

iDRAC Card Profile

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1. Scope

The DCIM iDRAC Card Profile describes the properties and interfaces for executing system management tasks related to the management of basic properties of iDRAC card. The profile standardizes and aggregates the description for the remote access card properties into an iDRAC view and iDRAC attribute representation, and provides static methodology for the clients to query the iDRAC views and set the iDRAC attributes 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 v1.0, <link TBD>
- Intelligent Platform Management Interface Specification v2.0,
http://download.intel.com/design/servers/ipmi/IPMIv2_0rev1_0.pdf
- Dell Tech Center MOF Library:
<http://www.delltechcenter.com/page/DCIM.Library.MOF>
- Related Managed Object Format (MOF) files:
 - DCIM_iDRACCardView.mof
 - DCIM_iDRACCardAttribute.mof
 - DCIM_iDRACCardInteger.mof
 - DCIM_iDRACCardService.mof
 - DCIM_iDRACCardEnumeration.mof
 - DCIM_iDRACCardString.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. Can

Used for statements of possibility and capability, whether material, physical, or causal.

3.2. Cannot

Used for statements of possibility and capability, whether material, physical, or causal.

3.3. Conditional

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

3.4. Mandatory

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

3.5. May

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

3.6. Need not

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

3.7. Optional

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

3.8. 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.

3.9. Shall

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

3.10. Shall not

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

3.11. Should

Indicates that among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others, or that a certain course of action is preferred but not necessarily required.

3.12. Should not

Indicates that a certain possibility or course of action is deprecated but not prohibited.

3.13. Interop Namespace: root/interop

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

3.14. Implementation Namespace: root/dcim

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

3.15. 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

3.16. 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. SSO

Single Sign On

4.6. CSR

Certificate Signing Request

5. Synopsis

Profile Name: iDRAC Card

Version: 4.0.0

Organization: Dell

CIM Schema Version: 2.41.0 Final

Dell Schema Version: 1.0.0

Interop Namespace: root/interop

Implementation Namespace: root/dcim

Central Class: DCIM_iDRACCardView

Scoping Class: DCIM_ComputerSystem

The Dell iDRAC Card Profile is a component profile that contains the Dell specific implementation requirements for remote access card view.

DCIM_iDRACCardView 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 Profile	DCIM	1.0	Mandatory
Dell Job Control	DCIM	1.0	Mandatory

6. Description

The Dell iDRAC Card Profile describes the platform's iDRAC remote access card. Each remote access card's information is represented by an instance of DCIM_iDRACCardView class.

Figure 1 details typical Dell iDRAC Card Profile implementation for a platform with iDRAC remote access card. For the client to discover the instrumentation's support of this profile, iDRACProfile is instantiated in the Interop Namespace:root/dcim.

The DCIM_LCRegisteredProfile 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.

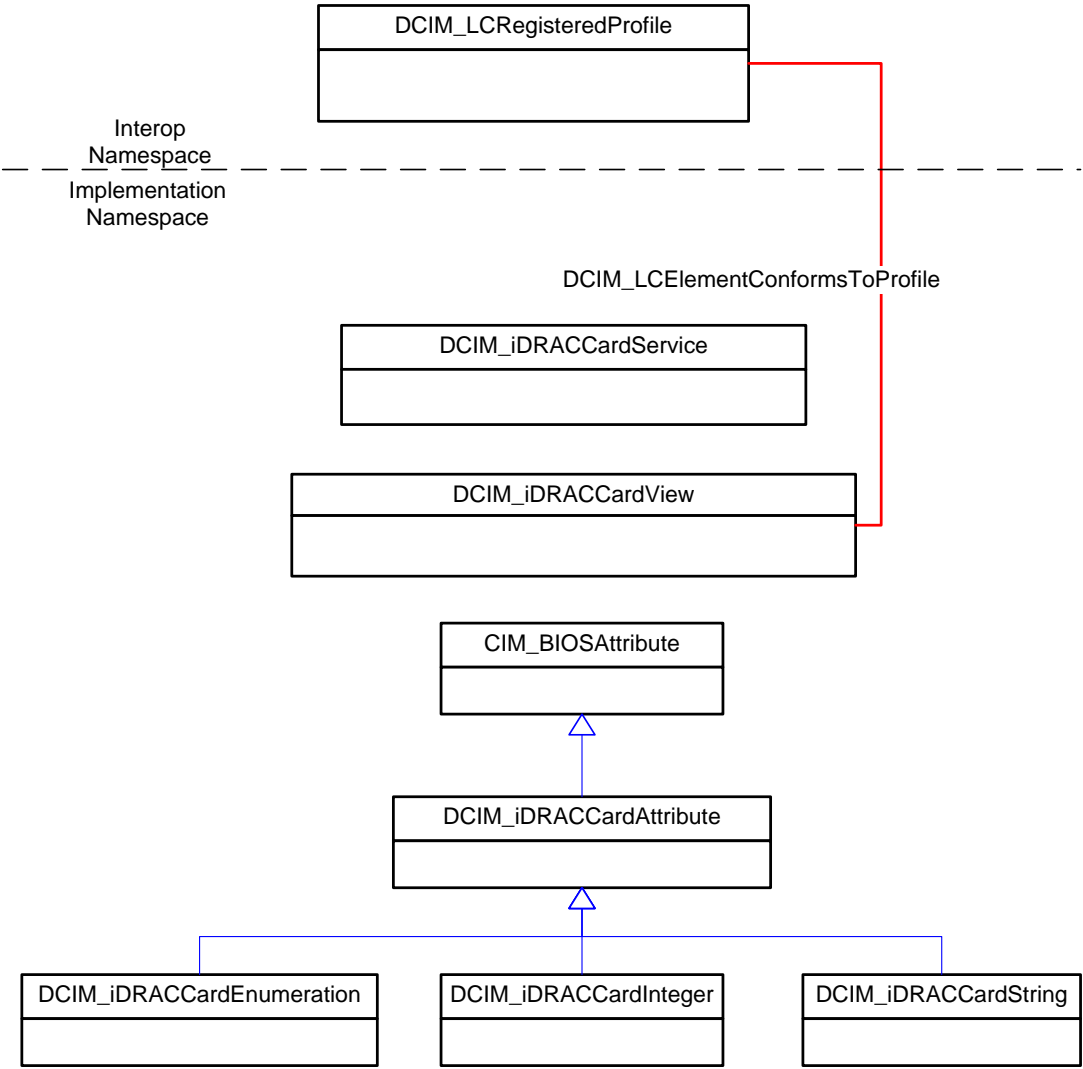


Figure 1. iDRAC Card Profile Implementation

7. Implementation Description

This section describes the requirements and guidelines for implementing Dell iDRAC Card Profile.

Table 2. Class Requirements: iDRAC Card Profile

Element Name	Requirement	Description
Classes		
DCIM_iDRACCardView	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.1.

Element Name	Requirement	Description
DCIM_iDRACCardEnumeration	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.2 and 7.5.
DCIM_iDRACCardString	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.3 and 7.5.
DCIM_iDRACCardInteger	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.4 and 7.5.
DCIM_iDRACCardService	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.6.
DCIM_LCElementConformsToProfile	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> .
DCIM_LCElementConformsToProfile	Mandatory	The class shall be implemented in the <i>Interop Namespace: root/interop</i> .
DCIM_LCRegisteredProfile	Mandatory	The class shall be implemented in the <i>Interop Namespace: root/interop</i> . See section 7.7.
Indications		
None defined in this profile		

7.1. DCIM_iDRACCardView - iDRAC View

This section describes the implementation for the DCIM_iDRACCardView class.

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

The DCIM_LCElementConformsToProfile association(s) shall reference the DCIM_iDRACCardView 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_iDRACCardView?__cimnamespace=root/dcim”

The key property shall be the InstanceID.

The instance Resource URI for DCIM_iDRACCardView instance shall be:

“http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_iDRACCardView?__cimnamespace=root/dcim+InstanceID=<InstanceID>”

7.1.2. Operations

The following table lists the implemented operations on DCIM_iDRACCardView.

Table 3. DCIM_iDRACCardView - Operations

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

7.1.3. Class Properties

The following table details the implemented properties for DCIM_iDRACCardView instance representing a remote access card 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 4. DCIM_iDRACCardView - Properties

Property Name	Requirements	Type	Requirement and description
InstanceID	Mandatory	string	The property value shall be unique key value.
FQDD	Mandatory	string	A string containing the Fully Qualified Device Description, a user-friendly name for the object.
DeviceDescription	Mandatory	string	A string containing the friendly Fully Qualified Device Description, a property that describes the device and its location
IPMIVersion	Mandatory	string	A string containing the IPMI Version.
GUID	Mandatory	string	A string containing the GUID for iDRAC.
LANEnabledState	Mandatory	uint16	LAN enabled state.
SOLEnabledState	Mandatory	uint16	SOL enabled state
PermanentMACAddress	Mandatory	string	A string containing the permanent MAC address.
FirmwareVersion	Mandatory	string	A string containing the iDRAC firmware Version.
Model	Mandatory	string	A string containing the iDRAC model.
ProductDescription	Mandatory	string	A string containing the iDRAC’s purpose and short description.
URLString	Mandatory	string	A string containing the URL for the iDRAC Web GUI.
DNSRacName	Mandatory	string	A string containing the host name for the iDRAC.
DNSDomainName	Mandatory	string	A string containing the domain name for the iDRAC.
LastSystemInventoryTime	Mandatory	string	This property provides the last time \"System \"Inventory Collection On Reboot(CSIOR)\" was performed. The value is represented as yyyyymmddHHMMSS.
LastUpdateTime	Mandatory	string	This property provides the last time the data was updated. The value is represented as yyyyymmddHHMMSS

7.2. DCIM_iDRACCardEnumeration

This section describes the implementation for the DCIM_iDRACCardEnumeration class.

Each DCIM_iDRACCardEnumeration instance is logically associated to a DCIM_iDRACCardView instance, where the DCIM_iDRACCardEnumeration. FQDD property is equal to the FQDD property on the DCIM_iDRACCardView 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_iDRACCardEnumeration?__cimnamespace=root/dcim”

The key property shall be the InstanceID.

The instance Resource URI for DCIM_iDRACCardEnumeration instance shall be:

"http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_iDRACCardEnumeration?__cimnamespace=root/dcim+InstanceID=<FQDD>#<GroupID>#<AttributeName>"

7.2.2. Operations

The following table lists the implemented operations on DCIM_iDRACCardEnumeration.

Table 5. DCIM_iDRACCardEnumeration - Operations

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

7.2.3. Class Properties

The following table details the implemented properties for DCIM_iDRACCardEnumeration instance representing a iDRAC Card enumeration 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.

Table 6. Class: DCIM_iDRACCardEnumeration

Properties	Type	Notes	Additional Requirements
InstanceID	String	Mandatory	The property value shall be formed as follows: "<FQDD property value>#<GroupID>#<AttributeName property values>".
AttributeName	String	Mandatory	The property value shall be from the "AttributeName" column in Tables in section 7.5.
AttributeDisplayName	String	Mandatory	The property value shall be from the "AttributeDisplayName" column in Tables in section 7.5.
GroupID	String	Mandatory	See section 7.5.
GroupDisplayName	String	Mandatory	See section 7.5.
CurrentValue[]	String	Mandatory	The property value shall be one of the values in the "PossibleValues" column at the corresponding row in Tables in section 7.5.
PendingValue[]	String	Mandatory	The property value shall be one of the values in the "PossibleValues" column at the corresponding row in Tables in section 7.5.
DefaultValue[]	String	Mandatory	The property value shall represent the default value of the attribute.
IsReadOnly	Boolean	Mandatory	The property value shall be from the "IsReadOnly" column in Tables in section 7.5.
FQDD	String	Mandatory	FQDD of the iDRAC that the attribute belongs to.
DisplayOrder	uint16	Mandatory	The property shall represent the sequence number denoting the preferred placement of the attribute in the list of all iDRAC attributes.
Dependency	String	Optional	The property shall represent the dependency value of the attribute. If there is no dependency, then this value shall be NULL.

Properties	Type	Notes	Additional Requirements
PossibleValues[]	String	Mandatory	The property value shall be equal to the array of the values in “PossibleValues” column at the corresponding row in in Tables in section 7.5.

7.3. DCIM_iDRACCardString

This section describes the implementation for the DCIM_iDRACCardString class.

Each DCIM_iDRACCardString instance is logically associated to a DCIM_iDRACCardView instance, where the DCIM_iDRACCardString.FQDD property is equal to the FQDD property on the DCIM_iDRACCardView instance.

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

7.3.1. Resource URIs for WinRM®

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

The key property shall be the InstanceID.

The instance Resource URI for DCIM_iDRACCardString instance shall be:

“http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_iDRACCardString?__cimnamespace=root/dcim+InstanceID=<FQDD>#<GroupID>#<AttributeName>”

7.3.2. Operations

The following table lists the implemented operations on DCIM_iDRACCardString.

Table 7. DCIM_iDRACCardString - Operations

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

7.3.3. Class Properties

The following table details the implemented properties for DCIM_iDRACCardString instance representing a iDRAC string 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.

Table 8. Class: DCIM_iDRACCardString

Properties	Type	Notes	Additional Requirements
InstanceID	String	Mandatory	The property value shall be formed as follows: “<FQDD property value>#<GroupID>#<AttributeName property value>”.
AttributeName	String	Mandatory	The property value shall be from the “AttributeName” column in Tables in section 7.5.
AttributeDisplayName	String	Mandatory	The property value shall be from the “AttributeDisplayName” column in in Tables in section 7.5.
GroupID	String	Mandatory	See section 7.5.

Properties	Type	Notes	Additional Requirements
GroupDisplayName	String	Mandatory	See section 7.5.
CurrentValue[]	String	Mandatory	The property value shall represent the current value of the attribute.
PendingValue[]	String	Mandatory	The property value shall represent the current value of the attribute.
DefaultValue[]	String	Mandatory	The property value shall represent the default value of the attribute.
IsReadOnly	Boolean	Mandatory	The property value shall be from the “IsReadOnly” column in Tables in section 7.5.
FQDD	String	Mandatory	FQDD of the iDRAC that the attribute belongs to.
DisplayOrder	uint16	Mandatory	The property shall represent the sequence number denoting the preferred placement of the attribute in the list of all iDRAC attributes.
Dependency	String	Optional	The property shall be NULL.
MinLength	uint64	Mandatory	The property value shall be the value in the “MinLength” column at the corresponding row in in Tables in section 7.5. The omission or NULL shall denote that no known constraint exists on the CurrentValue and PendingValue properties.
MaxLength	uint64	Mandatory	The property value shall be the value in the “MaxLength” column at the corresponding row in in Tables in section 7.5 The omission or NULL shall denote that no known constraint exists on the CurrentValue and PendingValue properties.

7.4. DCIM_iDRACCardInteger

This section describes the implementation for the DCIM_iDRACCardInteger class.

Each DCIM_iDRACCardInteger instance is logically associated to a DCIM_iDRACCardView instance, where the DCIM_iDRACCardInteger.FQDD property is equal to the FQDD property on the DCIM_iDRACCardView instance.

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

7.4.1. Resource URIs for WinRM®

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

The key property shall be the InstanceID.

The instance Resource URI for DCIM_iDRACCardInteger instance shall be:

“http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_iDRACCardInteger?__cimnamespace=root/dcim+InstanceID=<FQDD>#<GroupID>#<AttributeName>”

7.4.2. Operations

The following table lists the implemented operations on DCIM_iDRACCardInteger.

Table 9. DCIM_iDRACCardInteger - Operations

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

7.4.3. Class Properties

The following table details the implemented properties for DCIM_iDRACCardInteger instance representing a iDRAC integer 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.

Table 10. Class: DCIM_iDRACCardInteger

Properties	Type	Requirement	Additional Requirements
InstanceID	String	Mandatory	The property value shall be formed as follows: “<FQDD property value>#<GroupID>#<AttributeName property value>”.
AttributeName	String	Mandatory	The property value shall be from the “AttributeName” column in Tables in section 7.5.
AttributeDisplayName	String	Mandatory	The property value shall be from the “AttributeDisplayName” column in Tables in section 7.5.
GroupID	String	Mandatory	See section 7.5.
GroupDisplayName	String	Mandatory	See section 7.5.
CurrentValue[]	String	Mandatory	The property value shall be one of the values in the “PossibleValues” column at the corresponding row in Tables in section 7.5.
PendingValue[]	String	Mandatory	The property value shall be one of the values in the “PossibleValues” column at the corresponding row in Tables in section 7.5.
DefaultValue[]	String	Mandatory	The property value shall represent the default value of the attribute.
IsReadOnly	Boolean	Mandatory	The property value shall be from the “IsReadOnly” column in Tables in section 7.5.
FQDD	String	Mandatory	FQDD of the iDRAC that the attribute belongs to.
DisplayOrder	uint16	Mandatory	The property shall represent the sequence number denoting the preferred placement of the attribute in the list of all iDRAC attributes.
Dependency	String	Optional	The property shall be NULL.
LowerBound	uint64	Mandatory	The property value shall be the value in the “LowerBound” column at the corresponding row in Tables in section 7.5. The omission or NULL shall denote that no known constraint exists on the CurrentValue and PendingValue properties.

Properties	Type	Requirement	Additional Requirements
UpperBound	uint64	Mandatory	The property value shall be the value in the “UpperBound” column at the corresponding row in Tables in section 7.5. The omission or NULL shall denote that no known constraint exists on the CurrentValue and PendingValue properties.

7.5. iDRAC Attributes

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

7.5.1. Active Directory

This section describes the attributes for iDRAC’s Active Directory Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be “ActiveDirectory.1”.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be “Active Directory”.

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 11. DCIM_iDRACCardEnumeration Active Directory

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Active Directory Enable	FALSE	“Disabled”, “Enabled”
Schema	Active Directory Schema Type	FALSE	“Extended Schema”, “Standard Schema”
CertValidationEnable	Certificate Validation Enable	FALSE	“Disabled”, “Enabled”
SSOEnable	SSO Enable	FALSE	“Disabled”, “Enabled”
DCLookupEnable	Domain Controller Lookup Enable	FALSE	“Disabled”, “Enabled”
DCLookupByUserDomain	Domain Controller Lookup By User Domain	FALSE	“Disabled”, “Enabled”
GCLookupEnable	Global Catalog Server Lookup Enable	FALSE	“Disabled”, “Enabled”

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

Table 12. DCIM_iDRACCardString Active Directory

AttributeName	Attribute Description	IsReadOnly	MinLength	MaxLength
RacName	Active Directory RAC Name	FALSE	0	254
RacDomain	Active Directory RAC Domain	FALSE	0	254
DomainController1	Domain Controller 1	FALSE	0	254
DomainController2	Domain Controller 2	FALSE	0	254
DomainController3	Domain Controller 3	FALSE	0	254

AttributeName	Attribute Description	IsReadOnly	MinLength	MaxLength
GlobalCatalog1	Global Catalog 1	FALSE	0	254
GlobalCatalog2	Global Catalog 2	FALSE	0	254
GlobalCatalog3	Global Catalog 3	FALSE	0	254
DCLookupDomainName	Active Directory Lookup Domain Name	FALSE	0	254
GCRootDomain	Active Directory Root Domain	FALSE	0	254

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 13. DCIM_iDRACCardInteger Active Directory

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
AuthTimeout	Active Directory Authentication Timeout	FALSE	15	300

7.5.2. Active Directory Group Configuration

This section describes the attributes for iDRAC's Active Directory Group Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "ADGroup.<#>" where "<#>" is a number 1 through 5.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "AD Group Configuration".

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

Table 14. DCIM_iDRACCardString AD Group Configuration

AttributeName	Attribute Description	IsReadOnly	MinLength	MaxLength
Name	AD Role Group Name	FALSE	0	254
Domain	AD Group Domain	FALSE	0	254

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 15. DCIM_iDRACCardInteger AD Group Configuration

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Privilege	AD Group Privilege	FALSE	0	511

7.5.3. Email Alert

This section describes the attributes for iDRAC's Email Alert Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "EmailAlert.<#>" where "<#>" is a number 1 through 4.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RAC Email Alert".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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_iDRACCardEnumeration RAC Email Alert

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Enable Email Alerts	FALSE	"Disabled", "Enabled"

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

Table 17. DCIM_iDRACCardString RAC Email Alert

AttributeName	Attribute Description	IsReadOnly	MinLength	MaxLength
Address	Email Alert Address	FALSE	0	64
CustomMsg	Email Alert Custom Message	FALSE	0	32

7.5.4. iDRAC Information

This section describes the attributes for iDRAC's Active Directory Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Info.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RAC Information".

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

Table 18. DCIM_iDRACCardString RAC Information

AttributeName	Attribute Description	IsReadOnly	MinLength	MaxLength
Product	iDRAC Product Information	TRUE	0	63
Description	iDRAC Description Information	TRUE	0	255
Version	iDRAC Version Information	TRUE	0	63
Build	iDRAC Build Information	TRUE	0	16
Name	iDRAC Name	TRUE	0	15
ServerGen	Server Generation	TRUE	0	10

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 19. DCIM_iDRACCardEnumeration RAC Information

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Type	iDRAC Type	TRUE	12G/13G/14G, 14G Monolithic, 12G Monolithic, 12G Modular, 13G Monolithic, 13G Modular, 12G DCS, 13G DCS

7.5.5. IP Blocking

This section describes the attributes for iDRAC's IP Blocking Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IPBlocking.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IP Blocking".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 20. DCIM_iDRACCardEnumeration IP Blocking

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
RangeEnable	Tune IP Range Enable	FALSE	"Disabled", "Enabled"
BlockEnable	Tune IP Range Enable	FALSE	"Disabled", "Enabled"

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

Table 21. DCIM_iDRACCardString IP Blocking

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
RangeAddr	Tune IP Range Address	FALSE	0	16
RangeMask	Tune IP Range Mask	FALSE	0	16

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 22. DCIM_iDRACCardInteger IP Blocking

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
FailCount	Tune IP Block Fail Count	FALSE	2	16
FailWindow ¹	Tune IP Block Fail Window	FALSE	10	65535
PenaltyTime	Tune IP Block Penalty Time	FALSE	2	65535

NOTE: 1 – Defines the time span (in seconds) that the failed attempts are counted. When failure attempts age beyond this limit, they are dropped from the count.

7.5.6. IPMI LAN

This section describes the attributes for iDRAC's IPMI LAN Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IPMILan.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IPMI LAN Information".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 23. DCIM_iDRACCardEnumeration IPMI Lan

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Enable or Disable IPMI over LAN	FALSE	"Disabled", "Enabled"
PrivLimit	Privilege Limit	FALSE	"Administrator", "User", "Operator"
AlertEnable	Enable or Disable Alerts over LAN	FALSE	"Disabled", "Enabled"

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

Table 24. DCIM_iDRACCardString IPMI Lan

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
EncryptionKey	Encryption Key	FALSE	0	40
CommunityName	Community Name	FALSE	0	18

7.5.7. IPMI Serial

This section describes the attributes for iDRAC's IPMI Serial Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IPMISerial.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RAC IPMI Serial".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 25. DCIM_iDRACCardEnumeration IPMI Serial

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
ConnectionMode	IPMI Serial Connection Mode	FALSE	"Basic", "Terminal"
BaudRate	IPMI Serial Baud Rate	FALSE	9600, 19200, 57600, 115200
FlowControl	IPMI Serial Flow Control	FALSE	"None", "CTS/RTS"
ChanPrivLimit	IPMI Serial Channel Privilege Limit	FALSE	"Administrator", "User", "Operator"

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
LineEdit	IPMI Serial Line Edit	FALSE	"Disabled", "Enabled"
DeleteControl ¹	IPMI Serial Delete Control	FALSE	"Disabled", "Enabled"
EchoControl ²	IPMI Serial Echo Control	FALSE	"Disabled", "Enabled"
HandshakeControl	IPMI Serial Handshake Control	FALSE	"Disabled", "Enabled"
NewLineSeq	IPMI Serial New Line Sequence	FALSE	None, CR-LF, NULL, CR, LF-CR, LF
InputNewLineSeq	IPMI Serial Input New Line Sequence	FALSE	Enter, Null

NOTE: 1 – Enables or disables delete control on the IPMI serial interface. See *Intelligent Platform Management Interface Specification* for more details.

NOTE: 2 – Enables or disables echo control on the IPMI serial interface. See *Intelligent Platform Management Interface Specification* for more details.

7.5.8. IPMI Serial-over-LAN

This section describes the attributes for iDRAC's IPMI SOL Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IPMISOL.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IPMI SOL".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 26. DCIM_iDRACCardEnumeration IPMI Serial-over-LAN

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	IPMI SOL Enable	FALSE	"Disabled", "Enabled"
BaudRate	IPMI SOL Baud Rate	FALSE	9600, 19200, 57600, 115200
MinPrivilege	IPMI SOL Min Privilege	FALSE	"Administrator", "User", "Operator"

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 27. DCIM_iDRACCardInteger IPMI Serial-over-LAN

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
AccumulateInterval ¹	IPMI SOL Accumulate Interval	FALSE	1	255
SendThreshold	IPMI SOL Send Threshold	FALSE	1	255

NOTE: 1 – The typical amount of time in 5 ms increments that the BMC will wait before transmitting a partial SOL character data packet. See *Intelligent Platform Management Interface Specification* for more details.

7.5.9. IPv4 Information

This section describes the attributes for iDRAC's Active Directory Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IPv4.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be “IPv4 Information”.

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 28. DCIM_iDRACCardEnumeration IPv4 Information

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	IPv4 Enable	FALSE	“Disabled”, “Enabled”
DHCPEnable	IPv4 DHCP Enable	FALSE	“Disabled”, “Enabled”
DNSFromDHCP	DNS Servers From DHCP	FALSE	“Disabled”, “Enabled”

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

Table 29. DCIM_iDRACCardString IPv4 Information

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
Address	IPv4 Address	FALSE	0	16
Netmask	Net Mask	FALSE	0	16
Gateway	Gateway	FALSE	0	16
DNS1	DNS Server 1	FALSE	0	16
DNS2	DNS Server 2	FALSE	0	16

7.5.10. IPv6 Information

This section describes the attributes for iDRAC’s IPv6 Information Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be “IPv6.1”.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be “IPv6 Information”.

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 30. DCIM_iDRACCardEnumeration IPv6 Information

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	IPV6 Enable	FALSE	“Disabled”, “Enabled”
AutoConfig ¹	IPV6 Auto Config	FALSE	“Disabled”, “Enabled”
DNSFromDHCP6	DNS Server From DHCP6	FALSE	“Disabled”, “Enabled”
AddressState	Address State	TRUE	“Active”, “Disabled”, “Failed”, “Deprecated”, “Invalid”

NOTE: 1 – Enabling or Disabling stateless IPv6 address autoconfiguration.

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

Table 31. DCIM_iDRACCardString IPv6 Information

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
Gateway	IPV6 Gateway	FALSE	0	63
LinkLocalAddress	IPV6 Link Local Address	FALSE	0	63
DNS1	IPV6 DNS Server1	FALSE	0	63
DNS2	IPV6 DNS Server2	FALSE	0	63
Address1	IPV6 Address 1	TRUE	0	63
Address2	IPV6 Address 2	TRUE	0	63
Address3	IPV6 Address 3	TRUE	0	63
Address4	IPV6 Address 4	TRUE	0	63
Address5	IPV6 Address 5	TRUE	0	63
Address6	IPV6 Address 6	TRUE	0	63
Address7	IPV6 Address 7	TRUE	0	63
Address8	IPV6 Address 8	TRUE	0	63
Address9	IPV6 Address 9	TRUE	0	63
Address10	IPV6 Address 10	TRUE	0	63
Address11	IPV6 Address 11	TRUE	0	63
Address12	IPV6 Address 12	TRUE	0	63
Address13	IPV6 Address 13	TRUE	0	63
Address14	IPV6 Address 14	TRUE	0	63
Address15	IPV6 Address 15	TRUE	0	63

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 32. DCIM_iDRACCardInteger IPv6 Information

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
PrefixLength	IPV6 Link Local Prefix Length	FALSE	1	128
IPV6NumOfExtAddress	Total Number of Extended IP	TRUE	0	255

7.5.11. LDAP

This section describes the attributes for iDRAC's LDAP Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "LDAP.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "LDAP".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 33. DCIM_iDRACCardEnumeration LDAP

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	LDAP Enable	FALSE	"Disabled", "Enabled"
GroupAttributeIsDN	LDAP Group Attribute Is Domain Name	FALSE	"Disabled", "Enabled"
CertValidationEnable	Enable LDAP Certificate Validation	FALSE	"Disabled", "Enabled"

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

Table 34. DCIM_iDRACCardString LDAP

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
Server	LDAP Server	FALSE	0	1024
BaseDN ¹	LDAP Base Domain Name	FALSE	0	254
UserAttribute	LDAP User Attribute	FALSE	0	254
GroupAttribute	LDAP Group Attribute	FALSE	0	254
BindDN ²	LDAP Bind Distinguished Name	FALSE	0	254
BindPassword	LDAP Bind Password	FALSE* (this attribute is for setting only)	0	255
SearchFilter	LDAP Search Filter	FALSE	0	1024

NOTE: 1 - Domain Name of the branch of the directory where all searches should start from.

NOTE: 2 - The distinguished name (DN) of a user used to bind to the server when searching for the login user's DN. If not provided an anonymous bind will be used.

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 35. DCIM_iDRACCardInteger LDAP

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Port	LDAP Port	FALSE	1	65535

7.5.12. LDAP Group

This section describes the attributes for iDRAC's LDAP Group Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "LDAPRoleGroup.<#>" where <#> is a number 1 through 5.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "LDAP Group".

The following table describes the values for the DCIM_iDRACCardString of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardString class. The Value Expression column contains

constraints on string value formulation. Each row contains the values for the properties listed in the column headings.

Table 36. DCIM_iDRACCardString LDAP Group

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
DN	LDAP Role Group Domain Name	FALSE	0	1024

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 37. DCIM_iDRACCardInteger LDAP Group

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Privilege ¹	LDAP Group Privilege	FALSE	0	511

NOTE: 1 – See ANNEX A for information on mapping into iDRAC privileges.

7.5.13. Local Security

This section describes the attributes for iDRAC's Active Directory Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "LocalSecurity.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Local Security".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 38. DCIM_iDRACCardEnumeration Local Security

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
PrebootConfig	Preboot Config	FALSE	"Disabled", "Enabled"
LocalConfig	Local Config	FALSE	"Disabled", "Enabled"

7.5.14. NIC Information

This section describes the attributes for iDRAC's NIC Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "NIC.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "NIC Information".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 39. DCIM_iDRACCardEnumeration NIC Information

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	NIC Enable	FALSE	"Disabled", "Enabled"
Selection	NIC Selection	FALSE	"Dedicated", "LOM1", "LOM2", "LOM3", "LOM4"
Failover	NIC Failover	FALSE	"None", "LOM1", "LOM2", "LOM3", "LOM4", "All"
Speed	NIC Speed	FALSE	"10", "100", "1000"
Autoneg	NIC Auto Negotiation	FALSE	"Disabled", "Enabled"
Duplex	NIC Duplex	FALSE	"Half", "Full"
DNSRegister	DNS Register RAC	FALSE	"Disabled", "Enabled"
DNSDomainFromDHCP	DNS Domain Name from DHCP	FALSE	"Disabled", "Enabled"
AutoConfig	Auto Configuration enable	FALSE	"Disabled", "Enable Once", "Enable Once After Reset"
VlanEnable	Enable VLAN	FALSE	"Disabled", "Enabled"
AutoDetect*	Auto NIC Enable	FALSE	"Disabled", "Enabled"
VlanPort	Vlan port	FALSE	"Both", "Dedicated port only", "LOM ports only"

*Auto Detect attribute will be disabled for C64xx series of platform.

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

Table 40. DCIM_iDRACCardString NIC Information

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
MACAddress	MAC Address	TRUE	0	17
DNSRacName	DNS RAC Name	FALSE	0	63
DNSDomainName	DNS Domain Name	FALSE	0	254

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 41. DCIM_iDRACCardInteger NIC Information

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
MTU	NIC MTU	FALSE	576	1500
VlanID	VLAN ID	FALSE	1	4094
VlanPriority	VLAN Priority	FALSE	0	7
DedicatedNICScanTime	Shared to Dedicated Failover Timeout	FALSE	5	255
SharedNICScanTime	Dedicated to Shared Failover Timeout	FALSE	5	255

7.5.15. OS-BMC Passthru Configuration

This section describes the attributes for iDRAC's OS-BMC Passthru Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "OS-BMC.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "OS-BMC Passthru Configuration".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 42. DCIM_iDRACCardEnumeration OS-BMC Passthru Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
AdminState	LC and Host Private Channel State	FALSE	"Disabled", "Enabled"
PTCapability	OSBMC Pass Through Capability	TRUE	"Not Capable", "Capable", "Unavailable"
PTMode	OS-BMC PT Mode	FALSE	lom-p2p, usb-p2p

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

Table 43. DCIM_iDRACCardString OS-BMC Passthru Configuration

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
OsIpAddress	OS-BMC PT HOST IP Address	FALSE	0	16
UsbNicIpAddress	USB NIC IP Address	FALSE	0	16

7.5.16. Remote Racadm Configuration

This section describes the attributes for iDRAC's Remote Racadm Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Racadm.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Remote Racadm Configuration".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 44. DCIM_iDRACCardEnumeration Remote Racadm Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Remote Enable	FALSE	"Disabled", "Enabled"

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 45. DCIM_iDRACCardInteger Remote Racadm Configuration

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Timeout	Remote Timeout	FALSE	10	1920

NOTE: Defines the idle timeout (in seconds) for the Remote RACADM interface. If a remote RACADM session remains inactive for more than the specified sessions, the session is closed.

7.5.17. RAC Remote Hosts

This section describes the attributes for iDRAC's RAC Remote Hosts Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RemoteHosts.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RAC Remote Hosts".

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

Table 46. DCIM_iDRACCardString RAC Remote Hosts

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
SMTPServerIPAddress	SMTP Server IP Address	FALSE	0	255
SMTPUserName	SMTP User Name	FALSE	0	50
SMTPPassword	SMTP Password	FALSE	0	50
SMTPPort	SMTP Port	FALSE	1	65535

7.5.18. RAC Certificate

This section describes the attributes for iDRAC's RAC Certificate Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Security.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RAC Certificate".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 47. DCIM_iDRACCardEnumeration RAC Certificate

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
CsrKeySize	CSR Key Size	FALSE	1024, 2048, 4096 (1024 is kept for backward compability on 12G systems)
FIPS Mode	FIPS Mode	FALSE	Enabled, Disabled See Annex B for more information

The following table describes the values for the DCIM_iDRACCardString of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardString class. The Value Expression column contains

constraints on string value formulation. Each row contains the values for the properties listed in the column headings.

Table 48. DCIM_iDRACCardString RAC Certificate

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
CsrCommonName	CSR Common Name	FALSE	0	254
CsrOrganizationName	CSR Organization Name	FALSE	0	254
CsrOrganizationUnit	CSR Organization Unit	FALSE	0	254
CsrLocalityName	CSR Locality Name	FALSE	0	254
CsrStateName	CSR State Name	FALSE	0	254
CsrCountryCode	CSR Country Code	FALSE	0	2
CsrEmailAddr	CSR Email Address	FALSE	0	254

7.5.19. Serial Configuration

This section describes the attributes for iDRAC's Serial Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Serial.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Serial Configuration".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 49. DCIM_iDRACCardEnumeration Serial Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Serial Console Enable	FALSE	"Disabled", "Enabled"
BaudRate	Serial Baud Rate	FALSE	9600, 19200, 38400, 57600, 115200
NoAuth	Serial Console No Authentication	FALSE	"Disabled", "Enabled"

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

Table 50. DCIM_iDRACCardString Serial Configuration

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
Command ¹	Serial Console Command	FALSE	0	128

NOTE: 1 – Specifies a serial command that is executed after a user logs into the serial console interface.

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 51. DCIM_iDRACCardInteger Serial Configuration

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
IdleTimeout	Serial Console Idle Timeout	FALSE	60	1920
HistorySize	Serial History Size	FALSE	0	8192

7.5.20. RAC Serial Redirection

This section describes the attributes for iDRAC's RAC Serial Redirection Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "SerialRedirection.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RAC Serial Redirection".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 52. DCIM_iDRACCardEnumeration RAC Serial Redirection

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Serial Communication Redirection Enable	FALSE	"Disabled", "Enabled"

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

Table 53. DCIM_iDRACCardString RAC Serial Redirection

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
QuitKey	Serial Console Quit Key	FALSE	0	2

7.5.21. Smart Card Configuration

This section describes the attributes for iDRAC's Smart Card Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "SmartCard.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Smart Card Configuration".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 54. DCIM_iDRACCardEnumeration Smart Card Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
SmartCardLogonEnable	Smart Card Logon Enable	FALSE	"Disabled", "Enabled"
SmartCardCRLEnable	Smart Card CRL Enable	FALSE	"Disabled", "Enabled"

7.5.22. SNMP Configuration

This section describes the attributes for iDRAC's SNMP Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "SNMP.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "SNMP Configuration".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 55. DCIM_iDRACCardEnumeration SNMP Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
AgentEnable	SNMP Agent Enable	FALSE	"Disabled", "Enabled"
TrapFormat	SNMP Trap Format	FALSE	"SNMPv1", "SNMPv2"
SNMPProtocol	SNMP Protocol	FALSE	"All", "SNMPv3"

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

Table 56. DCIM_iDRACCardString SNMP

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
AgentCommunity	SNMP Agent Community	FALSE	0	31
EngineID	SNMP V3 Engine ID	TRUE	4	60

Table 57. DCIM_iDRACCardInteger SNMP Configuration

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
AlertPort	Alert Port	FALSE	1	65535
DiscoveryPort	Discovery Port	FALSE	1	65535

7.5.23. SNMP Alert Destination¹

This section describes the attributes for iDRAC's SNMP Alert Destination configuration.

The GroupID property for the DCIM_iDRACCardEnumeration and DCIM_iDRACCardString shall be "SNMPAlert.<#>" where <#> is a number from 1 to 8.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration and DCIM_iDRACCardString shall be "SNMP Alert Destination".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 58. DCIM_iDRACCardEnumeration SNMP Alert Destination

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
State	State	FALSE	"Disabled", "Enabled"

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

Table 59. DCIM_iDRACCardString SNMP Alert Destination

AttributeName	Attribute Description	IsReadOnly	MinLength	MaxLength
Destination ²	Alert Destination	FALSE	0	255
SNMPv3Username	SNMP V3 Username	FALSE	0	16

Table 60. DCIM_iDRACCardInteger SNMP Alert Destination

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
SNMPv3UserID	SNMP V3 UserID	FALSE	0	16

NOTE: 1 - These attributes are in lieu of the SNMP Trap IPv4 and SNMP Trap IPv6 attributes. Although the SNMP Trap IPv4 and SNMP Trap IPv6 attributes are deprecated, they shall still be functional for backwards compatibility. The SNMPTrapIPv4.1 through SNMPTrapIPv4.4 attributes shall be mapped to this group's SNMPAlert.1 through SNMPAlert.4 attributes, and the SNMPTrapIPv6.1 through SNMPTrapIPv6.4 attributes shall be mapped to this group's SNMPAlert.5 through SNMPAlert.8 attributes.

NOTE: 2 - The attribute value, the CurrentValue and PendingValue properties, may be an IPv4 address, an IPv6 address or a fully qualified domain name (FQDN).

7.5.24. RAC SSH

This section describes the attributes for iDRAC's SSH Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "SSH.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RAC SSH".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 61. DCIM_iDRACCardEnumeration RAC SSH

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Enable	FALSE	"Disabled", "Enabled"

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 62. DCIM_iDRACCardInteger RAC SSH

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Port	SSH Port	FALSE	1	65535
Timeout ¹	SSH Idle Timeout	FALSE	60	10800

NOTE: 1 - Specifies the number of seconds after which an idle Telnet session is automatically terminated.

7.5.25. RAC Telnet

This section describes the attributes for iDRAC's Telnet Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Telnet.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Telnet Configuration".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 63. DCIM_iDRACCardEnumeration Telnet Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Enable	FALSE	"Disabled", "Enabled"

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 64. DCIM_iDRACCardInteger Telnet Configuration

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Port	Telnet Port	FALSE	1	65535
Timeout ¹	Timeout	FALSE	60	10800

NOTE: 1 - Specifies the number of seconds after which an idle Telnet session is automatically terminated.

7.5.26. Sys Log

This section describes the attributes for iDRAC's Sys Log Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "SysLog.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Sys Log".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 65. DCIM_iDRACCardEnumeration Sys Log

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
SysLogEnable	Sys Log Enable	FALSE	"Disabled", "Enabled"
PowerLogEnable	Power Log Enable	FALSE	"Disabled", "Enabled"

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

Table 66. DCIM_iDRACCardString Sys Log

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
Server1	Sys Log Server 1	FALSE	0	63
Server2	Sys Log Server 2	FALSE	0	63
Server3	Sys Log Server 3	FALSE	0	63

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 67. DCIM_iDRACCardInteger Sys Log

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Port	Sys Log Port	FALSE	1	65535
PowerLogInterval	Power Log Interval	FALSE	1	1440

7.5.27. iDRAC Firmware Update

This section describes the attributes for iDRAC's Update Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration and DCIM_iDRACCardString shall be "Update.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration and DCIM_iDRACCardString shall be "Firmware Update".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 68. DCIM_iDRACCardEnumeration Update

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
FwUpdateTFTPEnable	Enable or Disable TFTP for Firmware Update	FALSE	"Disabled", "Enabled"
EnableSharedCompUpdate	Enable Shared Comp Update	FALSE	"Disabled", "Enabled"

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

Table 69. DCIM_iDRACCardString Update

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
FwUpdateIPAddr	Firmware Update IP Address	FALSE	0	255
FwUpdatePath	Firmware Update File Path	FALSE	0	255

7.5.28. User Domain

This section describes the attributes for iDRAC's User Domain Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "UserDomain.<#>" where "<#>" is a number 1 through 40.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "User Domain".

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

Table 70. DCIM_iDRACCardString User Domain

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
Name	User Domain Name	FALSE	0	255

7.5.29. iDRAC Users

This section describes the attributes for iDRAC's Users Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Users.<#>" where "<#>" is a number from 1 to 16.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "iDRAC Users".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 71. DCIM_iDRACCardEnumeration Users

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
IpmiLanPrivilege	User Admin IPMI LAN Privilege	FALSE ¹	User, Operator, Administrator, No Access
IpmiSerialPrivilege	User Admin IPMI Serial Privilege	FALSE ¹	User, Operator, Administrator, No Access
Enable	User Admin Enable	FALSE ¹	"Disabled", "Enabled"
SolEnable	User Admin SOL Enable	FALSE ¹	"Disabled", "Enabled"
ProtocolEnable	SNMP V3 Protocol Enable	FALSE ¹	"Disabled", "Enabled"
AuthenticationProtocol	SNMP V3 Authentication Protocol	FALSE ¹	"None", "MD5", "SHA"
PrivacyProtocol	SNMP V3 Privacy Protocol	FALSE ¹	"None", "DES", "AES"

NOTE: 1 – IpmiLanPrivilege, IpmiSerialPrivilege, Enable, SolEnable, ProtocolEnable, AuthenticationProtocol and PrivacyProtocol attribute for Users.1 GroupID is Read-Only, but for the GroupID Users.2 to Users.16, the attribute is settable.

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

Table 72. DCIM_iDRACCardString iDRAC Users

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
UserName	User Admin User Name	FALSE ¹	0	16
Password ²	User Admin Password	FALSE	0	20
SHA256Password	SHA256 hash of the password	FALSE	0	64
SHA256PasswordSalt	Salt string appended to password prior to hash	FALSE	0	32
SHA1v3Key	SHA1 Hash of the SNMP V3 key	FALSE	0	40
MD5v3Key	MD5 Hash of the SNMP V3 key	FALSE	0	32
SHA1IPMIKey	SHA1 Hash of the IPMI key	FALSE	0	40
MD5IPMIKey	MD5 Hash of the IPMI key	FALSE	0	32

NOTE: 1 – UserName attribute for Users.1 GroupID is Read-Only, but for the GroupID Users.2 to Users.16, the attribute is settable.

NOTE: 2 – Password attribute is write-only, and thus its value is never returned in the CurrentValue, PendingValue, and DefaultValue properties.

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 73. DCIM_iDRACCardInteger iDRAC Users

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Privilege ³	User Admin Privilege	FALSE ¹	0	511

NOTE: 1 – Privilege attribute for Users.1 GroupID is Read-Only, but for the GroupID Users.2 to Users.16, the attribute is settable.

NOTE: 3 – See ANNEX A for information on mapping into iDRAC privileges.

7.5.30. Virtual Console Configuration

This section describes the attributes for iDRAC's Virtual Console Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "VirtualConsole.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Virtual Console Configuration".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 74. DCIM_iDRACCardEnumeration Virtual Console Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Enable	FALSE	"Disabled", "Enabled"
LocalVideo	Local Video	FALSE	"Disabled", "Enabled"
PluginType	Plugin Type	FALSE	"Active X", "Java", "HTML5"
EncryptEnable	Encrypt Enable	FALSE	"None", "AES"
AccessPrivilege	Default action upon session sharing request timeout	FALSE	"Deny Access", "Read Only Access", "Full Access"
AttachState	Attach State	FALSE	"Detached", "Attached", "Auto-Attach"
BootCaptureSequence	Boot Capture Sequence	FALSE	Min-0 ;Max -2

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 75. DCIM_iDRACCardInteger Virtual Console Configuration

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Timeout ¹	Timeout	FALSE	60	10800
MaxSessions	Max Sessions	FALSE	1	6
Port	vKVM Port	FALSE	10	65535

NOTE: 1 – Timeout in seconds.

7.5.31. Virtual Media Configuration

This section describes the attributes for iDRAC's Virtual Media Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "VirtualMedia.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Virtual Media".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 76. DCIM_iDRACCardEnumeration Virtual Media Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Attached	RAC Virtual Media Attached	FALSE	"Detached", "Attached", "AutoAttach"
BootOnce	Virtual Media Boot Once	FALSE	"Disabled", "Enabled"
KeyEnable	Virtual Media Key Enable	FALSE	"Disabled", "Enabled"
FloppyEmulation	Virtual Media Floppy Emulation	FALSE	"Disabled", "Enabled"

7.5.32. RAC Web Server

This section describes the attributes for iDRAC's Web Server Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "f.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RAC Web Server".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 77. DCIM_iDRACCardEnumeration Web Server

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Enable	FALSE	<ul style="list-style-type: none">• "Disabled"• "Enabled"
LowerEncryptionBitLength	Lower Encryption Bit Length	FALSE	<ul style="list-style-type: none">• "Disabled"• "Enabled"
HttpsRedirection	Https Redirection	FALSE	<ul style="list-style-type: none">• "Disabled"• "Enabled"
SSLEncryptionBitLength	SSL Encryption Bit Length	FALSE	<ul style="list-style-type: none">• "Auto-Negotiate",• "128-Bit or higher".• "168-Bit or higher",• "256-Bit or higher" **
TLSProtocol	TLS Protocol Support	FALSE	<ul style="list-style-type: none">• TLS 1.0 and Higher• TLS 1.1 and Higher• TLS 1.2 Only

**NOTE: "Selecting a higher SSL encryption enhances the security. However, the cryptography settings for your virtual machine environment (JVM, IcedTea) may require modifications to permit usage of iDRAC plugins such as vConsole with this higher level of encryption. For more information, see the Dell TechCenter.

Using this level of encryption may have import or export implications. For more guidance, contact your legal department."

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 78. DCIM_iDRACCardInteger Web Server

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
HttpPort	Http Port	FALSE	1	65535
HttpsPort	Https Port	FALSE	1	65535
Timeout	Timeout	FALSE	60	10800
MaxNumberOfSessions	Max Number Of Sessions	FALSE	1	8

7.5.33. Time Zone Configuration

This section describes the attributes for iDRAC's Time Zone Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Time.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Time Zone Configuration Information".

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 79. DCIM_iDRACCardInteger Time Zone Configuration Information

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
TimeZoneOffset	Tune Time Zone Offset	FALSE	-43200	46800
DaylightOffset	Tune Day Light Offset	FALSE	0	60

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

Table 80. DCIM_iDRACCardString Time Zone Configuration Information

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
TimeZone	Time Zone String	FALSE	0	32

The time zone string would be what is supported by Linux (/usr/share/zoneinfo)

7.5.34. NTP Configuration

This section describes the attributes for iDRAC's NTP Configuration

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "NTPConfigGroup.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "NTP Configuration Group".

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

Table 81. DCIM_iDRACCardString NTP Configuration

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
NTP1	NTP Server 1	FALSE	0	254
NTP2	NTP Server 2	FALSE	0	254
NTP3	NTP Server 3	FALSE	0	254

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 82. DCIM_iDRACCardEnumeration NTP Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
NTPEnable	NTP Enable	FALSE	"Disabled", "Enabled"

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger 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 83. DCIM_iDRACCardInteger NTP Configuration

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
NTPMaxDist	NTP Maximum Distance	FALSE	1	128

7.5.35. Remote File Share Configuration

This section describes the attributes for iDRAC's Remote File Share Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "RFS.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration, DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "Remote File Share".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 84. DCIM_iDRACCardEnumeration Remote File Share

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
MediaAttachState	Media Attach State	TRUE	"Attached", "Detached"
AttachMode	Media Attach Mode	FALSE	Auto Attach, Attach
Enable	Enable	FALSE	Disabled, Enabled
Status	Status	FALSE	Done, Pending, Error

7.5.36. NIC Static Information

This section describes the attributes for iDRAC's NIC Static Configuration.

The GroupID property for the DCIM_iDRACCardString shall be "NICStatic.1".

The GroupDisplayName property for the DCIM_iDRACCardString shall be "NIC Static Information".

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

Table 85. DCIM_iDRACCardString NIC Static Information

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
DNSDomainName	DNS Domain Name	FALSE	0	254

7.5.37. IPv4 Static Information

This section describes the attributes for iDRAC's IPv4 Static Information.

The GroupID property for the DCIM_iDRACCardString shall be "Pv4Static.1".

The GroupDisplayName property for the DCIM_iDRACCardString shall be "IPv4 Static Information".

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

Table 86. DCIM_iDRACCardString IPv4 Static Information

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
Address	IPv4 Address	FALSE	0	16
Netmask	Net Mask	FALSE	0	16
Gateway	Gateway	FALSE	0	16
DNS1	DNS Server 1	FALSE	0	16
DNS2	DNS Server 2	FALSE	0	16

7.5.38. IPv6 Static Information

This section describes the attributes for iDRAC's IPv6 Static Information.

The GroupID property for the DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IPv6Static.1".

The GroupDisplayName property for the DCIM_iDRACCardString, and DCIM_iDRACCardInteger shall be "IPv6 Static Information".

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

Table 87. DCIM_iDRACCardString IPv6 Static Information

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
Address1	IPV6 Address 1	FALSE	0	63
Gateway	IPV6 Gateway	FALSE	0	63
DNS1	IPV6 DNS Server1	FALSE	0	63
DNS2	IPV6 DNS Server2	FALSE	0	63

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 88. DCIM_iDRACCardInteger IPv6 Static Information

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
PrefixLength	IPV6 Link Local Prefix Length	FALSE	1	128

7.5.39. Default Credential Mitigation Configuration

This section describes the attributes for iDRAC's credential mitigation configuration.

The GroupID property for the DCIM_iDRACCardEnumeration shall be "DefaultCredentialMitigationConfigGroup.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be "Default Credential Mitigation Configuration".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 89. DCIM_iDRACCardEnumeration Default Credential Mitigation Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
DefaultCredentialMitigation	Default Credential Mitigation	FALSE	"Enabled", "Disabled"

7.5.40. IPv6 URL Information

This section describes the attributes for iDRAC's IPv6 URL information.

The GroupID property for the DCIM_iDRACCardString shall be "IPv6URL.1".

The GroupDisplayName property for the DCIM_iDRACCardString shall be "iDRAC IPv6 URL".

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

Table 90. DCIM_iDRACCardString IPv6 URL Information

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
URL	IPv6 URL	TRUE	0	80

7.5.41. iDRAC Logging

This section describes the attributes for iDRAC's iDRAC Logging information.

The GroupID property for the DCIM_iDRACCardEnumeration shall be "Logging.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be "iDRAC Logging".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 91. DCIM_iDRACCardEnumeration iDRAC Logging

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
SELOEMEventFilterEnable	SEL OEM Event Filter Enable	FALSE	"Disabled", "Enabled"

7.5.42. IO Identity Optimization

This section describes the attributes for iDRAC's IO Identity Optimization

The GroupID property for the DCIM_iDRACCardEnumeration shall be "IOIDOpt.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be "IO Identity Optimization".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 92. DCIM_iDRACCardEnumeration IO Identity Optimization

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
IOIDOptEnable	IOIDOpt Enable	FALSE	<ul style="list-style-type: none"> • "Disabled" • "Enabled"
VirtualAddressPersistencePolicyNonAuxPwr	Virtual Address Persistence Policy Non Auxiliary Powered	FALSE	<ul style="list-style-type: none"> • "None", • "Warm Reset", • "ColdReset", • "WarmReset, ColdReset" • "AC Power Loss", • "WarmReset, ACPowerLoss", • "ColdReset, AC Power Loss", • "Warm Reset, ColdReset, ACPowerLoss"
VirtualAddressPersistencePolicyAuxPwr	Virtual Address Persistence Policy Auxiliary Powered	FALSE	<ul style="list-style-type: none"> • "None", • "Warm Reset", • "ColdReset", • "WarmReset, ColdReset" • "AC Power Loss", • "WarmReset, ACPowerLoss", • "ColdReset, AC Power Loss", • "Warm Reset, ColdReset, ACPowerLoss"
InitiatorPersistencePolicy	Initiator Persistence Policy	FALSE	<ul style="list-style-type: none"> • "None", • "Warm Reset", • "ColdReset", • "WarmReset, ColdReset" • "AC Power Loss", • "WarmReset, ACPowerLoss", • "ColdReset, AC Power Loss", • "Warm Reset, ColdReset, ACPowerLoss"
StorageTargetPersistencePolicy	Storage Target Persistence Policy	FALSE	<ul style="list-style-type: none"> • "None", • "Warm Reset", • "ColdReset", • "WarmReset, ColdReset" • "AC Power Loss", • "WarmReset, ACPowerLoss", • "ColdReset, AC Power Loss", • "Warm Reset, ColdReset, ACPowerLoss"

7.5.43. VNC Server

This section describes the attributes for iDRAC's VNC Server

The GroupID property for the DCIM_iDRACCardEnumeration shall be "VNCServer.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be "RAC VNC Server".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 93. DCIM_iDRACCardEnumeration VNC Server

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Enable	FALSE	"Disabled","Enabled"
LowerEncryptionBitLength	Lower Encryption Bit Length	FALSE	"Disabled","Enabled"
SSLEncryptionBitLength	SSL Encryption Bit Length	FALSE	<ul style="list-style-type: none">• "Disabled",• "Auto Negotiate"• "128-Bit or higher",• "168-Bit or higher",• "256-Bit or higher"

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

Table 94. DCIM_iDRACCardString VNC Server

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
Password	Password	FALSE	0	9

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 95. DCIM_iDRACCardInteger VNC Server

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
Port	Port	FALSE	1024	65535
Timeout	Timeout	FALSE	60	10800
MaxSessions	MaxSessions	FALSE	1	2
ActiveSessions	ActiveSessions	TRUE	0	2

7.5.44. ServiceModule

This section describes the attributes for ServiceModule on host machine

The GroupID property for the DCIM_iDRACCardEnumeration shall be "ServiceModule.1"

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be "ServiceModule".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 96. DCIM_iDRACCardEnumeration ServiceModule

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
OSInfo	Sharing of OS Information via ServiceModule	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled” Default: 1
WatchdogState	Watchdog timer via ServiceModule	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled” Default: 0
WatchdogRecoveryAction	Recovery action on watchdog alert	FALSE	<ul style="list-style-type: none"> • 0 – none • 1 – reboot • 2 – poweroff • 3 – powercycle Default:None The value cannot be set if WatchdogState is Disabled
SNMPOnHostOS (Not Supported in Espada 1.4)	SNMP forwarding on the host	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled” Default: 0
LCLReplication	LCL replication in OS Log	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled” Default: 0 This value of this object will be automatically set to disabled if OMSA is detected. An attempt to enable it when OMSA is detected will return an appropriate error.
WMIInfo (Not Supported in Espada 1.4)	Populate WMI information via ServiceModule	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled” Default: 0
ServiceModuleEnable	ServiceModuleEnable	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled” Default: 1
ServiceModuleState	ServiceModule service state on host	TRUE	<ul style="list-style-type: none"> • “Not Running”, • “Running” Default: Not Running
OMSAPresence	OMSA Presence on Host	True	<ul style="list-style-type: none"> • “Not Present”, • “Present”, • “NA” Default: NA
iDRACHardReset	iDRAC Hard Reset	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled”
HostSNMPAlert	HostSNMPAlert	Disabled	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled”

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
SWRaidMonitoring	Enumerate and monitor devices behind Software RAID	Enabled	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled”

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

Table 97. DCIM_iDRACCardString ServiceModule

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
ServiceModuleVersion	Version of installed ServiceModule	True	1 Default: NA Version Number if ServiceModule installed	256

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 98. DCIM_iDRACCardInteger ServiceModule

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
WatchdogResetTime	System reset time on watchdog alert	FALSE	60 Default: 480 The value cannot be set if WatchdogState is Disabled	720

Note: ServiceModule needs to be installed on the machine's OS, in order to be able to set watchdog attributes, otherwise appropriate error message will be displayed in such cases

7.5.45. USB Configuration

This section describes the attributes for iDRAC's USB Management Port Mode. This attribute is used to determine whether the USB port will be used by iDRAC or Server.

The GroupID property for the DCIM_iDRACCardEnumeration shall be “USB.1”.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be “USB Management”.

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 99. DCIM_iDRACCardEnumeration USB Configuration

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
ManagementPortMode	Management Port Mode	True	Automatic: If a USB device is not supported by iDRAC or there's no useful management content (e.g. XML configuration files) present on the device, it is detached from iDRAC & attached to the Server. Standard OS Use: USB device will always be used by the operating system. iDRAC Direct Only: USB device will always be used by iDRAC. Note: Default value is "iDRAC Direct Only".
ConfigurationXML	Configuration XML	False	"Disabled", "Enabled", "Enabled while server has default credential settings only", "Enabled only for compressed configuration files"
PortStatus	Port Status	True	"Disabled", "Enabled"
HostFrontPortStatus	HostFrontPortStatus	False	"Disabled" "Enabled"
HostFrontPortsDynamic Mode	HostFrontPortsDynamic Mode	True	"Disabled" "Enabled"

Table 100. DCIM_iDRACCardString ZipPassword

AttributeName	Description	IsReadOnly	Possible Values
ZipPassword	Password for zip file containing Server Configuration profile	False	String <ul style="list-style-type: none"> • Min length -0 • MaxLength -128

7.5.46. Custom Signing Certificate (CSC)

This section describes the attributes for iDRAC's Custom Signing Certificate.

The GroupID property for the DCIM_iDRACCardString shall be "SecurityCSC.1".

The GroupDisplayName property for the DCIM_iDRACCardString shall be "iDRAC Custom Signing Certificate".

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

Table 101. DCIM_iDRACCardString Custom Signing Certificate

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
CSCCsBusiness	CSC CSR Business Name	FALSE	0	64
CSCCsCityName	CSC CSR City Name	FALSE	0	64
CSCCsCommonName	CSC CSR Common Name	FALSE	0	64

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
CSCCsrCountryCode	CSC CSR Country Code	FALSE	0	2
CSCCsrDeptName	CSC CSR Department Name	FALSE	0	64
CSCCsrEmailAddr	CSC CSR Email Address	FALSE	0	64
CSCCsrStateName	CSC CSR State Name	FALSE	0	64

7.5.47. Security Policy Message

This section describes the attribute for Security policy message displayed on GUI screen

The GroupID property for the DCIM_iDRACCardString shall be "GUI.1".

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

Table 102. DCIM_iDRACCardString Security Policy Message

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
SecurityPolicyMessage	Security Policy Message	FALSE	0	1024

7.5.48. Server Boot

This section describes the attributes for iDRAC's Server Boot Group.

The GroupID property for the DCIM_iDRACCardEnumeration and DCIM_iDRACCardString shall be "ServerBoot.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration and DCIM_iDRACCardString shall be "Server Boot".

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

Table 103. DCIM_iDRACCardString Server Boot

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
FirstBootDevice	First Boot Device	FALSE	0	64

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 104. DCIM_iDRACCardEnumeration Server Boot

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
BootOnce	Boot Once	FALSE	"Enabled", "Disabled"

7.5.49. Automatic OS Lock

This section describes the attributes for iDRAC's Automatic OS Lock Group.

The GroupID property for the DCIM_iDRACCardEnumeration shall be "AutoOSLockGroup.1".

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be “Automatic OS Lock Group”.

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 105. DCIM_iDRACCardEnumeration Server Boot

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
AutoOSLockState	Auto OS Lock State	FALSE	“Enabled”, “Disabled”

7.5.50. Redfish

This section describes the attributes for iDRAC’s Redfish Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration shall be “Redfish.1”.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be “Redfish”.

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 106. DCIM_iDRACCardEnumeration Redfish

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Enable	FALSE	“Enabled”, “Disabled”

7.5.51. Redfish Eventing

This section describes the attributes for iDRAC’s Redfish Eventing Configuration.

The GroupID property for the DCIM_iDRACCardEnumeration and DCIM_iDRACCardInteger shall be “RedfishEventing.1”.

The GroupDisplayName property for the DCIM_iDRACCardEnumeration and DCIM_iDRACCardInteger shall be “RedfishEventing”.

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 107. DCIM_iDRACCardEnumeration Redfish Eventing

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
IgnoreCertificateErrors	Ignore Certificate Errors	TRUE	“Yes”

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

Table 108. DCIM_iDRACCardInteger Redfish

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
DeliveryRetryAttempts	Delivery Retry Attempts	FALSE	0	5
DeliveryRetryIntervalInSeconds	Delivery Retry Interval In Seconds	FALSE	5	60

7.5.52. Group Manager

This section describes the attributes for iDRAC's group manager.

The GroupID property for the DCIM_iDRACCardString shall be "GroupManager.1".

The GroupDisplayName property for the DCIM_iDRACCardString shall be "Group Manager".

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

Table 109. DCIM_iDRACCardString Group Manager

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
GroupName	Group Name	TRUE	0	32
GroupUUID	Group UUID	TRUE	0	32

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 110. DCIM_iDRACCardEnumeration Group Manager

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Status	Feature Status	FALSE	"Enabled", "Disabled"

7.5.53. SupportAssist

This section describes the attributes for iDRAC's SupportAssist feature.

The GroupID property for the DCIM_iDRACCardEnumeration shall be "SupportAssist.1"

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be "SupportAssist".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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 111. DCIM_iDRACCardEnumeration SupportAssist

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
EmailOptIn	Email Opt In	FALSE	<ul style="list-style-type: none"> • 0 – “No” • 1 – “Yes” Default: 1
EventBasedAutoCollection	SupportAssist Event Based Auto Collection	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled” Default: 0 This attribute can be set after accepting Eula (using SupportAssistAcceptEULA() method) and enabling SupportAssistEnableState attribute
FilterAutoCollections	FilterAutoCollections	FALSE	<ul style="list-style-type: none"> • 0 – “No” • 1 – “Yes” Default: 0
HostOSProxyConfigured	HostOSProxyConfigured	FALSE	<ul style="list-style-type: none"> • 0 – “No” • 1 – “Yes” Default: 0
NativeOSLogsCollectionSupported	Native OS Logs Collection Supported	FALSE	<ul style="list-style-type: none"> • None • FullReport • FilteredReport • Both Default : None
PreferredLanguage	PreferredLanguage	FALSE	<ul style="list-style-type: none"> • 0 – “English” • 1 – “German” • 2 – “French” • 3 – “Japanese” • 4 – “Spanish” • 5 – “Simplified Chinese” Default: 0
ProSupportPlusRecommendationsReport	ProSupportPlusRecommendationsReport	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled” Default: 0
SupportAssistEnableState	SupportAssist Enable State	FALSE	<ul style="list-style-type: none"> • 0 – “Disabled” • 1 – “Enabled” Default: 0
DefaultProtocol	Default Protocol	FALSE	<ul style="list-style-type: none"> • 1 – NFS • 2 – CIFS Default: NFS

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

Table 112. DCIM_iDRACCardString SupportAssist

AttributeName	AttributeDisplayName	IsReadOnly	MinLength	MaxLength
DefaultIPAddress	Default IP Address	FALSE	0	64
DefaultPassword	Default Password	FALSE	0	64
DefaultShareName	Default Share Name	FALSE	0	64
DefaultUserName	DefaultUserName	FALSE	0	64
DefaultWorkgroupName	Default Workgroup Name	FALSE	0	64
HostOSProxyAddress	Host OS Proxy Address	FALSE	0	256
HostOSProxyUserName	HostOSProxyUserName	FALSE	0	64
HostOSProxyPassword	Host OS Proxy Password	FALSE	0	64
RegistrationID	SupportAssist Registration ID	TRUE	0	64

The following table describes the values for the DCIM_iDRACCardInteger of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardInteger class. Each row contains the values for the properties listed in the column headings.

Table 113. DCIM_iDRACCardInteger SupportAssist

AttributeName	AttributeDisplayName	IsReadOnly	LowerBound	UpperBound
HostOSProxyPort	HostOSProxyPort	FALSE	0	65535

Note: All attributes related to HostOSProxy can be set only after setting HostOSProxyConfigured to 'yes'

7.5.54. Receive SNMP Trap from OS: iDRAC MIB compatible

WSMAN will support new attribute "HostSNMPAlert" to enable/disable the routing of SNMP traps via ISM. The attribute will be a part of DCIM_iDRACCardEnumeration class. The corresponding enum and get command on this class will retrieve the current value set for this attribute. "SetAttribute" method in DCIM_iDRACCardService is to be used to set the value for this attribute.

Table 114. DCIM_iDRACCardEnumeration SNMP Alert via Host

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
HostSNMPAlert	SNMP Alert via Host	FALSE	<ul style="list-style-type: none"> 0 – "Disabled" 1 – "Enabled"

7.5.55. Lock down

This section describes the attributes for iDRAC's Lock down feature.

The GroupID property for the DCIM_iDRACCardEnumeration shall be "Lockdown.1"

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be "System Lockdown".

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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.

"SetAttribute/SetAttributes/ApplyAttribute/ ApplyAttributes" methods in DCIM_iDRAC CardService will be used to enable or Disable the attribute.

Table 115. DCIM_iDRACCardEnumeration System Lockdown

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
SystemLockdown	System Lockdown	FALSE	<ul style="list-style-type: none"> 0 – “Disabled” 1 – “Enabled”

7.5.56. SwitchConnectionView

This section describes the attributes for Switch Connection View feature.

The GroupID property for the DCIM_iDRACCardEnumeration shall be “SwitchConnectionView.1” and for DCIM_iDRACCardString shall be NIC.1

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be “Switch Connection View” and DCIM_iDRACCardString shall be NIC Information.

The following table describes the values for the DCIM_iDRACCardEnumeration and DCIM_iDRACCardString of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration and DCIM_iDRACCardString 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.

“SetAttribute/SetAttributes/ApplyAttribute/ ApplyAttributes” methods in DCIM_ iDRAC CardService will be used to modify the DCIM_iDRACCardEnumeration Attributes.

Table 116. DCIM_iDRACCardEnumeration SwitchConnectionView

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Enable	Enable	FALSE	<ul style="list-style-type: none"> 0 – “Disabled” 1 – “Enabled”

Table 117. DCIM_iDRACCardString SwitchConnectionView

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
SwitchConnection	Switch Connection	TRUE	Switch Connection ID details
SwitchPortConnection	Switch Port Connection	TRUE	Switch Port Connection ID details.

7.5.57. vFlash View

This section describes the attributes for vFlash View feature.

The GroupID property for the DCIM_iDRACCardEnumeration shall be “vFlashSD.1”

The GroupDisplayName property for the DCIM_iDRACCardEnumeration shall be “vFlash”

The following table describes the values for the DCIM_iDRACCardEnumeration of this group. Each column heading corresponds to a property name on the DCIM_iDRACCardEnumeration 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.

“SetAttribute/SetAttributes/ApplyAttribute/ ApplyAttributes” methods in DCIM_ iDRAC CardService will be used to modify the DCIM_iDRACCardEnumeration Attributes.

Table 118. DCIM_iDRACCardEnumeration VFlash View

AttributeName	AttributeDisplayName	IsReadOnly	PossibleValues
Presence	Presence	FALSE	<ul style="list-style-type: none"> 0 – “Disabled” 1 – “Enabled”

7.6. DCIM_iDRACCardService – iDRAC CardService

This section describes the implementation for the DCIM_iDRACCardService class. It is used to host the ApplyAttributes method which is used to change the values of the iDRAC Card attribute values.

7.6.1. Resource URIs for WinRM®

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

The key properties shall be SystemCreationClassName, CreationClassName, SystemName and Name.

The instance Resource URI for DCIM_iDRACCardService instance shall be:

“http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_iDRACCardService?__cimnamespace=root/dcim+SystemCreationClassName= DCIM_ComputerSystem +CreationClassName= DCIM_iDRACCardService +SystemName= DCIM:ComputerSystem +Name= DCIM:iDRACCardService”

The following table lists the implemented operations on DCIM_iDRACCardService.

Table 119. DCIM_iDRACCardService - Operations

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

7.6.2. Class Properties

The following table details the implemented properties for DCIM_iDRACCardService instance representing the integer type attributes of a remote access card 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 120. DCIM_iDRACCardService - Properties

Properties and Methods	Requirements	Type	Requirement and description
SystemCreationClassName	Mandatory	string	Key(This property value shall be “DCIM_ComputerSystem”)
CreationClassName	Mandatory	string	Key (This property value shall be “DCIM_iDRACCardService”)
SystemName	Mandatory	string	Key (This property value shall be “DCIM:ComputerSystem”)
Name	Mandatory	string	This property shall have value of "DCIM:iDRACCardService".
ElementName	Mandatory	string	This property shall have value of ""DRAC Service".

7.7. iDRAC Card Profile Registration

This section describes the implementation for the DCIM_LCRegisteredProfile class.

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

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:iDRACCard:1.0.0"

7.7.2. Operations

The following table lists the implemented operations on DCIM_LCRegisteredProfile.

Table 121. DCIM_LCRegisteredProfile - Operations

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

7.7.3. Class Properties

The following table details the implemented properties for DCIM_LCRegisteredProfile instance representing iDRAC Card 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 122. DCIM_LCRegisteredProfile - Properties

Property Name	Requirement	Type	Additional Requirements
InstanceID	Mandatory	String	DCIM:iDRACCard:4.0.0
RegisteredName	Mandatory	String	This property shall have a value of "iDRAC Card".
RegisteredVersion	Mandatory	String	This property shall have a value of "4.0.0".
RegisteredOrganization	Mandatory	Uint16	This property shall have a value of 1 (Other).
OtherRegisteredOrganization	Mandatory	String	The property value shall match "DCIM".
AdvertisedTypes[]	Mandatory	Uint16	This property array shall contain [1(Other), 1 (Other)].
AdvertiseTypeDescriptions[]	Mandatory	String	This property array shall contain ["WS-Identify", "Interop Namespace"].
ProfileRequireLicense[]	Mandatory	String	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[]	Mandatory	String	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: <ul style="list-style-type: none">• "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_iDRACCardService.SetAttribute()

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

Invocation of the SetAttribute() method shall change the value of the DCIM_IDRACCardAttribute.CurrentValue or DCIM_IDRACCardAttribute.PendingValue property to the value specified by the AttributeValue parameter if the DCIM_IDRACCardAttribute.IsReadOnly property is FALSE.

Invocation of this method when the DCIM_IDRACCardAttribute.IsReadOnly property is TRUE shall result in no change to the value of the DCIM_IDRACCardAttribute.CurrentValue property. The results of changing this value is described with the SetResult parameter.

Return code values for the SetAttribute() method are specified in Table 123 and parameters are specified in Table 124. Invoking the SetAttribute() method multiple times can result in the earlier requests being overwritten or lost.

Table 123. SetAttribute() Method: Return Code Values

Value	Description
0	Completed with no error
2	Failed

Table 124. SetAttribute() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the iDRAC Card
IN, REQ	AttributeName	String	Shall be formatted in the following way: <GroupID property value>#<AttributeName property value>. Example: "MyGroup#MyAttribute"
IN, REQ	AttributeValue[]	String	Shall contain the required attribute value. For non-array attributes, only the first element shall be populated. If the value is valid, the CurrentValue or PendingValue property of the specified attribute will be modified.
OUT	SetResult	String	Returns: <ul style="list-style-type: none">• "Set CurrentValue" when the attributes current value is set.• "Set PendingValue" when the attributes pending value is set.
OUT	RebootRequired	String	Returns: <ul style="list-style-type: none">• "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 in English corresponding to MessageID is returned if the method fails to execute
OUT	MessageArguments[]	String	Substitution variables for dynamic error messages

Table 125. SetAttribute() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC001	The command was successful	
RAC002	General failure	
RAC003	Missing required parameter <parameter>	AttributeName, AttributeValue, Target
RAC004	Invalid parameter value for <parameter>	AttributeName, AttributeValue, Target
RAC005	Mismatch in AttributeName and AttributeValue count	
RAC006	AttributeValue cannot be changed for ReadOnly Attribute Name	
RAC007	Input out of range	
RAC008	Invalid Boolean Value	
RAC009	String exceeds maximum length	
RAC010	Invalid character value	
RAC011	Job already exists Cannot process more Sets	
RAC012	User is not Authorized to perform this operation	
RAC013	Invalid FQDD	
RAC014	Invalid Attribute was Entered	
RAC015	Not one of the Possible Values for AttributeName	AttributeName
RAC016	Invalid AttributeName	
RAC017	Job created to apply the attribute value	
RAC018	Completed with Errors	
RAC019	Job did not complete successfully.	
RAC020	Completed	
RAC021	DHCP is Enabled so cannot set static values for IPAddress Net mask or Gateway	
RAC022	The User Name is not configured so cannot Enable the User or set values for User Password IPMILan IPMISerial or User Admin Privilege	
RAC023	The User Password is not configured so cannot Enable the User or set values for IPMILan IPMISerial or User Admin Privilege	
RAC024	VLAN is Disabled so cannot set VLAN Priority	
RAC025	DNS from DHCP is Enabled so cannot set values for DNS1 or DNS2	
RAC026	Domain Name from DHCP Enabled so cannot set DNS Domain Name	
RAC027	Auto negotiation is Enabled so cannot set values for Speed or Duplex	
RAC028	DHCP is Disabled so cannot Enable DNS Domain Name From DHCP or DNS From DHCP	
RAC029	Required Dependency not found in input	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC030	Required Attribute that this Attribute is dependent on has incorrect value	
RAC031	Invalid Value specified for the User name	
RAC032	Invalid Value specified for the DNS RAC name	
RAC033	IPv4 is Disabled so cannot enable attribute	
RAC034	Job Control Failed to Create a Job	
RAC035	No Pending Configurations	
RAC037	No pending configurations to delete.	
RAC038	Unable to perform the operation due to an unknown error in iDRAC.	
RAC039	Invalid parameter value for <parameter>.	AttributeName, AttributeValue, Target
RAC040	Missing parameters <parameters>.	AttributeName, AttributeValue, Target
RAC041	The set operation on the event filters failed.	
RAC042	Invalid number of input parameters.	
RAC043	Unable to update some event filter settings.	
RAC044	Unable to update some event filter settings.	
RAC045	Event filter does not exist for input parameter combination.	
RAC046	Unsupported event notification for the event filter specified.	
RAC047	Unsupported event action for the specified event filter.	
RAC048	The operation was successful.	
RAC049	Resource allocation failure.	
RAC050	Invalid country code	
RAC051	Unsupported parameter name <parameter name>	
RAC053	OS to iDRAC pass-through is disabled.	
RAC063	The attribute string length entered is inappropriate: <parameter>	AttributeName
RAC075	Unable to set the attribute because RSM is Disabled Update.1#EnableSharedCompUpdate	
JCP017	Job creation request unsuccessful. Maximum number of jobs reached.	
JCP018	Cannot create new jobs until the existing Export job is completed or the job is cancelled.	
JCP019	Cannot create new jobs until the existing Import System Profile job is completed or cancelled.	
LIC502	Feature(s) not available.	
LIC503	A required license is missing or expired. The following features are not enabled: <features>	

MessageID (OUT parameter)	Message	MessageArguments[]
LC062	An instance of Export or Import System Configuration is already running.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	
STOR087	Unable to start the configuration operation because the System Lockdown mode is enabled.	
SYS291	Unable to start the configuration operation because the System Lockdown mode is enabled.	
BIOS031	Unable to start the configuration operation because the System Lockdown mode is enabled.	
FC018	Unable to start the configuration operation because the System Lockdown mode is enabled.	
LC087	Unable to start the configuration operation because the System Lockdown mode is enabled.	
NIC025	Unable to start the configuration operation because the System Lockdown mode is enabled.	

8.2. DCIM_iDRACCardService.SetAttributes()

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

Invocation of the SetAttributes() method shall change the values of the DCIM_IDRACCardAttribute.CurrentValue or PendingValue properties that correspond to the names specified by the AttributeName parameter and the values specified by the AttributeValue parameter if the respective DCIM_IDRACCardAttribute.IsReadOnly property is FALSE. Invocation of this method when the respective DCIM_IDRACCardAttribute.IsReadOnly property is TRUE shall result in no change to the corresponding value of the DCIM_IDRACCardAttribute.CurrentValue property.

NOTE: If setting numerous attributes at the same time, please make sure that WSMAN client has a timeout of at least 120 seconds.

Return code values for the SetAttributes() method are specified in Table 126, and parameters are specified in Table 127.

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

Table 126. SetAttributes() Method: Return Code Values

Value	Description
0	Completed with no error
2	Failed

Table 127. SetAttributes() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the iDRAC Card

Qualifiers	Name	Type	Description/Values
IN, REQ	AttributeName[]	String	An array of values where each value shall be formatted in the following way: <GroupID property value>#<AttributeName property value>. Example: "MyGroup#MyAttribute"
IN, REQ	AttributeValue[]	String	Shall contain the desired attribute values. Array attributes shall not be set using this method. If the value is valid, the CurrentValue or PendingValue property of the specified attribute will be modified.
OUT	SetResult[]	String	Returns: <ul style="list-style-type: none"> • "Set CurrentValue" when the attributes current value is set. • "Set PendingValue" when the attributes pending value is set.
OUT	RebootRequired[]	String	Returns: <ul style="list-style-type: none"> • "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 in English corresponding to MessageID is returned if the method fails to execute
OUT	MessageArguments[]	String	Substitution variables for dynamic error messages

Table 128. SetAttributes() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC001	The command was successful	
RAC002	General failure	
RAC003	Missing required parameter <parameter>	AttributeName, AttributeValue, Target
RAC004	Invalid parameter value for <parameter>	AttributeName, AttributeValue, Target
RAC005	Mismatch in AttributeName and AttributeValue count	
RAC006	AttributeValue cannot be changed for ReadOnly Attribute Name	
RAC007	Input out of range	
RAC008	Invalid Boolean Value	
RAC009	String exceeds maximum length	
RAC010	Invalid character value	
RAC011	Job already exists Cannot process more Sets	
RAC012	User is not Authorized to perform this operation	
RAC013	Invalid FQDD	
RAC014	Invalid Attribute was Entered	
RAC015	Not one of the Possible Values for AttributeName	AttributeName

MessageID (OUT parameter)	Message	MessageArguments[]
RAC016	Invalid AttributeName	
RAC017	Job created to apply the attribute value	
RAC018	Completed with Errors	
RAC019	Job did not complete successfully.	
RAC020	Completed	
RAC021	DHCP is Enabled so cannot set static values for IPAddress Net mask or Gateway	
RAC022	The User Name is not configured so cannot Enable the User or set values for User Password IPMILan IPMISerial or User Admin Privilege	
RAC023	The User Password is not configured so cannot Enable the User or set values for IPMILan IPMISerial or User Admin Privilege	
RAC024	VLAN is Disabled so cannot set VLAN Priority	
RAC025	DNS from DHCP is Enabled so cannot set values for DNS1 or DNS2	
RAC026	Domain Name from DHCP Enabled so cannot set DNS Domain Name	
RAC027	Auto negotiation is Enabled so cannot set values for Speed or Duplex	
RAC028	DHCP is Disabled so cannot Enable DNS Domain Name From DHCP or DNS From DHCP	
RAC029	Required Dependency not found in input	
RAC030	Required Attribute that this Attribute is dependent on has incorrect value	
RAC031	Invalid Value specified for the User name	
RAC032	Invalid Value specified for the DNS RAC name	
RAC033	IPv4 is Disabled so cannot enable attribute	
RAC034	Job Control Failed to Create a Job	
RAC035	No Pending Configurations	
RAC037	No pending configurations to delete.	
RAC038	Unable to perform the operation due to an unknown error in iDRAC.	
RAC039	Invalid parameter value for <parameter>.	AttributeName, AttributeValue, Target
RAC040	Missing parameters <parameters>.	AttributeName, AttributeValue, Target
RAC041	The set operation on the event filters failed.	
RAC042	Invalid number of input parameters.	
RAC043	Unable to update some event filter settings.	
RAC044	Unable to update some event filter settings.	
RAC045	Event filter does not exist for input parameter combination.	
RAC046	Unsupported event notification for the event filter specified.	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC047	Unsupported event action for the specified event filter.	
RAC048	The operation was successful.	
RAC049	Resource allocation failure.	
RAC050	Invalid country code	
RAC051	Unsupported parameter name <parameter name>	
RAC063	The attribute string length entered is inappropriate: <parameter>	AttributeName
RAC075	Unable to set the attribute because RSM is Disabled Update.1#EnableSharedCompUpdate	
RAC053	OS to iDRAC pass-through is disabled.	
JCP017	Job creation request unsuccessful. Maximum number of jobs reached.	
JCP018	Cannot create new jobs until the existing Export job is completed or the job is cancelled.	
JCP019	Cannot create new jobs until the existing Import System Profile job is completed or cancelled.	
LIC502	Feature(s) not available.	
LIC503	A required license is missing or expired. The following features are not enabled: <features>	
LC062	An instance of Export or Import System Configuration is already running.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	
STOR087	Unable to start the configuration operation because the System Lockdown mode is enabled.	
SYS291	Unable to start the configuration operation because the System Lockdown mode is enabled.	
BIOS031	Unable to start the configuration operation because the System Lockdown mode is enabled.	
FC018	Unable to start the configuration operation because the System Lockdown mode is enabled.	
LC087	Unable to start the configuration operation because the System Lockdown mode is enabled.	
NIC025	Unable to start the configuration operation because the System Lockdown mode is enabled.	

8.3. DCIM_iDRACCardService.CreateTargetedConfigJob()

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

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

1. **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.
2. **UntilTime**: This parameter has a dependency on “ScheduledStartTime”. The “ScheduledStartTime” and “UntilTime” define a time window for scheduling the job(s). Once scheduled, jobs are executed within the time window.

If **CreateTargetedConfigJob()** method is executed without the three optional parameters discussed above, then the 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. See the “Job Control Profile” for more details.

Return code values for the **CreateTargetedConfigJob()** method are specified in Table 129, and parameters are specified in Table 130.

Subsequent calls to **CreateTargetedConfigJob** after the first **CreateTargetedConfigJob** results in error until the first job is completed.

Table 129. **CreateTargetedConfigJob()** Method: Return Code Values

Value	Description
2	Failed
4096	Job Created

Table 130. **CreateTargetedConfigJob()** Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the iDRAC Card
IN	ScheduledStartTime	String	Start time for the job execution in format: yyyyymmddhhmmss. The string "TIME_NOW" means immediate.
IN	UntilTime	String	End time for the job execution in format: yyyyymmddhhmmss. If this parameter is not NULL, then ScheduledStartTime parameter shall also be specified.
OUT	Job	CIM_Concrete Job 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	Job Completed Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 131. **CreateTargetedConfigJob()** Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC001	The command was successful	
RAC002	General failure	
RAC003	Missing required parameter <parameter>	AttributeName, AttributeValue, Target

MessageID (OUT parameter)	Message	MessageArguments[]
RAC004	Invalid parameter value for <parameter>	AttributeName, AttributeValue, Target
RAC005	Mismatch in AttributeName and AttributeValue count	
RAC006	AttributeValue cannot be changed for ReadOnly Attribute Name	
RAC007	Input out of range	
RAC008	Invalid boolean Value	
RAC009	String exceeds maximum length	
RAC010	Invalid character value	
RAC011	Job already exists Cannot process more Sets	
RAC012	User is not Authorized to perform this operation	
RAC013	Invalid FQDD	
RAC014	Invalid Attribute was Entered	
RAC015	Not one of the Possible Values for AttributeName	AttributeName
RAC016	Invalid AttributeName	
RAC017	Job created to apply the attribute value	
RAC018	Completed with Errors	
RAC019	Job did not complete successfully.	
RAC020	Completed	
RAC021	DHCP is Enabled so cannot set static values for IPAddress Net mask or Gateway	
RAC022	The User Name is not configured so cannot Enable the User or set values for User Password IPMILan IPMISerial or User Admin Privilege	
RAC023	The User Password is not configured so cannot Enable the User or set values for IPMILan IPMISerial or User Admin Privilege	
RAC024	VLAN is Disabled so cannot set VLAN Priority	
RAC025	DNS from DHCP is Enabled so cannot set values for DNS1 or DNS2	
RAC026	Domain Name from DHCP Enabled so cannot set DNS Domain Name	
RAC027	Auto negotiation is Enabled so cannot set values for Speed or Duplex	
RAC028	DHCP is Disabled so cannot Enable DNS Domain Name From DHCP or DNS From DHCP	
RAC029	Required Dependency not found in input	
RAC030	Required Attribute that this Attribute is dependent on has incorrect value	
RAC031	Invalid Value specified for the User name	
RAC032	Invalid Value specified for the DNS RAC name	
RAC033	IPv4 is Disabled so cannot enable attribute	
RAC034	Job Control Failed to Create a Job	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC035	No Pending Configurations	
RAC037	No pending configurations to delete.	
RAC038	Unable to perform the operation due to an unknown error in iDRAC.	
RAC039	Invalid parameter value for <parameter>.	AttributeName, AttributeValue, Target
RAC040	Missing parameters <parameters>.	AttributeName, AttributeValue, Target
RAC041	The set operation on the event filters failed.	
RAC042	Invalid number of input parameters.	
RAC043	Unable to update some event filter settings.	
RAC044	Unable to update some event filter settings.	
RAC045	Event filter does not exist for input parameter combination.	
RAC046	Unsupported event notification for the event filter specified.	
RAC047	Unsupported event action for the specified event filter.	
RAC048	The operation was successful.	
RAC049	Resource allocation failure.	
RAC050	Invalid country code	
RAC051	Unsupported parameter name <parameter name>	
JCP017	Job creation request unsuccessful. Maximum number of jobs reached.	
JCP018	Cannot create new jobs until the existing Export job is completed or the job is cancelled.	
JCP019	Cannot create new jobs until the existing Import System Profile job is completed or cancelled.	
LIC502	Feature(s) not available.	
LIC503	A required license is missing or expired. The following features are not enabled: <features>	
LC062	An instance of Export or Import System Configuration is already running.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	
STOR087	Unable to start the configuration operation because the System Lockdown mode is enabled.	
SYS291	Unable to start the configuration operation because the System Lockdown mode is enabled.	
BIOS031	Unable to start the configuration operation because the System Lockdown mode is enabled.	
FC018	Unable to start the configuration operation because the System Lockdown mode is enabled.	

MessageID (OUT parameter)	Message	MessageArguments[]
LC087	Unable to start the configuration operation because the System Lockdown mode is enabled.	
NIC025	Unable to start the configuration operation because the System Lockdown mode is enabled.	

8.4. DCIM_iDRACCardService.DeletePendingConfiguration()

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

Return code values for the DeletePendingConfiguration() method are specified in Table 132, and parameters are specified in Table 133.

Table 132. DeletePendingConfiguration() Method: Return Code Values

Value	Description
0	Success
2	Failed

Table 133. DeletePendingConfiguration() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the iDRAC Card
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 in English corresponding to MessageID is returned if the method fails to execute
OUT	MessageArguments[]	String	Substitution variables for dynamic error messages

Table 134. DeletePendingConfiguration() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC001	The command was successful	
RAC002	General failure	
RAC003	Missing required parameter <parameter>	AttributeName, AttributeValue, Target
RAC004	Invalid parameter value for <parameter>	AttributeName, AttributeValue, Target
RAC005	Mismatch in AttributeName and AttributeValue count	
RAC006	AttributeValue cannot be changed for ReadOnly Attribute Name	
RAC007	Input out of range	
RAC008	Invalid boolean Value	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC009	String exceeds maximum length	
RAC010	Invalid character value	
RAC011	Job already exists Cannot process more Sets	
RAC012	User is not Authorized to perform this operation	
RAC013	Invalid FQDD	
RAC014	Invalid Attribute was Entered	
RAC015	Not one of the Possible Values for AttributeName	AttributeName
RAC016	Invalid AttributeName	
RAC017	Job created to apply the attribute value	
RAC018	Completed with Errors	
RAC019	Job did not complete successfully.	
RAC020	Completed	
RAC021	DHCP is Enabled so cannot set static values for IPAddress Net mask or Gateway	
RAC022	The User Name is not configured so cannot Enable the User or set values for User Password IPMILan IPMISerial or User Admin Privilege	
RAC023	The User Password is not configured so cannot Enable the User or set values for IPMILan IPMISerial or User Admin Privilege	
RAC024	VLAN is Disabled so cannot set VLAN Priority	
RAC025	DNS from DHCP is Enabled so cannot set values for DNS1 or DNS2	
RAC026	Domain Name from DHCP Enabled so cannot set DNS Domain Name	
RAC027	Auto negotiation is Enabled so cannot set values for Speed or Duplex	
RAC028	DHCP is Disabled so cannot Enable DNS Domain Name From DHCP or DNS From DHCP	
RAC029	Required Dependency not found in input	
RAC030	Required Attribute that this Attribute is dependent on has incorrect value	
RAC031	Invalid Value specified for the User name	
RAC032	Invalid Value specified for the DNS RAC name	
RAC033	IPv4 is Disabled so cannot enable attribute	
RAC034	Job Control Failed to Create a Job	
RAC035	No Pending Configurations	
RAC037	No pending configurations to delete.	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC038	Unable to perform the operation due to an unknown error in iDRAC.	
RAC039	Invalid parameter value for <parameter>.	AttributeName, AttributeValue, Target
RAC040	Missing parameters <parameters>.	AttributeName, AttributeValue, Target
RAC041	The set operation on the event filters failed.	
RAC042	Invalid number of input parameters.	
RAC043	Unable to update some event filter settings.	
RAC044	Unable to update some event filter settings.	
RAC045	Event filter does not exist for input parameter combination.	
RAC046	Unsupported event notification for the event filter specified.	
RAC047	Unsupported event action for the specified event filter.	
RAC048	The operation was successful.	
RAC049	Resource allocation failure.	
RAC050	Invalid country code	
RAC051	Unsupported parameter name <parameter name>	
JCP017	Job creation request unsuccessful. Maximum number of jobs reached.	
JCP018	Cannot create new jobs until the existing Export job is completed or the job is cancelled.	
JCP019	Cannot create new jobs until the existing Import System Profile job is completed or cancelled.	
LIC502	Feature(s) not available.	
LIC503	A required license is missing or expired. The following features are not enabled: <features>	
LC062	An instance of Export or Import System Configuration is already running.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	

8.5. DCIM_iDRACCardService.ApplyAttributes()

The ApplyAttributes() method is used to set or change the value of a iDRAC Card attribute.

NOTE: If setting numerous attributes at the same time, please make sure that WSMAN client has a timeout of at least 120 seconds.

Table 135. ApplyAttributes() Method: Return Code Values

Value	Description
2	Error
4096	Job Created

Table 136. ApplyAttributes() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the iDRAC Card
IN, REQ	AttributeName[]	String	An array of values, where each value shall be formatted in the following way: <GroupID property value>#<AttributeName property value>. Example: "MyGroup#MyAttribute"
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.
OUT	Job	CIM_Concrete Job REF	Returned to keep track of concrete job status
OUT	SetResult	String	Returns: <ul style="list-style-type: none"> • "Set CurrentValue" when the attributes current value is set. • "Set PendingValue" when the attributes pending value is set.
OUT	MessageID[]	String	Error message IDs may be used to look-up in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message[]	String	Error messages in English corresponding to MessageID is returned if an attribute set fails

Table 137. ApplyAttributes() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC001	The command was succesful	
RAC002	General failure	
RAC003	Missing required <parameter>	AttributeName, AttributeValue, Target
RAC004	Invalid parameter value for <parameter>	AttributeName, AttributeValue, Target
RAC005	Mismatch in AttributeName and AttributeValue count	
RAC006	AttributeValue cannot be changed for ReadOnly Attrinbute Name	
RAC007	Input out of range	
RAC008	Invalid boolean Value	
RAC009	String Exceeds max length	
RAC010	Invalid character value	
RAC011	Job already exists, cannot process more sets	
RAC012	User is not authorized to perform this operation	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC013	Invalid FQDD	
RAC014	Invalid attribute was entered	
RAC015	Not one of the possible values for AttributeName	AttributeName
RAC016	Invalid AttributeName %s	AttributeName
RAC017	Job created to apply the attribute value	
RAC018	Completed with errors	
RAC019	Failed	
RAC020	Completed	
RAC021	DHCP is enabled. Therefore, cannot set static values for IPAddress Net mask or Gateway.	
RAC022	The User Name is not configured so cannot Enable the User or set values for User Password IPMILan IPMISerial or User Admin Privilege.	
RAC023	The User Password is not configured, cannot Enable the User or set values for IPMILan IPMISerial or User Admin Privilege.	
RAC024	VLAN is disabled, cannot set VLAN Priority	
RAC025	DNS from DHCP is Enabled, cannot set values for DNS1 or DNS2	
RAC026	Domain Name from DHCP Enabled, cannot set DNS Domain Name	
RAC027	Auto negotiation is Enabled, cannot set values for Speed or Duplex	
RAC028	DHCP is Disabled, cannot Enable DNS Domain Name From DHCP or DNS From DHCP	
RAC029	Required Dependency not found in input	
RAC030	Required Attribute that this attribute is dependent on has incorrect value	
RAC031	Invalid value specified for the User name	
RAC032	Invalid value specified for the DNS RAC name	
RAC033	IPv4 is Disabled so cannot enable attribute	
RAC034	Job Control failed to create a job	
RAC035	No pending configurations	
RAC037	Attribute dependency failed	
RAC038	The command failed	
RAC039	Invalid parameter value for %s	AttributeName, AttributeValue, Target
RAC040	Missing parameter(s) %s	AttributeName, AttributeValue, Target
RAC053	OS to iDRAC pass-through is disabled.	
RAC075	Unable to set the attribute because RSM is Disabled Update.1#EnableSharedCompUpdate	

MessageID (OUT parameter)	Message	MessageArguments[]
JCP017	Maximum job limit reached, cannot create new jobs	
JCP018	Backup job is running, cannot create new jobs until the existing backup job is completed or is cancelled.	
JCP019	Restore job is running, cannot create new jobs until the existing restore job is completed or is cancelled.	
LC062	An instance of Export or Import System Configuration is already running.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	
RAC096	System lockdown mode successfully disabled.	

8.6. DCIM_iDRACCardService.SendTestEmailAlert()

This method is used to to send a test email alert for a particular attribute.

Return code values for the SendTestEmailAlert() method are specified in Table 138, and parameters are specified in Table 139.

Table 138. SendTestEmailAlert() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 139. SendTestEmailAlert () Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	InstanceID	String	The property shall have the value of the InstanceID property of the attribute for which the test email alert is generated.
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 in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 140. SendTestEmailAlert () Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC001	The command was successful	
RAC002	General failure	
RAC003	Missing required parameter <parameter>	AttributeName, AttributeValue, Target
RAC004	Invalid parameter value for <parameter>	AttributeName, AttributeValue, Target
RAC005	Mismatch in AttributeName and AttributeValue count	
RAC006	AttributeValue cannot be changed for ReadOnly Attribute Name	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC007	Input out of range	
RAC008	Invalid boolean Value	
RAC009	String exceeds maximum length	
RAC010	Invalid character value	
RAC012	User is not Authorized to perform this operation	
RAC013	Invalid FQDD	
RAC014	Invalid Attribute was Entered	
RAC015	Not one of the Possible Values for AttributeName	AttributeName
RAC016	Invalid AttributeName	
RAC018	Completed with Errors	
RAC020	Completed	
RAC021	DHCP is Enabled so cannot set static values for IPAddress Net mask or Gateway	
RAC022	The User Name is not configured so cannot Enable the User or set values for User Password IPMILan IPMISerial or User Admin Privilege	
RAC023	The User Password is not configured so cannot Enable the User or set values for IPMILan IPMISerial or User Admin Privilege	
RAC024	VLAN is Disabled so cannot set VLAN Priority	
RAC025	DNS from DHCP is Enabled so cannot set values for DNS1 or DNS2	
RAC026	Domain Name from DHCP Enabled so cannot set DNS Domain Name	
RAC027	Auto negotiation is Enabled so cannot set values for Speed or Duplex	
RAC028	DHCP is Disabled so cannot Enable DNS Domain Name From DHCP or DNS From DHCP	
RAC029	Required Dependency not found in input	
RAC030	Required Attribute that this Attribute is dependent on has incorrect value	
RAC031	Invalid Value specified for the User name	
RAC032	Invalid Value specified for the DNS RAC name	
RAC033	IPv4 is Disabled so cannot enable attribute	
RAC035	No Pending Configurations	
RAC037	No pending configurations to delete.	
RAC038	Unable to perform the operation due to an unknown error in iDRAC.	
RAC039	Invalid parameter value for <parameter>.	AttributeName, AttributeValue, Target
RAC040	Missing parameters <parameters>.	AttributeName, AttributeValue, Target
RAC041	The set operation on the event filters failed.	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC042	Invalid number of input parameters.	
RAC043	Unable to update some event filter settings.	
RAC044	Unable to update some event filter settings.	
RAC045	Event filter does not exist for input parameter combination.	
RAC046	Unsupported event notification for the event filter specified.	
RAC047	Unsupported event action for the specified event filter.	
RAC048	The operation was successful.	
RAC049	Resource allocation failure.	
RAC050	Invalid country code	
RAC051	Unsupported parameter name <parameter name>	
LIC502	Feature(s) not available.	
LIC503	A required license is missing or expired. The following features are not enabled: <features>	

8.7. DCIM_iDRACCardService.SendTestSNMPTrap()

This method is used to to send a test snmp alert for a particular attribute.

Return code values for the SendTestSNMPTrap() method are specified in Table 141, and parameters are specified in Table 142.

Table 141. SendTestSNMPTrap() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 142. SendTestSNMPTrap() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	InstanceID	String	The property shall have the value of the InstanceID property of the attribute for which the test email alert is generated.
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 in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 143. SendTestSNMPTrap() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC001	The command was successful	
RAC002	General failure	
RAC003	Missing required parameter <parameter>	AttributeName, AttributeValue, Target

MessageID (OUT parameter)	Message	MessageArguments[]
RAC004	Invalid parameter value for <parameter>	AttributeName, AttributeValue, Target
RAC005	Mismatch in AttributeName and AttributeValue count	
RAC006	AttributeValue cannot be changed for ReadOnly Attribute Name	
RAC007	Input out of range	
RAC008	Invalid boolean Value	
RAC009	String exceeds maximum length	
RAC010	Invalid character value	
RAC012	User is not Authorized to perform this operation	
RAC013	Invalid FQDD	
RAC014	Invalid Attribute was Entered	
RAC015	Not one of the Possible Values for AttributeName	AttributeName
RAC016	Invalid AttributeName	
RAC018	Completed with Errors	
RAC020	Completed	
RAC021	DHCP is Enabled so cannot set static values for IPAddress Net mask or Gateway	
RAC022	The User Name is not configured so cannot Enable the User or set values for User Password IPMILan IPMISerial or User Admin Privilege	
RAC023	The User Password is not configured so cannot Enable the User or set values for IPMILan IPMISerial or User Admin Privilege	
RAC024	VLAN is Disabled so cannot set VLAN Priority	
RAC025	DNS from DHCP is Enabled so cannot set values for DNS1 or DNS2	
RAC026	Domain Name from DHCP Enabled so cannot set DNS Domain Name	
RAC027	Auto negotiation is Enabled so cannot set values for Speed or Duplex	
RAC028	DHCP is Disabled so cannot Enable DNS Domain Name From DHCP or DNS From DHCP	
RAC029	Required Dependency not found in input	
RAC030	Required Attribute that this Attribute is dependent on has incorrect value	
RAC031	Invalid Value specified for the User name	
RAC032	Invalid Value specified for the DNS RAC name	
RAC033	IPv4 is Disabled so cannot enable attribute	
RAC035	No Pending Configurations	
RAC037	No pending configurations to delete.	
RAC038	Unable to perform the operation due to an unknown error in iDRAC.	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC039	Invalid parameter value for <parameter>.	AttributeName, AttributeValue, Target
RAC040	Missing parameters <parameters>.	AttributeName, AttributeValue, Target
RAC041	The set operation on the event filters failed.	
RAC042	Invalid number of input parameters.	
RAC043	Unable to update some event filter settings.	
RAC044	Unable to update some event filter settings.	
RAC045	Event filter does not exist for input parameter combination.	
RAC046	Unsupported event notification for the event filter specified.	
RAC047	Unsupported event action for the specified event filter.	
RAC048	The operation was successful.	
RAC049	Resource allocation failure.	
RAC050	Invalid country code	
RAC051	Unsupported parameter name <parameter name>	
LIC502	Feature(s) not available.	
LIC503	A required license is missing or expired. The following features are not enabled: <features>	

8.8. DCIM_iDRACCardService.GenerateSSLCSR ()

This method is used to create the certificate signing request(CSR) and return it. The certificate must be copied to the file and signed by an authority.

Note: For creating the CSR, the following DCIM_iDRACCardString security attributes must be configured.

- DNSDomainName
- NIC.DNSRacName
- NIC.DNSRegister
- CsrKeySize
- CsrCommonName
- CsrOrganizationUnit
- CsrLocalityName
- CsrStateName
- CsrCountryCode
- CsrEmailAddr

Table 144. GenerateSSLCSR() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 145. GenerateSSLCSR() Method: Parameters

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	Use the Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.
OUT	SSLCSRFile	String	Base64 encoded string of the csr file contents

Table 146. GenerateSSLCSR() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
LC072	An SSL Certificate is successfully generated.	
LC073	Unable to generate an SSL Certificate because one or more mandatory security attributes are invalid.	

8.9. DCIM_iDRACCardService.ImportSSLCertificate()

This method is used to import the ssl certificate to iDRAC, on the basis of input parameter Type. After importing the certificate, the iDRAC will automatically restart.

Return code values for the ImportSSLCertificate() method are specified in Table 147 and parameters are specified in Table 148.

Table 147. ImportSSLCertificate() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 148. ImportSSLCertificate() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	SSLCertificateFile	String	A base 64 encoded string of the XML Certificate file. Note: For importing CSC certificate, user has to convert PKCS file to base64 format. Use the openssl command. The CTC file content has to be in PEM format (base 64 encoded)
IN,REQ	CertificateType	UINT16	Type of certificate to be imported. <ul style="list-style-type: none"> • Web Server Certificate : "1" • CA certificate for Directory Service: "2" • Custom Signing Certificate : "3" • Client Trust Certificate : "4"
IN	Passphrase	String	A passphrase for certificate file. Note: This is optional parameter for CSC certificate, and not required for Server and CA certificates.
OUT	MessageID	String	Use the Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 149. ImportSSLCertificate() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
LC077	Certificate imported successfully. iDRAC will now restart and be unavailable during restart.	
LC011	Certificate import operation failed.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	
DH010	Reset iDRAC to apply new certificate. Until iDRAC is reset, the old certificate will be active	

8.10. DCIM_iDRACCardService.ExportSSLCertificate()

This method is used to export the ssl certificate from the idrac, based on input parameter Type. ExportSSLCertificate returns the certificate.

Return code values for the ExportSSLCertificate() method are specified in Table 150, and parameters are specified in Table 151.

Table 150. ExportSSLCertificate() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 151. ExportSSLCertificate() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	SSLCertType	UINT16	The type of the certificate to be exported are: <ul style="list-style-type: none"> • Web Server Certificate : "1" • CA certificate for Directory Service : "2" • Custom Signing Certificate : "3" • Client Trust Certificate: "4"
OUT	MessageID	String	Use Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.
OUT	CertificateFile	String	Exported certificate file encoded in base64.

Table 152. ExportSSLCertificate() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
LC074	The Certificate export operation did not complete successfully.	
LC067	Successfully exported SSL Certificate.	

8.11. DCIM_iDRACCardService.DeleteSSLCertificate()

This method is used to delete the Custom Signing Certificate(CSC) from iDRAC, on the basis of input parameter Type. Reset iDRAC to complete the delete action of the certificate.

Return code values for the DeleteSSLCertificate() method are specified in Table 153, and parameters are specified in Table 154.

Table 153. DeleteSSLCertificate() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 154. DeleteSSLCertificate() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	CertificateType	UINT16	The type of the certificate to be deleted. <ul style="list-style-type: none"> Custom Signing Certificate : "3" Client Trust Certificate: "4" Note: Values 1 and 2 are reserved.
OUT	MessageID	String	Use Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 155. DeleteSSLCertificate() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
LC075	The Custom Signed Certificate (CSC) is deleted successfully. Reset iDRAC to complete the delete action of the certificate.	
LC076	Unable to perform the Custom Signed Certificate (CSC) delete operation.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	
LC092	Unable to delete the Client Trust Certificate because of internal error.	
LC093	The Client Trust Certificate is successfully deleted.	

8.12. DCIM_iDRACCardService.iDRACReset()

This method is used to reset iDRAC.

Return code values for the iDRACReset() method are specified in Table 156, and parameters are specified in Table 157.

Table 156. iDRACReset() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 157. iDRACReset() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN	Force	UINT16	Reset option either "Force" or "Gracefully". <ul style="list-style-type: none"> Force = "0" for Graceful reset Force = "1" for Force reset Note: Default value is "0"(Graceful reset).

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	Use Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 158. iDRACReset() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC064	iDRAC was successfully reset.	
RAC065	iDRAC reset operation was not successful.	
RAC071	Unable to perform the iDRAC reset operation because the firmware upgrade operation is in progress.	
RAC073	Unable to perform the iDRAC reset operation because vFlash partition creation is in progress.	

8.13. DCIM_iDRACCardService.iDRACResetCfg()

This method is used to reset the iDRAC to factory default configurations.

Return code values for the iDRACResetCfg() method are specified in Table 159, and parameters are specified in Table 160.

Table 159. iDRACResetCfg() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 160. iDRACResetCfg() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN	Force	UINT16	Reset option either "Force" or "Gracefully". <ul style="list-style-type: none"> Force = "0" for Graceful reset Force = "1" for Force reset Note: Default value is "0" (Graceful reset).
IN	Preserve	UINT16	Preserve= 0 (Default) – reset all configuration to default except network and users Preserve=1 (All) - reset all configuration to default including network and users Preserve=2 (RC) - reset all configuration to default including network preserve default user as root calvin
OUT	MessageID	String	Use Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 161. iDRACResetCfg() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC066	iDRAC is successfully reset to factory-default properties.	
RAC067	iDRAC reset to factory defaults operation was not successful.	
RAC072	Unable to perform the iDRAC reset to factory defaults operation because the firmware upgrade operation is in progress.	
RAC074	Unable to perform the iDRAC reset to factory defaults operation because vFlash partition creation is in progress.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	

8.14. DCIM_iDRACCardService.SSLResetCfg()

This method is used to restores the web-server certificate to factory defaults.

Return code values for the SSLResetCfg() method are specified in Table 162, and parameters are specified in Table 163.

Table 162. SSLResetCfg() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 163. SSLResetCfg() Method: Parameters

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	Use Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 164. SSLResetCfg() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC070	The SSL Web-Server certificate was successfully restored to factory defaults.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	

8.15. DCIM_iDRACCardService.RemoveSelf()

The method is used to remove the iDRAC from a group that the iDRAC is a member of.

Table 165. RemoveSelf () Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 166. RemoveSelf () Method: Parameters

Qualifiers	Name	Type	Description/Values
IN,REQ	GroupName	String	Name of group to confirm the remove
OUT	MessageID	String	Use Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 167. DCIM_iDRACCardService.RemoveSelf() Method: Standard Messages

MessageID (OUT parameter)	Message
RAC003	Missing required parameter "--".
RAC004	Invalid parameter value for "--".
GMGR0039	An unknown error occurred. Unable to perform the operation.
GMGR0010	iDRAC is unable to communicate within the server group because either the group passcode has changed or network cable is disconnected from the master server.
GMGR0006	iDRAC successfully removed itself from the local group "___".
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.
GMGR0060	Unable to remove the group member because the group is a single member group. Please perform group delete command instead.

8.16. DCIM_iDRACCardService.JoinGroup()

The method is used join an existing group providing the GroupPasscode

Table 168. JoinGroup () Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 169. JoinGroup () Method: Parameters

Qualifiers	Name	Type	Description/Values
IN,REQ	GroupName	String	Name of group to be joined
IN,REQ	GroupPasscode	String	Passcode for the group
IN	GroupUUID	String	Unique identifier of group to be joined
IN, REQ	CloneConfiguration	UINT16	Clones email alert configuration from the group once joined. <ul style="list-style-type: none"> • 0 – Disable • 1 – Enable
OUT	MessageID	String	Use Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 170. DCIM_iDRACCardService.JoinGroup() Method: Standard Messages

MessageID (OUT parameter)	Message
RAC003	Missing required parameter "".
RAC004	Invalid parameter value for "".
GMGR0016	<Service Tag> is unable to join the iDRAC local group <group name> either because the Group passcode is incorrect, group already has the max allowed iDRACs, iDRAC already part of another group, group name does not exist, or issues in network connection.
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.

8.17. DCIM_iDRACCardService.DeleteGroup ()

The method is used delete the group.

Table 171. DCIM_iDRACCardService. DeleteGroup () Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 172. DCIM_iDRACCardService. DeleteGroup () Method: Parameters

Qualifiers	Name	Type	Description/Values
IN,REQ	GroupName	String	Name of group to be delete.
OUT	MessageID	String	Use Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 173. DCIM_iDRACCardService. DeleteGroup ()Method: Standard Messages

MessageID (OUT parameter)	Message
GMGR0039	An unknown error occurred. Unable to perform the operation.
GMGR0033	A new group task "yyy" is successfully created for DeleteGroup. The task progress can be viewed in the Group Manager task view. Last 14G server. Group must be deleted
RAC003	Missing required parameter
RAC004	Invalid parameter value
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.

8.18. DCIM_iDRACCardService.ImportData()

This method is used to import to iDRAC local, based on the input parameter type.

Management application can import the file in series of chunks, if file size is large using this method.

This method is generic, which can transfer any file. Current scope of this method is "Config XML" file.

After “ImportData” method is called, management application needs to invoke the existing method “ImportSystemConfiguration” method with parameter ShareType = 4(local) to import the configuration on Host OS.

Management application needs to call the “ImportSystemConfiguration” immediately after called “ImportData” method. Else the import file stored in iDRAC local can be overwritten by another Management application that can invoke the “ImportData” method with new set of configurations after timeout of 30min.

Return code values for the ImportData() method are specified in Table 174, and parameters are specified in Table 175.

Table 174. ImportData() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 175. ImportData() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	FileType	UInt16	It specifies the import file type. <ul style="list-style-type: none"> 1 – XML Config 2 – Reserved
IN	InSessionID	UInt64	Empty for first transaction and mandatory for sub-sequent transactions.
IN, REQ	ChunkSize	UInt32	<p>Chunk size for the packet being transmitted</p> <p>Max size of the chunk is 512KB</p> <p>Note: Chunk size is base64 payload size, which is excluding new lines after 64 characters.</p> <p>Chunk size must be divisible by 4 to avoid issues while decoding the base64 payload.</p> <p>As per the base64 standards equation for binary chunk size = 3*(base64 chunk size/4)</p> <p>Expected data type for chunk size is unsigned int32 value. If any octal or hex value passes it leads to be unexpected. So we shouldn't pass the value other than unsigned integer.</p> <p>Any value leading to “0” treats as octal in providers.</p> <p>Example for</p> <ul style="list-style-type: none"> octal values: 012 , 015, etc. hex values : 0x12, 0x13, etc.
IN, REQ	FileSize	UInt64	<p>It specifies the binary file size.</p> <p>First Packet will have File Size.</p> <p>Note: Supported file size max is 200MB</p>
IN, REQ	TxfrDescriptor	UInt16	<p>It specifies the transfer file descriptor.</p> <ul style="list-style-type: none"> 1 – Start of Transmit 2 – Normal Transmission 3 – End of Packet

Qualifiers	Name	Type	Description/Values
IN, REQ	Payload	String	It specifies the base64 encoded payload. Note: Management applications need to enter new line after 64 characters as per the base64 standards.
IN, REQ	CRC	String	CRC Note: Using “md5” algorithm for CRC calculation.
IN, REQ	PayLoadEncoding	Uint16	It specifies the payload encoding format <ul style="list-style-type: none"> • 1 – Text • 2 – Base64
OUT	SessionID	Uint64	Session ID return from iDRAC
OUT	MessageID	String	Use the Error Message ID to view in the Dell Message registry files. For more information, see Error Message Registry.
OUT	Message	String	Error Message in English
OUT	MessageArguments[]	String	Substitution variables for dynamic error message.

Table 176. ImportData() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC077	The Import File operation is successfully completed.	
RAC078	Unable to complete the Import File operation because invalid parameters are entered.	
RAC079	Unable to start the Import File operation because an import operation is already in progress.	
RAC082	Unable to transfer the file because either the session ID entered as input is incorrect or the file is not available.	
RAC083	Unable to import the file because the chunk size value entered is greater than the import file size.	
RAC085	Unable to complete the Import File operation because an invalid Cycle Redundancy Check (CRC) checksum parameter is entered.	
RAC087	Unable to import or store the file because of insufficient disk space on iDRAC local storage.	
RAC091	Unable to transfer the file because of internal firmware issues.	
RAC092	Unable to import the file because the size of importing payload is greater than the file size specified in the start of packet.	
RAC093	Unable to decode the Base64 payload either because a new line character is not located at the end of the payload or the payload size is not divisible by 4.	
RAC003	Missing required parameter <parameter>	Input parameter value.
RAC004	Invalid parameter value for <parameter>	Input parameter value.
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	

8.19. DCIM_iDRACCardService.ExportData()

This method is used to export the file from idrac local, based on input parameter Type. This method return the payload.

Management application needs to invoke the existng export methods like “ExportSystemConfiguration”, “ExportLCLog” etc with parameter ShareType = 4(local) to export or copy the file to iDRAC local.

Management application needs to call the “ExportData” method immediately after called existing export methods with share type is loca. Else the export file stored in iDRAC local can be overwritten by another Management application that can invoke the export method with share type is local, after timeout of 30min

Note: Any leacy export method jobs fails with option share type is local due to any issues, then management application needs to invoke “ClearTransferSession” to clear the session before they start export method with share type is local.

Return code values for the ExportData() method are specified in Table 177, and parameters are specified in Table 178.

Table 177. ExportData() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 178. ExportData() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	FileType	Uint16	It specifies the type of the export file. <ul style="list-style-type: none">• 1 – Config XML file• 2 – LCLog file• 3 – Inventory• 4 – FactoryConfig• 5 – TSR• 6 – Boot Video Logs• 7 – Diagnostics• 8 – LC Full Logs• 9 – Crash Video Logs
IN	InSessionID	Uint64	Empty for first transaction and required for sub-sequent transactions.
IN, REQ	InChunkSize	Uint32	Chunk size for the packet being transmitted. It specifies the binary chunk size and it must be divisible by 3 to avoid extra bytes or padding while encoding the payload into base64 format. As per base64 equation: Base64 chunk size = 4*(binary chunk size/3) Note: Max limit of ChunkSize is 512KB Expected data type for chunk size is unsigned int32 value. If any octal or hex value passes it leads to be unexpected. So we shouldn't pass the value other than unsigned integer. Any value leading to “0” treats as octal in providers. Example for <ul style="list-style-type: none">• octal values: 012 , 015, etc.• hex values : 0x12, 0x13, etc.

Qualifiers	Name	Type	Description/Values
IN, REQ	FileOffset	Uint64	<p>File offset of export file</p> <p>Note: The value will be zero (0) for the first packet</p> <p>Need to specify the FileOffset value for sub-sequent packets upon receiving value from iDRAC.</p> <p>e.g: FileOffset is 0 for first packet.If chunk size is 4000.</p> <p>The method returns FileOffset (output parameter) as 4000 upon successful operation.</p> <p>Needs to specify the FileOffset as 4000 for sub-sequent packet. If chunk size is 4000 again.</p> <p>The method returns FileOffset (output parameter) as 8000 upon successful operation.</p>
IN, REQ	TxDataSize	Uint64	<p>Transmitted data size of export file.</p> <p>Note: The value will be zero (0) for the first packet.</p> <p>Need to specify the transmitted file size value for sub-sequent packets upon receiving value from iDRAC. It is base64 transferred payload size.</p>
IN, REQ	PayLoadEncoding	Uint16	<p>It specifies the payload encoding format</p> <ul style="list-style-type: none"> • 1 – Text • 2 – Base64
OUT, REQ	FileSize	Uint64	First Packet will have File Size
OUT, REQ	TxfrDescriptor	Uint16	<p>It specifies the transfer descriptor value.</p> <ul style="list-style-type: none"> • 1 – Start of Transmit • 2 – Normal Transmission • 3 – End of Packet
OUT, REQ	Payload	String	Base-64 encoded payload value
OUT, REQ	CRC	String	<p>CRC</p> <p>Note: Using “md5” algorithm for CRC calculation.</p>
OUT, REQ	ChunkSize	Uint32	<p>It represents the return payload chunk size.</p> <p>Note: It is base64 payload chunk size.</p>
OUT	SessionID	String	Session ID return from iDRAC
OUT, REQ	RetFileOffset	Uint64	<p>File offset of export file.</p> <p>Eg: Management query the export file with the chunk size of 4000.</p> <p>Then return file offset value will be “4000”.</p>
OUT, REQ	RetTxDataSize	Uint64	<p>Transmitted data size of export file</p> <p>It is base64 transmitted size, which is transferred till the file</p>
OUT	MessageID	String	
OUT	Message	String	
OUT	MessageString	String	

Table 179. ExportData() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC081	Unable to start the Export File operation because an export operation is already in progress.	
RAC082	Unable to transfer the file because either the session ID entered as input is incorrect or the file is not available.	
RAC086	Unable to transfer the file because the chunk size value entered is more than the maximum chunk size limit (512 KB).	
RAC087	Unable to import or store the file because of insufficient disk space on iDRAC local storage.	
RAC091	Unable to transfer the file because of internal firmware issues.	
RAC003	Missing required parameter <parameter>	Input parameter value.
RAC004	Invalid parameter value for <parameter>	Input parameter value.

8.20. DCIM_iDRACCardService.ClearTransferSession()

This method is used to restart any transfer sessions by deleting intermediate files based on the file type and file operation.

Return code values for the ClearTransferSession() method are specified in Table 180, and parameters are specified in Table 181.

Table 180. ClearTransferSession() Method: Return Code Values

Value	Description
0	Completed with No Error
2	Failed

Table 181. ClearTransferSession() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN	FileType	UInt16	It specifies the file type of the delete file or folder. <ul style="list-style-type: none"> • All • SystemConfigXML • LCLogs • Inventory • FactoryConfig • TSR • Boot Video Logs • Diagnostics • LC Full Logs • Crash Video Logs
IN, REQ	FileOperation	UInt16	Delete the folder based on the file operation Import/Export. <ul style="list-style-type: none"> • Import • Export • Both
OUT	MessageID	String	
OUT	Message	String	

Qualifiers	Name	Type	Description/Values
OUT	MessageString	String	

Table 182. ClearTransferSession() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC088	Unable to complete the Clear Transfer Session operation because the file entered is not available for deletion.	
RAC084	The Clear Transfer Session operation is successfully completed.	
RAC003	Missing required parameter <parameter>	Input parameter value.
RAC004	Invalid parameter value for <parameter>	Input parameter value.

8.21. DCIM_iDRACCardService.ApplyAttribute()

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

Invocation of ApplyAttribute method shall change the value of the DCIMiDRACCardAttribute.CurrentValue. If the DCIM_IDRACCardAttribute.IsReadOnly property is FALSE.

Invocation of this method when the DCIM_IDRACCardAttribute.IsReadOnly property is TRUE shall result in no change to the value of the DCIM_IDRACCardAttribute.CurrentValue property. The results of changing this value is described with the SetResult parameter.

Return code values for the ApplyAttribute() method are specified in Table 183 and parameters are specified in Table 184. Invoking the ApplyAttribute() method multiple times can result in the earlier requests being overwritten or lost.

Table 183. ApplyAttribute() Method: Return Code Values

Value	Description
0	Completed with no error
2	Failed

Table 184. ApplyAttribute() Method: Parameters

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the iDRAC Card
IN, REQ	AttributeName	String	Shall be formatted in the following way: <GroupID property value>#<AttributeName property value>. Example: "MyGroup#MyAttribute"
IN, REQ	AttributeValue	String	Shall contain the required attribute value. For non-array attributes, only the first element shall be populated. If the value is valid, the CurrentValue or PendingValue property of the specified attribute will be modified.
OUT	SetResult	String	Returns: <ul style="list-style-type: none"> "Set CurrentValue" when the attributes current value is set. "Set PendingValue" when the attributes pending value is set.
OUT	RebootRequired	String	Returns: <ul style="list-style-type: none"> "Yes" if reboot is required, "No" if reboot is not required.

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 in English corresponding to MessageID is returned if the method fails to execute
OUT	MessageArguments[]	String	Substitution variables for dynamic error messages

Table 185. ApplyAttribute() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC001	The command was successful	
RAC002	General failure	
RAC003	Missing required parameter <parameter>	AttributeName, AttributeValue, Target
RAC004	Invalid parameter value for <parameter>	AttributeName, AttributeValue, Target
RAC005	Mismatch in AttributeName and AttributeValue count	
RAC006	AttributeValue cannot be changed for ReadOnly Attribute Name	
RAC007	Input out of range	
RAC008	Invalid boolean Value	
RAC009	String exceeds maximum length	
RAC010	Invalid character value	
RAC011	Job already exists Cannot process more Sets	
RAC012	User is not Authorized to perform this operation	
RAC013	Invalid FQDD	
RAC014	Invalid Attribute was Entered	
RAC015	Not one of the Possible Values for AttributeName	AttributeName
RAC016	Invalid AttributeName	
RAC017	Job created to apply the attribute value	
RAC018	Completed with Errors	
RAC019	Job did not complete successfully.	
RAC020	Completed	
RAC021	DHCP is Enabled so cannot set static values for IPAddress Net mask or Gateway	
RAC022	The User Name is not configured so cannot Enable the User or set values for User Password IPMILan IPMISerial or User Admin Privilege	
RAC023	The User Password is not configured so cannot Enable the User or set values for IPMILan IPMISerial or User Admin Privilege	
RAC024	VLAN is Disabled so cannot set VLAN Priority	
RAC025	DNS from DHCP is Enabled so cannot set values for DNS1 or DNS2	

MessageID (OUT parameter)	Message	MessageArguments[]
RAC026	Domain Name from DHCP Enabled so cannot set DNS Domain Name	
RAC027	Auto negotiation is Enabled so cannot set values for Speed or Duplex	
RAC028	DHCP is Disabled so cannot Enable DNS Domain Name From DHCP or DNS From DHCP	
RAC029	Required Dependency not found in input	
RAC030	Required Attribute that this Attribute is dependent on has incorrect value	
RAC031	Invalid Value specified for the User name	
RAC032	Invalid Value specified for the DNS RAC name	
RAC033	IPv4 is Disabled so cannot enable attribute	
RAC034	Job Control Failed to Create a Job	
RAC035	No Pending Configurations	
RAC037	No pending configurations to delete.	
RAC038	Unable to perform the operation due to an unknown error in iDRAC.	
RAC039	Invalid parameter value for <parameter>.	AttributeName, AttributeValue, Target
RAC040	Missing parameters <parameters>.	AttributeName, AttributeValue, Target
RAC041	The set operation on the event filters failed.	
RAC042	Invalid number of input parameters.	
RAC043	Unable to update some event filter settings.	
RAC044	Unable to update some event filter settings.	
RAC045	Event filter does not exist for input parameter combination.	
RAC046	Unsupported event notification for the event filter specified.	
RAC047	Unsupported event action for the specified event filter.	
RAC048	The operation was successful.	
RAC049	Resource allocation failure.	
RAC050	Invalid country code	
RAC051	Unsupported parameter name <parameter name>	
RAC053	OS to iDRAC pass-through is disabled.	
RAC063	The attribute string length entered is inappropriate: <parameter>	AttributeName
RAC075	Unable to set the attribute because RSM is Disabled Update.1#EnableSharedCompUpdate	
JCP017	Job creation request unsuccessful. Maximum number of jobs reached.	
JCP018	Cannot create new jobs until the existing Export job is completed or the job is cancelled.	

MessageID (OUT parameter)	Message	MessageArguments[]
JCP019	Cannot create new jobs until the existing Import System Profile job is completed or cancelled.	
LIC502	Feature(s) not available.	
LIC503	A required license is missing or expired. The following features are not enabled: <features>	
LC062	An instance of Export or Import System Configuration is already running.	
RAC095	Unable to start the configuration operation because the System Lockdown mode is enabled.	
STOR087	Unable to start the configuration operation because the System Lockdown mode is enabled.	
SYS291	Unable to start the configuration operation because the System Lockdown mode is enabled.	
BIOS031	Unable to start the configuration operation because the System Lockdown mode is enabled.	
FC018	Unable to start the configuration operation because the System Lockdown mode is enabled.	
LC087	Unable to start the configuration operation because the System Lockdown mode is enabled.	
NIC025	Unable to start the configuration operation because the System Lockdown mode is enabled.	

8.22. DCIM_iDRACCardService.GetBootDeviceList()

GetBootDeviceList() method is used to get the possible values of Boot devices.

Return code values for the GetBootDeviceList() method are specified in Table 186, and parameters are specified in Table 187

Table 186. GetBootDeviceList() Method: Return Code Values

Value	Description
0	Completed with no error
2	Failed

Table 187. GetBootDeviceList () Method: Parameters

Qualifiers	Name	Type	Description/Values
OUT	BootDeviceList[]	String	Returns list of possible values of boot devices.
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 in English corresponding to MessageID is returned if the method fails to execute
OUT	MessageArguments	String	Substitution variables for dynamic error messages

Table 188. GetBootDeviceList () Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
RAC001	The command was successful	
RAC002	General failure	

9. Use Cases

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.

Table 189. Privilege and License requirements

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
DCIM_iDRAC CardEnumeration	Info.1#Type	ENUMERATE, GET	Login	
	RFS.1#MediaAttachState		Login	LM_REMOTE_FILE_SHARE
	OS-BMC.1#PTCapability		Login	
	RSM.1#RSMCapability		Login	
	RSM.1#RSMSetting		Login	
	ServiceModule.1#OMSAPresence		Login	
	Info.1#ServerGen		Login	
	USB.1#ManagementPortMode		Login	None
	ServiceModule.1#ServiceModuleState		Login	
	CurrentNIC.1#Enable		Login	
	CurrentNIC.1#Selection		Login	
	CurrentNIC.1#Speed		Login	
	CurrentNIC.1#Autoneg		Login	
	CurrentNIC.1#Duplex		Login	
	CurrentNIC.1#Failover		Login	
	CurrentNIC.1#DNSRegister		Login	
	CurrentNIC.1#DNSDomainFromDHCP		Login	
	CurrentNIC.1#VLANenable		Login	
	CurrentNIC.1#AutoDetect		Login	
	CurrentNIC.1#VLANSetting		Login	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	CurrentNIC.1#LinkStatus		Login	
	CurrentIPv4.1#Enable		Login	
	CurrentIPv4.1#DHCPEnable		Login	
	CurrentIPv4.1#DNSFromDHCP		Login	
	CurrentIPv6.1#Enable		Login	
	CurrentIPv6.1#AutoConfig		Login	
	CurrentIPv6.1#DNSFromDHCP6		Login	
	IPv6.1#AddressState		Login	
	IntegratedDatacenter.1#OperationMode		Login	
	SECONDARYNIC.1#NICSelection		Login	
	SECONDARYNIC.1#NICFailover		Login	
	SECONDARYNIC.1#NICSpeed		Login	
	SECONDARYNIC.1#AutoNegotiate		Login	
	SECONDARYNIC.1#Duplex		Login	
	CurrentNIC.1#ActiveNIC		Login	
	CurrentNIC.1#ActiveSharedLOM		Login	
	PlatformLicense.1#DefaultLicenseFeatures		Login	
	NIC.1#FlexMacCompleted		Login	
DCIM_iDRAC CardString	Info.1#Product	ENUMERATE, GET	Login	
	Info.1#Description		Login	
	Info.1#Version		Login	
	Info.1#Build		Login	
	Info.1#Name		Login	
	NIC.1#MACAddress		Login	
	IPv6.1#LinkLocalAddress		Login	LM_IPV6
	IPv6.1#Address2		Login	LM_IPV6
	IPv6.1#Address3		Login	LM_IPV6
	IPv6.1#Address4		Login	LM_IPV6
	IPv6.1#Address5		Login	LM_IPV6
	IPv6.1#Address6		Login	LM_IPV6
	IPv6.1#Address7		Login	LM_IPV6
	IPv6.1#Address8		Login	LM_IPV6
	IPv6.1#Address9		Login	LM_IPV6
	IPv6.1#Address10		Login	LM_IPV6

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	IPv6.1#Address11		Login	LM_IPV6
	IPv6.1#Address12		Login	LM_IPV6
	IPv6.1#Address13		Login	LM_IPV6
	IPv6.1#Address14		Login	LM_IPV6
	IPv6.1#Address15		Login	LM_IPV6
	vFlashPartition.1#Size		Login	LM_VIRTUAL_FLASH_PARTITION
	vFlashPartition.1#VolumeLabel		Login	LM_VIRTUAL_FLASH_PARTITION
	IPv6URL.1#URL		Login	
	ServiceModule.1#ServiceModuleVersion		Login	
	GroupManager.1#GroupName		Login	LM_GROUP_MANAGER
	CurrentNIC.1#MACAddress		Login	
	SupportAssist.1#RegistrationID		Login	
	CurrentNIC.1#DNSRacName		Login	LM_DYNAMIC_DNS
	CurrentNIC.1#DNSDomainName		Login	
	CurrentIPv4.1#Address		Login	
	CurrentIPv4.1#Netmask		Login	
	CurrentIPv4.1#Gateway		Login	
	CurrentIPv4.1#DNS1		Login	
	CurrentIPv4.1#DNS2		Login	
	CurrentIPv6.1#Address1		Login	
	CurrentIPv6.1#Gateway		Login	
	CurrentIPv6.1#LinkLocalAddress		Login	
	CurrentIPv6.1#DNS1		Login	
	CurrentIPv6.1#DNS2		Login	
	CurrentIPv6.1#Address2		Login	
	CurrentIPv6.1#Address3		Login	
	CurrentIPv6.1#Address4		Login	
	CurrentIPv6.1#Address5		Login	
	CurrentIPv6.1#Address6		Login	
	CurrentIPv6.1#Address7		Login	
	CurrentIPv6.1#Address8		Login	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	CurrentIPv6.1#Address9		Login	
	CurrentIPv6.1#Address10		Login	
	CurrentIPv6.1#Address11		Login	
	CurrentIPv6.1#Address12		Login	
	CurrentIPv6.1#Address13		Login	
	CurrentIPv6.1#Address14		Login	
	CurrentIPv6.1#Address15		Login	
	GroupManager.1#GroupUUID		Login	LM_GROUP_MANAGER
	SECONDARYNIC.1#MACAddress		Login	
	VirtualConsole.1#BootCaptureFileName		Login	
	VirtualConsole.1#BootCaptureFilePath		Login	
	Info.1#HWRev		Login	
	LDAP.1#ServerCachePath		Login	
	RFS.1#Image		Login	
	GroupManager.1#GroupingUser		Login	
	GroupManager.1#GroupingTimestamp		Login	
	NIC.1#SwitchConnection		Login	
	NIC.1#SwitchPortConnection		Login	
	Info.1#RollbackVersion		Login	
	Info.1#RollbackBuild		Login	
	Info.1#MajVersion		Login	
	Info.1#MinVersion		Login	
	Info.1#PDSVersion		Login	
	Info.1#LCVersion		Login	
	Info.1#RollbackMajVersion		Login	
	Info.1#RollBackMinVersion		Login	
	Info.1#RollbackPDSVersion		Login	
	Info.1#RollbackLCVersion		Login	
	Info.1#LCBuild		Login	
	Info.1#RollbackLCBuild		Login	
	Info.1#CPLDVersion		Login	
	PlatformLicense.1#AllowableLicenses		Login	
	GroupManager.1#GroupCreateTimestamp		Login	
	GroupManager.1#CreatingUser		Login	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	Info.1#IPMIVersion		Login	
	SNMP.1#EngineID		Login	LM_SNMP
	vFlashSD.1#Size		Login	LM_VFLASH
	vFlashSD.1#AvailableSize		Login	LM_VFLASH
	CurrentNIC.1#MACAddress2		Login	
DCIM_iDRAC CardInteger	SNMPTrapIPv6.1#DestinationNum	ENUMERATE, GET	Login	LM_IPV6 ; LM_SNMP
	SNMPTrapIPv4.1#DestinationNum		Login	
	LDAPRoleGroup.1#DestinationNum		Login	
	SNMPAlert.1#SNMPv3UserID		Login	
	CurrentNIC.1#MTU		Login	
	CurrentNIC.1#VLANPriority		Login	
	CurrentNIC.1#VLANID		Login	
	CurrentNIC.1#DedicatedNICScanTime		Login	LM_DEDICATED_NIC
	CurrentNIC.1#SharedNICScanTime		Login	LM_DEDICATED_NIC
	CurrentIPv6.1#PrefixLength		Login	
	CurrentIPv6.1#IPV6NumOfExtAddress		Login	
	SSH.1#MaxSessions		Login	
	Telnet.1#MaxSessions		Login	
	WebServer.1#MaxSessions		Login	
	WebServer.1#MaxNumberOfSessions		Login	
	IntegratedDatacenter.1#VLAN		Login	
	SECONDARYNIC.1#MTU		Login	
	VirtualMedia.1#MaxSessions		Login	
	RemoteHosts.1#SMTPSASL		Login	
	RemoteHosts.1#SMTPStartTLS		Login	
	Update.1#TFTPTimeout		Login	
	RFS.1#WriteProtected		Login	
	VNCServer.1#ActiveSessions		Login	LM_VNC
	CurrentNIC.1#NumberOfLOM		Login	
	CurrentNIC.1#mediabufsize		Login	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
DCIM_iDRAC CardService. SetAttribute(); DCIM_iDRAC CardService. SetAttributes(); DCIM_iDRAC CardService. ApplyAttribute s() DCIM_iDRAC CardService. ApplyAttribute()	NIC.1#Enable	INVOKE, ENUMERAT E, GET	Login, Configure	
	NIC.1#Selection		Login, Configure	
	NIC.1#Failover		Login, Configure	
	NIC.1#Speed		Login, Configure	
	NIC.1#Autoneg		Login, Configure	
	NIC.1#Duplex		Login, Configure	
	NIC.1#MTU		Login, Configure	
	NIC.1#DNSRegister		Login, Configure	LM_DYNAMIC_D NS
	NIC.1#DNSRacName		Login, Configure, Configure users	LM_DYNAMIC_D NS
	NIC.1#DNSDomainFromDHCP		Login, Configure	
	NIC.1#DNSDomainName		Login, Configure	
	NIC.1#VLanEnable		Login, Configure	
	NIC.1#VLanPriority		Login, Configure	
	NIC.1#VLanID		Login, Configure	
	IPv4.1#Enable		Login, Configure	
	IPv4.1#DHCPEnable		Login, Configure	
	IPv4.1#Address		Login, Configure	
	IPv4.1#Netmask		Login, Configure	
	IPv4.1#Gateway		Login, Configure	
	IPv4.1#DNSFromDHCP		Login, Configure	
	IPv4.1#DNS1		Login, Configure	
	IPv4.1#DNS2		Login, Configure	
	IPv6.1#Enable		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	IPv6.1#AutoConfig		Login, Configure	LM_IPV6
	IPv6.1#DNSFromDHCP6		Login, Configure	LM_IPV6
	IPv6.1#Address1		Login, Configure	LM_IPV6
	IPv6.1#Gateway		Login, Configure	LM_IPV6
	IPv6.1#PrefixLength		Login, Configure	LM_IPV6
	IPv6.1#DNS1		Login, Configure	LM_IPV6
	IPv6.1#DNS2		Login, Configure	LM_IPV6
	IPv6.1#IPV6NumOfExtAddress		Login, System control	LM_IPV6
	IPMILan.1#Enable		Login, Configure	
	IPMILan.1#PrivLimit		Login, Configure	
	IPMILan.1#EncryptionKey		Login, Configure	
	IPMILan.1#CommunityName		Login, Configure	
	IPMILan.1#AlertEnable		Login, Configure	
	Users.1#IPMILanPrivilege		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#IpmiSerialPrivilege		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#Privilege		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#UserName		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#Password		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#Enable		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#SolEnable		Login, Configure users	LM_REMOTE_CONFIGURATION
	Update.1#FwUpdateTFTPEnable		Login, Configure	
	Update.1#FwUpdateIPAddr		Login, Configure	
	Update.1#FwUpdatePath		Login, Configure	
	EmailAlert.1#Enable		Login, Configure	LM_EMAIL_ALERTING
	EmailAlert.1#Address		Login, Configure	LM_EMAIL_ALERTING
	EmailAlert.1#CustomMsg		Login, Configure	LM_EMAIL_ALERTING
	RemoteHosts.1#SMTPServerIPAddress		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	Telnet.1#Enable		Login, Configure	
	Telnet.1#Port		Login, Configure	
	Telnet.1#Timeout		Login, Configure	
	SSH.1#Enable		Login, Configure	
	SSH.1#Port		Login, Configure	
	SSH.1#Timeout		Login, Configure	
	WebServer.1#Enable		Login, Configure	LM_VCONSOLE
	WebServer.1#HttpPort		Login, Configure	
	WebServer.1#HttpsPort		Login, Configure	
	WebServer.1#Timeout		Login, Configure	
	WebServer.1#LowerEncryptionBitLength		Login, Configure	LM_VCONSOLE
	VirtualConsole.1#Enable		Login, Configure	LM_VCONSOLE
	VirtualConsole.1#EncryptEnable		Login, Configure	LM_VCONSOLE
	VirtualConsole.1#LocalVideo		Login, Configure	LM_VCONSOLE
	VirtualConsole.1#PluginType		Login, Configure	LM_VCONSOLE
	VirtualConsole.1#MaxSessions		Login, Configure	LM_VCONSOLE
	VirtualConsole.1#Port		Login, Configure	LM_VCONSOLE
	VirtualConsole.1#Timeout		Login, Configure	LM_VCONSOLE
	Racadm.1#Enable		Login, Configure	
	Racadm.1#Timeout		Login, Configure	
	Serial.1#Enable		Login, Configure	
	Serial.1#BaudRate		Login, Configure	
	Serial.1#IdleTimeout		Login, Configure	
	Serial.1#NoAuth		Login, Configure	
	Serial.1#HistorySize		Login, Configure	
	Serial.1#Command		Login, Configure	
	SerialRedirection.1#Enable		Login, Configure	
	SerialRedirection.1#QuitKey		Login, Configure	
	IPMISerial.1#ConnectionMode		Login, Configure	
	IPMISerial.1#BaudRate		Login, Configure	
	IPMISerial.1#FlowControl		Login, Configure	
	IPMISerial.1#ChanPrivLimit		Login, Configure	
	IPMISerial.1#LineEdit		Login, Configure	
	IPMISerial.1#DeleteControl		Login, Configure	
	IPMISerial.1#EchoControl		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	IPMISerial.1#HandshakeControl		Login, Configure	
	IPMISerial.1#NewLineSeq		Login, Configure	
	IPMISerial.1#InputNewLineSeq		Login, Configure	
	IPMISOL.1#Enable		Login, Configure	
	IPMISOL.1#BaudRate		Login, Configure	
	IPMISOL.1#MinPrivilege		Login, Configure	
	IPMISOL.1#AccumulateInterval		Login, Configure	
	IPMISOL.1#SendThreshold		Login, Configure	
	SNMP.1#AgentEnable		Login, Configure	LM_SNMP
	SNMP.1#AgentCommunity		Login, Configure	LM_SNMP
	VirtualMedia.1#Attached		Login, Virtual media access	LM_VMEDIA
	VirtualMedia.1#BootOnce		Login, Virtual media access	LM_VMEDIA
	VirtualMedia.1#KeyEnable		Login, Virtual media access	LM_VMEDIA
	VirtualMedia.1#FloppyEmulation		Login, Virtual media access	LM_VMEDIA
	IPBlocking.1#RangeEnable		Login, Configure	LM_SECURITY_LOCKOUT
	IPBlocking.1#RangeAddr		Login, Configure	LM_SECURITY_LOCKOUT
	IPBlocking.1#RangeMask		Login, Configure	LM_SECURITY_LOCKOUT
	IPBlocking.1#BlockEnable		Login, Configure	LM_SECURITY_LOCKOUT
	IPBlocking.1#FailCount		Login, Configure	LM_SECURITY_LOCKOUT
	IPBlocking.1#FailWindow		Login, Configure	LM_SECURITY_LOCKOUT
	IPBlocking.1#PenaltyTime		Login, Configure	LM_SECURITY_LOCKOUT
	LocalSecurity.1#PrebootConfig		Login, Configure	
	LocalSecurity.1#LocalConfig		Login, Configure	
	Time.1#TimeZoneOffset		Login, Configure	
	Time.1#DayLightOffset		Login, Configure	
	Security.1#CsrCommonName		Login, Configure	
	Security.1#CsrOrganizationName		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	Security.1#CsrOrganizationUnit		Login, Configure	
	Security.1#CsrLocalityName		Login, Configure	
	Security.1#CsrStateName		Login, Configure	
	Security.1#CsrCountryCode		Login, Configure	
	Security.1#CsrEmailAddr		Login, Configure	
	Security.1#CsrKeySize		Login, Configure	
	ActiveDirectory.1#Enable		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#RacName		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#RacDomain		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#AuthTimeout		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#Schema		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#DomainController1		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#DomainController2		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#DomainController3		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#GlobalCatalog1		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#GlobalCatalog2		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#GlobalCatalog3		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#CertValidationEnable		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#SSOEnable		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#GCLookupEnable		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#DCLookupEnable		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#GCRootDomain		Login, Configure, Configure users	LM_DIRECTORY_SERVICES

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	ActiveDirectory.1#DCLookupDomainName		Login, Configure	LM_DIRECTORY_SERVICES
	ActiveDirectory.1#DCLookupByUserDomain		Login, Configure	LM_DIRECTORY_SERVICES
	ADGroup.1#Name		Login, Configure	
	ADGroup.1#Domain		Login, Configure	
	ADGroup.1#Privilege		Login, Configure	
	UserDomain.1#Name		Login, Configure	
	SmartCard.1#SmartCardLogonEnable		Login, Configure, Configure users	LM_TWO_FACTOR_AUTHEN
	SmartCard.1#SmartCardCRLEnable		Login, Configure	LM_TWO_FACTOR_AUTHEN
	SysLog.1#SysLogEnable		Login, Configure	LM_REMOTE_SYSLOG
	SysLog.1#Port		Login, Configure	LM_REMOTE_SYSLOG
	SysLog.1#Server1		Login, Configure	LM_REMOTE_SYSLOG
	SysLog.1#Server2		Login, Configure	LM_REMOTE_SYSLOG
	SysLog.1#Server3		Login, Configure	LM_REMOTE_SYSLOG
	LDAP.1#Enable		Login, Configure	LM_DIRECTORY_SERVICES
	LDAP.1#Server		Login, Configure	LM_DIRECTORY_SERVICES
	LDAP.1#Port		Login, Configure	LM_DIRECTORY_SERVICES
	LDAP.1#BaseDN		Login, Configure	LM_DIRECTORY_SERVICES
	LDAP.1#UserAttribute		Login, Configure	LM_DIRECTORY_SERVICES
	LDAP.1#GroupAttribute		Login, Configure	LM_DIRECTORY_SERVICES
	LDAP.1#GroupAttributesDN		Login, Configure	LM_DIRECTORY_SERVICES
	LDAP.1#BindDN		Login, Configure	LM_DIRECTORY_SERVICES
	LDAP.1#BindPassword		Login, Configure	LM_DIRECTORY_SERVICES

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	LDAP.1#SearchFilter		Login, Configure	LM_DIRECTORY_SERVICES
	LDAP.1#CertValidationEnable		Login, Configure	LM_DIRECTORY_SERVICES
	LDAPRoleGroup.1#DN		Login, Configure	LM_DIRECTORY_SERVICES
	LDAPRoleGroup.1#Privilege		Login, Configure	LM_DIRECTORY_SERVICES
	SNMPTrapIPv6.1#State		Login, System control	LM_IPV6 & LM_SNMP
	SNMPTrapIPv6.1#DestIPv6Addr		Login, System control	LM_IPV6 & LM_SNMP
	SNMPTrapIPv4.1#State		Login, System control	
	SNMPTrapIPv4.1#DestIPv4Addr		Login, System control	
	RFS.1#AttachMode		Login, Configure	LM_REMOTE_FILE_SHARE
	OS-BMC.1#AdminState		Login, Configure	
	NIC.1#DNSDomainNameFromDHCP		Login, Configure	
	NIC.1#AutoDetect		Login, Configure	LM_DEDICATED_NIC
	NIC.1#DedicatedNICScanTime		Login, Configure	
	NIC.1#SharedNICScanTime		Login, Configure	
	NICStatic.1#DNSDomainName		Login, Configure	
	NICStatic.1#DNSDomainFromDHCP		Login, Configure	
	IPv4Static.1#Address		Login, Configure	
	IPv4Static.1#Netmask		Login, Configure	
	IPv4Static.1#Gateway		Login, Configure	
	IPv4Static.1#DNS1		Login, Configure	
	IPv4Static.1#DNS2		Login, Configure	
	IPv6Static.1#address1		Login, Configure	
	IPv6Static.1#Gateway		Login, Configure	
	IPv6Static.1#PrefixLength		Login, Configure	
	IPv6Static.1#DNS1		Login, Configure	
	IPv6Static.1#DNS2		Login, Configure	
	IPv6Static.1#DNSFromDHCP6		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	Users.1#ProtocolEnable		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#AuthenticationProtocol		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#PrivacyProtocol		Login, Configure users	LM_REMOTE_CONFIGURATION
	SNMP.1#TrapFormat		Login, Configure	
	SNMP.1#SNMPProtocol		Login, Configure	
	Time.1#Timezone		Login, Configure	
	SysLog.1#PowerLogEnable		Login, Configure	
	SysLog.1#PowerLogInterval		Login, Configure	
	SNMPAlert.1#Destination		Login, Configure	LM_IPV6 & LM_SNMP
	SNMPAlert.1#State		Login, Configure	LM_IPV6 & LM_SNMP
	AutoOSLockGroup.1#AutoOSLockState		Login, Configure	
	NTPConfigGroup.1#NTPEnable		Login, Configure	
	NTPConfigGroup.1#NTP1		Login, Configure	
	NTPConfigGroup.1#NTP2		Login, Configure	
	NTPConfigGroup.1#NTP3		Login, Configure	
	NTPConfigGroup.1#NTPMaxDist		Login, Configure	
	OS-BMC.1#OsIpAddress		Login, Configure	
	WebServer.1#HttpsRedirection		Login, Configure	LM_VCONSOLE
	RemoteHosts.1#SMTPPort		Login, Configure	LM_EMAIL_ALERTING
	SNMP.1#DiscoveryPort		Login, Configure	
	SNMP.1#AlertPort		Login, Configure	
	NIC.1#AutoConfig		Login, Configure	LM_DHCP_CONFIGURE
	IOIDOpt.1#IOIDOptEnable		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	OS-BMC.1#PTMode		Login, System control	
	OS-BMC.1# UsbNICIpAddress		Login, System control	
	ServerBoot.1#FirstBootDevice		Login, Configure	
	Users.1#SHA256Password		Login, Configure users	LM_REMOTE_CONFIGURATION

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	Users.1#SHA1v3Key		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#MD5v3Key		Login, Configure users	LM_REMOTE_CONFIGURATION
	Users.1#SHA256PasswordSalt		Login, Configure users	LM_REMOTE_CONFIGURATION
	VirtualMedia.1#EncryptEnable		Login, Virtual media access	LM_VMEDIA
	ServerBoot.1#BootOnce		Login, Configure	
	ServiceModule.1#OSInfo		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	ServiceModule.1#WatchdogState		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	ServiceModule.1#WatchdogResetTime		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	ServiceModule.1#WatchdogRecoveryAction		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	ServiceModule.1#SNMPOnHostOS		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	ServiceModule.1#LCLReplication		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	ServiceModule.1#ServiceModuleEnable		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	VirtualConsole.1#AccessPrivilege		Login, Configure	LM_VCONSOLE
	SecurityCSC.1#CSCCsCommonName		Login, System control	
	SecurityCSC.1#CSCCsBusiness		Login, System control	
	SecurityCSC.1#CSCCsDeptName		Login, System control	
	SecurityCSC.1#CSCCsCityName		Login, System control	
	SecurityCSC.1#CSCCsStateName		Login, System control	
	SecurityCSC.1#CSCCsCountryCode		Login, System control	
	SecurityCSC.1#CSCCsEmailAddr		Login, System control	
	vFlashSD.1#Enable		Login, Virtual media access	LM_VFLASH

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	vFlashPartition.1#EmulationType		Login, Virtual media access	LM_VIRTUAL_FLASH_PARTITION
	vFlashPartition.1#FormatType		Login, System control	LM_VIRTUAL_FLASH_PARTITION
	vFlashPartition.1#AccessType		Login, Virtual media access	LM_VIRTUAL_FLASH_PARTITION
	vFlashPartition.1#AttachState		Login, Virtual media access	LM_VIRTUAL_FLASH_PARTITION
	Logging.1#SELOEMEventFilterEnable		Login, Configure	
	VNCServer.1#Enable		Login, Configure	LM_VNC
	VNCServer.1#Password		Login, Configure	LM_VNC
	VNCServer.1#Port		Login, Configure	LM_VNC
	VNCServer.1#LowerEncryptionBitLength		Login, Configure	LM_VNC
	VNCServer.1#Timeout		Login, Configure	LM_VNC
	IOIDOpt.1#VirtualAddressPersistencePolicyNonAuxPwr		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	IOIDOpt.1#VirtualAddressPersistencePolicyAuxPwr		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	IOIDOpt.1#InitiatorPersistencePolicy		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	IOIDOpt.1#StorageTargetPersistencePolicy		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	SNMPAlert.1#SNMPv3Username		Login, Configure	LM_IPV6 & LM_SNMP
	ServiceModule.1#WMIInfo		Login, Configure, System control	
	DefaultCredentialMitigationConfigGroup.1#DefaultCredentialMitigation		Login, Configure users	
	RemoteHosts.1#SMTPAuthentication		Login, Configure	
	RemoteHosts.1#SMTPUserName		Login, Configure	
	RemoteHosts.1#SMTPPassword		Login, Configure	
	USB.1#ConfigurationXML		Login, System control	
	OS-BMC.1#PrefixLength		Login, System control	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	OS-BMC.1#IldracPTEIpAddr		Login, System control	
	IPv4Static.1#DNSFromDHCP		Login, Configure	
	NIC.1#VLanSetting		Login, Configure, System control	
	VirtualConsole.1#AttachState		Login, Configure	
	LDAPRoleGroup.1#DestIPv6Addr		Login, Configure	
	LDAPRoleGroup.1#DN.1		Login, Configure	
	LDAPRoleGroup.1#DN.2		Login, Configure	
	LDAPRoleGroup.1#DN.3		Login, Configure	
	LDAPRoleGroup.1#DN.4		Login, Configure	
	LDAPRoleGroup.1#DN.5		Login, Configure	
	LDAPRoleGroup.1#State		Login, Configure	
	SerialRedirection.1#AutoEnable		Login, Configure	
	Update.1#EnableSharedCompUpdate		Login, System control	LM_REMOTE_CONFIGURATION
	USB.1#PortStatus		Login, System control	
	IPMISDR.1#SDRAddTimeStamp		Login, Configure	
	IPMISEL.1#SELdata		Login, Configure	
	IPMIPefOften.1#SoftwareRecordID		Login, Configure	
	IPMIPefOften.1#BMCRecordID		Login, Configure	
	RedfishEventing.1#DeliveryRetryAttempts		Login, Configure	
	RedfishEventing.1#DeliveryRetryIntervalInSeconds		Login, Configure	
	WebServer.1#SSLEncryptionBitLength		Login, Configure	LM_VCONSOLE
	Users.1#UserPayloadAccess		Login, Configure	LM_REMOTE_CONFIGURATION
	SNMPAlert.1#DestinationType		Login, Configure	
	SNMPAlert.1#AlertAckInterval		Login, Configure	
	SNMPAlert.1#Retries		Login, Configure	
	IPMILANPEFConfig.1#GatewaySelector		Login, Configure	
	IPMISDR.1#SDRDelTimeStamp		Login, Configure	
	IPMISerial.1#SessionTimeout		Login, Configure	
	IPMISerial.1#SessionTerminalTimeout		Login, Configure	
	IPMISerial.1#MuxSwitchControl		Login, Configure	
	IPMISerial.1#ChannelAccess		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	IPMISerial.1#PortAssociation		Login, Configure	
	IPMISOL.1#Authentication		Login, Configure	
	IPMISOL.1#RetryCount		Login, Configure	
	IPMISOL.1# Interval		Login, Configure	
	IPMILANPEFConfig.1#DestinationMACAddress		Login, Configure	
	NIC.1#SeqKey		Login, Configure	
	GroupManager.1#Status		Login, Configure	LM_GROUP_MANAGER
	GroupManager.1#GroupPasscode		Login, Configure	
	GroupManager.1#ConfigurationUpdateTimeStamp		Login, Configure	
	GroupManager.1#ServicePublishInterval		Login, Configure	
	GroupManager.1#GroupPublishInterval		Login, Configure	
	GroupManager.1#MemberInventoryInterval		Login, Configure	
	GroupManager.1#PrimarySecondarySyncInterval		Login, Configure	
	GroupManager.1#GroupTaskAutoRetryInterval		Login, Configure	
	GroupManager.1#GroupTaskAutoRetryCount		Login, Configure	
	GroupManager.1#MaxGroupMembers		Login, Configure	
	GroupManager.1#GroupPingerInterval		Login, Configure	
	GroupManager.1#MaxGroupTasks		Login, Configure	
	GroupManager.1#MessagingMaxRetryCount		Login, Configure	
	GroupManager.1#MessagingRetryInterval		Login, Configure	
	GroupManager.1#Role		Login, Configure	
	SupportAssist.1#SupportAssistEnableState		Login, Configure	
	SupportAssist.1#SupportAssistEULAAccepted		Login, Configure	
	SupportAssist.1#EventBasedAutoCollection		Login, Configure	
	SupportAssist.1#ScheduleBasedAutoCollection		Login, Configure	
	GroupManager.1#CloneStatus		Login, Configure	
	SupportAssist.1#HostOSProxyConfigured		Login, Configure	
	SupportAssist.1#NativeOSLogsCollectionSupported		Login, Configure	
	ServiceModule.1#HostSNMPAlert		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	SecureDefaultPassword.1#Password		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	ServiceModule.1#iDRACHardReset		Login, Configure, System control	None
	IntegratedDatacenter.1#DiscoveryEnable		Login, Configure	
	IntegratedDatacenter.1#TroubleshootingMode		Login, Configure	
	IntegratedDatacenter.1#Eject		Login, Configure	
	Redfish.1#Enable		Login, Configure	
	SECONDARYNIC.1#HostName		Login, Configure	
	SECONDARYNIC.1#NICEnable		Login, Configure	
	SECONDARYNIC.1#RegisterHostDNS		Login, Configure	
	SECONDARYNIC.1#DomainNameDHCP		Login, Configure	
	SECONDARYNIC.1#DNSFromDHCP		Login, Configure	
	SECONDARYNIC.1#IPv4StaticDomainName		Login, Configure	
	SECONDARYNIC.1#DNSDRACName		Login, Configure	
	SECONDARYNIC.1#VLANEnable		Login, Configure	
	SECONDARYNIC.1#VLANPriority		Login, Configure	
	SECONDARYNIC.1#VLANID		Login, Configure	
	SECONDARYNIC.1#DHCPEnable		Login, Configure	
	SECONDARYNIC.1#IPv4Enable		Login, Configure	
	SECONDARYNIC.1#IPv4Address		Login, Configure	
	SECONDARYNIC.1#IPv4NetMask		Login, Configure	
	SECONDARYNIC.1#IPv4Gateway		Login, Configure	
	SECONDARYNIC.1#DNSServer1		Login, Configure	
	SECONDARYNIC.1#DNSServer2		Login, Configure	
	RFS.1#RMPPath		Login, Configure	
	WebServer.1#ControlCollaboration		Login, Configure	
	WebServer.1#ControlVFLoder		Login, Configure	
	VirtualMedia.1#ImagePath		Login, Configure	
	VirtualMedia.1#ImageType		Login, Configure	
	VirtualMedia.1#ActiveSessions		Login, Configure	
	RFS.1#Password		Login, Configure	
	RFS.1#User		Login, Configure	
	Racadm.1#MaxSessions		Login, Configure	
	Racadm.1#ActiveSessions		Login, Configure	
	VirtualConsole.1#InactivityTimeoutEnable		Login, Configure	
	VirtualConsole.1#LocalDisable		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	VirtualConsole.1#VideoCaptureEnable		Login, Configure	
	VirtualMedia.1#ImageFileName		Login, Configure	
	VirtualConsole.1#InactivityTimeoutDuration		Login, Configure	
	VirtualConsole.1#BootCaptureSequence		Login, Configure	LM_REMOTE_CONFIGURATION
	NIC.1#ConfigMaxDelay		Login, Configure	
	VirtualConsole.1#BootCaptureFileCount		Login, Configure	
	SupportAssist.1#HostOSProxyAddress		Login, Configure	
	SupportAssist.1#HostOSProxyPort		Login, Configure	
	SupportAssist.1#HostOSProxyUserName		Login, Configure	
	SupportAssist.1#HostOSProxyPassword		Login, Configure	
	SupportAssist.1#NativeOSLogsCollectionOverride		Login, Configure	
	SupportAssist.1#ProSupportPlusRecommendationsReport		Login, Configure	
	SupportAssist.1#FilterAutoCollections		Login, Configure	
	SupportAssist.1#MBSELRestoreState		Login, Configure	
	SupportAssist.1#DefaultProtocol		Login, Configure	
	SupportAssist.1#DefaultIPAddress		Login, Configure	
	SupportAssist.1#DefaultShareName		Login, Configure	
	SupportAssist.1#DefaultWorkgroupname		Login, Configure	
	SupportAssist.1#DefaultUserName		Login, Configure	
	SupportAssist.1#DefaultPassword		Login, Configure	
	SwitchConnectionView.1#Enable		Login, Configure	LM_REMOTE_CONFIGURATION
	RFS.1#Enable		Login, Configure	LM_REMOTE_FILE_SHARE
	RFS.1#Status		Login, Configure	LM_REMOTE_FILE_SHARE
	GUI.1#SecurityPolicyMessage		Login, Configure	
	USB.1#ZipPassword		Login, System control	LM_REMOTE_CONFIGURATION
	SupportAssist.1#SupportAssistEULAAcceptedByiDRACUser		Login, Configure	
	SupportAssist.1#SupportAssistEULAAcceptedViaiDRACIntf		Login, Configure	
	SupportAssist.1#SupportAssistEULAAcceptedAtiDRACTime		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	Users.1#IPMIKey		Login, Configure, System control	LM_REMOTE_CONFIGURATION
	GroupManager.1#EncryptionStatus		Login, Configure	
	GroupManager.1#PrimaryElectionDuration		Login, Configure	
	GroupManager.1#PrimaryDiscoveryWaitDuration		Login, Configure	
	GroupManager.1#MaxDiscoveredServers		Login, Configure	
	Lockdown.1#SystemLockdown		Login, Configure	To enable the attribute required "LM_LOCKDOWN_MODE" + LM_REMOTE_CONFIGURATION. To disable the attribute required LM_REMOTE_CONFIGURATION
	ServiceModule.1#SWRaidMonitoring		Login, Configure, System control	
	SupportAssist.1#EmailOptIn		Login, Configure	
	SupportAssist.1#PreferredLanguage		Login, Configure	
	GroupManager.1#GroupMasterElectionWaitTime		Login, Configure	
	VNCServer.1#SSLEncryptionBitLength		Login, Configure	LM_VNC
	ASRConfig.1#Enable		Login, Configure	
	VNCServer.1#MaxSessions		Login, Configure	LM_VNC
	SecureDefaultPassword.1#ResetType		Login, Configure	
	WebServer.1#TLSProtocol		Login, Configure	
	Security.1#FIPSMODE		Login, Configure	
	RedfishEventing.1#IgnoreCertificateErrors		Login, Configure	
	SysInfo.1#BrdRevision		Login, Configure	
	SysInfo.1#LocalConsoleLockOut		Login, Configure	
	SysInfo.1#SystemRev		Login, Configure	
	PrivateStore.1#State		Login, Configure	
	PrivateStore.1#ACRestoreState		Login, Configure	
	PrivateStore.1#LastPwrState		Login, Configure	
	PrivateStore.1#PowerCapState		Login, Configure	
	PrivateStore.1#LastPostCode		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	PrivateStore.1#ROMBStatus		Login, Configure	
	PrivateStore.1#BladeMemNormalPwr		Login, Configure	
	PrivateStore.1#BladeMemNThrottlePwr		Login, Configure	
	PrivateStore.1#BladeCPUNormalPwr		Login, Configure	
	PrivateStore.1#BladeCPUThrottlePwr		Login, Configure	
	PrivateStore.1#BladeMezzNormalPwr		Login, Configure	
	PrivateStore.1#BladeMezzThrottlePwr		Login, Configure	
	PrivateStore.1#BladeStorNormalPwr		Login, Configure	
	PrivateStore.1#BladeStorThrottlePwr		Login, Configure	
	PrivateStore.1#BladePlatformLimit		Login, Configure	
	PrivateStore.1#BladeFabricMismatch		Login, Configure	
	PrivateStore.1#BladeHDDPwr		Login, Configure	
	PrivateStore.1#BladeHDDThrottlePwr		Login, Configure	
	PrivateStore.1#BladeAllocatedPwr		Login, Configure	
	PrivateStore.1#BladeNDCNormalPwr		Login, Configure	
	PrivateStore.1#BladeNDCThrottlePwr		Login, Configure	
	PrivateStore.1#BladePreBudgetMax		Login, Configure	
	PrivateStore.1#BladePreBudgetMin		Login, Configure	
	PrivateStore.1#BladeBIOSBudgetMax		Login, Configure	
	PrivateStore.1#BladeBIOSBudgetMin		Login, Configure	
	PrivateStore.1#BladeBIOSRunTimeMax		Login, Configure	
	PrivateStore.1#BladeBIOSRunTimeMin		Login, Configure	
	PrivateStore.1#BladeSeamlessMethod		Login, Configure	
	PrivateStore.1#IDSMDState		Login, Configure	
	PrivateStore.1#AlertAddrMigration		Login, Configure	
	PrivateStore.1#NDCMisconfig		Login, Configure	
	PrivateStore.1#CIPHERSuiteDisable		Login, Configure	
	NIC.1#VLanPort		Login, Configure	None
	WebServer.1#TitleBarOption		Login, Configure	
	CurrentNIC.1#NICInterface2NCSIPortCount		Login, Configure	
	CurrentNIC.1#NICInterface2NCSIPortStart		Login, Configure	
	CurrentNIC.1#NICInterface3NCSIPortCount		Login, Configure	
	CurrentNIC.1#NICInterface3NCSIPortStart		Login, Configure	
	CurrentNIC.1#PendingActiveNIC		Login, Configure	
	PrivateStore.1#ActiveSATACount		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	WebServer.1#TitleBarOptionCustom		Login, Configure	
	vFlashSD.1#Licensed		Login, System control	LM_VFLASH
	vFlashSD.1#Health		Login, System control	LM_VFLASH
	vFlashSD.1#WriteProtect		Login, System control	LM_VFLASH
	vFlashSD.1#Initialized		Login, System control	LM_VFLASH
	vFlashSD.1#Bitmap		Login, Configure	
	vFlashSD.1#Presence		Login, System control	LM_VFLASH
	GpGPUPTable.1#IsEmptyEntry		Login, Configure	
	GpGPUPTable.1#Gen		Login, Configure	
	GpGPUPTable.1#Width		Login, Configure	
	GpGPUPTable.1#Vid		Login, Configure	
	GpGPUPTable.1#Did		Login, Configure	
	GpGPUPTable.1#SVid		Login, Configure	
	GpGPUPTable.1#SDid		Login, Configure	
	GpGPUPTable.1#PeakPower		Login, Configure	
	GpGPUPTable.1#ThrottledPower		Login, Configure	
	GpGPUPTable.1#GpuHotSup		Login, Configure	
	GpGPUPTable.1#GpuDCT		Login, Configure	
	GpGPUPTable.1#CardType		Login, Configure	
	GpGPUPTable.1#ThermalTarget		Login, Configure	
	PMLicensing.1#PMDrivenLicensing		Login, Configure	
	PMLicensing.1#LM-LICENSE-UI		Login, Configure	
	PMLicensing.1#LM-RACADM-CLI		Login, Configure	
	PMLicensing.1#LM-WSMAN		Login, Configure	
	PMLicensing.1#LM-SNMP-GET		Login, Configure	
	PMLicensing.1#LM-AUTO-DISCOVERY		Login, Configure	
	PMLicensing.1#LM-USC-FIRMWARE-UPDATE		Login, Configure	
	PMLicensing.1#LM-INBAND-FIRMWARE-UPDATE		Login, Configure	
	PMLicensing.1#LM-USC-ASSISTED-OS-DEPLOYMENT		Login, Configure	
	SecureDefaultPassword.1#DefaultUserCreated		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	NIC.1#AutoConfigIPv6		Login, Configure, System control	
	PMLicensing.1#LM-USC-DEVICE-CONFIGURATION		Login, Configure	
	PMLicensing.1#LM-USC-EMBEDDED-DIAGNOSTICS		Login, Configure	
	PMLicensing.1#LM-POWER-BUDGETING		Login, Configure	
	PMLicensing.1#LM-POWER-MONITORING		Login, Configure	
	PMLicensing.1#LM-VMEDIA		Login, Configure	
	PMLicensing.1#LM-TELNET		Login, Configure	
	PMLicensing.1#LM-SMASH-CLP		Login, Configure	
	PMLicensing.1#LM-IPV6		Login, Configure	
	PMLicensing.1#LM-DYNAMIC-DNS		Login, Configure	
	PMLicensing.1#LM-DEDICATED-NIC		Login, Configure	
	PMLicensing.1#LM-DIRECTORY-SERVICES		Login, Configure	
	PMLicensing.1#LM-TWO-FACTOR-AUTHEN		Login, Configure	
	PMLicensing.1#LM-SSO		Login, Configure	
	PMLicensing.1#LM-SSH-PK-AUTHEN		Login, Configure	
	PMLicensing.1#LM-LAST-CRASH-SCREEN-CAPTURE		Login, Configure	
	PMLicensing.1#LM-LAST-CRASH-VIDEO-CAPTURE		Login, Configure	
	PMLicensing.1#LM-BOOT-CAPTURE		Login, Configure	
	PMLicensing.1#LM-VCONSOLE		Login, Configure	
	PMLicensing.1#LM-VIRTUAL-FLASH-PARTITIONS		Login, Configure	
	PMLicensing.1#LM-CONSOLE-COLLABORATION		Login, Configure	
	PMLicensing.1#LM-DEVICE-MONITORING		Login, Configure	
	PMLicensing.1#LM-REMOTE-ASSET-INVENTORY		Login, Configure	
	PMLicensing.1#LM-STORAGE-MONITORING		Login, Configure	
	PMLicensing.1#LM-REMOTE-FIRMWARE-UPDATE		Login, Configure	
	PMLicensing.1#LM-REMOTE-CONFIGURATION		Login, Configure	
	PMLicensing.1#LM-BASIC-REMOTE-INVENTORY-EXPORT		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	PMLicensing.1#LM-REMOTE-OS-DEPLOYMENT		Login, Configure	
	PMLicensing.1#LM-BACKUP-RESTORE		Login, Configure	
	PMLicensing.1#LM-PART-REPLACEMENT		Login, Configure	
	PMLicensing.1#LM-SSH		Login, Configure	
	PMLicensing.1#LM-REMOTE-FILE-SHARE		Login, Configure	
	PMLicensing.1#LM-VFOLDER		Login, Configure	
	PMLicensing.1#LM-FULL-UI		Login, Configure	
	PMLicensing.1#LM-NTP		Login, Configure	
	PMLicensing.1#LM-EMAIL-ALERTING		Login, Configure	
	PMLicensing.1#LM-SECURITY-LOCKOUT		Login, Configure	
	PMLicensing.1#LM-REMOTE-SYSLOG		Login, Configure	
	PMLicensing.1#LM-RESTORE		Login, Configure	
	PMLicensing.1#LM-UPDATE-FROM-REPO		Login, Configure	
	PMLicensing.1#LM-AUTO-UPDATE		Login, Configure	
	PMLicensing.1#LM-DHCP-CONFIGURE		Login, Configure	
	PMLicensing.1#LM-VNC		Login, Configure	
	PMLicensing.1#LM-AVOTON-4CORE		Login, Configure	
	PMLicensing.1#LM-AVOTON-8CORE		Login, Configure	
	PMLicensing.1#LM-DCS-GUI		Login, Configure	
	PMLicensing.1#LM-OME		Login, Configure	
	PMLicensing.1#LM-OOB		Login, Configure	
	PMLicensing.1#LM-REDFISH		Login, Configure	
	PMLicensing.1#LM-GROUP-MANAGER		Login, Configure	
	PMLicensing.1#LM-LC-UI		Login, Configure	
	PMLicensing.1#PMDefaultLicenseFeatures		Login, Configure	
	PMLicensing.1#PMAallowableLicenses		Login, Configure	
	PMLicensing.1#LM-BMC-PLUS		Login, Configure	
	PMLicensing.1#LM-IDRAC-ENTERPRISE		Login, Configure	
	PMLicensing.1#LM-IDRAC-EXPRESS		Login, Configure	
	PMLicensing.1#LM-BASE-IPMI-GUI.1#		Login, Configure	
	PMLicensing.1#LM-IDRAC-EXPRESS-BLADES		Login, Configure	
	MgmtNetworkInterface.1#NICConfig		Login, Configure	
	NIC.1#Flexmacaddress		Login, Configure	
	SensorThresholds.1# UNC		Login, Configure	

Method	Instance (GroupID.AttributeName)	Operation	Required user privileges	Required License
	SensorThresholds.1# UC		Login, Configure	
	SensorThresholds.1#SensorNumber		Login, Configure	
	SensorThresholds.1# LNC		Login, Configure	
	SensorThresholds.1# LC		Login, Configure	
	NIC.1#ModularLinkstatus		Login, Configure	
	NIC.1#CMCResetState		Login, Configure	
	NIC.1#ConfigChangedByUser		Login, Configure	
	PMLicensing.1# LM-LOCKDOWN-MODE		Login, Configure	
	NIC.1# DCMIDHCPopt12		Login, Configure	
	NIC.1# DCMIDHCPopt60opt43		Login, Configure	
	NIC.1# d9netsettingstate		Login, Configure	
	NIC.1#DCMIDHCPrandombackoff		Login, Configure	
	NIC.1#DCMIDHCPpktTimeout		Login, Configure	
	NIC.1#DCMIDHCPretryTimeout		Login, Configure	
	NIC.1#DCMIDHCPwaitinterval		Login, Configure	
	NIC.1#DCMIDHCPmgmtstring		Login, Configure	
	IPMIPefSeldom.1#PEFFilterDefaultsSet		Login, Configure	
	NIC.1#d9netUSBsettingstate		Login, Configure, System control	
	NIC.1#G5KxcablePresence		Login, Configure	
	ServerBoot.1#VflashBootPartition		Login, Configure	
	DCMIThermal.1#ExceptionTime		Login, Configure	
	DCMIThermal.1#ExceptionAction		Login, Configure	
	DCMIThermal.1#DCMIControl		Login, Configure	
	PMLicensing.1# LM-CONNECTION-VIEW		Login, Configure	
	PMLicensing.1# LM-VCONSOLE-CHAT		Login, Configure	
	PMLicensing.1# LM-VCONSOLE-HTML5-ACCESS		Login, Configure	
	PMLicensing.1# LM-QUALITY-BANDWIDTH-CONTROL		Login, Configure	

Table 190.

Method	Operations	Required User privileges	Required License
DCIM_iDRACCardView	ENUMERATE, GET	Login	None.
DCIM_iDRACCardService	ENUMERATE, GET	Login	None.
DCIM_iDRACCardService. CreateTargetedConfigJob()	INVOKE	Login, System Control	LM_REMOTE_CONFIGUR ATION

Method	Operations	Required User privileges	Required License
DCIM_iDRACCardService.DeletePendingConfiguration()	INVOKE	Login, System Control	LM_REMOTE_CONFIGUR ATION
DCIM_iDRACCardService.SendTestEmailAlert()	INVOKE	Login, System Operations	LM_REMOTE_CONFIGUR ATION & LM_EMAIL_ALERTING
DCIM_iDRACCardService.SendTestSNMPTrap()	INVOKE	Login, System Operations	LM_REMOTE_CONFIGUR ATION & LM_SNMP
DCIM_LCElementConformsToProfile	ENUMERATE, GET	Login	None.
DCIM_LCRegisteredProfile	ENUMERATE, GET	Login	None.
DCIM_iDRACCardEnumeration	ENUMERATE, GET	Login	None, unless shown below
DCIM_iDRACCardInteger	ENUMERATE, GET	Login	None, unless shown below
DCIM_iDRACCardString	ENUMERATE, GET	Login	None, unless shown below
DCIM_iDRACCardService.GenerateSSLCSR(), DCIM_iDRACCardService.ImportSSLCertificate(), DCIM_iDRACCardService.ExportSSLCertificate(), DCIM_iDRACCardService.SSLResetCfg(),	INVOKE	Login, Configure	LM_REMOTE_CONFIGUR ATION
DCIM_iDRACCardService.iDRACReset(),	INVOKE	Login, Configure	None
DCIM_iDRACCardService.iDRACResetCfg()	INVOKE	Login, Configure, Configure Users	None
DCIM_iDRACCardService.JoinGroup()	INVOKE	Administrator	LM_GROUP_MANAGER
DCIM_iDRACCardService.DeleteGroup()	INVOKE	Administrator	LM_GROUP_MANAGER
DCIM_iDRACCardService.RemoveSelf()	INVOKE	Administrator	LM_GROUP_MANAGER
DCIM_iDRACCardService.ExportData()	INVOKE	Login	None
DCIM_iDRACCardService.ImportData()	INVOKE	Login, Configure	None
DCIM_iDRACCardService.ClearTransferSession()	INVOKE	Login, Configure	None
DCIM_iDRACCardService.getBootDeviceList	INVOKE	Login	None

11.1. Privilege Information

The following annex describes the mapping for iDRAC privileges. The integer value returned for the privilege represents a bit mask, where each bit represents a specific privilege. If a particular bit is set, then the corresponding privilege exists. Table represents the bitmask mapping to the iDRAC privileges.

Table 191. Privilege Bit Mask

Bit	Privilege
1	Login
2	Configure
3	Configure Users
4	Logs
5	System Control
6	Access Virtual Console
7	Access Virtual Media
8	System Operations
9	Debug

For example, a privilege value equal to decimal 91 can be arithmetically decoded into the appropriate privileges:

- $91 \bmod 2 = 1$, then Login privilege exists.
- $91 \div 2 = 45$, $45 \bmod 2 = 1$, then Configure privilege exists.
- $45 \div 2 = 22$, $22 \bmod 2 = 0$, then Configure Users privilege does not exist.
- $22 \div 2 = 11$, $11 \bmod 2 = 1$, then Logs privilege exists.
- $11 \div 2 = 5$, $5 \bmod 2 = 1$, then System Control privilege exists.
- $5 \div 2 = 2$, $2 \bmod 2 = 0$, then Access Virtual Console privilege does not exist.
- $2 \div 2 = 1$, $1 \bmod 2 = 1$, then Access Virtual Media privilege exists.

The same privilege value of decimal 91 can be decoded through binary operations:

- $91 \text{ and } 1 = 1$, then Login privilege exists.
- $91 \text{ and } 2 = 2$, then Configure privilege exists.
- $91 \text{ and } 4 = 0$, then Configure Users privilege does not exist.
- $91 \text{ and } 8 = 8$, then Logs privilege exists.
- $91 \text{ and } 16 = 16$, then System Control privilege exists.
- $91 \text{ and } 32 = 0$, then Access Virtual Console privilege does not exist.
- $91 \text{ and } 64 = 64$, then Access Virtual Media privilege exists.

12. FIPS Mode Information — Informative

By default (factory reset), iDRAC comes with FIPS mode disabled and FIPS mode can be enabled by calling `DCIM_iDRACCardService.SetAttribute` or `DCIM_iDRACCardService.SetAttributes` or `DCIM_iDRACCardService.ApplyAttribute`. When FIPS mode is enabled iDRAC goes for reset. Once FIPS mode is enabled, it can be disabled only by doing a factory reset.

13. Change log

Version	Date	Description
4.0.0	20-Jun-2017	For Group Manager story, added JoinGroup() method details under DCIM_iDRACCardService
		Added attributes for supportassist feature
		Added attributes for iDRAC direct authentication
		Added attribute ffor Receive SNMP Trap from OS: iDRAC MIB compatible
		Added details for attributes related to ServiceModule. HostSNMPAlert
		Modified possible values and default value of "ManagementPortMode" from "Automatic" to "iDRAC Direct Only"
		Updated Ducati 1.5 Changes:
		Added details for attribute WebServer.tls11support
		Added details for FIPS Mode attribute
		Update TLSProtocol attribute name and possible values
		Updated permission for iDracResetCfg method
		Removed AttachMode attribute
		Added ActiveSessions,MaxSessions, HostFrontPortStatus and HostFrontPortsDynamicMode attributes
		Removed USBConfiguration attribute
		Updated ManagementPortMode attribute
		Added methods for WSMAN Streaming: ImportData(), ExportData() and ClearTransferSession() methods.
		Updates for GroupManager methods.
		System lock down mode attribute added
		NIC Auto detect attribute update for COSMOS
		Dependency property description updated for iDracCardEnumeration
		Updated TimeZoneOffset lower bound value to -43200 to make it consistent with AR and code
		Added SNMP EngineID Attribute
		Apply Attribute method added for System Lock Down Support
		Modified DeleteSSLCertificate EEMI message description
		Added privilege and License details for RFS attributes
		Added GetBootDeviceList method
		Removed DefaultLocalPath attribute related to SupportAssist
		Updated Privilege table for attributes
		Updated Input Options for PreserveNetworkConfig