System Info Profile

Document Number: DCIM1048
Document Type: Specification
Document Status: Published
Document Language: E
Date: 2012-03-08

Version: 1.2.0

THIS PROFILE IS FOR INFORMATIONAL PURPOSES ONLY, AND MAY CONTAIN TYPOGRAPHICAL ERRORS AND TECHNICAL INACCURACIES. THE CONTENT IS PROVIDED AS IS, WITHOUT EXPRESS OR IMPLIED WARRANTIES OF ANY KIND. ABSENT A SEPARATE AGREEMENT BETWEEN YOU AND DELL™ WITH REGARD TO FEEDBACK TO DELL ON THIS PROFILE SPECIFICATION, YOU AGREE ANY FEEDBACK YOU PROVIDE TO DELL REGARDING THIS PROFILE SPECIFICATION WILL BE OWNED AND CAN BE FREELY USED BY DELL.

CONTENTS

Figures

Tables

System Info Profile

1 Scope

The DCIM System Info Profile describes the properties and interfaces for executing system management tasks related to the management of the host system. The profile standardizes and aggregates the description for the platform's basic properties into a system view representation and provides static methodology for the clients to query the system views without substantial traversal of the model.

2 Normative References

Refer to the following documents for more information.

NOTE: For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- DMTF DSP1033, *Profile Registration Profile 1.0.0*
- DMTF DSP0226, *Web Services for Management (WS-Management) Specification 1.1.0*
- DMTF DSP0227, *WS-Management CIM Binding Specification 1.0.0*
- *Dell Lifecycle Controller Best Practices Guide 1.0,* *http://en.community.dell.com/techcenter/extras/m/white_papers/20066173.aspx*
- *Dell WSMAN Licenses and Privileges 1.0*
- Dell Tech Center MOF Library:

  http://www.delltechcenter.com/page/DCIM.Library.MOF
- Related Managed Object Format (MOF) files:
  - DCIM_SystemView.mof
  - DCIM_SystemAttribute.mof
  - DCIM_SystemEnumeration.mof
  - DCIM_SystemInteger.mof
  - DCIM_SystemString.mof
  - DCIM_SystemManagementService.mof
  - DCIM_LCElementConformsToProfile.mof
  - DCIM_LCRegisteredProfile.mof

3 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

3.1

conditional – Indicates **requirements to be followed strictly in order to conform to the document when the specified conditions are met.**

3.2

mandatory - Indicates requirements to be followed strictly in order to conform to the document and from which no deviation is permitted.

3.3

may - Indicates a course of action permissible within the limits of the document.

3.4

optional– Indicates a course of action permissible within the limits of the document.

3.5

referencing profile – Indicates a profile that owns the definition of this class and can include a reference to this profile in its "Related Profiles" table.

3.6

Shall – Indicates requirements to be followed strictly in order to conform to the document and from which no deviation is permitted.

3.7

FQDD – Fully Qualified Device Descriptor is used to identify a particular component in a system.

3.8

Interop Namespace: root/interop

Interop Namespace: root/interop is where instrumentation instantiates classes to advertise its capabilities for client discovery.

3.9

Implementation Namespace: root/dcim

Implementation Namespace: root/dcim is where instrumentation instantiates classes relevant to executing core management tasks.

3.10

`ENUMERATE` – Refers to WS-MAN `ENUMERATE` operation as described in Section 8.2 of DSP0226_V1.1 and Section 9.1 of DSP0227_V1.0

3.11

`GET` – Refers to WS-MAN `GET` operation as defined in Section 7.3 of DSP00226_V1.1 and Section 7.1 of DSP0227_V1.0

4 Symbols and Abbreviated Terms

4.1

CIM - Common Information Model

4.2

iDRAC - Integrated Dell Remote Access Controller – management controller for blades and monolithic servers

4.3

CMC - Chassis Manager Controller – management controller for the modular chassis

4.4

WBEM - Web-Based Enterprise Management

4.5

PFC - Power Factor Corrector – controls the power drawn from the power supply.

5 Synopsis

Profile Name: System Info

Version: 1.2.0

Organization: Dell

CIM Schema Version: 2.26 Experimental

Dell Schema Version: 1.0.0

Interop Namespace: root/interop: root/interop

Implementation Namespace: root/dcim: root/dcim

Central Class: DCIM_SystemView

Scoping Class: DCIM_ComputerSystem

The Dell System Info Profile is a component profile that contains the Dell specific implementation requirements for system view.

DCIM_SystemView shall be the Central Class.

Table 1 identifies profiles that are related to this profile.

Table 1 – Related Profiles

Profile Name	Organization	Version	Relationship
Profile Registration	DCIM	1.0	Reference

6 Description

The Dell System Info Profile describes platform's basic properties. The host system's information is represented by an instance of DCIM_SystemView class.

Figure 1 details the class diagram of the Dell System Info Profile.

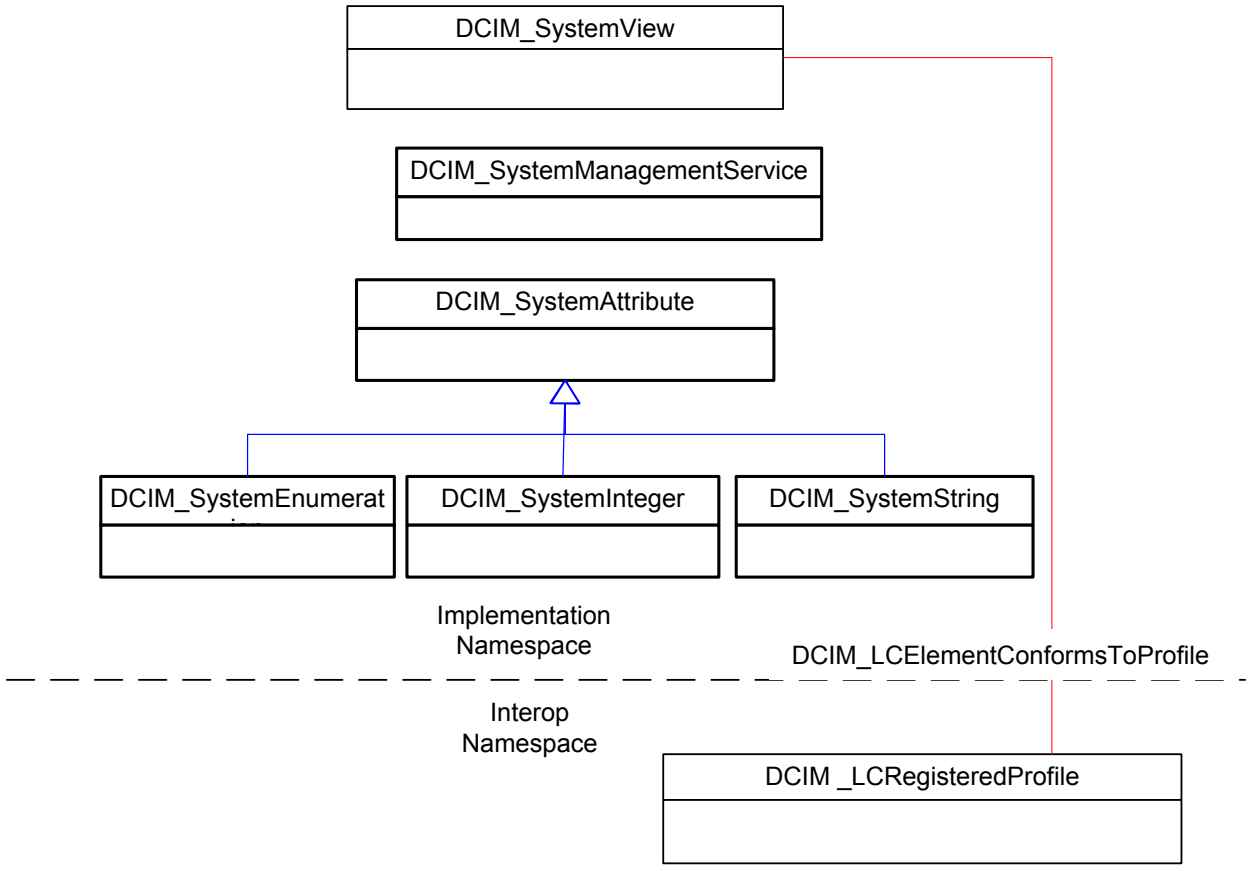

Figure 1 – Class Diagram

Figure 2 details typical Dell System Info Profile implementation for a platform. In order for client to discover the instrumentation's support of this profile, SystemInfoProfile is instantiated in the Interop Namespace: root/interop. SystemInfoProfile instance describes the information about the implemented profile: most importantly, the name and version of the profile and the organization name that produced the profile.

Systemview1 is the system views representing the platform's basic properties in the Implementation Namespace: root/dcim. It is associated to the Interop namespace's SystemInfoProfile instance.

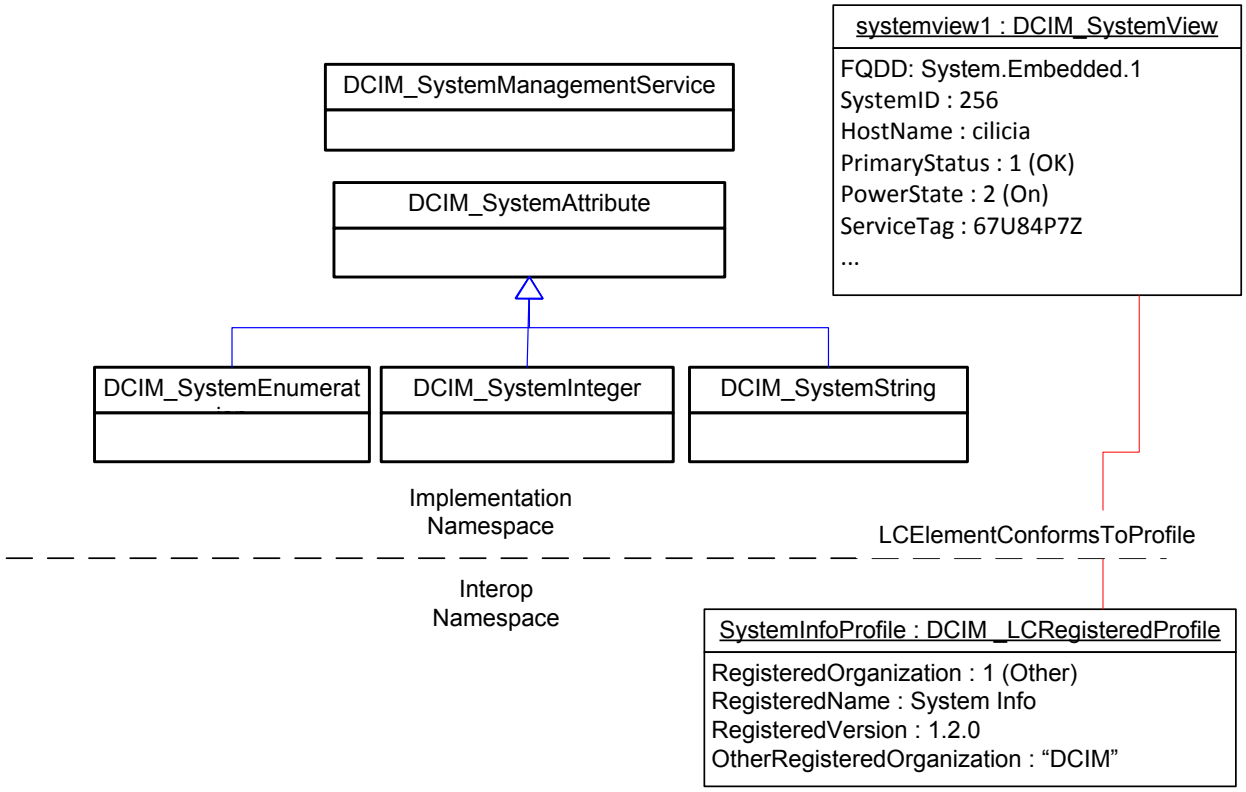

Figure 2 – System Info Profile Implementation

7 Implementation Description

This section describes the requirements and guidelines for implementing Dell System Info Profile.

Table 2 – Class Requirements: System Info Profile

Element Name	Requirement	Description
Classes		
DCIM_SystemView	Mandatory	The class shall be implemented in the *Implementation Namespace: root/dcim*. See section 7.1.
DCIM_SystemEnumeration	Mandatory	The class shall be implemented in the *Implementation Namespace: root/dcim*. See section 0.
DCIM_SystemString	Mandatory	The class shall be implemented in the *Implementation Namespace: root/dcim*. See section 7.3.
DCIM_SystemInteger	Mandatory	The class shall be implemented in the *Implementation Namespace: root/dcim*. See section 7.4.
DCIM_SystemManagementService	Mandatory	The class shall be implemented in the *Implementation Namespace: root/dcim*. See section 7.6.
DCIM_LCElementConformsToProfile	Mandatory	The class shall be implemented in both the *Interop Namespace: root/interop* and *Implementation Namespace: root/dcims*. See sections 7.1 and 7.7
DCIM_LCRegisteredProfile	Mandatory	The class shall be implemented in the Interop Namespace: root/interop. See section 7.7
Indications		
None defined in this profile		

7.1 DCIM_SystemView – System View

This section describes the implementation for the DCIM_SystemView class.

This class shall be instantiated in the Implementation Namespace: root/dcim.

The DCIM_LCElementConformsToProfile association(s) shall reference the DCIM_SystemView instance(s).

7.1.1 Resource URIs for WinRM®

The class Resource URI shall be “http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_SystemView?__cimnamespace=root/dcim”

The key property shall be the InstanceID.

The instance Resource URI for DCIM_SystemView instance shall be:
“http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_SystemView?__cimnamespace=root/dcim+InstanceID=System.Embedded.1”

7.1.2 Operations

The following table lists the operations implemented on DCIM_SystemView.

Table 3 – DCIM_SystemView – Operations

Operation Name	Requirements	Required Input
Get	Mandatory	Instance URI
Enumerate	Mandatory	Class URI

7.1.3 Properties

The following table details the implemented properties for DCIM_SystemView instance that represents the host system. The "Requirements" column shall denote whether the property is implemented (for requirement definitions, see section 3). The "Additional Requirements" column shall denote either possible values for the property, or requirements on the value formulation.

Table 4 – DCIM_SystemView – Properties

Property Name	Requirements	Type	Requirement and Description
InstanceID	Mandatory	string	The property shall be "System.Embedded.1"
FQDD	Mandatory	string	The property shall be "System.Embedded.1"
AssetTag	Mandatory	string	Asset tag of the system.
BaseBoardChassisSlot	Optional	string	The property represents the modular chassis slot numbers that the server blade occupies in the modular enclosure. This property shall be represented for modular server blades.
BatteryRollupStatus	Mandatory	uint32	The property shall contain the battery rollup status of all the system components and shall contain one of the following values: • 0(Unknown) • 1(OK) • 2(Degraded) • 3(Error). BatteryRollupStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.
BIOSReleaseDate	Mandatory	string	String number of the BIOS release date. The date string, if supplied, is in mm/dd/yyyy format.
BIOSVersionString	Mandatory	string	System BIOS version.

Property Name	Requirements	Type	Requirement and Description
BladeGeometry	Optional	uint16	The property shall represent the geometric dimension of the server blade enclosure in modular enclosure described. The property shall have one of the following values: • 0 - "Single width, single height" • 1 - "Dual width, single height", • 2 - "Single width, dual height", • 3 - "Dual width, dual height", • 4 - "Not Applicable" This property shall be represented for modular server blades.
BoardPartNumber	Mandatory	string	The property shall represent the motherboard part number.
BoardSerialNumber	Mandatory	string	The property shall represent the motherboard serial number.
ChassisName	Mandatory	string	The property shall be “Main System Chassis” for monolithic and “Server Blade” for modular’s server blades.
ChassisServiceTag	Optional	string	This property represents the service tag for the modular enclosure chassis. This property shall be represented for modular server blades.
ChassisSystemHeight	Mandatory	uint16	The property shall be in U of rack space units. The property shall be applicable only for monolithic server.
CMCIP	Optional	string	This property represents the IP address for the modular enclosure chassis management controller (CMC). This property shall be represented for modular server blades.
CPLDVersion	Mandatory	string	The property shall represent the CPLD version.
CPURollupStatus	Mandatory	uint32	The property shall contain the rollup status of all the CPUs and shall contain one of the following values: • 0(Unknown) • 1(OK) • 2(Degraded) • 3(Error). CPURollupStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.
ExpressServiceCode	Mandatory	string	ExpressServiceCode of the system.

Property Name	Requirements	Type	Requirement and Description
FanRollupStatus	Mandatory	uint32	The property shall contain the fan rollup status of all the system components and shall contain one of the following values: • 0(Unknown) • 1(OK) • 2(Degraded) • 3(Error). FanRollupStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.
HostName	Mandatory	string	System name string in ASCII.
LicensingRollupStatus	Mandatory	uint32	The property shall contain the licensing rollup status of all the system components and shall contain one of the following values: • 0(Unknown) • 1(OK) • 2(Degraded) • 3(Error). LicensingRollupStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.
LifecycleControllerVersion	Mandatory	string	The property shall represent the overall product release version for the Lifecycle Controller (LC). The property format shall be M + "." + N + "." + U where: M - the major version (in numeric form); N - the minor version (in numeric form); and U - the update version (in numeric form). NOTE: The property does not represent a particular firmware version that LC consists of but rather the overall LC product version.
Manufacturer	Mandatory	string	System Manufacturer string. For example: Dell Inc.
MaxCPUSockets	Mandatory	uint32	Maximum CPU sockets in the system.
MaxDIMMSlots	Mandatory	uint32	The number of slots or sockets available for memory devices in the system memory array.
MaxPCIeSlots	Mandatory	uint32	Maximum PCIe slots in the system.
MemoryOperationMode	Mandatory	string	System memory operation mode. Denotes the mode of operation for system memory such as mirrored, advanced ECC, or optimized mode.
Model	Mandatory	string	Model of the system. For example: PowerEdge R610.
PlatformGUID	Mandatory	string	System GUID uniquely identifies the system. The property is also known as BIOS GUID. This GUID matces in value with the representation of the GUID surfaced through OS based GUI and SNMP.
PopulatedCPUSockets	Mandatory	uint32	Populated CPU sockets in the system.
PopulatedDIMMSlots	Mandatory	uint32	System memory sockets current capacity.
PopulatedPCIeSlots	Mandatory	uint32	Populated PCIe slots in the system.

Property Name	Requirements	Type	Requirement and Description
PowerCap	Mandatory	Uint32	The current power cap (in Watts) of the associated managed system element.
PowerCapEnabledState	Mandatory	uint16	Whether the cap on the power consumption is enabled.
PowerState	Mandatory	uint16	The current power state of the system.
PrimaryStatus	Mandatory	uint32	The property shall contain current information on the system health state excluding storage sub-systems. PrimaryStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.
PSRollupStatus	Mandatory	uint32	The property shall contain the power supply rollup status of all the system components and shall contain one of the following values: • 0(Unknown) • 1(OK) • 2(Degraded) • 3(Error). PSRollupStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.
RollupStatus	Mandatory	uint32	The property shall contain the rollup status of all the system components and shall contain one of the following values: • 0(Unknown) • 1(OK) • 2(Degraded) • 3(Error). RollupStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.
ServerAllocation	Optional	uint32	The property shall represent the power allocated by Chassis Manager to the blade server in Watt. This property shall be represented for modular server blades.
ServiceTag	Mandatory	string	Service tag of the system.
smbiosGUID	Mandatory	string	System GUID uniquely identifies the system. The property is also know as BIOS GUID. The smbiosGUID value matces exactly the SMBIOS representation of the GUID.
StorageRollupStatus	Mandatory	uint32	The property shall contain the storage rollup status of all the system components and shall contain one of the following values: • 0(Unknown) • 1(OK) • 2(Degraded) • 3(Error). StorageRollupStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.

Property Name	Requirements	Type	Requirement and Description
SysMemErrorMethodology	Mandatory	uint16	The primary hardware error correction or detection method supported by the system's memory array.
SysMemFailOverState	Mandatory	string	System memory fail over state.
SysMemLocation	Mandatory	uint16	The physical location of the memory array, whether on the system board or an add-in board.
SysMemPrimaryStatus	Mandatory	uint32	SystemMemoryPrimaryStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status for the system memory.
SysMemTotalSize	Mandatory	uint32	The property shall be in Mbytes. The maximum memory capacity in MB available to the platform pre-OS and OS to utilize.
SystemID	Mandatory	uint32	System ID describes the model of the system in integer value. The SystemID property is usually used to identify the compatibility of the updateable software/firmware.
SystemRevision	Mandatory	uint16	System Revision describes whether the platform was the first or second revision of the corresponding model. The revisions are usually correlated with an upgrade of the CPU model in the same platform model.
SystemGeneration	Mandatory	string	The property shall represent the generation of the platform.
TempRollupStatus	Mandatory	uint32	The property shall contain the temperature rollup status of all the system components and shall contain one of the following values: • 0(Unknown) • 1(OK) • 2(Degraded) • 3(Error). TempRollupStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.
UUID	Mandatory	string	UUID uniquely identifies the system. The property is also known as BIOS GUID. The UUID value matces the WMI® representation of the UUID/GUID.
VoltRollupStatus	Mandatory	uint32	The property shall contain the voltage rollup status of all the system components and shall contain one of the following values: • 0(Unknown) • 1(OK) • 2(Degraded) • 3(Error). VoltRollupStatus provides a high level status value, intended to align with Red-Yellow-Green type representation of status.
LastSystemInventoryTime	Mandatory	string	This property provides the last time \"System \"Inventory Collection On Reboot(CSIOR)\" was performed. The value is represented as yyyymmddHHMMSS.

Property Name	Requirements	Type	Requirement and Description
LastUpdateTime	Mandatory	string	This property provides the last time the data was updated. The value is represented as yyyymmddHHMMSS

273
274

7.2 DCIM_SystemEnumeration – System Enumeration Attributes

This section describes the implementation for the DCIM_SystemEnumeration class.

Each DCIM_SystemEnumeration instance is logically associated to a DCIM_SystemView instance, where the DCIM_SystemEnumeration.FQDD property is equal to the FQDD property on the DCIM_SystemView instance.

This class shall be instantiated in the Implementation Namespace: root/dcim.

7.2.1 Resource URIs for WinRM®

The class Resource URI shall be "http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_SystemEnumeration?__cimnamespace=root/dcim"

The key property shall be the InstanceID.

The instance Resource URI for DCIM_SystemEnumeration instance shall be:
"http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_SystemEnumeration?__cimnamespace=root/dcim+InstanceID=<InstanceID>"

7.2.2 Operations

The following table lists the operations implemented on DCIM_SystemEnumeration.

Table 5 – DCIM_SystemEnumeration – Operations

Operation Name	Requirements	Required Input
Get	Mandatory	Instance URI
Enumerate	Mandatory	Class URI
DCIM_SystemManagementService.SetAttributte()	Mandatory	See section 8.1
DCIM_SystemManagementService.SetAttributes()	Mandatory	See section 8.2

7.2.3 Class Properties

The following table lists the implemented properties for DCIM_SystemEnumeration instance representing a system attribute. The "Requirements" column shall denote whether the property is implemented (for requirement definitions, see section 3). The "Additional Requirements" column shall denote either possible values for the property, or requirements on the value formulation..

297 **Table 6 – Class: DCIM_SystemEnumeration**

Properties	Requirements	Type	Additional Requirements
InstanceID	Mandatory	String	The property value shall be formed as follows: "System.Embedded.1#<GroupID>#<AttributeName>".
AttributeName	Mandatory	String	The property value shall be from the "AttributeName" column in **Error! Reference source not found.**, and Table 11.
AttributeDisplayName	Mandatory	String	The property value shall be from the "AttributeDisplayName" column in Table 11
GroupID	Mandatory	String	See section 7.5.1 and 0.
GroupDisplayName	Mandatory	String	See section 7.5.1 and 0.
CurrentValue[]	Mandatory	String	The property value shall be one of the values in the "PossibleValues" column at the corresponding row in **Error! Reference source not found.**, and Table 11.
DefaultValue[]	Mandatory	String	The property value shall be one of the values in the "PossibleValues" column at the corresponding row in **Error! Reference source not found.**, and Table 11.
PendingValue[]	Mandatory	String	The property value shall be one of the values in the "PossibleValues" column at the corresponding row in **Error! Reference source not found.**, and Table 11.
IsReadOnly	Mandatory	Boolean	The property value shall be from the "IsReadOnly" column in **Error! Reference source not found.**, and Table 11.
FQDD	Mandatory	String	The property shall be set to "System.Embedded.1".
DisplayOrder	Optional	uint16	The property shall represent the sequence number denoting the preferred placement of the attribute in the list of all system attributes.
Dependency	Optional	String	
PossibleValues[]	Mandatory	String	The property value shall be equalt to the array of the values in "PossibleValues" column at the corresponding row in **Error! Reference source not found.**, and Table 11.

298 ## 7.3 DCIM_SystemString – System String Attributes

299 This section describes the implementation for the DCIM_SystemString class that represents a string type
300 System attribute.

301 This class shall be instantiated in the Implementation Namespace: root/dcim.

302 ### 7.3.1 Resource URIs for WinRM®

303 The class Resource URI shall be "http://schemas.dell.com/wbem/wscim/1/cim-
304 schema/2/DCIM_SystemString?__cimnamespace=root/dcim"

305 The key property shall be the InstanceID.

306 The instance Resource URI for DCIM_SystemString instance shall be:
307 http://schemas.dell.com/wbem/wscim/1/cim-
308 schema/2/DCIM_SystemString?__cimnamespace=root/dcim+InstanceID=<InstanceID>

309 ### 7.3.2 Operations

310 The following table lists the operations implemented on DCIM_SystemString.

311 **Table 7 – DCIM_SystemString - Operations**

Operation Name	Requirements	Required Input
Get	Mandatory	Instance URI
Enumerate	Mandatory	Class URI
DCIM_SystemManagementService.SetAttributte()	Mandatory	See section 8.1
DCIM_SystemManagementService.SetAttributes()	Mandatory	See section 8.2

312

313 7.3.3 Class Properties

314 The following table lists the implemented properties for DCIM_SystemString instance representing a
315 system string attribute. The “Requirements” column shall denote whether the property is implemented (for
316 requirement definitions, see section 3). The “Additional Requirements” column shall denote either
317 possible values for the property, or requirements on the value formulation

318 **Table 8 – Class: DCIM_SystemString**

Properties	Requirements	Type	Additional Requirements
InstanceID	Mandatory	String	The property value shall be formed as follows: System.Embedded.1#<GroupID>#<AttributeName>".
AttributeName	Mandatory	String	The property value shall be from the "AttributeName" column in **Error! Reference source not found.**, Table 12, and Table 14.
AttributeDisplayName	Mandatory	String	The property value shall be from the "AttributeDisplayName" column in **Error! Reference source not found.**, Table 12, and Table 14.
GroupID	Mandatory	String	See section 7.5.1 and 0.
GroupDisplayName	Mandatory	String	See section 7.5.1 and 0.
CurrentValue[]	Mandatory	String	The property value shall represent the current value of the attribute.
DefaultValue[]	Mandatory	String	The property value shall represent the default value of the attribute.
PendingValue[]	Mandatory	String	The property value shall represent the pending value of the attribute. If the property value is NULL, then the attribute has no pending value.
IsReadOnly	Mandatory	Boolean	The property value shall be the value in the "IsReadOnly" column at the corresponding row in **Error! Reference source not found.**, Table 12, and Table 14.
FQDD	Mandatory	String	The property shall be set to "System.Embedded.1".
DisplayOrder	Optional	uint16	The property shall represent the sequence number denoting the preferred placement of the attribute in the list of all system attributes.
Dependency	Optional	String	
MinLength	Mandatory	uint64	The property value shall be the value in the "MinLength" column at the corresponding row in **Error! Reference source not found.**, Table 12, and Table 14.
MaxLength	Mandatory	uint64	The property value shall be the value in the "MaxLength" column at the corresponding row in **Error! Reference source not found.**, Table 12, and Table 14.

319 ## 7.4 DCIM_SystemInteger – System Integer Attributes

320 This section describes the implementation for the DCIM_SystemInteger class.

321 Each DCIM_SystemInteger instance is logically associated to a DCIM_SystemView instance, where the
322 DCIM_SystemInteger.FQDD property is equal to the FQDD property on the DCIM_SystemView instance.

323 This class shall be instantiated in the Implementation Namespace: root/dcim.

324 ### 7.4.1 Resource URIs for WinRM®

325 The class Resource URI shall be "http://schemas.dell.com/wbem/wscim/1/cim-
326 schema/2/DCIM_SystemInteger?__cimnamespace=root/dcim"

327 The key property shall be the InstanceID.

328 The instance Resource URI for DCIM_SystemInteger instance shall be:
329 "http://schemas.dell.com/wbem/wscim/1/cim-
330 schema/2/DCIM_SystemInteger?__cimnamespace=root/dcim+InstanceID=<InstanceID>"

7.4.2 Operations

The following table lists the operations implemented on DCIM_SystemInteger.

Table 9 – DCIM_SystemInteger - Operations

Operation Name	Requirements	Required Input
Get	Mandatory	Instance URI
Enumerate	Mandatory	Class URI
DCIM_SystemManagementService.SetAttributte()	Mandatory	See section 8.1
DCIM_SystemManagementService.SetAttributes()	Mandatory	See section 8.2

7.4.3 Class Properties

The following table lists the implemented properties for DCIM_SystemInteger instance representing a system attribute. The “Requirements” column shall denote whether the property is implemented (for requirement definitions, see section 3). The “Additional Requirements” column shall denote either possible values for the property, or requirements on the value formulation

340 **Table 10 – Class: DCIM_SystemInteger**

Properties	Requirement	Type	Additional Requirements
InstanceID	Mandatory	String	The property value shall be formed as follows: "System.Embedded.1#<GroupID>#<AttributeName>".
AttributeName	Mandatory	String	The property value shall be from the "AttributeName" column in **Error! Reference source not found.**, Table 13, and Table 15.
AttributeDisplayName	Mandatory	String	The property value shall be from the "AttributeDisplayName" column in **Error! Reference source not found.**, Table 13, and Table 15.
GroupID	Mandatory	String	See section 7.5.1 and 0.
GroupDisplayName	Mandatory	String	See section 7.5.1 and 0.
CurrentValue[]	Mandatory	String	The property value shall represent the current value of the attribute.
DefaultValue[]	Mandatory	String	The property value shall represent the default value of the attribute.
PendingValue[]	Mandatory	String	The property value shall represent the pending value of the attribute. If the property value is NULL, then the attribute has no pending value.
IsReadOnly	Mandatory	Boolean	The property value shall be from the "IsReadOnly" column in **Error! Reference source not found.**, Table 13, and Table 15.
FQDD	Mandatory	String	The property shall be set to "System.Embedded.1".
DisplayOrder	Optional	uint16	The property shall represent the sequence number denoting the preferred placement of the attribute in the list of all system attributes.
Dependency	Optional	String	
LowerBound	Mandatory	sint64	The property value shall be from the "LowerBound" column in **Error! Reference source not found.**, Table 13, and Table 15..
UpperBound	Mandatory	uint64	The property value shall be from the "UpperBound" column in **Error! Reference source not found.**, Table 13, and Table 15..

341 ## 7.5 System Attributes

342 This section lists and describes the attributes and their logical grouping.

343 ### 7.5.1 Server Power Attributes

344 This section describes the attributes for managing system's power. The attributes are used to set power
345 cap and thresholds , manage power allocation, and redundancy settings.

346 The GroupID property for the DCIM_SystemEnumeration, DCIM_SystemString, and
347 DCIM_SystemInteger shall be "ServerPwr.1".

348 The GroupDisplayName property for the DCIM_SystemEnumeration, DCIM_SystemString, and
349 DCIM_SystemInteger shall be "Server Power".

350 The following table lists the values for the DCIM_SystemEnumeration of this group. Each of the column
351 headings correspond to a property name on the DCIM_SystemEnumeration class. The Description
352 column contains the description for each of the attribute. Each row contain the values for the properties

353 listed in the column headings. The PossibleValues property is an array property represented in the table
354 as comma delimited list.

355 **Table 11 – DCIM_SystemEnumeration Server Power Attributes**

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues	Description
PowerCapSetting	Power Cap Setting	FALSE	“Disabled”, “Enabled”	Enable or disable the cap on the system power consumption.
PSRedPolicy	Power Supply Redundancy Policy	FALSE	“N/A”, “Not Redundant”, “AC/Input Redundant”, “PSU Redundant”	Enables monitoring of the power supply redundancy. NOTE: Power Supply Profile describes the power supply redundancy status based on this attribute value.
PSPFCEnabled	Power Supply PFC Enable	FALSE	“Disabled”, “Enabled”	
PSRapidOn	PSRapidOn	FALSE	“Disabled”, “Enabled”	
RapidOnPrimaryPSU	Rapid on Primary PSU	FALSE	“PSU1”, “PSU2”,” PSU1 and PSU3”,” PSU2 and PSU4”	

356 The following table lists the values for the DCIM_SystemString of this group. Each column heading
357 corresponds to a property name on the DCIM_SystemString class. The Value Expression column
358 contains constraints on string value formulation. Each row contains the values for the properties listed in
359 the column headings.

360 **Table 12 – DCIM_SystemString Server Power Attributes**

AttributeName	Attribute Description	IsReadOnly	MinLength	MaxLength	Value Expression
ActivePolicyName	Active Power Cap Policy Name	TRUE	0	128	

361 The following table lists the values for the DCIM_SystemInteger of this group. Each column heading
362 correspond to a property name on the DCIM_SystemInteger class. Each row contains the values for the
363 properties listed in the column headings.
364

365

366 **Table 13 – DCIM_SystemInteger Server Power Attributes**

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
PowerCapValue[1]	Power Cap Value	FALSE		
PowerCapMaxThres[1]	Power Cap Max Threshold	TRUE		
PowerCapMinThres[1]	Power Cap Min Threshold	TRUE		
pciePowerAllocation[1]	PCIe Power Power Allocation	TRUE	0	500
ActivePowerCapVal[1]	Active Power Cap Value	TRUE	0	65535

367 NOTE: 1 – The attributes PendingValue, CurrentValue and DefaultValue are in Watt units.

368 ### 7.5.2 Server Topology Attributes

369 This section describes the attributes for managing system's topology. The attributes are used to manage
370 location and physical configuration settings.

371 The GroupID property for the DCIM_SystemEnumeration, DCIM_SystemString, and
372 DCIM_SystemInteger shall be "ServerTopology.1".

373 The GroupDisplayName property for the DCIM_SystemEnumeration, DCIM_SystemString, and
374 DCIM_SystemInteger shall be "Server Topology".

375 The following table lists the values for the DCIM_SystemString of this group. Each column heading
376 corresponds to a property name on the DCIM_SystemString class. The Value Expression column
377 contains constraints on string value formulation. Each row contains the values for the properties listed in
378 the column headings.

379 **Table 14 – DCIM_SystemString Server Topology Attributes**

AttributeName	Attribute Description	IsReadOnly	MinLength	MaxLength	Value Expression
DataCenterName	Data Center Name	FALSE	0	128	
AisleName	Aisle Name	FALSE	0	128	
RackName	Rack Name	FALSE	0	128	
ChassisName	Chassis Name (Modular Only)	TRUE	0	64	
BladeSlotNumInChassis	Blade Slot Num In Chassis (Modular Only)	TRUE			

380 The following table lists the values for the DCIM_SystemInteger of this group. Each column heading
381 corresponds to a property name on the DCIM_SystemInteger class. Each row contains the values for the
382 properties listed in the column headings.

383 **Table 15 – DCIM_SystemInteger Server Topology Attributes**

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
RackSlot	Rack Slot	FALSE	1	255
SizeOfManagedSystemInU	Size of Managed System in U	TRUE		

7.5.3 LCD Attributes

This section describes the attributes for managing system's power. The attributes are used to set the system LCD settings.

The GroupID property for the DCIM_SystemEnumeration and DCIM_SystemString shall be "LCD.1".

The GroupDisplayName property for the DCIM_SystemEnumeration and DCIM_SystemString shall be "LCD".

The following table lists the values for the DCIM_SystemEnumeration of this group. Each column heading corresponds to a property name on the DCIM_SystemEnumeration class. The Description column contains the description for each of the attribute. Each row contains the values for the properties listed in the column headings. The PossibleValues property is an array property represented in the table as comma delimited list.

Table 16 – DCIM_SystemEnumeration LCD Attributes

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Configuration	LCD Configuration	FALSE	""User Defined", "Model Name", "None", "iDRAC IPv4 Address", "iDRAC MAC Address", "OS System Name", "Service Tag", "IPv6 Address", "Ambient Temperature", "System Watts", "Asset Tag", "OEM PM LCD Override"

The following table lists the values for the DCIM_SystemString of this group. Each column heading corresponds to a property name on the DCIM_SystemString class. The Value Expression column contains constraints on string value formulation. Each row contains the values for the properties listed in the column headings.

7.6 DCIM_SystemManagementService – System Management Service

This section describes the implementation for the DCIM_SystemManagementService class.

This class shall be instantiated in the Implementation Namespace: root/dcim.

7.6.1 Resource URIs

The class Resource URI shall be "http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_SystemManagementService?__cimnamespace=root/dcim"

The key property shall be the SystemCreationClassName, SystemName, CreationClassName, and Name.

The instance Resource URI for DCIM_ SystemManagementService instance shall be:
"http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_SystemManagementService?__cimnamespace=root/dcim+SystemCreationClassName=DCIM_ComputerSystem+SystemName=srv:system+CreationClassName=DCIM_SystemManagementService+Name=DCIM:SystemManagementService"

7.6.2 Operations

The following table lists the operations implemented on DCIM_SystemManagementService.

Table 17 – DCIM_SystemManagementService - Operations

Operation Name	Requirements	Required Input
Get	Mandatory	Instance URI
Enumerate	Mandatory	Class URI
Invoke	Mandatory	Instance URI
DCIM_SystemManagementService.SetAttributte()	Mandatory	See section 8.1
DCIM_SystemManagementService.SetAttributes()	Mandatory	See section 8.2
DCIM_SystemManagementService.CreateTargetedConfigJob()	Mandatory	See section 8.3
DCIM_SystemManagementService.DeletePendingConfiguration()	Mandatory	See section
DCIM_SystemManagementService.ShowErrorsOnLCD()	Mandatory	See section
DCIM_SystemManagementService.IdentifyChassis()	Mandatory	See section

7.6.3 Properties

The following table lists the implemented properties for DCIM_ SystemManagementService instance representing system management service in a system. The "Requirements" column shall denote whether the property is implemented (for requirement definitions, see section 3). The "Additional Requirements" column shall denote either possible values for the property, or requirements on the value formulation.

Table 18 – DCIM_SystemManagementService- Properties

Property Name	Requirements	Description/Additonal Requirement
SystemCreationClassName	Mandatory	The property value shall be "DCIM_ComputerSystem".
CreationClassName	Mandatory	The property value shall be "DCIM_SystemManagementService".
SystemName	Mandatory	The property value shall be "srv:system".
Name	Mandatory	This property shall have a value of "DCIM:SystemManagementService"
ElementName	Mandatory	The property value shall be "System Management Service".

7.7 System Info Profile Profile Registration

This section describes the implementation for the DCIM_LCRegisteredProfile class.

This class shall be instantiated in the Interop Namespace: root/interop.

The DCIM_LCElementConformsToProfile association(s) shall reference the DCIM_LCRegisteredProfile instance.

7.7.1 Resource URIs for WinRM®

The class Resource URI shall be "http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_RegisteredProfile?__cimnamespace=root/interop"

The key property shall be the InstanceID property.

The instance Resource URI shall be: “http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_LCRegisteredProfile?__cimnamespace=root/interop+InstanceID=DCIM:SystemInfo:1.0.0”

7.7.2 Operations

The following table lists the operations implemented on for DCIM_LCRegisteredProfile.

Table 19 – DCIM_LCRegisteredProfile - Operations

Operation Name	Requirements	Required Input
Get	Mandatory	Instance URI
Enumerate	Mandatory	Class URI

7.7.3 Properties

The following table lists the implemented properties for DCIM_LCRegisteredProfile instance representing System Info Profile implementation. The “Requirements” column shall denote whether the property is implemented (for requirement definitions, see section 3). The “Additional Requirements” column shall denote either possible values for the property, or requirements on the value formulation

Table 20 – DCIM_LCRegisteredProfile

Property Name	Type	Requirement	Additional Requirements
InstanceID	String	Mandatory	DCIM:SystemInfo:1.0.0
RegisteredName	String	Mandatory	This property shall have the value "System Info".
RegisteredVersion	String	Mandatory	This property shall have the value "1.2.0".
RegisteredOrganization	Uint16	Mandatory	This property shall have the value 1 (Other).
OtherRegisteredOrganization	String	Mandatory	The property value shall match “DCIM”.
AdvertiseTypes[]	Uint16	Mandatory	The property array shall contain: [“1(Other), 1(Other)”]
AdvertiseTypeDescriptions[]	String	Mandatory	The property array shall contain: "WS-Identify", "Interop Namespace"
ProfileRequireLicense[]	string	Mandatory	This property array shall describe the required licenses for this profile. If no license is required for the profile, the property shall have value NULL.
ProfileRequireLicenseStatus[]	string	Mandatory	This property array shall contain the status for the corresponding license in the same element index of the ProfileRequireLicense array property. Each array element shall contain: • “LICENSED” • “NOT_LICENSED” If no license is required for the profile, the property shall have value NULL.

8 Methods

This section details the requirements for supporting extrinsic methods for the CIM elements defined by this profile.

8.1 DCIM_SystemManagementService.SetAttribute( )

The SetAttribute( ) method is used to set or change the value of a system attribute.

Invocation of the SetAttribute( ) method shall change the value of the attribute's CurrentValue or attribute's PendingValue property to the value specified by the AttributeValue parameter if the attribute's IsReadOnly property is FALSE. If this method is invoked when the attribute's IsReadOnly property is TRUE, it shall result in no change to the value of the attribute's CurrentValue property. The result of changing this value is described with the SetResult parameter.

Return code values for the SetAttribute( ) method are specified in Table 21 and parameters are specified in Table 22. Invoking the SetAttribute( ) method multiple times can result in the earlier requests being overwritten or lost.

Table 21 – SetAttribute( ) Method: Return Code Values

Value	Description
0	Completed with no error
2	Failed

Table 22 – SetAttribute( ) Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	Shall be set to "System.Embedded.1"
IN, REQ	AttributeName	String	Shall be the GroupID property value followed by "#" character and then followed by the AttributeName property value for the attribute to be modified. Example: "ServerPwr.1#PowerCapSetting"
IN, REQ	AttributeValue[]	String	Shall contain the desired attribute value. If the value is valid, the CurrentValue or PendingValue property of the specified attribute will be modified.
OUT	SetResult	String	Returns: • "Set CurrentValue property" when the attributes current value is set. • "Set PendingValue property" when the attributes pending value is set.
OUT	RebootRequired	String	Returns: • "Yes" if reboot is required, • "No" if reboot is not required.
OUT	MessageID	String	Error Message ID may be used to look-up in the Dell Message registry files. For more information, see Error Message Registry
OUT	Message	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

460 **Table 23 – SetAttribute( ) Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
SYS001	The command was succesful	
SYS002	The command failed	
SYS003	Missing parameter(s) <parameter>	AttributeName/AttributeValue
SYS004	Invalid parameter value for <parameter>	AttributeName/AttributeValue
SYS005	AttributeName and AttributeValue count mismatch	
SYS006	Cannot set ReadOnly AttributeName <parameter>	AttributeName
SYS007	Input out of range for <parameter>	AttributeName
SYS008	Invalid boolean in AttributeValue for AttributeName <parameter>	AttributeName
SYS009	String exceeds maximum length for AttributeName <parameter>	AttributeName
SYS010	Invalid character in AttributeValue for AttributeName <parameter>	AttributeName
SYS011	Configuration is already committed, cannot set the configuration	
SYS012	User is not authorized to perform this operation	
SYS013	Invalid AttributeName <parameter>	AttributeName
SYS014	Invalid AttributeValue for AttributeName <parameter>	AttributeName
SYS015	Job created	
SYS016	Job completed with errors	
SYS017	Job failed	
SYS018	Job completed	
SYS019	Required dependancy input not found	
SYS020	Invalid Required Attribute value	
SYS023	No pending configurations	
SYS024	Attribute dependency failed	

461

462 ## 8.2 DCIM_SystemManagementService.SetAttributes( )

463 The SetAttributes( ) method is used to set or change the values of a group of attributes.

464 Invocation of the SetAttributes( ) method shall change the values of the attribute's CurrentValue or
465 PendingValue properties that correspond to the names specified by the AttributeName parameter and the
466 values specified by the AttributeValue parameter if the respective attribute's IsReadOnly property is
467 FALSE. . If this method is invoked when the attribute's IsReadOnly property is TRUE, it shall result in no
468 change to the value of the attribute's CurrentValue property.

469 Return code values for the SetAttributes( ) method are specified in Table 24, and parameters are
470 specified in Table 25.

Invoking the SetAttributes( ) method multiple times can result in the earlier requests being overwritten or lost.

Table 24 – SetAttributes( ) Method: Return Code Values

Value	Description
0	Completed with no error
2	Failed

Table 25 – SetAttributes( ) Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	Shall be set to "System.Embedded.1"
IN, REQ	AttributeName[]	String	Shall contain array of attributes where each element shall be the GroupID property value followed by "#" character and then followed by the AttributeName property value for the attribute to be modified. Example: "ServerPwr.1#PowerCapSetting"
IN, REQ	AttributeValue[]	String	Shall contain the desired attribute values. If the value is valid, the CurrentValue or PendingValue property of the specified attribute will be modified. Note: Attributes with multi-element array values shall not be set using this method.
OUT	SetResult[]	String	Returns: • "Set CurrentValue property" when the attributes current value is set. • "Set PendingValue property" when the attributes pending value is set.
OUT	RebootRequired[]	String	Returns: • "Yes" if reboot is required, • "No" if reboot is not required.
OUT	MessageID[]	String	Error Message ID may be used to look-up in the Dell Message registry files. For more information, see Error Message Registry
OUT	Message[]	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

Table 26 – SetAttributes( ) Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
SYS001	The Command was succesful	
SYS002	The command failed	
SYS003	Missing parameter(s) <parameter>	AttributeName/AttributeValue
SYS004	Invalid parameter value for <parameter>	AttributeName/AttributeValue
SYS005	AttributeName and AttributeValue count mismatch	
SYS006	Cannot set ReadOnly AttributeName <parameter>	AttributeName

MessageID (OUT parameter)	Message	MessageArguments[]
SYS007	Input out of range for <parameter>	AttributeName
SYS008	Invalid boolean in AttributeValue for AttributeName <parameter>	AttributeName
SYS009	String exceeds maximum length for AttributeName <parameter>	AttributeName
SYS010	Invalid character in AttributeValue for AttributeName <parameter>	AttributeName
SYS011	Configuration already committed, cannot set configuration	
SYS012	User is not Authorized to perform this operation	
SYS013	Invalid AttributeName <parameter>	AttributeName
SYS014	Invalid AttributeValue for AttributeName <parameter>	AttributeName
SYS015	Job created	
SYS016	Job completed with errors	
SYS017	Job failed	
SYS018	Job completed	
SYS019	Required Dependancy input not found	
SYS020	Invalid Required Attribute value	
SYS023	No pending configurations	
SYS024	Attribute dependency failed	

8.3 DCIM_SystemManagementService.CreateTargetedConfigJob( )

The CreateTargetedConfigJob( ) method is used to apply the pending values created by the SetAttribute, SetAttributes, ChangeBootSourceState, and ChangeBootOrderByInstanceID methods. The successful execution of this method creates a job to apply the pending values.

The CreateTargetedConfigJob() method supports the following optional input parameters:

- RebootJobType: When provided in the input parameters, it creates a specific reboot job to "PowerCycle", "Graceful Reboot without forced shutdown", or "Graceful Reboot with forced shutdown". This parameter only creates the RebootJob and does not schedule it.

  NOTE: Many attributes in the profile do not require a reboot job. Thus, it may not be necessary to specify this parameter.

- ScheduledStartTime: When provided in the input parameters, schedules the "configuration job" and the optional "reboot job" at the specified start time. A special value of "TIME_NOW" schedules the job(s) immediately.

- UntilTime: This parameter has a dependency on "ScheduledStartTime", together "ScheduledStartTime" and "UntilTime" define a time window for scheduling the job(s). Once scheduled, jobs will be executed within the time window.

If CreateTargetedConfigJob method is executed without the three optional parameters discussed above, then configuration job is created but not scheduled. However, this configuration job can be scheduled later using the DCIM_JobService.SetupJobQueue () method from the "Job Control Profile". DCIM_JobService.SetupJobQueue () can be executed to schedule several configuration jobs including the reboot job. Refer to "Job Control Profile" for more details.

497 Return code values for the CreateTargetedConfigJob( ) method are specified in Table 24, and parameters
498 are specified in Table 25.

499 Subsequent calls to CreateTargetedConfigJob after the first CreateTargetedConfigJob will result in error
500 until the first job is completed."

501 **Table 27 – CreateTargetedConfigJob( ) Method: Return Code Values**

Value	Description
2	Failed
4096	Job Created

502 **Table 28 – CreateTargetedConfigJob( ) Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	Shall be set to “System.Embedded.1”
IN	RebootJobType	Uint16	Shall contain the requested reboot type: • 1 - PowerCycle • 2 - Graceful Reboot without forced shutdown • 3 - Graceful Reboot with forced shutdown.
IN	ScheduledStartTime	String	Start time for the job execution in format: yyyymmddhhmmss. The string "TIME_NOW" means immediate.
IN	UntilTime	String	End time for the job execution in format: yyyymmddhhmmss. If this parameter is not NULL, then ScheduledStartTime parameter shall also be specified.
OUT	Job	CIM_ConcreteJob REF	Reference to the newly created pending value application job.
OUT	MessageID	String	Error Message ID may be used to look-up in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

503

504 **Table 29 – CreateTargetedConfigJob( ) Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
SYS001	The command was succesful	
SYS002	The command failed	
SYS003	Missing parameter(s) <parameter>	AttributeName/AttributeValue
SYS004	Invalid parameter value for <parameter>	AttributeName/AttributeValue
SYS005	AttributeName and AttributeValue count mismatch	
SYS006	Cannot set ReadOnly AttributeName <parameter>	AttributeName

MessageID (OUT parameter)	Message	MessageArguments[]
SYS007	Input out of range for <parameter>	AttributeName
SYS008	Invalid boolean in AttributeValue for AttributeName <parameter>	AttributeName
SYS009	String exceeds maximum length for AttributeName <parameter>	AttributeName
SYS010	Invalid character in AttributeValue for AttributeName <parameter>	AttributeName
SYS011	Configuration already committed, cannot set configuration	
SYS012	User is not Authorized to perform this operation	
SYS013	Invalid AttributeName <parameter>	AttributeName
SYS014	Invalid AttributeValue for AttributeName <parameter>	AttributeName
SYS015	Job created	
SYS016	Job completed with errors	
SYS017	Job failed	
SYS018	Job completed	
SYS019	Required dependancy input not found	
SYS020	Invalid Required Attribute value	
SYS023	No pending configurations	
SYS024	Attribute dependency failed	

505

506 8.4 DCIM_SystemManagementService.DeletePendingConfiguration( )

507 The DeletePendingConfiguration( ) method is used to cancel the pending values created by the
508 SetAttribute and SetAttributes methods. The DeletePendingConfiguration( ) method cancels the pending
509 configuration changes made before the configuration job is created with CreateTargetedConfigJob(). This
510 method only operates on the pending changes prior to CreateTargetedConfigJob() being called. After the
511 configuration job is created, the pending changes can only be canceled by calling DeleteJobQueue()
512 method in the Job Control profile.

513 Return code values for the DeletePendingConfiguration( ) method are specified in Table 30, and
514 parameters are specified in Table 31.

515 **Table 30 – DeletePendingConfiguration( ) Method: Return Code Values**

Value	Description
0	Completed with no error
2	Failed

516 **Table 31 – DeletePendingConfiguration( ) Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	Shall be equal to “System.Embedded.1”

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	Error Message ID may be used to look-up in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

517

518 **Table 32 – DeletePendingConfiguration( ) Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
SYS001	The command was succesful	
SYS002	The command failed	
SYS003	Missing parameter(s) <parameter>	AttributeName/AttributeValue
SYS004	Invalid parameter value for <parameter>	AttributeName/AttributeValue
SYS005	AttributeName and AttributeValue count mismatch	
SYS006	Cannot set ReadOnly AttributeName <parameter>	AttributeName
SYS007	Input out of range for <parameter>	AttributeName
SYS008	Invalid boolean in AttributeValue for AttributeName <parameter>	AttributeName
SYS009	String exceeds maximum length for AttributeName <parameter>	AttributeName
SYS010	Invalid character in AttributeValue for AttributeName <parameter>	AttributeName
SYS011	Configuration already committed, cannot set configuration	
SYS012	User is not authorized to perform this operation	
SYS013	Invalid AttributeName <parameter>	AttributeName
SYS014	Invalid AttributeValue for AttributeName <parameter>	AttributeName
SYS015	Job created	
SYS016	Job completed with errors	
SYS017	Job failed	
SYS018	Job completed	
SYS019	Required dependancy input not found	
SYS020	Invalid Required Attribute value	
SYS023	No pending configurations	
SYS024	Attribute dependency failed	

519 ## 8.5 DCIM_SystemManagementService.ShowErrorsOnLCD( )

520 The ShowErrorsOnLCD( ) method is used to show/hide errors on the platform LCD.

Return code values for the DeletePendingConfiguration( ) method are specified in Table 33, and parameters are specified in Table 34.

Table 33 – ShowErrorsOnLCD( ) Method: Return Code Values

Value	Description
0	Completed with no error
2	Failed

Table 34 – ShowErrorsOnLCD( ) Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	Show	Boolean	The parameter shall have TRUE value to show the errors on the platform LCD, or FALSE to hide errors on the platform LCD.
OUT	MessageID	String	Error Message ID may be used to look-up in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

Table 35 – ShowErrorsOnLCD( ) Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
SYS001	The command was succesful	
SYS002	The command failed	
SYS003	Missing parameter(s) <parameter>	Show
SYS004	Invalid parameter value for <parameter>	Show
SYS011	Configuration already committed, cannot set configuration	
SYS012	User is not authorized to perform this operation	
SYS019	Required dependancy input not found	

8.6 DCIM_SystemManagementService.IdentifyChassis( )

The IdentifyChassis ( ) method is used to enable identifying signals on the platform such as LED.

If the IdentifyState has a value of 2 (Time Limited Enable), the DurationLimit parameter shall be non-NULL, non-blank value.

Return code values for the DeletePendingConfiguration( ) method are specified in Table 36, and parameters are specified in Table 37.

534 **Table 36 – IdentifyChassis( ) Method: Return Code Values**

Value	Description
0	Completed with no error
2	Failed

535 **Table 37 – IdentifyChassis( ) Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	IdentifyState	Uint8	The parameter shall represent the desired state of the LED on the platform to identify it: • 0 - "Disabled" (LED is off) • 1 - "Enabled" (LED is on) • 2 - "Time Limited Enabled" (LED is on for a limited time)
IN	DurationLimit	Uint8	The parameter shall be specified in the seconds. The parameter shall be specified if the IdentityState has a value 2 (Time Limited Enabled)
OUT	MessageID	String	Error Message ID may be used to look-up in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

536

537 **Table 38 – IdentifyChassis( ) Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
SYS001	The command was succesful	
SYS002	The command failed	
SYS003	Missing parameter(s) <parameter>	Show
SYS004	Invalid parameter value for <parameter>	Show
SYS011	Configuration already committed, cannot set configuration	
SYS012	User is not authorized to perform this operation	
SYS019	Required dependancy input not found	

538

539 9 Use Cases

540 See *Lifecycle Controller (LC) Integration Best Practices Guide*.

10 CIM Elements

No additional details specified.

11 Privilege and License Requirement

The following table describes the privilege and license requirements for the listed operations. . For the detailed explanation of the privileges and licenses, refer to the Dell WSMAN Licenses and Privileges specification.

Table 39 – Privilege and License Requirements

Class and Method	Instance (GroupID.AttributeName)	Operation	User Privilege Required	License Required
DCIM_SystemView		ENUMERATE, GET	Login	None.
DCIM_SystemInteger		ENUMERATE, GET	Login	None.
DCIM_SystemEnumeration		ENUMERATE, GET	Login	None.
DCIM_SystemString		ENUMERATE, GET	Login	None.
DCIM_System Management Service		ENUMERATE, GET	Login	None.
DCIM_SystemManagement Service. SetAttribute() DCIM_SystemManagement Service. SetAttributes()	ServerPwr.PowerCapSetting	INVOKE	Login, Configure, System Control	LM_POWER_BUDGETING & LM_REMOTE_CONFIGURATION
DCIM_SystemManagement Service. SetAttribute() DCIM_SystemManagement Service. SetAttributes()	ServerPwr.PSRedPolicy	INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagement Service. SetAttribute() DCIM_SystemManagement Service. SetAttributes()	ServerPwr.PSPFCEnabled	INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagement Service. SetAttribute() DCIM_SystemManagement Service. SetAttributes()	ServerPwr.PSRapidOn	INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagement Service. SetAttribute() DCIM_SystemManagement Service. SetAttributes()	ServerPwr.RapidOnPrimaryPSU	INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagement Service. SetAttribute() DCIM_SystemManagement Service. SetAttributes()	ServerPwr.PowerCapValue	INVOKE	Login, Configure, System Control	LM_POWER_BUDGETING & LM_REMOTE_CONFIGURATION
DCIM_SystemManagement Service. SetAttribute() DCIM_SystemManagement Service. SetAttributes()	ServerTopology.DataCenterName	INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION

Class and Method	Instance (GroupID.AttributeName)	Operation	User Privilege Required	License Required
DCIM_SystemManagementService. SetAttribute() DCIM_SystemManagementService. SetAttributes()	ServerTopology.AisleName	INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagementService. SetAttribute() DCIM_SystemManagementService. SetAttributes()	ServerTopology.RackName	INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagementService. SetAttribute() DCIM_SystemManagementService. SetAttributes()	ServerTopology.RackSlot	INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagementService. SetAttribute() DCIM_SystemManagementService. SetAttributes()	LCD.Configuration	INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagementService. CreateTargetedConfigJob()		INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagementService. DeletePendingConfiguration()		INVOKE	Login, Configure	LM_REMOTE_CONFIGURATION
DCIM_SystemManagementService. ShowErrorsOnLCD()		INVOKE	Login, Test Alerts	LM_REMOTE_CONFIGURATION
DCIM_SystemManagementService. IdentifyChassis()		INVOKE	Login, Test Alerts	LM_REMOTE_CONFIGURATION
DCIM_LCRegisteredProfile		ENUMERATE, GET	Login	None.
DCIM_LCElementConformsToProfile		ENUMERATE, GET	Login	None.

548
549