageType	Enumeration defining the type of the PhysicalPackage.
	Possible values are:

- 2 = Rack
- 3 = Chassis/Frame
- 4 = Cross Connect/Backplane
- 5 = Container/Frame Slot
- 6 = Power Supply
- \cdot 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

(i) 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.

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

A manufacturer-allocated number used to identify the Physical Element.

The stock-keeping unit number for this PhysicalElement.

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

PartNumber

SerialNumber

SKU

Tag

Property	Description
	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.

A string that indicates the version of the PhysicalElement.

DCIM_ParallelPort

Table 18. ParallelPort

Version

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 3 (Proprietary), the related property OtherConnectorType contains a string description of the type of port.
	Possible values are:
	 0 = Unknown 1 = Centronics 2 = Mini-Centronics 3 = Proprietary 4 = DB-25 Female 5 = DB-25 Male = DMTF Reserved 32768 = 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.
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

 \cdot 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= $\bf 40$) and starting (value = $\bf 10$) are transient states between enabled and disabled.

Possible values are:

- \cdot 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. 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:

- \cdot 0 = Unknown
- 1 = XT/AT
- \cdot 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

EnabledState

IRQLevel

Pinout

RequestedState

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.

(i) 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:

- \cdot 0 = Unknown
- · 2 = Enabled
- · 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- \cdot 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 (valuemap = 3) or **Boot Bypass (valuemap = 5)** can be described using this property.

Possible values are:

- 0 = Unknown
- 1 = Other

Security

Property	Description
	 2 = None 3 = External Interface Locked Out 4 = External Interface Enabled 5 = Boot Bypass = DMTF Reserved 32768 = Vendor Reserved
Speed	The bandwidth of the Port in Bits per Second.
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: O = 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_RemoteServiceAccessPoint

Table 19. 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 2 = Default Gateway 3 = DNS Server 4 = SNMP Trap Destination 5 = MPLS Tunnel Destination 6 = DHCP Server 7 = SMTP Server 8 = LDAP Server 9 = Network Time Protocol (NTP) Server = DMTF Reserved
	· 3276865535 = Vendor Reserved

AccessInfo

CreationClassName

ElementName

EnabledDefault

EnabledState

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.

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 allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.

(i) 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

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.

An enumerated integer that describes the format 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 DN204 = DER ASN1 GN
- · 205 = Key ID .. = DMTF Reserved
- · 32768..65535 = Vendor Reserved

The Name property uniquely identifies the 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.

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.

- (i) 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.
- (i) 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).

InfoFormat

Name

RequestedState

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 Name of the scoping System.

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:

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

SystemCreationClassName

SystemName

TransitioningToState

DCIM_Slot

Table 20. Slot

Property	Description
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ConnectorLayout

Describes the type of packaging normally associated with this type of connector.

Possible values are:

- 0 = Unknown
- 1 = Other
- \cdot 2 = RS232
- · 3 = BNC
- 4 = RJ11
- \cdot 5 = RJ45
- 6 = DB9
- 7 = Slot
- · 8 = SCSI High Density
- 9 = SCSI Low Density
- \cdot 10 = Ribbon
- · 11 = AUI
- · 12 = Fiber SC
- 13 = Fiber ST
- · 14 = FDDI-MIC
- · 15 = Fiber-RTMJ
- 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:

- \cdot 0 = Unknown
- 1 = Other
- · 2 = Male
- · 3 = Female
- · 4 = Shielded
- 5 = Unshielded
- 6 = SCSI (A) High-Density (50 pins)
- \cdot 7 = SCSI (A) Low-Density (50 pins)
- 8 = SCSI (P) High-Density (68 pins)
- 9 = SCSI SCA-I (80 pins)

ConnectorType

- 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
- \cdot 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
- · 21 = DB-9
- · 22 = DB-15
- · 23 = DB-25
- \cdot 24 = DB-36
- \cdot 25 = RS-232C
- \cdot 26 = RS-422
- \cdot 27 = RS-423
- · 28 = RS-485
- · 29 = RS-449
- \cdot 30 = V.35
- \cdot 31 = X.21
- · 32 = IEEE-488
- · 33 = AUI
- 34 = UPT Category 3
- 35 = UPT Category 4
- 36 = UPT Category 5
- 37 = BNC
- \cdot 38 = RJ11
- \cdot 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
- \cdot 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 = PMC107 = MTRJ
- · 108 = VF-45
- 109 = Future I/O
- 110 = SC
- · 111 = SG
- · 112 = Electrical
- · 113 = Optical
- 114 = Ribbon
- 115 = GLM
- \cdot 116 = 1x9
- 117 = 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.

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 allows each instance to define a user-friendly name in addition to its key properties, identity data, and description information.

(i) 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.

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 hot-plug of adapter Cards.

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.

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

CreationClassName

ElementName

Number

SupportsHotPlug

Tag

VendorCompatibilityStrings

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

Table 21. 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 connector type property in subclasses and to guarantee unique enum values for all instances of SerialPort. When set to 1 (Other), 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 315999 = DMTF Reserved 16003 = DB9Male 16004 = DB9Female 16005 = DB25Male1 16006 = DB25Female1 16007 = RJ11 16008 = RJ45 16009 = Proprietary 16010 = Circular DIN8Male 16011 = Circular DIN8Female 16160 = MiniCentronics Type14 16161 = MiniCentronics Type26 1616265535 = 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.
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 = 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 = $\mathbf{4}$) and starting (value = $\mathbf{10}$) are transient states between enabled and disabled.

Possible values are:

- \cdot 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

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:

EnabledState

EnabledDefault

HealthState

IRQLevel

MaxSpeed

OperationalStatus

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

An integer value that represents the IRQ level used by the serial port. $\,$

The maximum bandwidth of the Port in Bits per Second.

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.

- \cdot 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.
- \cdot 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.
- 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 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 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:

- \cdot 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

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:

PortType

PrimaryStatus

- \cdot 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

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.
- 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 Second. The actual bandwidth is reported in LogicalPort.Speed.

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.

(i) 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

PrimaryStatus

RequestedSpeed

RequestedState

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
- \cdot 3 = None
- 4 = External Interface Locked Out
- 5 = External Interface Enabled
- 6 = Boot Bypass

The capabilities of this Serial port.

Possible values are:

- 1 = Other
- 2 = Unknown
- 3 = XT/AT compatible
- 4 = 16450 compatible
- 5 = 16550 compatible
- 6 = 16550A compatible
 160 = 8251 compatible
- · 161 = 8251FIFO compatible

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:

Security

SerialPortCapabilities

SystemCreationClassName

SystemName

TransitioningToState

Description Property

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

DCIM_USBPort

Table 22. USBPort

Property	Description
1 Topolity	Description

CreationClassName

DeviceID

ElementName

EnabledDefault

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 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.

(i) 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 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.

An enumerated value indicating a configuration of an administrator 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

HealthState

Description

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:

- \cdot 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 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.

- 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 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

RequestedState

Description

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

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.

(i) 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.
- 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

USB Port Speed in bits per second. This speed is determined and set by the attached Device. The **attached Device** is indicated using the USBConnection association. At this time, only several Port speeds are valid. These are: 1.5Mbps and 12Mbps. The value 0

Speed

can also be specified to indicate that the current speed is **unknown** or 1 to indicate that the speed is **other** than 1.5 or 12Mbps. Possible values are: 0, 1, 1500000, 12000000

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
- \cdot 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_Memory

SystemCreationClassName

SystemName 1 4 1

TransitioningToState

Table 23. Memory

Property	Description
	2000. ip (101)

Access

Access describes whether the media is readable (value = 1), writeable (value = 2), or both (value = 3). **Unknown (0)** and **Write Once (4)** can also be defined.

Possible values are:

- · 0 = Unknown
- 1 = Readable
- 2 = Writeable
- 3 = Read/Write Supported
- 4 = Write Once

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.

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**

BlockSize

ConsumableBlocks

CreationClassName

DeviceID

ElementName

EnabledDefault

EnabledState

blocks is available for consumption) is indicated in the ConsumableBlocks property.

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.

(i) 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

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
- \cdot 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

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.

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
- \cdot 2 = None
- \cdot 3 = Active

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 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

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.

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

Possible values are:

ErrorMethodology

FailOverState

HealthState

NumberOfBlocks

OperationalStatus

- 0 = Unknown
- 1 = Other
- · 2 = OK
- \cdot 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 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.

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.

OtherldentifyingInfo

PrimaryStatus

Primordial

RequestedState

Description

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

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 higherlevel 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:

- \cdot 0 = Unknown
- 1 = Other
- · 2 = Disabled
- 3 = Spared
- 4 = Mirrored
- 5 = LockStep

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.

- (i) 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.
- (i) 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.

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
- \cdot 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

SystemCreationClassName

SystemName

TransitioningToState

Property	Description
	A value other than 5 or 12 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

Table 24. 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.
EnabledDefault	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 3276865535 = Vendor Reserved
	By default, the element is Enabled (value = 2) .
EnabledState	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 = 4) and restarting (value = 10) are temporary states between enabled and disabled.

- \cdot 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

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 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 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 whether the Logical Device is in an enabled state (value = 3), disabled state (value = 4), some other state (value = 1), or an

FunctionNumber

HealthState

StatusInfo

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:

- \cdot 0 = Unknown
- · 2 = Enabled
- · 3 = Disabled
- 4 = Shut Down
- \cdot 5 = No Change Indicates that no transition is in progress.
- \cdot 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_DisplayController

Table 25. DisplayController

SystemCreationClassName

SystemName

TransitioningToState

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.

Description

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:

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

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.

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.

(i) 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
- \cdot 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.

- \cdot 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

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.

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.

(i) 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

Name

RequestedState

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

DCIM_Fan

Table 26. Fan

Table 26. Fan	
Property	Description
ActiveCooling	ActiveCooling is a Boolean that indicates that the Cooling Device provides active (as opposed to passive) cooling.
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.
	(i) 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

Description

- 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:

- \cdot 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

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.

ErrorDescription

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.

- 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 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

Description

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:

- \cdot 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.
- \cdot 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

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

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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**

Description

(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.

(i) 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
- \cdot 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.

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

Property	Description
	 11 = Reset 12 = Not Applicable — Indicates the implementation does not support representing ongoing transitions.
	A value other than ${\bf 5}$ or ${\bf 12}$ identifies the state to which the element is in the process of transitioning.
VariableSpeed	Indication of whether the fan supports variable speeds.

DCIM_IndicatorLED

Table 27 IndicatorI ΕΓ

Table 27. IndicatorLED	
Property	Description
Color	Color This property indicates the current color of the LED. If the value of the ActivationState property is 4 (Off) this property indicates the color of the LED the last time it was lit, or has the value 2 (Not Applicable) .
	Possible values are:
	 0 = Unknown 1 = Other 2 = Not Applicable 3 = White 4 = Red 5 = Green 6 = Blue 7 = Orange 8 = Yellow 9 = Black = DMTF Reserved 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. 4 = Test — Indicates the LED is in a test mode. = 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 5 (ControlPattern) , the ControlPattern property is not NULL.
	The value of ControlPattern is constructed using the following preferred algorithm:
	<orgid>::<pattern></pattern></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</orgid></orgid>

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

Description

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.

Possible values are:

- \cdot 2 = Lit
- 3 = Blinking
- 4 = Off
- 5 = Control Pattern
- .. = 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.

- 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.

Description

- 4 = Shutting Down Indicates that the element is in the process of going to a Disabled
- 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

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

SystemCreationClassName

The CreationClassName of the scoping system.

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.

SystemName

DCIM_PowerSupply

Table 28. 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.

(i) 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.

- 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

Description

HealthState

For example, shutting down (value = $\mathbf{4}$) and starting (value = $\mathbf{10}$) 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 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.
- 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.

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.
- \cdot 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.

(i) 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

RequestedState

Property	Description
	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.
TotalOutputPower	Represents the total output power of the PowerSupply in milli Watts. 0 denotes unknown .
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.
TypeOfRangeSwitching	Describes the kind of input voltage range switching that is implemented in this PowerSupply. Possible values are: 1 = Other 2 = Unknown 3 = Manual 4 = Autoswitch 5 = Wide Range 6 = Not Applicable

DCIM_Battery

Table 29. Battery

lable 29. Battery	
Property	Description
BatteryStatus	Description of the charge status of the Battery.
	Possible values are:
	• 1 = Other
	· 2 = Unknown

transitioning.

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

- · 3 = Fully Charged
- \cdot 4 = Low
- 5 = Critical
- 6 = Charging
- 7 = Charging and High
- 8 = Charging and Low
- 9 = Charging and Critical
- · 10 = Undefined
- 11 = Partially Charged
- 12 = Learning
- 13 = Overcharged

Values such as **Fully Charged** (value = **3**) or **Partially Charged** (value = **11**) can be specified. The value, **10**, 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 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.

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.

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

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.

(i) 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.

Description

- 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:

- \cdot 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
- \cdot 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 = $\mathbf{4}$) and starting (value = $\mathbf{10}$) 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.

- 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.

Description

- 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 OtherIdentifyingInfo array. Note that each entry of this array is related to the entry in OtherIdentifyingInfo 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.

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 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

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

Description

OtherldentifyingInfo

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.

PrimaryStatus

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.

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.
- \cdot 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.

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
- \cdot 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.
- (i) 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 $\bf Reboot$ (10) and $\bf Reset$ (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

Property

Description

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:

- 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 CommStopped

SystemCreationClassName

The CreationClassName of the scoping system.

The System Name of the scoping system.

SystemName

Indicates the target state to which the instance is transitioning.

Possible values are:

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

TransitioningToState

10 = 1160001

- 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

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

DCIM_Processor

Table 30. 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:
	 0 = Unknown 1 = CPU Enabled 2 = CPU Disabled by User 3 = CPU Disabled By BIOS (POST Error) 4 = CPU Is Idle 7 = Other
	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.
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

Description

- .. = 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:

- \cdot 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 = $\mathbf{4}$) and starting (value = $\mathbf{10}$) are transient states between enabled and disabled.

ExternalBusClockSpeed

_____p

The speed (in MHz) of the external bus interface (also known as the front side bus).

D 11. 1

The Processor family type.

Possible values are:

- 1 = Other
- · 2 = Unknown
- · 3 = 8086
- \cdot 4 = 80286
- \cdot 5 = 80386
- 6 = 80486
- \cdot 7 = 8087
- \cdot 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

Family

- 24 = K5 Family
- 25 = K6 Family
- \cdot 26 = K6-2
- \cdot 27 = K6-3
- · 28 = AMD Athlon(TM) Processor Family
- 29 = AMD(R) Duron(TM) Processor
- 30 = AMD29000 Family
- \cdot 31 = K6-2+
- 32 = Power PC Family
- · 33 = Power PC 601
- 34 = Power PC 603
- 35 = Power PC 603+
- 36 = Power PC 604
- 37 = 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
- \cdot 49 = Alpha 21064
- \cdot 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 Family81 = SuperSPARC
- · 82 = microSPARC II
- 83 = microSPARC Ilep
- · 84 = UltraSPARC
- · 85 = UltraSPARC II
- · 86 = UltraSPARC Ili
- 87 = UltraSPARC III
- · 88 = UltraSPARC IIIi
- 96 = 68040
- 97 = 68xxx Family
- 98 = 68000
- 99 = 68010
- · 100 = 68020
- · 101 = 68030

Property Description

- 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
- \cdot 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
- 281 = StrongARM
- 300 = 6x86
- 301 = MediaGX
- 302 = MII

Description

- 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

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 = 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.
- 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.

MaxClockSpeed

- 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 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.

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

PrimaryStatus

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.

- \cdot 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

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

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
- \cdot 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 $\bf 5$ or $\bf 12$ identifies the state to which the element is in the process of transitioning.

A global unique identifier for the processor. This identifier can be unique only within a processor family.

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:

Stepping

SystemCreationClassName

SystemName

TransitioningToState

UniqueID

UpgradeMethod

- 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
- 14 = Socket A (Socket 462)
- · 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 BGA128833 = rPGA988B
- · 34 = BGA1023
- · 35 = BGA1224
- · 36 = LGA1155
- · 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

Table 31. NumericSensor

Property Description Supported Operating System(s)

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.

Microsoft Windows, Linux

- \cdot 0 = Unknown
- 1 = Other
- · 2 = Degrees C
- 3 = Degrees F
- 4 = Degrees K
- \cdot 5 = Volts
- 6 = Amps
- 7 = Watts
- · 8 = Joules
- 9 = Coulombs
- 10 = VA
- 11 = Nits
- \cdot 12 = Lumens
- \cdot 13 = Lux
- · 14 = Candelas
- 15 = kPa
- · 16 = PSI
- 17 = Newtons
- · 18 = CFM
- 19 = RPM
- 20 = Hertz21 = 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
- \cdot 34 = Liters
- · 35 = Fluid Ounces
- · 36 = Radians
- 37 = Steradians
- · 38 = Revolutions
- · 39 = Cycles

Р	r٥	ne	rty
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Supported Operating System(s)

- 40 = Gravities
- · 41 = Ounces
- \cdot 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
- \cdot 60 = Bits
- · 61 = Bytes
- 62 = Words (data)
- 63 = DoubleWords
- 64 = QuadWords
- · 65 = Percentage
- · 66 = Pascals

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.

Microsoft Windows, Linux

CurrentReading

The current value indicated by the Sensor.

Microsoft Windows, Linux

CurrentState

The current state indicated by the Sensor. This is always one of the **PossibleStates**.

Microsoft Windows, Linux

Microsoft

DeviceID

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

Windows, Linux

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.

Microsoft Windows, Linux

(i) 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.

EnabledDefault

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

Microsoft Windows, Linux

- · 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.

Microsoft Windows, Linux

Possible values are:

- \cdot 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 = $\mathbf{4}$) and starting (value = $\mathbf{10}$) 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.

Microsoft Windows, Linux

- 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.

Property

NonCritical.

Supported Operating System(s)

· .. = DMTF Reserved

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

LowerThresholdCritic al

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. The CurrentState is Critical once the CurrentReading is below LowerThresholdCritical.

Microsoft Windows, Linux

LowerThresholdNonC ritical

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

Microsoft Windows, Linux

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.

NormalMax

NormalMax provides guidance for the user as to the normal maximum range for the NumericSensor.

Linux

NormalMin

NormalMin provides guidance for the user as to the normal minimum range for the NumericSensor.

Linux

OperationalStatus

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

Microsoft Windows, Linux

- 0 = Unknown
- 1 = Other
- · 2 = OK
- \cdot 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

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
- · 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.

Windows, Linux

Microsoft

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

Microsoft Windows, Linux

Microsoft Windows, Linux 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
- 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 PhysicalElement. 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

Microsoft Windows, Linux

Property	Description	Supported Operating System(s)
	 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 3276865535 = Vendor Reserved 	
SystemCreationClass Name	The CreationClassName of the scoping system.	Microsoft Windows, Linux
SystemName	The System Name of the scoping system.	Microsoft Windows, Linux
TransitioningToState	Indicates the target state to which the instance is transitioning. Possible values are: O = Unknown E = Enabled A = Shut Down F = No Change — Indicates that no transition is in progress. A = Offline F = Test A = Defer A = Quiesce I = Reboot I = Reset A value other than 5 or 12 identifies the state to which the element is in the process of transitioning.	Microsoft Windows, Linux
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 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.	Microsoft Windows, Linux
UpperThresholdCritic al	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.	Microsoft Windows, Linux
UpperThresholdNonC ritical	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	Microsoft Windows, Linux

Property	Description	Supported Operating System(s)
	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.	
	Example for Set command: wmic /namespace:\\root\dcim\sysman path dcim_numericsensor Where ElementName like '%Temperature Sensor:%' set UpperThresholdNonCritical = 70	
ValueFormulation	Indicates the method used by the sensor to produce its reading. Possible values are:	Microsoft Windows, Linux
	 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.	Microsoft Windows, Linux
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.	Microsoft Windows, Linux
Caption	A short textual description of an object.	Microsoft Windows, Linux
Description	A short textual description of an object.	Microsoft Windows, Linux

DCIM_Sensor

Table 32. Sensor

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.	
CurrentState	The current state indicated by the Sensor. This is always one of the PossibleStates .	
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.	

Description

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.

Possible values are:

- \cdot 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 = $\mathbf{4}$) and starting (value = $\mathbf{10}$) 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

- 0 = Unknown The implementation cannot report on HealthState at this time.
- $\cdot~$ 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 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.

- \cdot 0 = Unknown
- 1 = Other
- 2 = OK
- \cdot 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

Description

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 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.

(i) 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.

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
- · 2 = Enabled
- · 3 = Disabled
- 4 = Shut Down
- 5 = No Change
- 6 = Offline
- 7 = Test
- · 8 = Deferred
- 9 = Quiesce

Description

- 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 PhysicalElement. 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:

- \cdot 0 = Unknown
- 1 = Other
- · 2 = Temperature
- 3 = Voltage
- 4 = Current
- 5 = Tachometer
- 6 = Counter
- \cdot 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
- · 32768..65535 = 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.

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

Property Description

- \cdot 7 = Test
- \cdot 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- · 11 = Reset
- 12 = Not Applicable Indicates the implementation does not support representing ongoing transitions.

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

DCIM_DeviceBay

Table 33. 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.
DeviceBayLocation	Defines the type of Device Bay.
	Possible values are:
	 0 = Other 1 = Unknown 2 = Proprietary Bay 3 = Standard Desktop Device Bay 4 = Standard Mobile Device Bay 5 = Standard Ultra-Mobile Device Bay 632767 = DMTF Reserved 3276865535 = Vendor Reserved
DeviceBayType	Defines the type of Device Bay.
	Possible values are:
	 0 = Other 1 = Unknown 2 = Proprietary Bay 3 = Standard Desktop Device Bay 4 = Standard Mobile Device Bay 5 = Standard Ultra-Mobile Device Bay 632767 = DMTF Reserved 3276865535 = Vendor Reserved
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.

(i) 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,

Description

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.

Possible values are:

- \cdot 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

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.

LogicalModuleType

Identifies the type of LogicalModule this instance represents.

- \cdot 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.
- 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

Description

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.
- (i) 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.

TransitioningToState

Indicates the target state to which the instance is transitioning.

Possible values are:

• 0 = Unknown

Property	Description	
	 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 color other than F or 40 identifies the state to which the plantage is in the success of	

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

DCIM_VideoHead

Table 34. 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:	
	· 0 = Unknown	
	· 1 = Other	
	· 2 = Not Supported	
	· 3 = Non-Interlaced Operation	
	· 4 = Interlaced Operation	
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.

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:

- \cdot 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 = $\mathbf{4}$) and starting (value = $\mathbf{10}$) 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.

- 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.
- (i) 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.

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 $\bf 5$ or $\bf 12$ identifies the state to which the element is in the process of transitioning.

DCIM_Button

Table 35. 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 **Other**, 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:

- \cdot 0 = Unknown
- 1 = Other
- \cdot 2 = Power
- \cdot 3 = Reset
- · 4 = Undock
- 5 = Open/Close
- 6..32767 = DMTF Reserved
- · 32768..65535 = Vendor Reserved

ButtonType

The ButtonType property identifies or defines the type the button represented by the instance.

Possible values are:

- \cdot 0 = Unknown
- 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).

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, 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.

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
- (i) 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.
- (i) 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)**.

Description **Property**

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 1 4 1

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

Table 36. 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, 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:
	· 2 = None
	3 = User Specified4 = Default
	• 5 = IPv4 Address
	• 6 = IDRAC MAC Address
	• 7 = Service Tag
	· 8 = System Name

Property Description

- 9 = IPv6 Address
- 10 = Ambient
- 11 = System Power

DisplayModeUserString

Contains a user configurable string to be displayed on the LCD panel if DisplayDataCategory has the value **3**.

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:

- \cdot 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.
- \cdot 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 = $\bf{4}$) and starting (value = $\bf{10}$) are transient states between enabled and disabled.

${\bf Local Configuration Enabled}$

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.

Transitioning To State

Indicates the target state to which the instance is transitioning.

Property Description

- \cdot 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

Table 37. NetworkPortConfigurationService

Property	Description
riopeity	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.

(i) 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.

- 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 = $\mathbf{4}$) and starting (value = $\mathbf{10}$) are transient states between enabled and disabled.

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.

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.

(i) 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)**.

Name

RequestedState

Property Description

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 1 4 1

The Name of the scoping System.

TransitioningToState

Indicates the target state to which the instance is transitioning.

Possible values are:

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

Table 38. TimeService

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.

(i) 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.

Description

- · 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:

- \cdot 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

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.

- · 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.
- \cdot 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.
- (i) 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

SystemName

TransitioningToState

The CreationClassName of the scoping System.

The Name of the scoping System.

Indicates the target state to which the instance is transitioning.

Possible values are:

- \cdot 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

Table 39. AccountManagementService

CreationClassName

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.

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.

(i) 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, 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
- 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

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.

${\bf Requested State}$

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
- (i) 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.
- (i) 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**.

System Creation Class Name

The CreationClassName of the scoping System.

SystemName

The Name of the scoping System.

TransitioningToState

Indicates the target state to which the instance is transitioning.

- \cdot 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

Table 40. 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.

(i) 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)**.

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.

- \cdot 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.
- (i) 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

SystemName

TransitioningToState

The CreationClassName of the scoping System.

The Name of the scoping System.

Indicates the target state to which the instance is transitioning.

Possible values are:

- \cdot 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_PowerManagementService

Table 41. PowerManagementService

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.

(i) 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.

- \cdot 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

Property Description 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 1 (Other). 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. 2 = Degraded — Indicates the ManagedElement is functioning below normal. 3 = Error — Indicates the ManagedElement is in an Error condition.

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:

.. = DMTF Reserved

0x8000.. = Vendor Reserved

- \cdot 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.
- \cdot 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
- (i) 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.
- (i) 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)**.

Property Description

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 1 4 1

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_BootService

Table 42. BootService

Table 42. BootService	
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.
	(i) 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. By default, the element is Enabled (value = 2) .
	Possible values are:

Description

- 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.

Possible values are:

- \cdot 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

Name

RequestedState

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.

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.

- \cdot 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.
- \cdot 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
- (i) 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.
- (i) 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:

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

Table 43. IPConfigurationService

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

(i) 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.

Possible values are:

- \cdot 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

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.

SystemName

The Name of the scoping System.

TransitioningToState

Indicates the target state to which the instance is transitioning.

- 0 = Unknown
- · 2 = Fnabled

Description

- 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_PowerUtilizationManagementService

Table 44. 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 **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.

- \cdot 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.

Description

- 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.

PendingPowerUtilizationAlgorithm

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

Possible values are:

- 0 = Unknown
- 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 (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.

- 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.

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

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:

- \cdot 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.
- \cdot 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.
- (i) 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.

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Description **Property**

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 1 4 1

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_BIOSService

Table 45. 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.
	(i) 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

Description

- 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.

Possible values are:

- 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
- 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

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.

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

RequestedState

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.

(i) 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

SystemName

TransitioningToState

The CreationClassName of the scoping System.

The Name of the scoping System.

Indicates the target state to which the instance is transitioning.

- 0 = Unknown
- · 2 = Enabled
- · 3 = Disabled
- 4 = Shut Down
- \cdot 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- \cdot 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 $5\ \mathrm{or}\ 12$ 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:

- 0 (Success) If the method is completed successfully.
- 1 (Failure) If
 - the possible value is out of range. For example, trying to set value other than 0 to 23 for the attribute Autoon Hour.
 - it is an unsupported BIOS operation. For example, trying to enable TPM when TPM is disabled.
- · 2 (Authentication failure) If the BIOS password is incorrect.
- 4294967295 (Invalid Possible Value) If the possible value is invalid; or read-only.

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

Table 46. SoftwareInstallationService Description **Property** 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. 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 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 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).

initial support contact for the Service.

The name of the primary owner for the service, if one is defined. The primary owner is the

PrimaryOwnerName

Description

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.

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.

(i) 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.

Description

TransitioningToState

Indicates the target state to which the instance is transitioning.

Possible values are:

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

Table 47. 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
- \cdot 11 = Print
- · 12 = I/O
- 13 = Web Caching
- 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

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.

(i) 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

ElementName

EnabledDefault

Description

- 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:

- \cdot 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

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

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.

Description

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:

- \cdot 0 = Unknown
- 1 = Other
- · 2 = OK
- \cdot 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

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.

(i) 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.
- 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.

(i) 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**.

TransitioningToState

Indicates the target state to which the instance is transitioning.

- · 0 = Unknown
- 2 = Enabled
- · 3 = Disabled

Description

- 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

Table 48. 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.

(i) 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)**.

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 = $\mathbf{4}$) and starting (value = $\mathbf{10}$) are transient states between enabled and disabled.

Possible values are:

- \cdot 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

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:

- \cdot 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)

Description

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.

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.

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

OperationalStatus

Description

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.

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.

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.

(i) 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**.

TransitioningToState

Indicates the target state to which the instance is transitioning.

- \cdot 0 = Unknown
- · 2 = Enabled
- · 3 = Disabled
- 4 = Shut Down
- 5 = No Change ndicates that no transition is in progress.
- 6 = Offline
- \cdot 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_OperatingSystem

Table 49. 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

- 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

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

LastBootUpTime

LocalDateTime

Name

OSType

Time when the operating system was last booted.

Operating system's notion of the local date and time of day.

The inherited Name serves as key of an operating system instance within a computer system.

A integer indicating the type of operating system.

- 0 = Unknown
- 1 = Other
- · 2 = MACOS
- 3 = ATTUNIX
- 4 = DGUX
- 5 = DECNT
 6 = Tru64 UNIX
- 0 = 11u04 UNIA
- 7 = OpenVMS
 8 = HPUX
- 9 = AIX
- · 10 = MVS
- · 11 = OS400
- \cdot 12 = OS/2
- · 13 = JavaVM
- 14 = MSDOS
- \cdot 15 = WIN3x
- 16 = WIN95
- 17 = WIN9818 = WINNT
- 19 = WINCE
- · 20 = NCR3000
- · 21 = NetWare
- · 22 = OSF
- · 23 = DC/OS
- · 24 = Reliant UNIX
- · 25 = SCO UnixWare
- 26 = SCO OpenServer

- · 27 = Sequent
- 28 = IRIX
- · 29 = Solaris
- \cdot 30 = SunOS
- · 31 = U6000
- · 32 = ASERIES
- 33 = HP NonStop OS
- 34 = HP NonStop OSS
- 35 = BS2000
- · 36 = LINUX
- \cdot 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
- \cdot 53 = BeOS
- 54 = HP MPE
- 55 = NextStep
- 56 = PalmPilot
- 57 = Rhapsody
- 58 = Windows 2000
- 59 = Dedicated
- \cdot 60 = OS/390
- 61 = VSE
- 62 = TPF
- · 63 = Windows (R) Me
- 64 = Caldera Open UNIX
- · 65 = OpenBSD
- 66 = Not Applicable
- 67 = Windows XP
- 68 = z/OS69 = 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
- \cdot 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
- 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.

- 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.
- \cdot 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.

(i) 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)**.

TransitioningToState

Indicates the target state to which the instance is transitioning.

Possible values are:

- \cdot 0 = Unknown
- · 2 = Enabled
- · 3 = Disabled
- 4 = Shut Down
- 5 = No Change Indicates that no transition is in progress.
- 6 = Offline
- 7 = Test
- \cdot 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>.<Revision> or <Major Number>.<Revision Letter>.

DCIM_SoftwareIdentity

Table 50. OperatingSystem

Property	Description
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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.

Description

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.

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.

(i) 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.

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.

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

InstanceID

Property	Description
	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.
RevisionNumber	The revision or maintenance release component of the software's version information. For example, 3 from version 12.1(3)T. This property is defined as a numeric value to allow the determination of newer versus older releases. A newer 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, 12.1(3)T . 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

Table 51. 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.	
SoftwareElementID	This is an identifier for the SoftwareElement 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 SoftwareElement's life cycle.	
	Possible values are:	
	 0 = Deployable — Describes the details necessary to successfully distribute 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 the started 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.	

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

Property	Description	
	• 53 = BeOS	
	E4 LIDAADE	

• 54 = HP MPE

55 = NextStep

• 56 = PalmPilot

• 57 = Rhapsody

• 58 = Windows 2000

59 = Dedicated

 \cdot 60 = OS/390

• 61 = VSE

• 62 = TPF

· 63 = Windows (R) Me

• 64 = Caldera Open UNIX

· 65 = OpenBSD

• 66 = Not Applicable

• 67 = Windows XP

 \cdot 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

Version

Displays the version of the BIOS.

DCIM_ConcreteJob

Table 52. ConcreteJob

Table 52. 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.
ErrorDescription	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 last 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 preferred 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</class></schema></orgid></localid></orgid>

uniqueness, <OrgID> must not contain a colon (:). When using this algorithm, the first colon

Property	Description
	to appear in InstanceID must appear between <orgid> and <locaiid> . <locaiid> 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></locaiid></locaiid></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.
	NOTE: 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.

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

DCIM_BootSourceSetting

Table 53. ConcreteJob

TimeBeforeRemoval

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.
	ONOTE: 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).
	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

Property

Description

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 <LocaIID>. <LocaIID> 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

Table 54. 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.



(i) 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 <LocaIID>. <LocaIID> 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 $\mbox{\bf preferred}$ 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 AssignedSequence 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**.

DCIM_IPAssignmentSettingData

Table 55. IPAssignmentSettingData

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
- 2 = Not Applicable Indicates that the application of the IPAssignmentSettingData instance does not affect these properties.
- 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.
- 5 = BOOTP Indicates that the values will be assigned via BOOTP.
- 6..32767 = 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.

(i) 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.

DCIM_PowerAllocationSettingData

Table 56. PowerAllocationSettingData

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.

(i) 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.

PowerAllocationSettingPurpose

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 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 be 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
- 19 = Storage Extent
- · 20 = Other storage device
- · 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
- 29 = Cooling Capacity
- 30 = Ethernet Switch Port
- 31 = Logical Disk
- 32 = Storage Volume
- 33 = Ethernet Connection
- · .. = DMTF reserved
- 0x8000..0xFFFF = Vendor Reserved

DCIM_AssetAcquisition

Table 57. 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.
	(i) NOTE: 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 preferred 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>
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:
	· 032767 = DMTF Reserved
	· 3276865535 = Vendor Reserved
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:
	032767 = DMTF Reserved3276865535 = Vendor Reserved
ReferenceToPONumber	Number of the purchase order that authorized buying the system.
	Possible values are:
	032767 = DMTF Reserved3276865535 = Vendor Reserved

${\bf DCIM_AssetExtendedWarrantyInformation}$

Table 58. AssetExtendedWarrantyInformation

Property	Description
Cost	Displays the total cost of the warranty service on a system.
	Possible values are:
	· 032767 = DMTF Reserved
	· 3276865535 = 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.
	(i) NOTE: The name does not have to be unique within a namespace.
EndDate	Displays 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 preferred 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

Table 59 AssetOwnerInformation

Table 59. AssetOwnerInforn	nation
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.
	ONOTE: 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></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</orgid></localid></orgid>

Property	Description
	<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 <locaiid> . <locaiid> 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></locaiid></locaiid></orgid></orgid></class></schema>
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.

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:

- 0 = Owned
- 1 = Leased
- 3 = Rented
- 4 = Off Lease
- 5..32767 = Transfer
- 32768..65535 = DMTF Reserved

SetAssetOwnerInformation (Method)

Type

This method allows the user to change the Insurance Company and Owner Name of the system.

DCIM_AssetSupportInformation

Table 60. 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.
	NOTE: 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 preferred 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</orgid></localid></orgid>

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.

Property	Description
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:
	 0 = Network 1 = Storage 232767 = DMTF Reserved 3276865535 = Vendor Reserved

DCIM_AssetWarrantyInformation

Table 61. AssetWarrantyInformation

Property	Description
ElementName	The customer-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.
	ONOTE: The name does not have to be unique within a namespace.
Family	Family that the product belongs to. A family refers to a set of products that are similar but not identical from a hardware or software point of view. Typically, a family is composed of different products, which have different configurations and pricing points. Products in the same family often have similar branding and cosmetic features.
IdentifyingNumber	Service Tag of the chassis
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></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>
LastRefreshStatus	Indicates the last refresh status of Warranty information on device-
	Possible values are:
	· 0 = Success
	· 1 = Failure
	NOTE: Failure can be due to Incorrect proxy settings, Internal Server Error, etc
LastRefreshed	Last timestamp when warranty information was attempted to refresh on the system.
Name	Service Level Description of the warranty entitlement.

If this Product is under warranty, the duration of the warranty in days.

WarrantyDuration

Property	Description
WarrantyEndDate	If this Product is under warranty, the end date of the warranty.
WarrantyStartDate	If this Product is under warranty, the start date of the warranty.

DCIM_AssetSystemInformation

Table 62. 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.
	(i) 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></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 (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>
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

Table 63. 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 preferred 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 preferredalgorithm must be used with the <orgid> set to CIM.</orgid></localid></localid></orgid></orgid></class></schema></orgid></localid></orgid>
SOLEnabled	Defines if Serial Over LAN capability is enabled.

DCIM_ASFSettings

Table 64. 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 preferred 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 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></orgid></localid></orgid>
StructureVersion	Defines the version of the Intel ASF structure.

DCIM_VProSettings

Table 65. VProSettings

Property	Description
BIOSSupportedMaximumVAVersion	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 highest version supported by BIOS is VA 3.0.
Description	Provides a textual description of the object.
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

SPIFlashhasPlatformDataRegionRese rved

Defines if SPI flash has a platform data region reserved.

Possible values are:

- 2 = Enabled
- 3 = Disabled
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

SupportedBIOSsetup

SupportedBIOSsetup defines if BIOS setup properties are supported.

Possible values are:

- 2 = SupportsMEinBIOSSetup Defines if ME is supported in BIOS setup.
- 3 = SupportsTPMinBIOSSetup Defines if TPM is supported in BIOS setup.
- 4 = SupportsTXTinBIOSSetup Defines if TXT is supported in BIOS setup.
- 5 = SupportsVAExtensions Defines if VA extensions are supported by the BIOS.
- 6 = SupportsVTdinBIOSSetup Defines if VT-d is supported in BIOS setup.
- 7 = SupportsVTxinBIOSSetup Defines if VT-x is supported in BIOS setup
- .. = DMTF Reserved
- 32768..65535 = Vendor Reserved

TXTStateInMCHState

Defines TXT state in MCH for vPro brand.

Possible values are:

Property	Description
	 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:
	 2 = CPUSupportsVTx — CPUSupportsVTx:Defines if the CPU supports VT-x for vPro brand. 3 = MCHSupportForVTd — MCHSupportForVTd:Defines if the MCH supports TXT for vPro brand. 4 = LTTXTCapability — LTTXTCapability:Defines CPU LT/TXT capability for vPro brand. 5 = SupportsTPMOnBoard — SupportsTPMOnBoard:Defines if an on board TPM is supported for vPro brand. = DMTF Reserved 3276865535 = Vendor Reserved
VTdState	Defines VT-d state for vPro brand.
	Possible values are:
	 2 = Enabled 3 = Disabled = DMTF Reserved 3276865535 = Vendor Reserved
VTxEnabledState	Defines CPU VT-x state for vPro brand.
	Possible values are: • 2 = Enabled • 3 = Disabled • = DMTF Reserved • 3276865535 = Vendor Reserved

${\bf DCIM_AlertIndicationSettingData}$

Table 66. AlertIndicationSettingData

Property	Description
AlertCategory	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:

Property

Description

- 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.

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.

i) 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, Other State Change .
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
	• 9 = Congestion
	• 10 = Corrupt Data
	 11 = CPU Cycles Limit Exceeded 12 = Dataset/Modem Error
	 12 = Dataset/Modern 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 Error26 = LAN Error
	 20 = LAN Liftor 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
	39 = Pump Failure40 = Queue Size Exceeded
	 40 = Quede Size Exceeded 41 = Receive Failure
	• 42 = Receiver Failure
	47 Demote Nede Transmission Francis

• 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
- 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
- 125 = Key Expired
- 126 = Non-Repudiation Failure
- 127 = Out of Hours Activity
- 128 = Out of Service
- 129 = Procedural Error
- 130 = Unexpected Information

StartDelay

The start delay before polling the event source, in seconds.

DCIM_HDDAlertIndicationSettingData

Table 67. 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.

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.

DCIM_BaseMetricValue

Table 68 BaseMetricValue

Table 68. 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 Duration 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 preferred 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>
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

Table 69. 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.
	(i) 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></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>
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>
	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

Table 70. 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 preferred algorithm:

Property 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.

SupportedActivationStates

SupportedActivationStates indicates the supported activation states for the associated IndicatorLED. See CIM_IndicatorLED.ActivationState for descriptions of the values.

Possible values are:

- \cdot 2 = Lit
- 3 = Blinkina
- · 4 = ○ff
- 5 = Control Pattern
- · .. = DMTF Reserved
- · 32768..65535 = Vendor Reserved

SupportedColors

This property indicates the colors supported by the associated instance of CIM_IndicatorLED.

Possible values are:

- 1 = Other
- · 3 = White
- \cdot 4 = Red
- 5 = Green
- \cdot 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
- \cdot 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 < 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

Property Description

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.

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
- · 32768..65535 = Vendor Reserved

DCIM_ProcessorCapabilities

Table 71. 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 preferred 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>
NumberOfHardwareThreads	Number of hardware threads available for the processor. May be obtained from SMBIOS v2.5 4 offset 25h.
NumberOfProcessorCores	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

Table 72. AccountManagementCapabilities

Description **Property** AccountManagementCapabilities**Element** Boolean indicating whether the ElementName can be modified. NameEditSupported 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 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 (realworld) 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'. **OperationsSupported** OperationsSupported describes the type of operations that are supported for an Account associated with the AccountManagementService. Possible values are: 2 = Create — Indicates the AccountManagementService may be used to create new accounts. 3 = Modify — Indicates that the associated Accounts may be modified. 4 = Delete — Indicates that associated Accounts may be deleted. .. = DMTF Reserved

DCIM_BootServiceCapabilities

Table 73. 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.
	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.

0x8000..0xFFFF = Vendor Reserved

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 **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'.

DCIM_PlatformWatchdogServiceCapabilities

Table 74. 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)
- 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.

Property Description

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

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

Table 75. 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.

(i) NOTE: Name does not have to be unique within a namespace.

ElementNameEditSupported

InstanceID

Boolean indicating whether the ElementName can be modified.

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.

DCIM_PowerUtilizationManagementCapabilities

Table 76. 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 preferred 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>
RequiredCustomSettings	Array of custom power utilization algorithm settings required by the RequestPowerUtilizationAlgorithm and RequestPowerUtilizationAlgorithmEl 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 = RequestPowerUtilizationAlgorithmEl 3277165535 = Vendor Specific
SupportedRequestedAlgorithms	Array of power utilization algorithms supported by the RequestPowerUtilizationAlgorithm and RequestPowerUtilizationAlgorithmEl 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

Table 77. 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

i NOTE: Name does not have to be unique within a namespace.

ElementNameEditSupported

InstanceID

Boolean indicating whether the ElementName can be modified.

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.

RequestedStatesSupported

 $Requested States Supported\ indicates\ the\ possible\ states\ that\ can\ be\ requested\ when\ using\ the\ method\ Request State Change\ on\ the\ Enabled Logical Element.$

Possible values are:

- · 2 = Enabled
- · 3 = Disabled
- 4 = Shut Down
- 6 = Offline
- \cdot 7 = Test
- 8 = Defer
- 9 = Quiesce
- 10 = Reboot
- 11 = Reset

DCIM_ButtonCapabilities

Table 78. 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 **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

Property

Description

providers for the NameSpace of this instance. For DMTF-defined instances, the **preferred** algorithm must be used with the <OrgID>set to CIM.

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

DCIM_LCDPanelCapabilities

Table 79. LCDPanelCapabilities

Property InstanceID

Description

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.

SupportedDisplayDataCategories

Identifies the category of data to be displayed on the LCD Panel.

Possible values are:

- \cdot 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

Table 80. PowerManagementCapabilities

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.

(i) 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.

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 Corresponds 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.
- 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

Table 81. Physical Asset Capabilities

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.

i) NOTE: Name does not have to be unique within a namespace.

FRUInfoSupported

Boolean indicating whether the PartNumber, Serial Number, Model, 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 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

Table 82. 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.
	(i) 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></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>
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

Table 83. 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.
	(i) 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></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 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>
ResourceType	The type of resource this allocation setting represents.

Possible values are:

- 1 = Other
- · 2 = Computer System
- \cdot 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
- 19 = Storage Extent
- 20 = Other Storage Device
- · 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
- 29 = Cooling Capacity
- · 30 = Ethernet Switch Port
- 31 = Logical Disk
- 32 = Storage Volume
- 33 = Ethernet Connection
- · .. = DMTF reserved
- · 0x8000..0xFFFF = Vendor Reserved

SharingMode

Indicates how access to underlying resource is granted.

Possible values are:

- 0 = Unknown
- 1 = Other
- · 2 = Dedicated Exclusive access to underlying resource
- 3 = Shared Shared use of underlying resource.
- · .. = DMTF reserved
- · 0x8000..0xFFFF = Vendor Reserved

Actual quantity is controlled by min, max size, weights, and so on.

DCIM_BIOSServiceCapabilities

Table 84. 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 **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'.

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

Table 85. SoftwareInstallationServiceCapabilities

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 **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.

SupportedAsynchronousActions

Enumeration indicating what operations will be executed as asynchronous jobs. If an operation is included in both this and SupportedSynchronousActions then the underlying implementation is 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
- \cdot 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
- \cdot 4 = Install
- 5 = Update
- · 6 = Repair
- · 7 = Reboot
- 8 = Password
- 9 = Uninstall
- \cdot 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.

SupportedURISchemes

This property lists the URI schemes supported by the SoftwareInstallationService.

Possible values are:

- 2 = data
- \cdot 3 = file
- \cdot 4 = ftp
- \cdot 5 = http
- 6 = https7 = nfs
- 8 = tftp
- .. = DMTF Reserved
- · 0x8000..0xFFFF = Vendor Specific

DCIM_ConcreteCollection

Table 86. 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, InstancelD opaquely and uniquely identifies an instance of this class. To ensure uniqueness within the NameSpace, the value of InstancelD 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.

DCIM_RedundancySet

Table 87. RedundancySet

ElementName

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.

(i) 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

Property

Description

to appear in InstanceID must appear between <OrgID> and <LocaIID> . <LocaIID> 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
- · 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
- \cdot 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

Table 88. Role

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.

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.

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.

(i) 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.

Name

The Name property defines the label by which the object is known. In 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.

DCIM_IndicationSettingCollection

Table 89. IndicationSettingCollection

Table 89. 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 preferred algorithm:	
	<orgid> : <localid></localid></orgid>	
	Where <orgid> and <localid> are separated by a colon (:), and where <orgid> must</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

Property	Description
	providers for the NameSpace of this instance. For DMTF-defined instances, the preferred algorithm must be used with the <orgid>set to CIM.</orgid>
Name	The name of the product-defined event sources.
OccurrencesCount	Defines TXT state in MCH for vPro brand (on/off).

DCIM_ConfigurationCapacity

Table 90. ConfigurationCapacity

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.
	(i) 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.
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:
	 0 = Other 1 = Processors 2 = Power Supplies 3 = Fans 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
	 20 = Front Side I/O Slots 21 = Back Side I/O Slots 22 = Cache Memory

• 23 = NVS Memory

Property	Description
	 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></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 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< td=""></schema<></orgid></localid></orgid>

(real-world) elements.

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

DCIM_Location

Table 91. 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.
Changeable Type	 Enumeration indicating intended usage of the DCIM_Location instance. Possible values are: 0 = Not Changeable — Persistent — Indicates the instance of DCIM_Location reports read only location information and is not modifiable. 1 = Changeable — Transient — Indicates the DCIM_Location reports location information that may be modified by the client but is not persisted. 2 = Changeable — Persistent — Indicates the DCIM_Location reports location information that may be modified by the client that is persisted. 3 = Not Changeable — Transient — Indicates the instance of DCIM_Location reports
City	read only location information and is not modifiable.
Country	Free form string identifying the city in which the managed element resides.
-	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.

Property	Description
GPSLongitude	The longitude at which the managed resource is located.
MaxStringLength	If ChangeableType has the value 1 or 2 , 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.
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.
StreetAddressOne	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

Table 92. BIOSEnumeration

Property	Description
AttributeName	A string identifying the structured element name for a BIOS attribute using the format <orgid>: <identifier></identifier></orgid> in which <orgid>, does contain 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 DMTF and the <identifier> is specified in the BIOS Attribute Registry. <identifier></identifier></identifier></orgid></identifier></orgid></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 preferred algorithm: <orgid>: <locaiid> Where <locaiid> and <orgid> are separated by a colon:, and where</orgid></locaiid></locaiid></orgid>

Property	Description
	<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>
IsReadOnly	This property specifies if the underlying system BIOS or BIOSService will not allow the Attribute to be modified through calls to the 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

Table 93. BIOSPassword

Property	Description	Supported Operating System(s)
AttributeName	A string identifying the structured element name for a BIOS attribute using the format <orgid></orgid> : <identifier></identifier> in which < OrgID>, does contain a colon (:). The value of < OrgID> is a copyrighted, trademarked or otherwise unique name that is owned by the entity defining the <identifier></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 DMTF and the <identifier></identifier> is specified in the BIOS Attribute Registry.	Microsoft Windows, Linux
CurrentValue	CurrentValue returns an empty array.	Microsoft Windows, Linux
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.	Microsoft Windows, Linux
	(i) 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. 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</orgid></localid></orgid></localid></orgid>	Microsoft Windows, Linux

Property	Description	Supported Operating System(s)
	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>	
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.	Microsoft Windows, Linux
PendingValue	PendingValue returns an empty array.	Microsoft Windows

DCIM_BIOSString

Table 94. 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 DMTF 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 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. 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 set to CIM .
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

Description

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:

- \cdot 0 = Unknown
- 2 = ASCII
- \cdot 3 = hex
- 4 = unicode
- 5 = regex .. = DMTF Reserved
- 65536..4294967295 = Vendor Reserved

DCIM_MemoryError

Table 95. MemoryError

Property Description DeviceCreationClassName The scoping

ElementName

DeviceID

The scoping StorageExtent's CreationClassName.

The scoping StorageExtent's DeviceID.

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.

(i) 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 = $\mathbf{6}$) 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:

- \cdot 0 = Unknown
- 1 = Other
- · 2 = OK
- · 3 = Bad Read
- 4 = Parity Error
- 5 = Single-Bit Error
- 6 = Double-Bit Error
- 7 = Multi-Bit Error
- 8 = Nibble Error
- 9 = Checksum Error
- 10 = CRC Error
- · 32768 = DIMM Disabled via Spare Activation

StartingAddress

Specifies the address of the memory error. The type of error is described by the ErrorInfo property. If the ErrorInfo property is equal to $\bf 3$, $\bf OK$, then this property has no meaning.

SystemCreationClassName

The scoping System's CreationClassName.

SystemName

The scoping System's Name.

DCIM_IdentityContext

Table 96. IdentityContext

Property	Description
ElementInContext	An Identity whose context is defined.
ElementProvidingContext	The ManagedElement that provides context or scope for the Identity.

DCIM_OrderedComponent

Table 97. OrderedComponent

Property	Description
AssignedSequence	AssignedSequence is an unsigned integer n that indicates the relative order of ManagedElement instances. 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. 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 1 position.
	(i) NOTE: The non-zero sequence numbers need not start with 1, 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

Table 98. 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

Table 99. ConcreteComponent

Property	Description
GroupComponent	The parent element in the association.
PartComponent	The child element in the association.

DCIM_SystemDevice

Table 100. SystemDevice

Property	Description
GroupComponent	The aggregating system also provides name scoping for the Account.
PartComponent	The subordinate Account.

DCIM_AccountOnSystem

Table 101. AccountOnSystem

Property	Description
GroupComponent	The aggregating system also provides name scoping for the Account.
PartComponent	The subordinate Account.

DCIM_InstalledOS

Table 102. 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

Table 103. SystemBIOS

Property	Description
GroupComponent	The ComputerSystem that boots from the BIOS.
PartComponent	The System's BIOS.

DCIM_SystemComponent

Table 104. SystemComponent

Property	Description
GroupComponent	The parent System in the Association.
PartComponent	The child element that is a component of a System.

DCIM_SettingsDefineCapabilities

Table 105. SettingsDefineCap	abilities experience of the second se
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. Minimums , Maximums , and Increments , 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:
	 0 = Point — Indicates that this SettingData instance provides a single set of values. 1 = Minimums — Indicates that this SettingData instance provides minimum values for

capabilities instance. 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.

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

- 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

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

ValueRole

Property	Description

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

Table 106. DeviceSAPImplementation

Property	Description
Antecedent	The LogicalDevice.
Dependent	The ServiceAccessPoint implemented using the LogicalDevice.

DCIM_HostedAccessPoint

Table 107. HostedAccessPoint

Property	Description
Antecedent	The hosting System.
Dependent	The SAPs that are hosted on this System.

DCIM_HostedCollection

Table 108. HostedCollection

Property	Description
Antecedent	The scoping system.
Dependent	The collection defined in the context of a system.

DCIM_HostedService

Table 109. HostedService

Property	Description
Antecedent	The hosting System.
Dependent	The Service hosted on the System.

DCIM_VideoHeadOnController

Table 110. VideoHeadOnController

Property	Description
Antecedent	The video device that includes the head.
Dependent	The head on the video device.

DCIM_SAPSAPDependency

Table 111. SAPSAPDependency

Property	Description
Antecedent	The required ServiceAccessPoint.
Dependent	The ServiceAccessPoint that is dependent on an underlying SAP.

DCIM_ReferencedProfile

Table 112. ReferencedProfile

Property	Description
Antecedent	The RegisteredProfile that is referenced by the Dependent Profile.
Dependent	A RegisteredProfile that references other profiles.

DCIM_MetricDefForME

Table 113. 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:
	 2 = Enabled — Indicates the metric is being collected. 3 = Disabled — Indicates the metric is not being collected. 4 = Reserved = DMTF Reserved 3276865535 = Vendor Reserved
	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 3 (Disabled), 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

Table 114. MetricForME

Property	Description
Antecedent	ManagedElement to which the metric values belong.
Dependent	A metric value for the ManagedElement.

DCIM_MetricInstance

Table 115. MetricInstance

Property	Description
Antecedent	The CIM_BaseMetricDefinition for this particular CIM_BaseMetricValue.
Dependent	A CIM_BaseMetricValue instance holding the Value.

DCIM_ElementInConnector

Table 116. ElementInConnector

Property	Description
Antecedent	The Connector into which the Element is inserted.
Dependent	The Element in the Connector.

DCIM_Docked

Table 117. Docked

Property	Description	Supported Operating System(s)
Antecedent	The Docking Station Chassis.	Microsoft Windows, Linux
Dependent	The System Chassis.	Microsoft Windows, Linux

DCIM_ConcreteDependency

Table 118. 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

Table 119. Realizes

Property	Description
Antecedent	The physical component that implements the Device.

Property	Description
Dependent	The LogicalDevice.

DCIM_ComputerSystemPackage

Table 120. 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

Table 121. RunningOS

Property	Description
Antecedent	The OperatingSystem currently running on the ComputerSystem.
Dependent	The ComputerSystem.

DCIM_UseOfLog

Table 122. 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

Table 123. Associated Indicator LED

Property	Description
Antecedent	The ManagedSystemElement that has an associated LED.
Dependent	The LED.

DCIM_AssociatedCacheMemory

Table 124. AssociatedCacheMemory

Property	Description
Antecedent	Memory installed on or associated with a Device.

Property	Description
Associativity	An integer enumeration defining the system cache associativity. For example, 5 indicates a fully associative cache.
	Possible values are:
	• 0 = Unknown
	· 1 = Other
	· 2 = Direct Mapped
	· 3 = 2-way Set-Associative
	• 4 = 4-way Set-Associative
	 5 = Fully Associative 6 = 8-way Set-Associative
	• 7 = 16-way Set-Associative
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:
	· 0 = Unknown
	· 1 = Other
	· 2 = Instruction
	· 3 = Data
	· 4 = Unified
Dependent	The LogicalElement.
ReadPolicy	Policy that is employed by the Cache for handling read requests. For example, Read , Read-Ahead 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 (Determination per I/O) should be specified. Other (1) and Unknown (0) are also valid values.
	Possible values are:
	• 0 = Unknown
	· 1 = Other
	· 2 = Read
	· 3 = Read-Ahead
	 4 = Read and Read-Ahead 5 = Determination Per I/O
	- 0 - Determination of the
WritePolicy	Defines whether this is write-back (value = 2) or write-through (value = 3) Cache, or whether this information Varies with Address (4) or is defined individually for each I/O (5). Also, Other and Unknown (0) can be specified.
	Possible values are:
	· 0 = Unknown
	· 1 = Other
	· 2 = Read
	· 3 = Read-Ahead
	• 4 = Read and Read-Ahead
	• 5 = Determination Per I/O

DCIM_AssociatedSensor

Table 125. AssociatedSensor

Property	Description
Antecedent	The Sensor.

Property	Description
Dependent	The ManagedSystemElement for which information is measured by the Sensor.

DCIM_RemoteAccessAvailableToElement

Table 126. 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

Table 127. ServiceServiceDependency

Property	Description
Antecedent	The required Service
Dependent	The Service that is dependent on an underlying Service.

DCIM_DeviceConnection

Table 128. DeviceConnection

Property	Description
Antecedent	A LogicalElement's Software Asset.
Dependent	The ManagedElement that requires or uses the software.

DCIM_ElementSoftwareIdentity

Table 129. ElementSoftwareIdentity

Property	Description
Antecedent	A LogicalElement's Software Asset.
Dependent	The ManagedElement that requires or uses the software.

DCIM_ElementCapabilities

Table 130. ElementCapabilities

Property	Description
Capabilities	The Capabilities object associated with the element.
Managed Element	The managed element.

DCIM_ElementSettingData

Table 131. ElementSettingData

Property

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 spanshot of the requested

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 Minimum and the IsCurrent 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 sub-class where the IsCurrent property has a value of Is Current and the IsMinimum property does not have a value of Is Minimum and the IsMaximum property does not have a value of Is Minimum and the IsMaximum property

Possible values are:

· 0 = Unknown

Description

- 1 = Is Current
- · 2 = Is Not Current

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
- 1 = Is Default
- · 2 = Is Not Default

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.

(i) NOTE: It is assumed that the semantics of each property of this set are designed to be compared mathematically. When IsMaximum = Is Maximum, 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 Maximumm, 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

IsDefault

IsMaximum

Description

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.

(i) NOTE: It is assumed that the semantics of each property of this set are designed to be compared mathematically. When IsMinimum = Is Minimum, 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 Minimum, 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 <code>Unknown</code>), 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 <code>Is Next</code>, 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 <code>Is Next For Single Use</code>, then this setting will only be used once and the flag would be reset after that to <code>Is Not Next</code>. 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

Property	Description
1 TOPCILY	Description

CIM_ManagedElement that are 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:

- \cdot 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

Table 132. 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.
	(i) 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

Table 133. MemberOfCollection

Property	Description
Collection	The Collection that aggregates members.
Member	The aggregated member of the Collection.

DCIM_OwningCollectionElement

Table 134. 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

Table 135. ElementConformsToProfile

Property	Description
ConformantStandard	The RegisteredProfile to which the ManagedElement conforms.
ManagedElement	The ManagedElement that conforms to the RegisteredProfile.

DCIM_RoleLimitedToTarget

Table 136. 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

Table 137. 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

Table 138. ServiceAffectsElement

Property	Description
AffectedElement	The Managed Element that is affected by the Service.
AffectingElement	The Service that is affecting the ManagedElement.
AssignedSequence	AssignedSequence is an unsigned integer 'n' that indicates the relative sequence in which order the ManagedElement 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

ElementEffects

Description

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.

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:

- \cdot 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.
- 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
- · 0x8000..0xFFFF = 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).

DCIM_AssociatedPowerManagementService

Table 139. AssociatedPowerManagementService

Property	Description
OtherPowerState	A string describing the additional power management state of the element, used when the PowerState is set to the value 1 , Other .
OtherRequestedPowerState	A string describing the additional power management state of the element, used when the RequestedPowerState is set to the value 1 , Other .
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 11 = Diagnostic Interrupt (NMI) 12 = Off - Soft Graceful 13 = Off - Hard Graceful 14 = Master Bus Reset Graceful 15 = Power Cycle (Off - Soft Graceful) 16 = Power Cycle (Off - Hard Graceful) = DMTF Reserved 0x7FFF0xFFFF = Vendor Specific
RequestedPowerState	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 powe state is unknown, then the property has the value of 0 Unknown . If the property has no meaning or is not supported, then the property has the value 12 Not Applicable .
	Possible values are:
	 0 = Unknown 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
 11 = Diagnostic Interrupt (NMI)

12 = Not Applicable
13 = Off - Soft Graceful
14 = Off - Hard Graceful
15 = Master Bus Reset Graceful

Property	Description
	 16 = Power Cycle (Off - Soft Graceful) 17 = Power Cycle (Off - Hard Graceful) = DMTF Reserved 0x7FFF0xFFFF = Vendor Specific
ServiceProvided	The Service that is available.
UserOfService	The ManagedElement that can use the Service.

DCIM_ServiceAvailableToElement

Table 140. ServiceAvailableToElement

Property	Description
ServiceProvided	The Service that is available.
UserOfService	The ManagedElement that can use the Service.

DCIM_LogManagesRecord

Table 141. LogManagesRecord

Property	Description
Log	The Log.
Record	The record managed by the Log.

DCIM_InstalledSoftwareIdentity

Table 142. InstalledSoftwareIdentity

Property	Description
InstalledSoftware	The SoftwareIdentity that is installed.
System	The system on which the software is installed.

DCIM_ConcreteIdentity

Table 143. 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.	

DCIM_SMARTAttributeInfo

Table 144. SMARTAttributeInfo

Property	Description	
AttributeID	AttributeID represents the relative reliability of individual performance or calibration attributes. The valid range of attribute values begins from 1–253 decimal.	
AttributeName	Name defined for the corresponding AttributeID.	
CurrentValue	Current value of an attribute which represents the relative reliability of individual performance or calibration attributes.	
CustomThresholdValue	Each attribute has a corresponding Custom Threshold Value which is used for direct comparison to the Current Value to indicate the existence of a degrading or faulty condition. The numerical value of the Custom Threshold Value is determined by the IT administrator and set the value lesser than the Threshold Value set by the Manufacturer. The valid range for Attribute Thresholds is from 1–253 decimal.	
DiskID	Disk ID of the HDD/SSD.	
FirmwareVersion	Firmware Version of the HDD/SSD.	
Manufacturer	HDD/SSD Manufacturer.	
ModelNumber	HDD/SSD Model Number.	
RawDataContent	Raw data content in hexadecimal for the corresponding AttributeID (6 bytes).	
SerialNumber	HDD/SSD Serial Number.	
StatusFlag	A 2-byte number which represents the status of the corresponding AttributeID:	
	 Bit 0: Prefail/Advisory bit Bit 1: Online data collection bit Bit 2-5: Vendor-specific Bit 6-15: Reserved 	
ThresholdValue	The (failure) limit of the attribute.	
WorstValue	The worst (smallest) value ever found in the previous lifetime of the storage device.	
SetCustomThreshold (Method)	This property represents the success or failure of the SMART operation.	
	The method may return the following errors:	
	 0 (Success) - If the method is completed successfully. 1 (Failure) - If the Input parameter is out of range or IO operation fails. 	

DCIM_SettingsDefineState

Table 145. SettingsDefineState

Property	Description
ManagedElement	The managed element.
SettingData	The SettingData object that provides additional information about the current state and configuration of the ManagedElement.

DCIM_ElementLocation

Table 146. ElementLocation

Property	Description
Element	The ManagedElement whose location is specified.
PhysicalLocation	The location of the element.

DCIM_CredentialContext

Table 147. CredentialContext

Property	Description
ElementInContext	A Credential whose context is defined.
ElementProvidingContext	The ManagedElement that provides context or scope for the Credential.

DCIM_OwningJobElement

Table 148. OwningJobElement

Property	Description
OwnedElement	The Job created by the ManagedElement.
OwningElement	The ManagedElement responsible for the creation of the Job.

BIOS settings supported in Dell Command | Monitor 10.2.1

Following is the list of BIOS settings supported in Dell Command | Monitor.

Table 149. BIOS settings supported in Dell Command | Monitor 10.2.1

BIOS Settings Name	Description	Supported Operating System(s)
Absolute	Sets the value to the Absolute interface and controls the Absolute service.	Microsoft Windows, Linux
	Possible values:	
	 Enable - If enabled, then the Absolute service is activated or deactivated. Disable - If disabled, then the Absolute service does not run. Permanently Disabled - If the Absolute interface is permanently disabled, then the Absolute feature can be enabled by using the factory reset feature. 	
Active State Power Management	Set the ASPM (Active State Power Management) level.	Microsoft Windows,
	Possible values are:	Linux
	 Auto — There is handshaking between the device and PCI Express hub to determine the best ASPM mode supported by the device. Disabled — ASPM power management is turned off always. L1 Only — ASPM power management is set to use L1. 	
Activity LED	Sets the Network Activity Light Emitting Diode (LED) to any of the following:	Microsoft Windows, Linux
	Possible values are:	
	 1 = EnableACPIOSControl — Sets the Activity LED controlled by an Advanced Configuration and Power Interface (ACPI) operating system and driver. 2 = WirelessLANIndicator — Sets the Activity LED as a wireless Local Area Network (LAN) radio on/off indicator. 3 = Off — Sets the Activity LED to off. 	
AGP Slot	Enables or disables the on-board AGP slot.	Microsoft Windows
	Possible values are:	
	DisableEnable	
AC Power Recovery Mode	Sets AC Power Recovery Mode.	Microsoft Windows,
	Possible values are:	Linux
	OffLastOn	

BIOS Settings Name	Description	Supported Operating System(s)
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.	Microsoft Windows, Linux
	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:	
	DisableEnable	
Admin Setup Lockout	If the value of Admin Setup Lockout is Enabled 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 Enabled , users will be able to access Setup normally.	Microsoft Windows, Linux
	If the value of Admin Setup Lockout is Disabled 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:	
	DisableEnable	
Adv Battery Charge Cfg	Configures the days settings based on BeginningOfDay and workperiod. Advanced Battery charge mode uses standard charging algorithm and other methods during working hours to maximize battery health. During working hours, express charge is used to charge the batteries faster. You can configure the days and the work period during which the battery has to be charged. To enable advanced battery charging, provide the day, and set the following:	Microsoft Windows, Linux
	Possible values are:	
	 BeginningOfDay — To configure the AdvanceBatteryCharge start time in 24 hours format. The value of hour must be in the range 0–23 and minute must be 0, 15, 30, or 45. Workperiod — To configure the duration of charging. 	
Advanced Battery Charging Mode	Configures all the batteries in the systems with Advance Battery Charging Mode to maximize the battery health.	Microsoft Windows, Linux
	Possible values are:	
	1 — Disable2 — Enable	
	(i) 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	Configures the Advanced Battery charging configuration for Sunday.	Microsoft Windows
	Possible values are:	

 \cdot 0 — 23 — Beginning of day Hour

BIOS Settings Name	Description	Supported Operating System(s)
	 0 — 59 — Beginning of day Minute 0 — 23 — Work Period Hour 0 — 59 — Work Period Minute 	
	BIOS setting 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	Configures the Advanced Battery charging configuration for Monday.	Microsoft Windows
	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 	
	BIOS setting 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	Configures the Advanced Battery charging configuration for Tuesday.	Microsoft Windows
	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 	
	BIOS setting 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	Configures the Advanced Battery charging configuration for Wednesday.	Microsoft Windows
	Possible values are:	
	 0 — 23 — Beginning of day Hour 0 — 59 — Beginning of day Minute 0 — 23 — Work Period Hour 	

 \cdot 0 — 59 — Work Period Minute BIOS setting name for Set operation:

Adv Battery Charge Cfg Wed BodHourAdv Battery Charge Cfg Wed BodMinAdv Battery Charge Cfg Wed WpHour

BIOS Settings Name	Description	Supported Operating System(s)
	· Adv Battery Charge Cfg Wed WpMin	
Adv Battery Charge Cfg Thu	Configures the Advanced Battery charging configuration for Thursday.	Microsoft Windows
	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 	
	BIOS setting name for Set operation:	
	 Adv Battery Charge Cfg Thu BodHour Adv Battery Charge Cfg Thu BodMin Adv Battery Charge Cfg Thu WpHour Adv Battery Charge Cfg Thu WpMin 	
Adv Battery Charge Cfg Fri	Configures the Advanced Battery charging configuration for Friday.	Microsoft Windows
	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 	
	BIOS setting name for Set operation:	
	 Adv Battery Charge Cfg Fri BodHour Adv Battery Charge Cfg Fri BodMin Adv Battery Charge Cfg Fri WpHour Adv Battery Charge Cfg Fri WpMin 	
Adv Battery Charge Cfg Sat	Configures the Advanced Battery charging configuration for Saturday.	Microsoft Windows
	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 	
	BIOS setting name for Set operation:	
	 Adv Battery Charge Cfg Sat BodHour Adv Battery Charge Cfg Sat BodMin Adv Battery Charge Cfg Sat WpHour Adv Battery Charge Cfg Sat WpMin 	
Always Allow Dell Docks	Allows or restricts Dell Type-C Thunderbolt docks to function when the Thunderbolt is disabled.	Microsoft Windows, Linux
	Possible values are:	
	 Disable — Restricts the Dell Type-C Thunderbolt docks to function when the Thunderbolt is disabled. Enable — Allows the Dell Type-C Thunderbolt docks to function even when the Thunderbolt is disabled. 	
Ambient Light Sensor	Enables or Disables the Ambient Light Sensor.	Microsoft Windows
	Possible values are:	

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEnable	
Intel AMT Canability		Microsoft Windows,
Intel AMT Capability	Set the Intel Active Management Technology (AMT) capability.	Linux
	Possible values:	
	 Enabled - If Intel Active Management Technology is enabled, MEBx is available through the F12 menu and you can provision AMT. MEBx may not be not accessible if OROM Keyboard Access is disabled. 	
	 Disabled - If Intel Active Management Technology is disabled, MEBx is not available in pre-boot. Once disabled, Intel Active Management Technology can only be enabled through the BIOS interface. If the Intel AMT is already provisioned, AMT cannot be disabled. Un-provisioning AMT is required to disable AMT. 	
	 Restrict MEBx Access - If Intel Active Management Technology is enabled, MEBx is not available in pre-boot but you can provision AMT from the operating system. 	
Enable AMD SmartShift	Sets the AMD SmartShift.	Microsoft Windows,
	Possible values:	Linux
	 Enable - On a discrete GPU system, AMD SmartShift allows the system's CPU and discrete GPU to share the power limits. AMD SmartShift allows the potential performance that increases within the systems power or thermal limitation. Disable - AMD SmartShift feature is disabled. 	
AMD TSME	Sets the AMD Transparent Secure Memory Encryption (TSME).	Microsoft Windows,
	Possible values:	Linux
	 Enabled - AMD Transparent Secure Memory Encryption (TSME) allows encryption of contents during residing on the memory DIMMS. NOTE: For best results while diagnosing potential memory DIMM issues, turn off this feature prior to running diagnostic functions or tools. Disabled - AMD Transparent Secure Memory Encryption (TSME) does not allow encryption on the memory DIMMS. 	
Analog Digital Interface Mode Channel 1	Sets the defined Analog/Digital Interface mode for channel 1.	Microsoft Windows,
	Possible values are:	Linux
	 0 — Unused — Channel is unused. 1 — ADC Input — Sets the channel mode as Analog-to-Digital Converter (ADC) input. 2 — DAC Output — Sets the channel mode as Digital-to-Analog Converter (DAC) output. 3 — DAC and ADC — Sets the channel mode as DAC output, but can be monitored through ADC input. 8 — GPIO — Sets the channel mode as General Purpose Input or Output. 	
Analog Digital Interface Mode Channel 2	Sets the defined Analog/Digital Interface mode for channel 2.	Microsoft Windows,
	Possible values are:	Linux
	· 0 — Unused — Channel is unused.	

BIOS Settings Name	Description	Supported Operating System(s)
	 1 — ADC Input — Sets the channel mode as Analog-to-Digital Converter (ADC) input. 2 — DAC Output — Sets the channel mode as Digital-to-Analog Converter (DAC) output. 3 — DAC and ADC — Sets the channel mode as DAC output, but can be monitored through ADC input. 8 — GPIO — Sets the channel mode as General Purpose Input or Output. 	
Analog Digital Interface Mode Channel 3	Sets the defined Analog/Digital Interface mode for channel 3.	Microsoft Windows,
	Possible values are:	Linux
	 0 — Unused — Channel is unused. 1 — ADC Input — Sets the channel mode as Analog-to-Digital Converter (ADC) input. 2 — DAC Output — Sets the channel mode as Digital-to-Analog Converter (DAC) output. 3 — DAC and ADC — Sets the channel mode as DAC output, but can be monitored through ADC input. 8 — GPIO — Sets the channel mode as General Purpose Input or Output. 	
Analog Digital Interface Mode Channel 4	Sets the defined Analog/Digital Interface mode for channel 4.	Microsoft Windows, Linux
	Possible values are:	LITIUX
	 0 — Unused — Channel is unused. 1 — ADC Input — Sets the channel mode as Analog-to-Digital Converter (ADC) input. 2 — DAC Output — Sets the channel mode as Digital-to-Analog Converter (DAC) output. 3 — DAC and ADC — Sets the channel mode as DAC output, but can be monitored through ADC input. 8 — GPIO — Sets the channel mode as General Purpose Input or Output. 	
Analog Digital Interface Mode Channel 5	Sets the defined Analog/Digital Interface mode for channel 5.	Microsoft Windows,
	Possible values are:	Linux
	 0 — Unused — Channel is unused. 1 — ADC Input — Sets the channel mode as Analog-to-Digital Converter (ADC) input. 2 — DAC Output — Sets the channel mode as Digital-to-Analog Converter (DAC) output. 3 — DAC and ADC — Sets the channel mode as DAC output, but can be monitored through ADC input. 8 — GPIO — Sets the channel mode as General Purpose Input or Output. 	
Analog Digital Interface Mode Channel 6	Sets the defined Analog/Digital Interface mode for channel 6.	Microsoft Windows,
	Possible values are:	Linux
	 0 — Unused — Channel is unused. 1 — ADC Input — Sets the channel mode as Analog-to-Digital Converter (ADC) input. 2 — DAC Output — Sets the channel mode as Digital-to-Analog Converter (DAC) output. 3 — DAC and ADC — Sets the channel mode as DAC output, but can be monitored through ADC input. 	

BIOS Settings Name	Description	Supported Operating System(s)
	8 — GPIO — Sets the channel mode as General Purpose Input or Output.	
Analog Digital Interface Mode Channel 7	Sets the defined Analog/Digital Interface mode for channel 7.	Microsoft Windows,
	Possible values are:	Linux
	 0 — Unused — Channel is unused. 1 — ADC Input — Sets the channel mode as Analog-to-Digital Converter (ADC) input. 2 — DAC Output — Sets the channel mode as Digital-to-Analog Converter (DAC) output. 3 — DAC and ADC — Sets the channel mode as DAC output, but can be monitored through ADC input. 8 — GPIO — Sets the channel mode as General Purpose Input or Output. 	
Analog Digital Interface Mode Channel 8	Sets the defined Analog/Digital Interface mode for channel 8.	Microsoft Windows,
	Possible values are:	Linux
	 0 — Unused — Channel is unused. 1 — ADC Input — Sets the channel mode as Analog-to-Digital Converter (ADC) input. 2 — DAC Output — Sets the channel mode as Digital-to-Analog Converter (DAC) output. 3 — DAC and ADC — Sets the channel mode as DAC output, but can be monitored through ADC input. 8 — GPIO — Sets the channel mode as General Purpose Input or Output. 	
Attempt Legacy Boot	Determines if BIOS should attempt to boot from the legacy boot list when the UEFI boot list fails.	Microsoft Windows, Linux
	Possible values are:	
	 Enabled — If the UEFI boot list fails, then BIOS attempts to boot from the Legacy boot list. Disabled — BIOS discontinues the booting process if the UEFI boot list fails. 	
AudioMode	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 play back sounds simultaneously.	Microsoft Windows
	Possible values are:	
	DisableHalf DuplexFull Duplex	
Auto Fan Speed Intensity	Configures the fan speed control if the fan speed is set to Auto using fanspeed BIOS setting.	Microsoft Windows, Linux
	Possible values are: 0 to 100	
	 0 — sets the fanspeed to the optimal speed level, and higher percentage provides enhanced cooling. 	
Auto On	This property defines the auto-on configuration: disabled, everyday or weekdays (Monday — Friday).	Microsoft Windows, Linux
	Possible values are:	

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEverydayWeekdaysSelect days	
Auto On Hour	Defines the hour when to turn on the system $(0-23)$.	Microsoft Windows, Linux
Auto On Minute	Defines the minutes when to turn on the system $(0-59)$.	Microsoft Windows, Linux
Auto on Sunday	Defines that the system must be automatically turned on Sundays.	Microsoft Windows, Linux
Auto on Monday	Defines that the system must be automatically turned on Mondays.	Microsoft Windows, Linux
Auto on Tuesday	Defines that the system must be automatically turned on Tuesdays.	Microsoft Windows, Linux
Auto on Wednesday	Defines that the system must be automatically turned on Wednesdays.	Microsoft Windows, Linux
Auto on Thursday	Defines that the system must be automatically turned on Thursdays.	Microsoft Windows, Linux
Auto on Friday	Defines that the system must be automatically turned on Fridays.	Microsoft Windows, Linux
Auto on Saturday	Defines that the system must be automatically turned on Saturdays.	Microsoft Windows, Linux
Auto OS Recovery Threshold	Sets the threshold value for auto OS recovery. Controls the automatic boot flow for SupportAssist System Resolution console and for Dell OS Recovery Tool. The system boots to the SupportAssist System Resolution console and for Dell OS Recovery Tool if,	Microsoft Windows, Linux
	 the primary operating system fails to boot consecutively the count of boot failure is greater than or equal to the value of the Auto OS Recovery threshold setup option the SupportAssist OS Recovery option is enabled 	
	Possible values are: 0 to 3	
	NOTE: If the Auto OS Recovery threshold is set to 0, then all automatic boot flow for SupportAssist System Resolution console and for Dell OS Recovery Tool is disabled.	
Auto Switch	Enable, Disable	Microsoft Windows,
	Possible values are: 1,2	Linux
Auto Wake Period	Defines the time in minutes after which the system should automatically wake up from Standby, Hibernate, or Switched off mode.	Microsoft Windows, Linux
	Possible values are: 0, integers ranging from 1 to 254	
	(i) NOTE: The system wakes up from Sleep, Hibernate, or Switched off mode only if the Auto On option is enabled for everyday of the week.	
BIOS Auto Recovery	Enables or disables the BIOS auto recovery feature.	Microsoft Windows, Linux
	Possible values are:	

BIOS Settings Name	Description	Supported Operating System(s)
	 Enabled — If BIOS corruption is detected, the system automatically recovers BIOS without any user interaction. Disabled — Disables BIOS auto recovery feature. 	
Back Camera	Enables or disables the rearward facing camera.	Microsoft Windows,
	Possible values are:	Linux
	Disable — Disables the rearward facing camera.Enable — Enables the rearward facing camera.	
Battery Slice Charge Configuration	Configures the battery slice charging	Microsoft Windows,
	Possible values are:	Linux
	 1 - Adaptive 2 - Standard 3 - Express 4 - PrimAcUse 5 - Custom 	
BIOS Connect	Enables or disables the BIOS Connect feature.	Microsoft Windows,
	Possible values are:	Linux
	· Enable	
	· Disable	
BIOS Connect Activation	Configures the state of the available BiosConnect boot paths. Possible values are:	Microsoft Windows, Linux
	 0 — Deactivate — BIOS setup options are not available and 	
	all BiosConnect boot paths are disabled.	
	 1 — Full Activation — BIOS Setup options are enabled and all BiosConnect boot paths are enabled. 	
	 2 — Launchpad Activation Only — BIOS setup options are enabled and only launchpad code path is enabled. 	
BIOS Enumeration Mode	BIOS Assist Enumeration, Native Enumeration	Microsoft Windows,
	Possible values are: 0,1	Linux
Bios Integrity Check	Enables or disables the BIOS integrity check during the booting process.	Microsoft Windows, Linux
	Possible values are:	
	 enable — BIOS checks the BIOS image integrity during every booting process. disable — BIOS checks the BIOS image integrity only if the 	
	previous booting process did not complete.	
	NOTE: BIOS checks the BIOS image integrity only if the biosautorecovery option is enabled.	
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.	Microsoft Windows, Linux
	Possible values are:	
	Enable — BIOS stores the recovery image on primary hard disk drive storage. So BIOS recovery image is available both	

BIOS Settings Name	Description	Supported Operating System(s)
	from primary hard disk drive permanent storage and via an external USB. 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.	
Bitsmart	Enables or disable the Bitsmart.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Bluetooth Devices	Enable or disable Bluetooth Devices	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
BlinkPSULED1	Provides the alert for the PSU 1. The Power Supply Unit(PSU) 1 LED starts to blink when it is enabled.	Microsoft Windows
	Possible value:	
	· Enable	
BlinkPSULED2	Provides the alert for the PSU 2. The Power Supply Unit(PSU) 2 LED starts to blink when it is enabled.	Microsoft Windows
	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.	Microsoft Windows, Linux
	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:	
	DisableEnable	
Boot Mode	Determines the system's boot mode. Enables booting to Unified Extensible Firmware Interface (UEFI) capable operating systems. This ensures compatibility with operating systems that do not support UEFI.	Microsoft Windows, Linux
	Possible values are:	
	 UEFI — Enables booting to Unified Extensible Firmware Interface (UEFI) capable operating systems. BIOS — Ensures compatibility with operating systems that do not support UEFI. 	
	NOTE: Legacy boot mode is not allowed when secure boot is enabled or legacy option ROM is disabled.	
Boot-time Video	Sets the Primary Video source.	Microsoft Windows,
	Possible values are:	Linux

BIOS Settings Name	Description	Supported Operating System(s)
	On boardAdd-in	
Boot Speed	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 slower than default. Some platforms implement this by turning off cache and others by STPCLK throttling.	Microsoft Windows
	Possible values are:	
	DefaultCompatible	
Broadcom ASF	Sets the ASF (Alert Standard Format) mode.	Microsoft Windows
	Possible values are:	
	 Disable Enable Alert only Dash and ASF 	
Presdeem TwiMenege		Microsoft Windows
Broadcom TruManage	Sets the Broadcom TruManage.	MICTOSOTE WINDOWS
	Possible values are: 1,2	
	EnableDisable	
Bus Ratio	Sets Bus Ratio.	Microsoft Windows
	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	Microsoft Windows, Linux
CAN Bus	Enables or disables the Controller Area Network (CAN) Bus. Possible values are: Disable	Microsoft Windows, Linux
	· Enable	
Cellular Radio	Enables or Disables the cellular radio, that is, the WWAN module. Possible values are: Disable Enable	Microsoft Windows, Linux
Charger	Defines the charger details.	Microsoft Windows

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are:	
	DisableEnable	
Chassis Intrusion	Enables the system to detect and report the Chassis Intrusion events to the system display on boot-up.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnableSilent	
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.	Microsoft Windows, Linux
	Possible values are:	
	TrippedDoor openDoor closedTrip reset	
Clear BIOS Log	Prevents or allows the BIOS event log to be cleared on the next boot.	Microsoft Windows, Linux
	Possible values are:	
	 Disable — Does not clear the BIOS event log on the next boot. Enable — Clears the BIOS event log on the next boot. 	
Clear Power Log		Microsoft Windows,
Clear I Ower Log	Prevents or allows the Power log to be cleared on the next boot.	Linux
	Possible values are: Disable — Does not clear the Power log on the next boot. Enable — Clears the Power log on the next boot.	
Clear System Event Log	Prevents or causes the system event log to be cleared on the next boot.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Clear Thermal Log	Prevents or allows the Thermal log to be cleared on the next boot.	Microsoft Windows
	Possible values are:	
	 Disable — Does not clear the Thermal log on the next boot. Enable — Clears the Thermal log on the next boot. 	
Cool and Quiet	Enables or disables the AMD Cool and Quiet processor feature.	Microsoft Windows
	Possible values are:	

BIOS Settings Name	Description	Supported Operating System(s)
	· Enable	
Adjacent Cache Line Prefetch	Enables or disables the AdjacentCacheLinePrefetch feature. Possible values are: Enabled — CPU fetches the adjacent cache line in the other half of the sector. Disabled — CPU only fetches the cache line that contains	Microsoft Windows, Linux
CPU RSA	the data currently required by the CPU. Enables or disables the Reliability Availability Serviceability (RSA) support on CPUs. Possible values are:	Microsoft Windows, Linux
	DisableEnable	
CPU Snoop Mode	Configures the CPU snoop mode. Possible values are: Early snoop — Enables early snoop mode. Use this mode for	Microsoft Windows, Linux
	 Larry shoop — Enables early shoop mode. Ose this mode for latency-sensitive applications that do not require high remote bandwidth. Home snoop — Enables home snoop mode. Use this mode for applications that require high memory bandwidth. Cluster on Die — Enables cluster on die mode. Dell recommends this mode for NUMA-optimized applications to achieve lowest local memory latency, and highest local memory bandwidth. Opportunistic Snoop — Enables opportunistic snoop mode. Directory with Opportunistic Snoop Broadcast (OSB) offers a good balance of latency and bandwidth. No snoop — Enables no snoop mode. 	
CPU Virtualization Technology	Enables or disables CPU Virtualization. Possible values are: Disable Enable	Microsoft Windows
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 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	Microsoft Windows, Linux
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.	Microsoft Windows, Linux
	Possible values are: Disable	

BIOS Settings Name	Description	Supported Operating System(s)
	- Enable	
Dell Wyse P25 Bios Access	Turns on or off the access to the BIOS setup through Dell Wyse P25 PCoIP client.	Microsoft Windows
	Possible values are:	
	OnOff	
dGPU External Display	Enables or disables discrete Graphics Procession (GPU) Unit external display.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Diskette	This property defines whether the built-in Floppy controller is enabled, auto or read-only.	Microsoft Windows
	Possible values are:	
	• Disable	
	AutoRead Only	
	· USB Internal	
Dock Display Port 1 Video Source	The Dock Display Port through Integrated Graphics feature enables the docking station DVI no1 or Display Port no1 interface to drive an external video display when Switchable Graphics is enabled and running from the integrated graphics controller.	Microsoft Windows, Linux
	Possible values:	
	 Enable — Uses the integrated video controller as video source. Disable — Uses the external video controller as video source. 	
Dock Support On Battery	Enabling this option allows you to use the docking station, when AC power is absent, but only when the battery is preceding a certain charge percentage. The percentage may change per battery and per platform. For example, the dock may only be powered when the battery is at 60 percent charge or higher, and when the battery drops below this level (without AC power) the dock loses power.	Microsoft Windows, Linux
	Possible values are:	
	· Disable	
	Enable	
DRAM Prefetcher	Prevents DRAM references from triggering DRAM prefetch requests./Turns on the DRAM prefetch unit in the Northbridge.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Dust Filter Maintenance	Disabled, 15days, 30days, 60days, 90days, 120days, 150days, 180days	Microsoft Windows, Linux
	Possible values are: 0, 1, 2, 3, 4, 5, 6, 7	

BIOS Settings Name	Description	Supported Operating System(s)
Dynamic Backlight Control	Enables or disables the Dynamic Backlight Control (DBC) feature within the BIOS.	Microsoft Windows, Linux
	Possible values:	
	EnableDisable	
Dynamic Privacy Screen	Always On, enables, or disables the dynamic privacy screen.	Microsoft Windows,
	Possible values:	Linux
	 Enable - The Dynamic Privacy Screen is applied to the embedded display panel and can be toggled between public mode and privacy mode using the Fn+F9 key combination on the embedded keyboard. Disable - The Dynamic Privacy Screen is not applied to the embedded display panel. Always On - The Dynamic Privacy Screen is always on and cannot be turned off. 	
Embedded SATA Controller	Sets the Integrated SATA Controller.	Microsoft Windows,
	Possible values are:	Linux
	 Off Combined ATA AHCI RAID QDMA 	
Internal SD Card	Enables/disables the embedded SD Card port.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Embedded Video Controller	Enables or disables the embedded video controller. Possible values are: Disable	Microsoft Windows, Linux
	· Enable	
еММС	Embedded Multi-Media Controller Possible values are: 1,2 Disable Enable	Microsoft Windows, Linux
Expansion Bay 1	Enables or disables Expansion Bay 1.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Expansion Bay 2	Enables or disables Expansion Bay 2. Possible values are: Disable Enable	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
Expansion Bay 3	Enables or disables Expansion Bay 3.	Microsoft Windows, Linux
	Possible values are: Disable Enable	
Instant ON	Enables or disables the Instant ON feature.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Enable Block SID	Enables or disables Block SID feature.	Microsoft Windows,
	Possible values are:	Linux
	EnableDisable	
Enable Legacy Option ROMs	Enables or disables detecting the BIOS and using the legacy expansion ROMs. This mode cannot be enabled with Secure Boot.	Microsoft Windows, Linux
	Possible values are:	
	EnableDisable	
Enable Tablet Button LED Sign of Life	Enables or disables Tablet Button LED Sign of Life.	
	Possible values are: 1,2	
	EnableDisable	
Enclave Memory Size	Displays the Intel(R) Software Guard Extensions(TM) (SGX) Enclave Processor Reserved Memory Size.	Microsoft Windows, Linux
	Possible values are:	
	· 32MB	
	64MB128MB	
	· 256MB	
	NOTE: Enclave Memory Size option can be set from the BIOS setup screen only.	
Energy Star Logo	Displays or hides the Energy Star logo during POST.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
e-SATA Ports	Enable/disable e-SATA Ports	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
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.	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are:	
	DisableEnable	
Express Charge	Define the express charging.	Microsoft Windows
	Possible values are:	
	DisableEnableEnable once	
Extend Post Time	Delays the time of action taken by the system after pressing function keys such as F2,F12, etc. during post time.	Microsoft Windows, Linux
	Possible values are:	
	 0 — Does not delay the time of action. 5 — Delays the time of action by 5 seconds. 10 — Delays the time of action by 10 seconds. 	
External Hotkey	Sets the External Hotkey to Scroll Lock or Disabled.	Microsoft Windows,
	Possible values are:	Linux
	DisableScroll lock	
External USB Ports	Enable/disable external USB ports. Possible values are:	Microsoft Windows, Linux
	Disable	
	• Enable	
External WLAN Activity LED	Enables or disables the external (lid-mounted) WLAN indicator LED.	Microsoft Windows, Linux
	Possible values are:	
	 Disable — LED does not display the state of the WLAN source activity. 	
	 Enable — LED displays the state of the WLAN source activity. 	
F12 POST Display	Enables or disables the F12 key at POST.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
F2 POST Display	Enables or disables the F2 key at POST.	Microsoft Windows
	Possible values are:	
	DisableEnable	
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.	Microsoft Windows, Linux
	Possible values are:	
	Disable	

BIOS Settings Name	Description	Supported Operating System(s)
	· Enable	
Fan Speed	Sets the system fan speed. Possible values are:	Microsoft Windows, Linux
	AutoHighMedium HighMedium LowLow	
Fan Speed Auto Level on Psu Zone	Sets the system to Fan Speed Auto Level on Psu Zone. Possible values are: 0 – 100	Microsoft Windows, Linux
	Minimum ValueMinimum Value	
Fan Speed Auto Level on Cpu Zone	Sets the system to Fan Speed Auto Level on Cpu Zone. Possible values are: 0 – 100 Minimum Value Minimum Value	Microsoft Windows, Linux
Fan Speed Auto Level on Flex Bay Zone	Sets the system to Fan Speed Auto Level on Flex Bay Zone. Possible values are: 0 – 100 Minimum Value Minimum Value	Microsoft Windows, Linux
Fan Speed Auto Level on Upper PCle Zone	Sets the system to Fan Speed Auto Level on Upper Pcie Zone. Possible values are: 0 – 100 Minimum Value Minimum Value	Microsoft Windows, Linux
Enable Fingerprint Reader Device	Enables or disables the Fingerprint Reader device. Possible values are: Enable - Fingerprint Reader device is enabled. Disable - Fingerprint Reader device is disabled.	Microsoft Windows, Linux
Enable Fingerprint Reader Single Sign On	 Enables or disables the Fingerprint Reader Single Sign On device. Possible values are: Enable - Fingerprint Reader Single Sign On device is enabled. Disable - Fingerprint Reader Single Sign On device is disabled. 	Microsoft Windows, Linux
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	Microsoft Windows
Fault Tolerant Memory Log Clear	Enables or disables the Fault Tolerant Memory Log Clear option. Possible values are:	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	 Enabled — System clears fault tolerant memory log during the next boot. Disabled — Fault Tolerant Memory Log Clear option will be disabled, and no action will be taken during the next boot. 	
	NOTE: Fault Tolerant Memory Log Clear option will be reset to disabled state after log gets cleared.	
Fn Lock	Controls the behavior of the dual-function keys (<f1> — <f12>), when <fn> key is pressed.</fn></f12></f1>	Microsoft Windows, Linux
	Possible values are:	
	 Disable — If disabled, holding the <fn> key enables the secondary functions associated with the particular key.</fn> Enable — If enabled, holding the <fn> key enables the labeled functions of the keys (<f1> — <f12>).</f12></f1></fn> 	
Fn Lock Mode	Controls the behavior of the dual-function keys (<f1> — <f12>), when <fn> key is pressed and when it is not.</fn></f12></f1>	Microsoft Windows, Linux
	Possible values are:	
	 Disable — Holding <fn> key enables the secondary functions associated with the particular key</fn> Enable — Without holding <fn> key, the dual-function keys behave as labeled.</fn> 	
Force PXE on Next Boot	Enables or disables the Force PXE on next boot in BIOS.	Microsoft Windows,
	Possible values are:	Linux
	Disable	
	· Enable	
Front Panel USB Ports	Enables or disables the USB ports on the front of the chassis.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Front Power Button	Enables or disables the Front Power Button.	Microsoft Windows,
	Possible values are:	Linux
	Disable	
	• Enable	
Full Screen Logo	Enables or disables the full screen logo.	Microsoft Windows
	Possible values are:	
	· Disable	
	· Enable	
FX100 BIOS Access	Allows or blocks the remote user to access BIOS Setup via FX100 Portal.	Microsoft Windows
	Possible values are:	
	OnOff	
General Purpose Encryption	Enables or disables the general purpose encryption (GPE) on the system.	Microsoft Windows

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are:	
	EnableDisable	
GPS on WWAN Radio	Enables or disables GPS WWAN Radio. Possible values are:	Microsoft Windows, Linux
	EnableDisable	
GPS Radio	Enables or disables the internal GPS radio.	Microsoft Windows,
	Possible values are:	Linux
	EnableDisable	
Hard Disk Acoustic Mode	Sets the Hard Disk Acoustic Mode.	Microsoft Windows
	Possible values are:	
	BypassQuietSuggestedPerformance	
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.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Hardware Prefetcher	Enables or disables the CPU's HW prefetcher.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Hard Drive Free Fall Protection	Enables or disables hard drive free fall protection. Possible values are:	Microsoft Windows, Linux
	DisableEnable	
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.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
HDD Protection	If setting On , the HDD Protection OPROM will be loaded. If setting Off , the HDD Protection OPROM will be not loaded.	Microsoft Windows, Linux
	Possible values are:	

BIOS Settings Name	Description	Supported Operating System(s)
	· Off	
	· On	
HDD0 Fan Enable	Enables or disables checking errors on the fan controller FAN_HDD0. If the fan controller detects a valid fan, it enables it automatically.	Microsoft Windows, Linux
	Possible values are:	
	EnableDisable	
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.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
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.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
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.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
HDD4 Fan Enable	Enables or disables checking errors on the fan controller FAN_HDD4. If the fan controller detects a valid fan, it enables it automatically.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Hot Undocking	Enables or disables warm and hot docking/undocking.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Hotkey to toggle WxAN Radio	Enables or disables the hotkey to toggle WxAN radio.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Ignition Enable	Enables or disables the external ignition pin. Disabled by default.	Microsoft Windows, Linux
	Possible values:	
	· Enable	

BIOS Settings Name	Description	Supported Operating System(s)
	· Disable	
Ignition On Delay	The delay is displayed in seconds, when the power button event is passed to the operating system to initiate the booting.	Microsoft Windows, Linux
	Possible values are from (0 - 21600). By default the value is 5s.	
Ignition Off Delay	The delay is displayed in seconds untill the power button event is passed to the operating system for shutting down the system.	Microsoft Windows, Linux
	Possible values are from (0 - 21600). By default the value is 5s.	
Ignition De-bounce Cycle	De-Bounce Ignition Power Switch cycle time is displayed in milli seconds.	Microsoft Windows, Linux
	Possible values are from (50 - 5000). By default the value is 50ms.	
I/O Module	Enables or disables the I/O module.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
I/O Module 2	Enables or disables the I/O module 2.	Microsoft Windows,
	Possible values are:	Linux
	· Disable	
	· Enable	
I/O Module 3	Enables or disables the I/O module 3.	Microsoft Windows, Linux
	Possible values are:	LITIUX
	DisableEnable	
I/O Module 4	Enables or disables the I/O module 4.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Intel Smart Connect Technology	Disables or enables the Intel Smart Connect technology.	Microsoft Windows,
	Possible values are:	Linux
	· Disable	
	• Enable	
Intel Speed Select Technology	Intel Speed Select Technology allows you to choose up to two additional base frequency conditions.	Microsoft Windows, Linux
	Configuration 1: TDP Level 3	
	Configuration 2: TDP Level 4	
	Possible values are:	
	BaseConfiguration 1	
	· Configuration 2	
Intel Speed Shift Technology	Disables or enables the Intel Speed Shift Technology.	Microsoft Windows, Linux
	Possible values are:	

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEnable	
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.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Intel Rapid Start Technology	Disables or enables the Intel Rapid Start Technology (iFFS) feature within the BIOS.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Intel Rapid Start Technology Timer	Allows configuring the time-out value for Intel Rapid Start Technology (IRST) mode.	Microsoft Windows
	Possible value is:	
	 0 — 999 NOTE: The value for IRST is a nonfixed value, which may change depending on the configuration 	
Intel Ready Mode Technology	Enables or disables Intel Ready Mode Technology (iRMT).	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Integrated RAID	Enables or disables the Integrated RAID Controller.	Microsoft Windows
	Possible values are:	
	· Disable	
	· Enable	
Integrated SAS	Enables or disables the Integrated SAS Controller.	Microsoft Windows, Linux
	Possible values are:	LINUX
	DisableEnable	
Integrated USB Hub		Microsoft Windows
mtegrated OSB Hub	Sets the Integrated USB Hub to Compatible or High Speed. Possible values are:	WIICHOSOFE WIIFIGOWS
	Possible values are: Disable	
	Enable	
Internal USB	Enables or disables the Internal USB.	Microsoft Windows,
	Possible values are:	Linux
	Disable	
	· Enable	
Internal USB Port	Enables or disables the Internal USB port.	Microsoft Windows

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are:	
	DisableEnable	
Internal USB Port 1	Enables or disables the Internal USB port 1.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Internal USB Port 2	Enables or disables the Internal USB port 2.	Microsoft Windows
	Possible values are:	
	DisableEnable	
IDE	Defines whether the IDE controller is enabled or disabled.	Microsoft Windows
	Possible values are:	
	DisableAuto	
Intel Rapid Start Timer	Configures the timeout value (in minutes) for Intel Rapid Start Technology (IRST) mode. After the set timeout, the system enters IRST mode from the S3 system sleep mode. The acceptable values are in the range 0-999.	Microsoft Windows
	Possible values are:	
	· integers ranging from 0 to 999	
Keyboard Backlight Active Color	Displays or sets an active color for the keyboard backlight for the rugged systems.	Microsoft Windows, Linux
	Possible values are:	
	· 0— White	
	· 1— Red	
	2— Green3— Blue	
	· 4 — Customcolor1	
	· 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.	Microsoft Windows, Linux
	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.	Microsoft Windows, Linux
	Possible value is:	
	· 0-255, 0-255, 0-255 — Red, Green, Blue	

BIOS Settings Name	Description	Supported Operating System(s)
Keyboard Backlight Color Enable	Displays or enables the supported colors on the keyboard backlight for the rugged systems. Press Fn+C to switch among the enabled colors.	Microsoft Windows
	Possible values are:	
	 0 — None 1 — White 2 — Red 3 — Green 4 — Blue 5 — Customcolor1 6 — Customcolor2 	
	(i) NOTE:	
	 You can enable multiple colors at a time. 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. 	
Keyboard Click	Enables or disables the keyboard to 'click' each time a key is pressed.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Keyboard Backlight Timeout on AC	Configures the timeout value for the keyboard backlight when an AC adapter is plugged into the system.	Microsoft Windows, Linux
	Possible values are:	
	 5 — Keyboard backlight stays on for 5 seconds. 10 — Keyboard backlight stays on for 10 seconds. 15 — Keyboard backlight stays on for 15 seconds. 30 — Keyboard backlight stays on for 30 seconds. 65 — Keyboard backlight stays on for 1 minute. 69 — Keyboard backlight stays on for 5 minutes. 79 — Keyboard backlight stays on for 15 minutes. 191 — keyboard backlight always stays on. 	
Keyboard Backlight Timeout on Battery	Configures the timeout value for the keyboard backlight when the system is running only on battery power.	Microsoft Windows, Linux
	Possible values are:	
	 5 — Keyboard backlight stays on for 5 seconds. 10 — Keyboard backlight stays on for 10 seconds. 15 — Keyboard backlight stays on for 15 seconds. 30 — Keyboard backlight stays on for 30 seconds. 65 — Keyboard backlight stays on for 1 minute. 69 — Keyboard backlight stays on for 5 minutes. 79 — Keyboard backlight stays on for 15 minutes. 191 — keyboard backlight always stays on. 	
Keyboard Backlight with AC	Enables or disables the keyboard backlight when the system is running on AC power if an AC power adapter is plugged in. Possible values are:	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	 Enable — Enables the keyboard backlight even after the 10 seconds of inactivity. Disable — Disables the timer that fades the keyboard backlight after 10 seconds of inactivity. 	
	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>	
Keyboard Click	Enables or disables the keyboard to 'click' each time a key is pressed.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Keyboard Error Reporting	Enables or disables reporting of Keyboard errors by POST. Possible values are:	Microsoft Windows, Linux
	DisableEnable	
Keyboard Illumination	Sets the Keyboard Illumination to Enable, Disable, or Auto. Possible values are:	Microsoft Windows, Linux
	 Disable Enable Auto 25 50 75 100 	
Keypad	Changes the means of enabling the keypad. Possible values are:	Microsoft Windows, Linux
	By numlockBY FN key	
Latitude ON	Enables or disables Latitude On.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Latitude ON Flash	Enables or disables the ability to boot to the Latitude ON Flash module.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Launch Control Policy	Set the Intel Software Guard Extensions Launch Control Policy.	Microsoft Windows,
	Possible values are:	Linux
	 Intel Locked Mode — Locks SGX to support only Intel Enclave Launch Provider. Runtime Selectable Mode — Allows OS or Hypervisor control of Enclave Launch Provider. 	

BIOS Settings Name	Description	Supported Operating System(s)
LCD Brightness On AC	Sets the panel brightness in effect when the system is using AC power.	Linux
	Possible values are: Integers ranging from 0 to 15	
LCD Brightness On Battery	Sets the panel brightness in effect when the system is running on battery power.	Linux
	Possible values are: Integers ranging from 0 to 15	
Lid Switch	Enables or disables the lid switch functions.	Microsoft Windows,
	Possible values are:	Linux
	 Disable — Display will not be affected when lid is closed. Enable — OS setting determines the display behavior when lid is closed. 	
Liquid Cooler 1	Enables or disables the liquid cooler 1.	Microsoft Windows,
	Possible values are:	Linux
	Enable — Enables the liquid cooler 1.Disable — Disables the liquid cooler 1.	
Liquid Cooler 2	Enables or disables the liquid cooler 2.	Microsoft Windows,
	Possible values are:	Linux
	Enable — Enables the liquid cooler 2.Disable — Disables the liquid cooler 2.	
Limit CPUID Value	Enables or disables the Limit CPUID Value feature.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
M2 PCIE SSD 0	Enables or disables M2 PCIE SSD 0.	Microsoft Windows,
	Possible values are:	Linux
	· Disable	
	· Enable	
M2 PCIE SSD 1	Enables or disables M2 PCIE SSD 1.	Microsoft Windows, Linux
	Possible values are:	LINUX
	· Disable	
	Enable	
Management Driver	Sets to Present: the system-management instrumentation sets this BIOS setting 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 BIOS setting when it unloads. Implementation.	Microsoft Windows
	(i) NOTE: To maintain compatibility with Dell Command Monitor, a BIOS that implements this BIOS setting via an Indexed I/O access method must ensure that an AND-mask of 0xFB and an OR-value of 0x04 maintains	

BIOS Settings Name	Description	Supported Operating System(s)
	the present status— i.e. the status is in bit 2 of the indexed I/O location.	
	Sets to Absent: this BIOS setting 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 BIOS setting via an Indexed I/O access method must ensure that an AND-mask of 0xFB and an OR-value of 0x00 maintains the absent status — i.e. the status is in bit 2 of the indexed I/O location.	
	Possible values are:	
	PresentAbsent	
Master Password Lockout	Enables or disables master password settings.	Microsoft Windows, Linux
	Possible values are:	LIIIUX
	· Enabled — The master password cannot be used to	
	 clear other passwords unlock and access Hard Disk Drive erase data from Hard Disk Drive Disabled — The master password can be used to 	
	clear other passwordsunlock and access Hard Disk Driveerase data from Hard Disk Drive	
Media Card	Enables or disables the media card. If disabled, the media card is hidden from the OS and not seen in the Device Manager.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Media Card and 1394	Enables or disables the Media Card and 1394 devices.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Memory Fault Tolerance Time Limit	Configures the time limit value of the memory fault tolerance. Possible values are: 0 to 36000 in 1/10th of a second.	Microsoft Windows, Linux
	Possible values are: 0 to 36000	
	NOTE: Memory fault tolerance feature is disabled when the value is set to 0.	
Memory Performance Monitor	Enables or disables the memory performance monitor feature. Possible values are:	Microsoft Windows, Linux
	i Sociolo valado al o.	

Memory RSA

Enables or disables the Reliability Availability Serviceability (RSA) support on memory modules.

DisableEnable

Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are:	
	DisableEnable	
MEMs Sensors	Enables or disables the Micro Electro Mechanical Sensors. Possible values are:	Microsoft Windows, Linux
	DisableEnable	
Microphone	Enable or disable notebook internal or external microphone. Possible values are:	Microsoft Windows, Linux
	DisableEnable	
MiniPCI Device	Enables or disables the internal PCI device.	Microsoft Windows, Linux
	Possible values are: Disable Enable	
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.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
MmioAbove4Gb	Enables or disables the Memory mapped I/O above 4GB option. Possible values are:	Microsoft Windows, Linux
	DisableEnable	
Modern Standby Control	Determines which sleep mode is used by the operating system. Possible values are:	Microsoft Windows, Linux
	 OS Automatic Selection — Allows the operating system to select the appropriate sleep mode automatically. Force S3 — Forces the operating system to use the S3 sleep mode only. 	
Module Bay Device	Enables or disables the Module Bay Device.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Module Bay Battery Charge	Configures the module bay battery charging.	Microsoft Windows
Configuration	Possible values are:	
	 1 - Standard Charge — Charges the battery over a long period of time 2 - Express Charge — Switches the module bay battery to 	
Mouse	Express Charge mode using the express charging algorithm Sets the Pointing Device.	Microsoft Windows

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are: Disable Enable	
Monitor Toggling	Enables or disables Monitor Toggling. Possible values are: Disable	Microsoft Windows
Multi Display	 Enable Enables or disables the multi-display feature, that is integrated and add-in Gfx. Possible values are: Disable Enable 	Microsoft Windows, Linux
Near Field Computing	Enables or disables the Near Field Computing (NFC) device. Possible values are: Disable Enable	Microsoft Windows, Linux
NIC 1	This property defines whether the built-in NIC 1 is enabled or disabled. Possible values are: Disable Enable Enable Enable Enable Enable iSCSI Enable RPL Enable image server	Microsoft Windows, Linux
NIC 2	This property defines whether the built-in NIC 2 is enabled or disabled. Possible values are: Disable Enable non PXE EnabledwithoutPXE Enable iSCSI Enable RPL Enable image server	Microsoft Windows, Linux
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: Disable Enable ACPI OS control Wireless LAN Indicator	Microsoft Windows, Linux
Node Interleaving	Enables or disables Node Interleave. Possible values are:	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEnable	
NMI Button	Enables or disables the NMI Button. Possible values are: • Enable	Microsoft Windows
Num Lock	Disable Enables or disables Num Lock.	Microsoft Windows,
	Possible values are: Disable Enable	Linux
On Reader	Enables or disables the Reader feature. Possible values are: Disable Enable	Microsoft Windows, Linux
Onboard 1394	Enables or disables on-board 1394 controller on next boot. Possible values are: Disable Enable	Microsoft Windows, Linux
Onboard Modem	Enables or disables the Onboard Modem. Possible values are: Disable Enable	Microsoft Windows, Linux
Onboard Sound Device	Enables or disables the onboard sound devices. Possible values are: Disable Enable	Microsoft Windows, Linux
Onboard Unmanaged NIC	Configures the state of the Onboard Unmanaged Network Interface Card (NIC). Possible values are: Disable — Disables the secondary, unmanaged network interface card. Enable — Enables the secondary, unmanaged network interface card. Enabled with PXE — Enables the secondary, unmanaged network interface card and supports the preboot execution environment for network boot.	Microsoft Windows, Linux
On-board Serial ATA 2 Controller	Enable or disables on-board Serial ATA 2 controller. Possible values are: • Enable • Disable	Microsoft Windows
On Screen Buttons	Configures the onscreen display (OSD) of the All-In-One systems.	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are:	
	EnableDisable	
Optical Drive Controller	Enables or disables the Optical Drive Controller.	Microsoft Windows
	Possible values are:	
	EnableDisable	
Optimus	Enables or disables the Optimus.	Microsoft Windows
	Possible values are:	
	EnabledDisabled	
Optional Boot Sequence	Allows or prevents the installation of Windows operating system on client systems with more than one operating system volume.	Microsoft Windows
	Possible values are:	
	EnabledDisabled	
OpRomUIProtection	Prompts you to enter the administrator password to enter the OptionROM user interface if the password has been set.	Microsoft Windows, Linux
	Possible values are:	
	EnableDisable	
OROM Keyboard Access	Sets an option to enter the Option ROM Configuration screens using hotkeys during boot.	Microsoft Windows, Linux
	Possible values are:	
	· Enable	
	 Disable Onetime Enable — Allows configuring the access to Option ROM using hotkeys during system startup. 	
OS Install Mode	Enables or disables OS Install Mode (Limit System Memory feature).	Microsoft Windows
	Possible values are:	
	EnableDisable	
Parallel Mode	This property defines the parallel port mode.	Microsoft Windows, Linux
	Possible values are:	LITION
	· AT	
	· PS2 · ECP	
	· EPP	
	ECP DMA1ECP DMA3	
Parallel Port	This property defines the parallel port configuration.	Microsoft Windows,
	Possible values are:	Linux

BIOS Settings Name	Description	Supported Operating System(s)
	LPT1LPT2LPT3	
PartComponent	Defines the boot sequence for the next system boot. Boot Sequence information can be found under the class DCM_OrderedComponent.	Microsoft Windows
	Possible values are:	
	Diskette firstHD onlyDevice listCDROM first	
Password Bypass	Sets the Password Bypass feature to one of the supported settings.	Microsoft Windows, Linux
	Possible values are: Off Reboot Resume Reboot and resume	
Password Status Lock	Password Status lock/unlock.	Microsoft Windows,
	Possible values are:	Linux
	LockedUnlocked	
PC Card	Enables or disables the PC Card. Possible values are:	Microsoft Windows
	DisableEnable	
PC Card and 1394	Enables or disables the PC Card and 1394 devices. Possible values are: Disable Enable	Microsoft Windows
PCI Bus	Sets the maximum number of PCI bus count for the system.	Microsoft Windows,
	Possible values are:	Linux
	64128256	
PCIe Bus Allocation	PCIe Bus Allocation controls on how the PCIe bus resources are allocated among the PCIe SLOTs. Possible values are: Default Optimize for Thunderbolt	Microsoft Windows, Linux
	Option1Option2Option3	

BIOS Settings Name	Description	Supported Operating System(s)
PCIe RSA	Enables or disables the Reliability Availability Serviceability (RSA) support on PCIe devices.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Pci Resource Allocation Ratio	Allocates PCI resources, buses, memory-mapped I/O (MMIO) space, and I/O space. If set to Allocate Evenly , equal amount of memory is allocated to all the resources when two CPUs are installed. When set to Allocate More to CPU1 , larger amount of device-specific memory is allocated, which in turn reduces the usable memory on a system with a 32-bit operating system.	Microsoft Windows
	Possible values are:	
	Allocate EvenlyAllocate 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.	Microsoft Windows, Linux
	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.	Microsoft Windows, Linux
	Possible values are:	Ellian
	DisableEnable	
PCIE0	Enables or Disables the PCIE1 Card.	Microsoft Windows, Linux
	Possible values are: 1,2	
	DisableEnable	
PCIE1	Enables or Disables the PCIEO Card.	Microsoft Windows,
	Possible values are: 1,2	Linux
	· Disable	
	· Enable	
PCIE0_CPU1	Enables or Disables the PCIE0_CPU1 Card.	Microsoft Windows,
	Possible values are: 1,2	Linux
	DisableEnable	
PCIE1_CPU1	Enables or Disables the PCIE1_CPU1 Card.	Microsoft Windows, Linux
	Possible values are: 1,2	
	DisableEnable	

BIOS Settings Name	Description	Supported Operating System(s)
PCMCIA	Enables or disables the PCMCIA device slot. Possible values are: Disable Enable	Microsoft Windows, Linux
Pen Missing Indication	Enables or disables the Missing Pen Indication. Possible values are: Disable Enable	Microsoft Windows
Pen Resume On	Enables or disables the Resume On Pen setting. Possible values are: Disable Enable	Microsoft Windows
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:	Microsoft Windows, Linux
	1 — Disable2 — Enable	
Peak Shift Sun	Cconfigures the power usage configuration for Sunday. 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	Microsoft Windows
	BIOS setting 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	
	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	

BIOS Settings Name	Description	Supported Operating System(s)
	out-of-range values. BIOS behavior is unknown at this point of time for such values.	
	(i) NOTE: The values defined for Minute field are 0, 15,	

Peak Shift Mon

Cconfigures the power usage configuration for Monday.

round to the lower defined value.

30 and 45. In case you set any other value, the value is

Microsoft Windows

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

BIOS setting 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

Configures the power usage configuration for Tuesday.

Microsoft Windows

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

BIOS setting 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

Peak Shift Wed

Configures the power usage configuration for Wednesday.

Microsoft Windows

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

BIOS setting names for Set operation:

- · Peak Shift Wed StartHour
- Peak Shift Wed StartMin

BIOS Settings Name	Description	Supported Operating System(s)
	 Peak Shift Wed EndHour Peak Shift Wed EndMin Peak Shift Wed ChargeStartHour Peak Shift Wed ChargeStartMin 	
Peak Shift Thu	Configures the power usage configuration for Thursday.	Microsoft Windows
	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 	
	BIOS setting 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	Configures the power usage configuration for Friday.	Microsoft Windows
	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 	
	BIOS setting 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	Configures the power usage configuration for Saturday.	Microsoft Windows
	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 BIOS setting names for Set operation: Peak Shift Sat StartHour Peak Shift Sat StartMin Peak Shift Sat EndHour 	

BIOS Settings Name	Description	Supported Operating System(s)
	Peak Shift Sat EndMinPeak Shift Sat ChargeStartHourPeak 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.	Microsoft Windows, Linux
	Possible value is based on user input.	
	· >= 15% Possible Value <= 100%.	
	BIOS setting name for Set operation:	
	Peak Shift Battery Threshold	
Pointing Device	This property defines whether the built-in pointing device port is enabled or disabled.	Microsoft Windows, Linux
	Possible values are:	
	External serialExternal PS2SW TPAD	
POST Help Desk Key	Enables or Disables POST MEBx Key.	Microsoft Windows
	Possible values are:	
	OnOff	
POST MEBx Key Setting	Enables or Disables POST MEBx Key.	Microsoft Windows,
	Possible values are:	Linux
	· On · Off	
POST Testing	Enables or Disables fast booting. Possible values are:	Microsoft Windows, Linux
	MinMaxAuto	
Power Button	Enables, disables, or Partially disables the power button.	Microsoft Windows, Linux
	Possible values are: Disable Enable Partial disable	
Power Management	This property defines the power management settings.	Microsoft Windows
	Possible values are:	
	DisableMinRegularMax	
Power Warning	Enables or disables performance limitation messages based on power supply capacity.	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are:	
	DisableEnable	
Power On Lid Open	Sets the Power On Lid Open feature.	Microsoft Windows,
	Possible values:	Linux
	 Enable - If the feature is set to enable, the system powers up from the off state whenever the lid is opened. This system powers on when powered either by the AC adapter or the system battery. Disable - If this feature is set to disable, the system does 	
	not power up from the off state whenever the lid is opened.	
Power Off Intel 8260 When Engaging Stealth Mode	Enables or disables the Power Off Intel 8260 When Engaging Stealth Mode feature.	Microsoft Windows, Linux
	Possible values are:	
	 Enabled — Disconnects power from the Intel 8260 Wireless NIC when the Stealth Mode is enabled. 	
	 Disabled — Does not disconnect power from the Intel 8260 Wireless NIC when the Stealth Mode is enabled. 	
	i NOTE: Disabling Stealth Mode does not automatically restore the power or functionality of the card until the next complete boot. This non-standard mode is available as an option for Stealth Mode control of the Intel 8260 card for the following use cases: pre-boot applications, Linux OS, or Windows OS without Dell recommended drivers.	
Power Usage Mode	Sets the system power usage modes.	Microsoft Windows,
	Possible values:	Linux
	 Power Saver - This mode reduces processor sustained power to benefit battery life depending on usage cases. This mode may reduce system performance. Balanced - This mode balances performance, noise, temperature, and battery life. This is the default mode. Performance - This mode uses processor typical power and utilizes discrete graphics. High Performance - This mode increases processor sustained power to produce higher system performance and produces more noise, increases system surface temperature, and reduces the battery life. 	
PPI Bypass for Block SID Command	Enables or disables the PPI Bypass for Block SID Command feature.	Microsoft Windows, Linux
	Possible values are:	
	· Disable	
	· Enable	
PPI Bypass for TPM Clear	Enables or disables the PPI Bypass for TPM Clear feature. Possible values are:	Microsoft Windows, Linux
	DisableEnable	

BIOS Settings Name	Description	Supported Operating System(s)
Processor CMP	Rolls the number of enabled cores in each processor. By default, the maximum number of cores per processor will be enabled.	Microsoft Windows, Linux
	Possible values are:	
	· All	
	· 1 · 2	
	. 4	
	. 6	
	· 8 · 10	
	· 12	
	• 14	
	· 16	
Processor Core Count	Enables the number of cores in each processor.	Microsoft Windows, Linux
	Possible values are:	LITIUX
	· 0 — Enables all cores.	
	· 1–N — Enables the specified number of cores.	
Processor Execute Disable	Enables or disables the No Execute (NX) flag.	Microsoft Windows,
	Possible values are:	Linux
	· Disable	
	· Enable	
Processor HT Assist	Allows user to disable the Probe Filter chipset option from BIOS setup. There are some applications that may have lower performance with the chipset feature enabled.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Processor Virtualization Technology	Enables or disables processor Virtualization.	Microsoft Windows,
	Possible values are:	Linux
	· Disable	
	· Enable	
Processor C State Control	Enables or disable the C States Control.	Microsoft Windows,
	Possible values are:	Linux
	· Enable	
	· Disable	
Processor Core Based Turbo Mode	Enables or Disables Single Core Turbo Mode.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
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	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	property actually toggles the multi-core capability on and off, rather than hyperthreading.	
	Possible values are:	
	EnableDisable	
Primary Battery Charge Configuration	Configures the primary battery charging.	Microsoft Windows,
	Possible values are:	Linux
	 1 = Standard Charge — Charges the battery over a long period of time 	
	 2 = Express Charge — Switches the primary battery to Express Charge mode using the express charging algorithm 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	Charges the battery based on the user input.	Microsoft Windows
	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 to exceed 100.	
Primary Battery Custom Charge Start	Sets the start limit for charging the battery.	Linux
Limit	Possible values are:	
	· Integers ranging from 50 to 95	
Primary Battery Custom Charge Stop	Sets the stop limit for charging the battery.	Linux
Limit	Possible values are:	
	· Integers ranging from 55 to 100	
Primary IDE Channel, Master Device	Enables or Disables primary Parallel ATA master channel.	Microsoft Windows
	Possible values are:	
	· Off	
	· Auto	
Primary IDE Channel, Slave Device	Enables or disables primary Parallel ATA slave channel. Possible values are:	Microsoft Windows
	ı USSINIE ValueS al E.	

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEnable	
Primary Video Device Slot	Configures the slot for primary video display.	Microsoft Windows, Linux
	 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.	
Prompt On Error	Enables or disable the Prompt on Error.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Rear Single USB	Allows the users to electrically enable or disable the Rear Single USB ports. If disabled, they are unusable in any OS.	Microsoft Windows, Linux
	Possible values are:	
	OffOn	
Rear Dual USB 2nd stack	Enables or disable the Rear Dual USB 2nd stack.	Microsoft Windows, Linux
	Possible values are: Disable	
	DisableEnable	
Rear Quad USB	This feature allows the users to electrically enable or disable the Rear Quad USB ports. If disabled, they are unusable in any OS.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Rear USB Ports	Enables or disables all the rear ports.	Microsoft Windows, Linux
	Possible values are: Disable Enable	
Rear USB 3 Port	Enables or disables the third rear USB port.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Report Logo Type	Sets Dell logo or Custom logo. Possible values are: 0,1	Microsoft Windows

BIOS Settings Name	Description	Supported Operating System(s)
	Dell logoCustom logo	
Radio Transmission	Enables or disables the radio transmission (MiniPCI Wireless or Bluetooth module).	Microsoft Windows
	Possible values are:	
	DisableEnable	
Rugged Dock Non-Video Devices	Enables or disables all the non-video devices (serial, audio, LAN, and USB ports) on a rugged dock.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Sata Controllers	Enables or disable all SATA Controllers.	Microsoft Windows
	Possible values are:	
	DisableEnable	
SATA DIPM	This property will allow users to disable or enable the feature that allows SATA HDDs to initiate link power management transitions.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Secondary IDE Channel, Master Device	Enables or disables secondary Parallel ATA master channel.	Microsoft Windows
	Possible values are:	
	OffAuto	
Secondary IDE Channel, Slave Device	Enables or disables secondary Parallel ATA slave channel.	Microsoft Windows
	Possible values are:	
	OffAuto	
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.	Microsoft Windows
	Disable Selective USB feature to resume normal USB status and normal boot procedure.	
	Possible values are:	
	DisableEnable	
SATA Port 0	Enables or disables Serial ATA channel 1.	Microsoft Windows, Linux
	Possible values are:	
	OffAuto	

BIOS Settings Name	Description	Supported Operating System(s)
SATA Port 1	Enables or disables Serial ATA channel 2. Possible values are: Off Auto	Microsoft Windows, Linux
SATA Port 2	Enables or disables Serial ATA channel 3. Possible values are: Off Auto	Microsoft Windows, Linux
SATA Port 3	Enables or disables Serial ATA channel 4. Possible values are: Off Auto	Microsoft Windows, Linux
SATA Port 4	Enables or disables Serial ATA channel 5. Possible values are: Off Auto	Microsoft Windows, Linux
SATA Port 5	Enables or disables Serial ATA channel 6. Possible values are: Off Auto	Microsoft Windows, Linux
SATA Port 6	Enables or disables Serial ATA channel 7. Possible values are: Off Auto	Microsoft Windows, Linux
SATA Port 7	Enables or disables Serial ATA channel 8. Possible values are: Off Auto	Microsoft Windows, Linux
SATA Port 8	Enables or disables Serial ATA channel 9. Possible values are: 1, 2 Off Auto	Microsoft Windows, Linux
SD Card Boot	 Enables or disables the system to boot from SD card. Possible values are: Enabled — Allows the system to boot from SD card. Disabled — Restricts the system to detect SD card and boot from the SD card. 	Microsoft Windows, Linux
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:	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	 Enable — When enabled, BIOS only performs Secure Boot and boot in UEFI mode without loading the Compatibility Support Model (CSM). 	
	(i) NOTE: You can disable secure boot only from the BIOS setup screen.	
Secure Boot Mode	Configures the Secure Boot Mode.	Microsoft Windows,
	Possible values are:	Linux
	Deployed ModeAudit ModeAudit Mode	
Secure Boot Policy	Configures the secure boot policy.	Microsoft Windows,
	Possible values are:	Linux
	 Standard — The BIOS uses the system manufacturer's keys and certificates to authenticate preboot images. Custom — The BIOS uses user-defined keys and certificates. Secure Boot Policy is Standard by default. 	
Secure Guard Extensions	Configures the Software Guard Extensions (SGX) feature. You can select Enabled or Software Controlled if this option is Disabled.	Microsoft Windows, Linux
	NOTE: Using Dell Command Monitor, you cannot do the following:	
	 Disable this feature if the current state is Enabled or Software Controlled Enable this feature if the current state is Software Controlled Change this feature to Software Controlled if the current state is Enabled 	
	(i) NOTE: One of the methods of configuring the Software Guard Extensions (SGX) feature is from the BIOS setup screen.	
Serial Communications	Sets the Serial Communication.	Microsoft Windows
	Possible values are:	
	 Off On without console redirection On with console redirection (COM1) On with console redirection (COM2) On with console redirection 	
Serial Port 1	Configures the 1st serial port of the system.	Microsoft Windows,
	Possible values are:	Linux
	 Disable — Disables the 1st serial port. Auto — Enables the auto-configuration of the 1st serial port. COM1 COM2 COM3 COM4 BMC Serial BMC NIC 	

BIOS Settings Name	Description	Supported Operating System(s)
	RACCOM1BMCRS232RS422RS485	
Serial Port 2	Configures the 2nd serial port of the system. Possible values are:	Microsoft Windows, Linux
	 Disable — Disables the 2nd serial port. Auto — Enables the auto-configuration of the 2nd serial port. COM2 COM4 RS232 RS422 RS485 	
Serial Port 3	Configures the 3rd serial port of the system. Possible values are:	Microsoft Windows, Linux
	 Disable — Disables the 3rd serial port. Auto — Enables the auto-configuration of the 3rd serial port. RS232 RS422 RS485 	
Serial Port 4	Configures the 4th serial port of the system.	Microsoft Windows, Linux
	 Possible values are: Disable — Disables the 4th serial port. Auto — Enables the auto-configuration of the 4th serial port. RS232 RS422 RS485 	
Serial Port 5	Configures the system's 5th serial port.	Microsoft Windows,
	 Possible values are: Disable — Disables the 5th serial port. Auto — Enables the auto-configuration of the 5th serial port. 	Linux
Serial Port 6	Configures the 6th serial port of the system. Possible values are:	Microsoft Windows, Linux
	 Disable — Disables the 6th serial port. Auto — Enables the auto-configuration of the 6th serial port. 	
SERR DMI Message	Enables or Disables SERR DMI Messages. Possible values are: Off	Microsoft Windows, Linux
	· On	

BIOS Settings Name	Description	Supported Operating System(s)
Service OS Clear	Deletes the service OS non-volatile region.	Microsoft Windows,
	Possible values are:	Linux
	 Enable - Deletes the service OS non-volatile region and changes the BIOS setting status to Disabled. Disable - Does not delete the service OS non-volatile region. 	
Set CMOS To Default	Request or do not request a default of CMOS values on the next boot.	Microsoft Windows
	Possible values are:	
	DisableEnable	
SFP	Enables or disables Small Formfactor Pluggable (SFP) device. Possible values are:	Microsoft Windows, Linux
	 Disable — Disables the SFP device. Enable — Enables the SFP device. Enable With PXE— Enables the SFP device with PXE support. 	
	NOTE: SFP device is listed as boot device only if this BIOS setting is enabled with PXE.	
SFP Wake on LAN	Possible values:	Microsoft Windows,
	 SFP - Allows the system to wake-up by special SFP signals. LAN or PXE - Allows the system to wake-up either by LAN, or by SFP signals. SFP PXE - Allows the system to wake-up by SFP singnals, and immediately boot to PXE. 	Linux
Side USB Ports	Enables or disables all the side ports.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Sign of Life Indication	During POST, system acknowledges that the power button has been pressed in a manner that the user can either hear or feel.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
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.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
SmartCard Reader	Enables or Disables the Smart Card Reader.	Microsoft Windows
	Possible values are:	
	OffEnable	

BIOS Settings Name	Description	Supported Operating System(s)
Slice Battery Custom Charge Limit	Customs the charging limit.	Microsoft Windows
	Possible values are: 50, 100, 5	
	Allow Start Charging LimitAllow Stop Charging LimitAllow Stop Granularity	
SMART Errors	Enables or Disables SMART Errors.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
SMM Security Mitigation	Enables or Disables SMM Security Mitigation.	Microsoft Windows,
	Possible values are:	Linux
	EnableDisable	
Sound Device	Status of the system's built-in sound device.	Microsoft Windows, Linux
	Possible values are: Disable	
	Enable	
Speaker	The volume of the speaker.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnableLowMediumHigh	
SpeedStep	Sets SpeedStep to Automatic, Disabled, Max Performance, or Max Battery.	Microsoft Windows, Linux
	Possible values are:	
	DisableMaximum performanceMaximum battery lifeAuto	
Splash Screen	Enable/Disable the Splash Screen.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Spread Spectrum	Tokens Used in Dell Command Monitor.	Microsoft Windows
	Possible values are:	
	EnableDisable	
SR-IOV Global Enable	Enable/Disable BIOS support for SRIOV devices. Possible values are:	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEnable	
Standby State	Selects the power management suspend mode.	Microsoft Windows
	Possible values are:	
	Standby S1Standby S3	
Stealth Mode	Enables or disables the pre-programmed stealth mode of operation of the system.	Microsoft Windows, Linux
	Possible values are:	
	 Disable — The system elements operate in the normal mode. Enable — The system elements operate in the preprogrammed 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.	Microsoft Windows, Linux
	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.	Microsoft Windows, Linux
	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.	Microsoft Windows, Linux
	Possible values are:	

BIOS Settings Name	Description	Supported Operating System(s)
	Turn off - Turns off the GPS radio if the stealth mode is enabled. Unphysical Poteins the current state of the CPS radio.	
Stealth Mode Quiet LCD	 Unchanged - Retains the current state of the GPS radio. Configures the state of the LCD screen backlight depending on 	Microsoft Windows, Linux
	the Stealth mode is enabled or disabled.	LITIUX
	Possible values are:	
	 Turn off - Turns off the LCD screen backlight if the stealth mode is enabled. Unchanged - Retains the current state of the LCD screen 	
	backlight.	
Stealth Mode Quiet LEDs	Configures the state of the LEDs depending on the Stealth mode is enabled or disabled.	Microsoft Windows, Linux
	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.	Microsoft Windows, Linux
	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.	Microsoft Windows, Linux
	Possible values are:	
	 Turn off - Turns off the WLAN if the stealth mode is enabled. 	
	 Unchanged - Retains the current state of the WLAN. 	
Stealth Mode Quiet WWAN	Configures the state of the WWAN (and WiGig) radio depending on the Stealth mode is enabled or disabled.	Microsoft Windows, Linux
	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.	Microsoft Windows, Linux
	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.	Microsoft Windows, Linux
	Possible values are:	

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEnable	
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.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Switchable Graphics	Configures the Switchable Graphics technology.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
System Isochronous Mode	Enables or disables System Isochronous mode.	
	NOTE: Isochronous mode may be best for audio and video streaming applications.	
	Possible values are:	
	 Enable — Enable this mode to reduce the latency of memory transactions at the expense of bandwidth. Disable — Disable this mode for applications that need high memory bandwidth. 	
Tablet Buttons	Enables or Disables Tablet Buttons.	Microsoft Windows
	Possible values are:	
	DisableEnable	
TCM Visibility	Hides or unhides the TCM from the operating system on the next boot.	Microsoft Windows
	Possible values are:	
	HiddenVisible	
Tertiary IDE Channel, Master Device	Enables or Disables tertiary Parallel ATA master channel. Possible values are:	Microsoft Windows
	OffAuto	
Tertiary IDE Channel, Slave Device	Enables or Disables tertiary Parallel ATA master channel. Possible values are:	Microsoft Windows
	OffAuto	
Thunderbolt	Enables or disables the thunderbolt controller in the system. Possible values are:	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEnable	
Thunderbolt Boot Support	Enables or disables booting from the Thunderbolt device. Possible values are: Disable Enable	Microsoft Windows, Linux
Thunderbolt Pre Boot Module	Enables or disables OROMs and pre-boot UEFI drivers provided by Thunderbolt devices or PCIe devices. Possible values are: Disable Enable	Microsoft Windows, Linux
Thunderbolt Security Level	 Configures the thunderbolt security level. Possible values are: No Security — Disables the thunderbolt security. User Authorization — Allows minimum user notification. Connection manager requests connection approval from the host software, based on the unique ID of the connecting device, auto approval might or might not be given. Secure Connect — Allows one-time saved key device. Connection manager requests connection approval from the host software; approval is given only if the host challenge to device is acceptable. Display Port Only — Allows to connect only display port. 	Microsoft Windows, Linux
Touch Screen	Enables or disables the touchscreen of the device. Possible values are: Disable Enable	Microsoft Windows, Linux
TPM Hash Algorithm	Selects the hash algorithm used for TPM 2.0 measurements. Possible values are: 0 = SHA-1 1 = SHA-256 2 = SHA-384 3 = SHA-512 NOTE: This value cannot be changed if the TPM is already owned.	Microsoft Windows, Linux
Trusted Execution	New processor execution mode and BIOS hooks to enable a protected execution environment and main memory protection. Possible values are: On Off	Microsoft Windows, Linux
Trusted Platform Module	Enables or Disables the Trusted Platform Module (TPM). Possible values are: Enable Disable	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
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.	Microsoft Windows, Linux
	Possible values are:	
	DeactivateActivate	
TPM PPI ACPI Support	Enables or disables the TPM ACPI physical presence commands.	Microsoft Windows,
	Possible values are:	Linux
	EnableDisable	
TPM PPI Provision Override	Enables or disables the physical presence for the ACPI TPM PPI provision operations. Possible values are:	Microsoft Windows, Linux
	EnableDisable	
TPM PPI Deprovision Override	Enables or disables the physical presence for the ACPI TPM PPI deprovision operations.	Microsoft Windows, Linux
	Possible values are:	
	EnableDisable	
Type-C Battery Overload Protection	Configures the maximum power for type-C connector.	Microsoft Windows, Linux
	Possible values are:	LIIIUX
	0 – 7.5 Watts1 – 15 Watts	
UART Power Down	Allow the operating system to power down or Prohibit OS from powering down UART.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Uefi Boot Path Security	Determines whether the system should prompt the user to enter the Admin password, if set, while booting from a UEFI boot path, from the F12 Boot Menu.	Microsoft Windows, Linux
	Possible values are:	
	 Always except internal hdd — All UEFI boot paths require the user to enter the Admin password, except for the boot paths that are hosted on an internal hard disk drives. Always Except Internal HDD and PXE - All UEFI boot paths requires the Admin password, except for boot paths hosted on internal hard disk drives or PXE Boot. Always — Booting from any UEFI boot path requires the user to enter the Admin password. 	
	user to enter the Admin password.Never — The Admin password is not required for booting from UEFI boot paths.	
UEFI Network Stack	Possible values are:	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	 Enable — UEFI networking protocols are available permitting preOS image of the network, including PXE. 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.	Microsoft Windows, Linux
	Possible values are:	
	EnableDisable	
	(i) NOTE: 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> key combination, which controls the light emissions from the system.</fn>	Microsoft Windows, Linux
	Possible values are:	
	 Disable — Disables the <fn> key combination</fn> Enable — Enables the <fn> key combination</fn> 	
USB	Enables, Disables, or sets the system's USB port to No Boot (if supported).	Microsoft Windows
	Possible values are:	
	DisableEnableNo boot	
USB 3.0	Enable or Disable USB 3.0	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
USB Emulation	Enables or Disables USB keyboard and mouse support for Operating systems that do not natively support USB keyboards and mice.	Microsoft Windows, Linux
	Possible values are:	
	EnableDisable	
USB Flash Drive Emulation	Possible values are:	Microsoft Windows
	AutoFloppyHD only	
USB Port 0	Enables or Disables USB Port 00. Possible values are:	Microsoft Windows, Linux
	Disable Enable	
USB Port 1	Enables or Disables USB Port 01.	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are: Disable Enable	
USB Port 2	Enables or Disables USB Port 02. Possible values are: Disable Enable	Microsoft Windows, Linux
USB Port 3	Enables or Disables USB Port 03. Possible values are: Disable Enable	Microsoft Windows, Linux
USB Port 4	Enables or Disables USB Port 04. Possible values are: Disable Enable	Microsoft Windows, Linux
USB Port 5	Enables or Disables USB Port 05. Possible values are: Disable Enable	Microsoft Windows, Linux
USB Port 6	Enables or Disables USB Port 06. Possible values are: Disable Enable	Microsoft Windows, Linux
USB Port 7	Enables or Disables USB Port 07. Possible values are: Disable Enable	MMicrosoft Windows, Linux
USB Port 8	Enables or Disables USB Port 08. Possible values are: Disable Enable	Microsoft Windows, Linux
USB Port 9	Enables or Disables USB Port 09. Possible values are: Disable Enable	Microsoft Windows, Linux
USB Port 10	Enables or Disables USB Port 10. Possible values are: Disable Enable	Microsoft Windows
USB Port 11	Enables or Disables USB Port 11.	Microsoft Windows

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are: Disable Enable	
USB Port 12	Enables or Disables USB Port 12.	Microsoft Windows
	Possible values are:	
USB Port 13	Enables or Disables USB Port 13. Possible values are: Disable Enable	Microsoft Windows
USB Port 14	Enables or Disables USB Port 14. Possible values are: Disable	Microsoft Windows
USB Port 15	 Enable Enables or Disables USB Port 15. Possible values are: Disable Enable 	Microsoft Windows
USB Port 16	Enables or Disables USB Port 16. Possible values are: Enable Disable	Microsoft Windows, Linux
USB Port 17	Enables or Disables USB Port 17. Possible values are: • Enable • Disable	Microsoft Windows, Linux
USB Port 18	Enables or Disables USB Port 18. Possible values are: Enable Disable	Microsoft Windows, Linux
USB Port 19	Enables or Disables USB Port 19. Possible values are: Enable Disable	Microsoft Windows, Linux
USB Port 20	Enables or Disables USB Port 20. Possible values are: Disable Enable	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
USB Port 21	Enables or Disables USB Port 21. Possible values are: Disable	Microsoft Windows, Linux
USB Port 22	 Enable Enables or Disables USB Port 22. Possible values are: 	Microsoft Windows, Linux
	DisableEnable	
USB Port 23	Enables or Disables USB Port 23. Possible values are: Disable Enable	Microsoft Windows, Linux
USB Port 24	Enables or Disables USB Port 24. Possible values are: Enable Disable	Microsoft Windows, Linux
USB Port 25	Enables or Disables USB Port 25. Possible values are: • Enable • Disable	Microsoft Windows, Linux
USB Port 26	Enables or Disables USB Port 26. Possible values are: • Enable • Disable	Microsoft Windows, Linux
USB Port 27	Enables or Disables USB Port 27. Possible values are: • Enable • Disable	Microsoft Windows, Linux
USB Port 28	Enables or Disables USB Port 28. Possible values are: • Enable • Disable	Microsoft Windows, Linux
USB Port 29	Enables or Disables USB Port 29. Possible values are: • Enable • Disable	Microsoft Windows, Linux
USB Provision	Enables or disables provisioning of Intel AMT from a USB storage device. Possible values are:	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	 Enabled — Intel AMT can be provisioned using the local provisioning file via a USB storage device. Disabled — Provisioning of Intel AMT from a USB storage device is blocked. 	
USB PowerShare	Enables or disables the USB PowerShare feature. Possible values are:	Microsoft Windows, Linux
	DisableEnable	
User Accessible USB Ports	Enables or disables user accessible USB ports.	Microsoft Windows
	Possible values are:	
	All offBack onlyAll on	
USB Wake from S4	Enables or disables the USB wake from s4 power state of the system.	Microsoft Windows, Linux
	Possible values are:	
	 Enable - Enables the USB wake from s4 power state of the system. Disable - Disables the USB wake from s4 power state of the system. 	
USB Wake Support	Enables or Disables USB Wake setting.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Video Expansion	Enables or Disables Video Expansion.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Video Memory Size	Enables or Disables Video Expansion.	Microsoft Windows
	Possible values are:	
	 Off Auto 1MB 8MB 16MB 32MB 64MB 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:	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEnable	
	Enables or disables Watchdog OS Boot Protection.	Microsoft Windows,
Watchdog OS Boot Protection	Possible values are:	Linux
	 Disable - The application cannot configure a chipset-based timer to reset or shutdown the system. By default the Application Watchdog Timer is disabled Enable - The application configures a chipset-based timer to reset or shutdown the system. 	
Wake on Dock	Enables or disables waking the system when a docking connection is made.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
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.	Microsoft Windows
	Possible values are:	
	 Disable Enable_AIC Enable_OnBoard Enable All Lan or WLAN WLAN only LAN with PXE boot 	
Wake on 2nd LAN (RJ-45/SFP)	Defines the wake on 2nd LAN feature.	Microsoft Windows
	Possible values are: 1, 2, 3	
	DisabledLanOnlyLanWithPxeBoot	
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:	Microsoft Windows
	· Disable	
	· Enable	
Warnings And Errors	During POST the system continues to boot or pauses when warnings or errors are detected. This feature can be used for the remotely managed systems that do not have a keyboard or a consoles available for use.	Microsoft Windows, Linux

BIOS Settings Name	Description	Supported Operating System(s)
	Possible values are:	
	 1 = Disabled – System pauses for the user to respond when warnings or errors are detected. 2 = Continue on Warnings – System continues to boot when warnings are detected, but pauses for the user to respond when errors are detected. 3 = Continue on Warnings and Errors – System continues to boot when warnings or errors are detected. 	
Watchdog Timer	The system will/will not reboot/reset if the watchdog timer expires	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
Wireless Adapter	Enables or disables Wireless Adapter.	MMicrosoft Windows,
	Possible values are:	Linux
	 Disable 	
	· Enable	
Wireless Device	If disabled then wireless devices are always disabled.	Microsoft Windows
	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:	
	DisableAPP	
	· Hotkey	
WiFi Catcher Changes	Permits or Denies WiFi Catcher changes. If the administrator password is not set, this setting will have no effect.	Microsoft Windows
	Possible values are:	
	DenyPermit	
WiFi Locator	Enables or Disables the WiFi Locator.	Microsoft Windows
	Possible values are:	
	DisableEnable	
Wireless LAN	Enables or Disables the wireless LAN module.	Microsoft Windows,
	Possible values are:	Linux
	DisableEnable	
Wireless Radio Control Switch	Enables or disables the Wireless Gigabit (WiGig) radio control switch on the dock.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	

Enables or Disables wireless switch Bluetooth control. Possible values are:	Microsoft Windows, Linux
Possible values are:	Linux
	LITIUX
DisableEnable	
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.	Microsoft Windows, Linux
Possible values are:	
DisableEnable	
Permits or Denies Wireless Switch changes. If the administrator password is not set, this setting will have no effect.	Microsoft Windows
Possible values are:	
DenyPermit	
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.	Microsoft Windows, Linux
Possible values are:	
DisableEnable	
Enables or disables the effect of physical wireless switch on wireless LAN and WiGig radio.	Microsoft Windows, Linux
Possible values are:	
 Disable — The wireless physical switch does not affect the wireless LAN and WiGig radios. 	
 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. 	
Enable/Disable UWB card.	Microsoft Windows
Possible values are:	
· Disable	
· Enable	
Sets the WLAN code for specific region.	Microsoft Windows, Linux
Possible values are:	LIIIUX
 0 = Rest of the World — Sets the WLAN region code for the rest of the world. This option is selected by default. 1 = North America (FCC) — Sets the WLAN region code for Canada, and the United States. 2 = Europe — Sets the WLAN region code for Australia, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, and United Kingdom. 	
	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: Disable Enable Permits or Denies Wireless Switch changes. If the administrator password is not set, this setting will have no effect. Possible values are: Deny Permit 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. Possible values are: Disable 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 affect the wireless LAN and WiGig radios. 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. Enable/Disable UWB card. Possible values are: Disable Enable Sets the WLAN code for specific region. Possible values are: Disable Enable Sets the WLAN code for specific region. Possible values are: Disable — The world — Sets the WLAN region code for the rest of the world. This option is selected by default. 1 = North America (FCC) — Sets the WLAN region code for Canada, and the United States. 2 = Europe — Sets the WLAN region code for Australia, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland,

BIOS Settings Name	Description	Supported Operating System(s)
	 4 = Australia — Sets the WLAN region code for Australia, New Zealand, Saudi Arabia, South Africa, UAE, and Vietnam. 5 = China South Asia — Sets the WLAN region code for China, and India. 6 = Taiwan — Sets the WLAN region code for Colombia, Peru, and Taiwan. 7 = Indonesia — Sets the WLAN region code for Indonesia only. 	
WWAN Radio	Configures the WWAN radio.	Microsoft Windows,
	Possible values are:	Linux
	DisableWLAN onWWAN on	
	 If set to Disable then it disables both WLAN and WWAN; If set to WLAN ON then it toggles between WLAN radio on and WWAN radio off; If set to WWAN ON 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.	Microsoft Windows, Linux
	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. Enable — If enabled, wireless switch turns the GPS radio of the wireless WAN card on or off. 	
WWan Bus Mode	WWan Bus Mode sets the interface type of the Wireless Wan (WWAN) card. It is recommended that the system running Microsoft Windows must set this field to PCle mode, while all the other systems must set this field to USB mode.	Microsoft Windows, Linux
	Possible values:	
	PCle modeUSB mode	
WWAN Connection Auto Sense	When the WWAN is enabled, this BIOS setting enables the feature that automatically turns off the WWAN when it is connected to the network.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	
WLAN Connection Auto Sense	When the WLAN is enabled, this BIOS setting enables the feature that automatically turns off the WLAN when it is connected to the network.	Microsoft Windows
	Possible values are:	
	DisableEnable	
XD Card	Enables or disables the embedded XD Card port.	Microsoft Windows,
	Possible values are:	Linux

BIOS Settings Name	Description	Supported Operating System(s)
	DisableEnable	
ZigBee	Enables or disables the ZigBee option.	Microsoft Windows, Linux
	Possible values are:	
	DisableEnable	

Alerts in Dell Command | Monitor 10.2.1

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 following types of notification:

For Windows.

- · Windows event log—available at Windows Logs > System
- · CIM Indication— available through DCIM_AlerIndication class
- · SNMP traps available through 10909.mib file
- History available through DCIM_LogEntry class instances

For Linux,

- · Syslog available at /var/log
- · CIM Indication— available through DCIM_AlerIndication class
- · Application log—available through DCIM_LogEntry class
- · History available through DCIM_LogEntry class instances

In Dell Command | Monitor, each type of event (for example, CurrentProbe, TemperatureProbe, Smart, and so on) that gets logged is provided with a unique event ID number. The events have unique IDs to enable log scraping; this way you can programmatically look at the event log and determine what Dell Command | Monitor events have occurred.

In Dell Command | Monitor for Windows, 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.

NOTE: Configuring the selected events is not supported for Dell Command | Monitor for Linux.

Dell Command | Monitor recognizes the following eight CIM severity levels using perceived severity (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 cause Dell Command | Monitor to shut down the local system.

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 to 1. Dell Command | Monitor sends local alerting and remote alerting for all the listed events.

Table 150. Events Polled by Dell Command | Monitor

Dell Command Monitor Event (Windows event log Number)	Description
AlertTemperatureProbeWarning (1053)	Temperature probe has detected a warning value.
AlertTemperatureProbeFailure (1054)	Temperature probe has detected a failure value.
AlertTemperatureProbeNonRecoverab le (1055)	Temperature probe has detected a nonrecoverable value.

Dell Command Monitor Event (Windows event log Number)	Description	
FanProbe (1103)	A cooling device has exceeded a minor threshold.	
AlertCoolingDeviceFailure (1104)	Cooling device sensor has detected a failure value.	
AlertCoolingDeviceNonRecoverable (1105)	Cooling device sensor has detected a nonrecoverable value.	
AlertVoltageProbeWarning (1153)	Voltage probe has detected a warning value.	
AlertVoltageProbeFailure (1154)	Voltage probe has detected a failure value.	
AlertVoltageProbeNonRecoverable (1155)	Voltage probe has detected a nonrecoverable 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.	
AlertAmperageProbeNonRecoverable (1205)	Amperage probe has detected a nonrecoverable value.	
ChassisIntrusionNormal (1252)	Chassis intrusion has returned to normal.	
ChassisIntrusion (1254)	System chassis intrusion alert.	
EccMemory (1403)	A memory checksum failure has occurred.	
	i NOTE: This event is not supported on the system running RHEL.	
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.	
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.	
NumberOfDisksIncreased (2030)	A hard-disk drive has been added.	
NumberOfDisksDecreased (2031)	A hard-disk drive has been removed.	
MemorySizeIncreased (2032)	The memory size has been increased.	
MemorySizeDecreased (2033)	The memory size has been decreased.	

Dell Comm	and Mo	nitor Event
(Windows	event log	Number)

Description

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.

NumberOfProcessorsIncreased (2035) Number of processors on the system has increased.

NumberOfProcessorsDecreased (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
- **Error message** is displayed when the current value exceeds the threshold value.
- Warning message is displayed when the current value exceeds the custom threshold

(i) NOTE: Extended Error and Warning messages are supported only on Embedded box personal computer 3000/5000.

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 for Dell Command | Monitor 10.2.1

To run various functionalities in Dell Command | Monitor, see the sample PowerShell and VB scripts available at Dell Knowledge Library, Dell Command | Monitor page.