Operating System (OS) Deployment Profile

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Operating System (OS) Deployment Profile

1 Scope

The Operating System (OS) Deployment Profile extends the management capabilities of referencing profiles by adding the capability to represent OS deployment configuration features. The OS deployment feature consists of:

- Provide the supported OS and version information from the embedded OS driver pack.
- Unpack the OS Driver Update Package (DUP) and extract drivers for a specified OS; the drivers are placed on a local flash drive (nvram) or on a network share.
- Expose the unpacked drivers to the host as a USB device.
- Ability to boot to PXE images.
- Ability to boot to the ISO image present on a network share.
- Ability to download ISO Image and save it in vFlash.
- Ability to boot to the ISO present in vFlash.

2 Normative References

The following referenced documents are indispensable for the application of this document. 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 DSP0200, *CIM Operations over HTTP 1.2.0*
- DMTF DSP0004, *CIM Infrastructure Specification 2.3.0*
- DMTF DSP1000, *Management Profile Specification Template*
- DMTF DSP1001, *Management Profile Specification Usage Guide*
- *Dell Lifecycle Controller Best Practices Guide 1.0,* *http://en.community.dell.com/techcenter/extras/m/white_papers/20066173.aspx*
- *Dell WSMAN Licenses and Privileges 1.0*
- ISO/IEC Directives, Part 2, *Rules for the structure and drafting of International Standards*, http://isotc.iso.org/livelink/livelink.exe?func=ll&objId=4230456&objAction=browse&sort=subtype
- Unified Modeling Language (UML) from the Open Management Group (OMG), http://www.uml.org
- Dell Tech Center MOF Library:http://www.delltechcenter.com/page/DCIM.Library.MOF
- Related Managed Object Format (MOF) files:
    - DCIM_OSDeploymentService.mof

- DCIM_OSDConcreteJob.mof
- DCIM_LCElementConformsToProfile.mof
- DCIM_LCRegisteredProfile.mof

3 Terms and Definitions

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

3.1

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

3.2

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

3.3

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

3.4

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

3.5

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

3.6

cannot – Used for statements of possibility and capability, whether material, physical, or causal.

3.7

need not – 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

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

3.14

Interop Namespace – Interop Namespace is where instrumentation instantiates classes to advertise its capabilities for client discovery.

3.15

Implementation Namespace – Implementation Namespace is where instrumentation instantiates classes relevant to executing core management tasks.

3.16

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

3.17

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

RFS

Remote File Share

5 Synopsis

Profile Name: Operating System (OS) Deployment

Version: 1.2.0

Organization: DCIM

CIM Schema Version: 2.26 Experimental

Central Class: DCIM_OSDeploymentService

Scoping Class: CIM_ComputerSystem

The **Operating System (OS) Deployment Profile** extends the management capability of the referencing profiles by adding the capability to support OS deployment activities by manipulating the OS deployment features provided by the service processor. These features include:

- Identify the list of OS drivers.
- Unpack the OS DUP and extract drivers for a specified OS; the drivers are placed on a local flash drive (nvram).
- Expose the unpacked drivers to the host as a USB device.
- Expose the drivers to the network in a secure manner for access by a management application.
- Support booting to an OS provisioning image from a network share.
- Download a pre-boot OS provisioning image from a network share to vFlash.
- Support booting to an OS provisioning image from vFlash.

DCIM_OSDeploymentService shall be the Central Class.

Table 1 identifies related profiles.

Table 1 – Related Profiles

Profile Name	Organization	Version	Relationship
Profile Registration	DCIM	1.0	Reference

6 Description

The Operating System (OS) Deployment Profile describes the OS deployment configuration service and the related methods. The profile also describes the relationship of the OS Deployment Profile classes to DMTF and Dell profile version information.

The OS deployment features are:

- Identifying the list of OS drivers.
- Unpacking the OS DUP and extract drivers for a specified OS. The drivers are placed on a local flash drive (nvram).
- Exposing the unpacked drivers to the host as a USB device.
- Securely exposing the drivers to the network for access by a management application.
- Booting to an OS provisioning image from a network share.
- Downloading a pre-boot OS provisioning image from a network share to vFlash SD card.
- Booting to an OS provisioning image from vFlash SD card.

Figure 1 represents the class schema for the **Operating System (OS) Deployment Profile**. For simplicity, the prefix CIM_ has been removed from the names of the classes that are standard DMTF classes.

The OS Deployment feature in a service processor is represented by the instance of the DCIM_OSDeploymentService class. The DCIM_OSDeploymentService has extrinsic methods for accomplishing the various OS deployment features described above. The OS Deployment profile information is represented with the instance of CIM_RegisteredProfile.

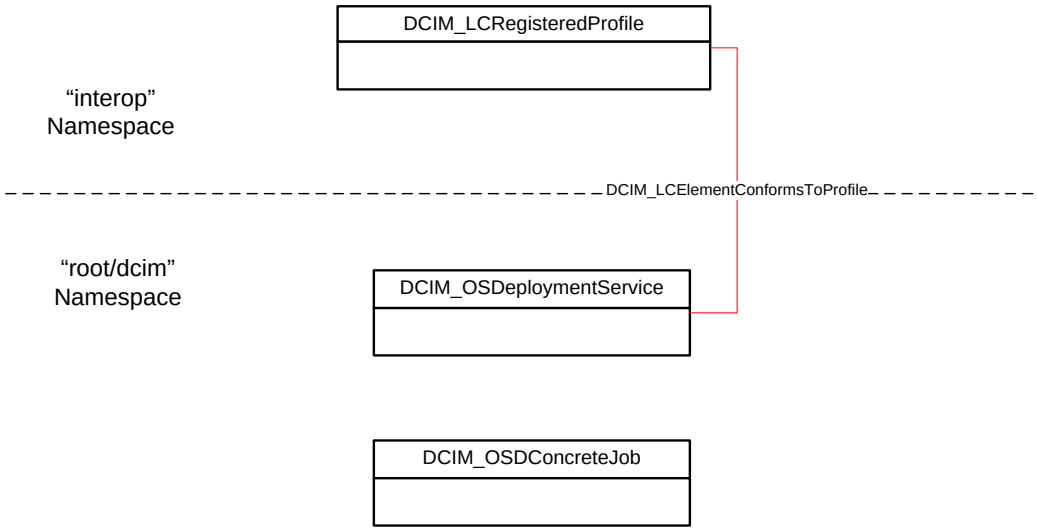

Figure 1 – Operating System (OS) Deployment Profile**: Class Diagram**

7 Implementation Requirements

Requirements and guidelines for propagating and formulating certain properties of the classes are discussed in this section.

This section describes the implementation of Dell OS Deployment.

Table 2 – Class Requirements: Power State Management Profile

Element Name	Requirement	Description
Classes		
DCIM_OSDeploymentService	Mandatory	The class shall be implemented in the "root/dcim" namespace. See section 7.1
DCIM_OSDConcreteJob	Mandatory	The class shall be implemented in the "root/dcim" namespace. See section 7.2
DCIM_LCElementConformsToProfile	Mandatory	The class shall be implemented in both the *Interop* and *"root/dcim" namespaces*. See section 7.1 and 7.3.
DCIM_LCRegisteredProfile	Mandatory	The class shall be implemented in the "root/interop" namespace. See section 7.3.
Indications		
None defined in this profile		

7.1 DCIM_OSDeploymentService

This section describes the implementation for the DCIM_OSDeploymentService class.

This class is instantiated in the "root/dcim" namespace.

The DCIM_LCElementConformsToProfile association's ManagedElement property shall references the DCIM_OSDeploymentService instance(s).

7.1.1 Resource URIs for WinRM®

The class Resource URI is:

"http://schemas.dell.com/wbem/wscim/1/cim-schema/2 / DCIM_OSDeploymentService?__cimnamespace=root/dcim"

The key properties are the SystemCreationClassName, CreationClassName, SystemName, and Name.

The instance Resource URI for DCIM_OSDeploymentService instance is:

http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_OSDeploymentService?__cimnamespace=root/dcim+SystemCreationClassName=DCIM_ComputerSystem+SystemName=DCIM:ComputerSystem+CreationClassName=DCIM_OSDeploymentService +Name= DCIM:OSDeploymentService"

7.1.2 Operations

The following table details the implemented operations on DCIM_OSDeploymentService.

Table 3 –DCIM_OSDeploymentService - Operations

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

7.1.3 Class Properties

The following table details the implemented properties for DCIM_OSDeploymentService instance in a system. The “Requirements” column shall denote the implementation requirement for the corresponding property. The “Type” column denotes the corresponding property type. The “Additional Requirement” Column specifies additional information on the property value.

Table 3 – DCIM_OSDeploymentService - Properties

Property Name	Type	Requirement	Additional Requirement
CreationClassName	String	Mandatory	The property value shall be "DCIM_OSDeploymentService"
Name	String	Mandatory	The property value shall be "DCIM:OSDeploymentService"
ElementName	String	Mandatory	The property value shall be "Operating System Deployment Service"
SystemCreationClassName	String	Mandatory	The property value shall be "DCIM_ComputerSystem"
SystemName	String	Mandatory	The property value shall be "DCIM:ComputerSystem"

7.2 DCIM_OSDConcreteJob

This section describes the implementation for the DCIM_OSDConcreteJob class.

This class shall be instantiated in the “root/dcim” namespace.

7.2.1 Resource URIs for WinRM®

The class Resource URI is:

“http://schemas.dell.com/wbem/wscim/1/cim-schema/2 / DCIM_OSDConcreteJob?__cimnamespace=root/dcim”

The key property is the InstanceID property.

The instance Resource URI for DCIM_OSDConcreteJob instance is:

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

where <InstanceID> is the InstanceID property value.

7.2.2 Class Properties

The following table lists the implemented properties for DCIM_OSDConcreteJob instance 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_OSDConcreteJob - Properties

Property Name	Type	Requirement	Additional Requirement
InstanceID	String	Mandatory	The property shall have unique and opaque value.
JobStatus	String	Mandatory	The property shall have a value from the "Job Status" column in the Table 5.
JobName	String	Mandatory	The property shall have a value from the "Job Name" column in the Table 5.
DeleteOnCompletion	Boolean	Mandatory	The property shall denote whether the DCIM_OSDConcreteJob instance will be deleted on the completion. The value of TRUE shall represent the deletion on completion.
Message	String	Mandatory	The property shall have a message string from the Dell Message Registry.
MessageID	String	Mandatory	The property shall have a message ID from the Dell Message Registry.
MessageArgument[]	String	Optional	

The following table lists the JobName and JobStatus property values, and their respective descriptions.

Table 5 – Job Descriptions

Job Name	Job Status	JobStatus Description
UnpackAndAttach	Processing Driver Pack	Extracting drivers, creating dynamic partition, copying drivers, and attaching the partition as a USB device to the host.
	Success	Successfully executed the method.
	Failed	Failed to execute the method. For more information, see MessageID and Message properties on the returned DCIM_OSDConcreteJob instance.
	Processing Driver Pack	Extracting drivers and copying drivers to the network share.
	Success	Successfully executed the method.
	Failed	Failed to execute the method. For more information, see MessageID and Message properties on the returned DCIM_OSDConcreteJob instance.
BootToNetworkISO	Rebooting to ISO	Attaching the network ISO image as a local CD-ROM to the host and booting to it.
	Success	Successfully executed the method.
	Failed	Failed to execute the method, For more information, see MessageID and Message properties on the returned DCIM_OSDConcreteJob instance.
BootToISOFromVFlash	Rebooting to ISO	Attaching the ISO image on vFlash as a local

Job Name	Job Status	JobStatus Description
		CD-ROM to the host and booting to it.
	Success	Successfully executed the method.
	Failed	Failed to execute the method, refer to MessageID and Message properties on the returned DCIM_OSDConcreteJob instance for detailed information.
DownloadISOToVFlash	Downloading	Copying the ISO image from network share to vFlash SD card.
	Success	Successfully executed the method.
	Failed	Failed to execute the method. For more informaiton, see MessageID and Message properties on the returned DCIM_OSDConcreteJob instance.
ConnectNetworkISOImage	Connecting to Network ISO	Connecting to the ISO present on a network share and attaching it as a CD-ROM device to the host.
	Success	Successfully executed the method.
	Failed	Failed to execute the method. For more information, see MessageID and Message properties on the returned DCIM_OSDConcreteJob instance.
ConnectRFSISOImage	Connecting to Network ISO	Connecting to the ISO present on a network share, and attaching it to the host server as a USB CD-ROM device through RFS end point.
	Success	Successfully executed the method.
	Failed	Failed to execute the method. For more information, see MessageID and Message properties on the returned DCIM_OSDConcreteJob instance.

7.3 Operating System (OS) Deployment Profile Registration – DCIM_LCRegistered Profile

This section describes the implementation for the DCIM_LCRegisteredProfile class.

This class shall be instantiated in the “root/interop” namespace.

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

7.3.1 Resource URIs for WinRM®

The class WBEM 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 WBEM URI shall be: “http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_LCRegisteredProfile?__cimnamespace=root/interop+InstanceID=DCIM:OSDeployment:1.1.0”

7.3.2 Operations

The following table details the implemented operations on DCIM_LCRegisteredProfile.

380 **Table 6 – DCIM_LCRegisteredProfile - Operations**

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

381

382 ### 7.3.3 Class Properties

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

388 **Table 7 – Class: DCIM_LCRegisteredProfile**

Properties	Type	Requirement	Additional Requirements
InstanceID	string	Mandatory	This property shall have a value of “DCIM:OSDeployment:1.1.0"
RegisteredName	string	Mandatory	This property shall have a value of “OS Deployment”.
RegisteredVersion	string	Mandatory	This property shall have a value of “1.4.0”.
RegisteredOrganization	uint16	Mandatory	This property shall have a value of 1 (Other).
OtherRegisteredOrganization	string	Mandatory	This property shall match “DCIM”
AdvertiseTypes[]	uint16	Mandatory	This property array shall have values “1(Other)” and “1(Other)”
AdvertiseTypeDescriptions[]	string	Mandatory	This property array shall have values “WS-Identify” and ““root/interop” namespace”
AdvertisedTypes[]	uint16	Mandatory	This property array shall contain [1(Other), 1 (Other)].
AdvertiseTypeDescriptions[]	string	Mandatory	This property array shall contain ["WS-Identify", "Interop Namespace"].
ProfileRequireLicense[]	string	Mandatory	This property array shall describe the required licenses for this profile. If no license is required for the profile, the property shall have value NULL.
ProfileRequireLicenseStatus[]	string	Mandatory	This property array shall contain the status for the corresponding license in the same element index of the ProfileRequireLicense array property. Each array element shall contain: • “LICENSED” • “NOT_LICENSED” If no license is required for the profile, the property shall have value NULL.

389

8 Methods

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

8.1 DCIM_OSDeploymentService.GetDriverPackInfo()

The GetDriverPackInfo() method is used get the list of operating systems that can be installed on the host system using the embedded device drivers present in the Lifecycle Controller.

The following table lists the return values for GetDriverPackInfo() method, where the method-execution behavior matches the return-code description.

Table 8 – DCIM_OSDeploymentService.GetDriverPackInfo() Method: Return Code Values

Value	Description
0	Request was successfully executed.
2	Error occurred.

The following table lists the output parameters for GetDriverPackInfo() method.

400 **Table 9 – DCIM_OSDeploymentService.GetDriverPackInfo() Method: Parameters**

Qualifiers	Name	Type	Description/Values
OUT, REQ	Version	String	NULL or version of the driver pack.
OUT, REQ	OSList[]	String	NULL or contains the list of operating systems supported for this server.
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments[]	string	Substitution variables for dynamic error messages.

401 **Table 10 – DCIM_OSDeploymentService.GetDriverPackInfo() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD2	General failure	
OSD3	Lifecycle Controller is being used by another process	
OSD4	Cannot access Driver Pack partition in Lifecycle Controller	
OSD5	Driver Pack not found in Lifecycle Controller	
OSD6	Cannot allocate memory	
OSD29	Driver Pack config file not found in Lifecycle Controller. Driver Pack might be corrupt	
OSD35	Lifecycle Controller is disabled	

402 ## 8.2 DCIM_OSDeploymentService.UnpackAndAttach()

403 The UnpackAndAttach() method is used to extract the drivers for the selected operating system to a USB
404 device that is attached locally to the server for the specified time interval. The following talbe specifies the
405 return values for UnpackAndAttach() method, where the method-execution behavior matches the return-
406 code description.

407 **Table 11 – DCIM_OSDeploymentService.UnpackAndAttach() Method: Return Code Values**

Value	Description
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob

408 The following table lists the output parameters for UnpackAndAttach() method.

409 **Table 12 – DCIM_OSDeploymentService.UnpackAndAttach() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	OSName	String	Name of the OS to unpack drivers for, this value shall match one of the strings in OSList returned for GetDriverPackInfo
IN, REQ	ExposeDuration	DateTime	Identifies the amount of time up to 18 hours for the drivers to be exposed as an USB device to the host.
OUT, REQ	Job	CIM_ConcreteJob REF	Returned to keep track of OSD – USB attach job.
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments[]	string	Substitution variables for dynamic error messages

410 **Table 13 – DCIM_OSDeploymentService.UnpackAndAttach() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD1	The command was successful	
OSD2	General failure	
OSD3	Lifecycle Controller is being used by another process	
OSD4	Cannot access Driver Pack partition in Lifecycle Controller	
OSD5	Driver Pack not found in Lifecycle Controller	
OSD10	Installation not supported for the selected operating system	
OSD11	Driver Pack does not have drivers for the selected operating system	
OSD12	Cannot create USB device to copy drivers for the selected operating system	
OSD13	Cannot mount USB device to copy drivers for the selected operating system	
OSD19	The fork() command for a child process to do the task failed	
OSD20	Unable to get size or label from Driver Pack for selected operating system	
OSD27	Copying drivers for selected operating system failed	
OSD30	Invalid value for ExposeDuration – must be 60-65535 seconds	
OSD35	Lifecycle Controller is not enabled	

411

8.3 DCIM_OSDeploymentService.DetachDrivers()

This OSDeploymentService.DetachDrivers() method is used to detach the USB device containing the drivers from the host server. The following table lists the return values for DetachDrivers() method,, where the method-execution behavior matches the return-code description.

Table 14 – DCIM_OSDeploymentService.DetachDrivers() Method: Return Code Values

Value	Description
0	Request was successfully executed.
2	Error occurred.

The following table lists the output parameters for the DetachDrivers() method.

Table 15 – DCIM_OSDeploymentService.DetachDrivers() Method: Parameters

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments[]	string	Substitution variables for dynamic error messages

Table 16 – DCIM_ OSDeploymentService.DetachDrivers() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
OSD7	Unable to retrieve Lifecycle Controller handle	
OSD24	Unable to continue with DetachDrivers - UnPackAndAttach is in progress	
OSD25	Unable to detach USB device containing operating system drivers	

8.4 DCIM_OSDeploymentService.UnpackAndShare()

The UnpackAndShare() method is used to extract the drivers for the selected operating system, and copy them to the specified network share. The following table lists the return values for UnpackAndShare(), where the method-execution behavior matches the return-code description.

Table 17 – DCIM_OSDeploymentService.UnpackAndShare() Method: Return Code Values

Value	Description
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob

The following table lists the input and output parameters for the UnpackAndShare() method.

428 **Table 18 – DCIM_OSDeploymentService.UnpackAndShare() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	IPAddress	String	CIFS or NFS share IPv4 address.For example, 192.168.10.100
IN, REQ	ShareName	String	NFS or CIFS share name. For example, “/home/guest” or “guest_smb” respectively.
IN, REQ	OSName	String	Operating System name
IN, REQ	ShareType	Uint32	0 = NFS or CIFS = 2
IN, REQ	Workgroup	String	Workgroup name, if applicable.
IN	UserName	String	User name, if applicable.
IN	Password	String	Password, if applicable.
IN	Port	Uint32	Port number, if applicable.
OUT, REQ	Job	CIM_ConcreteJob REF	Returned to keep track of OSD – UnpackAndShare job.
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments[]	string	Substitution variables for dynamic error messages.

429 **Table 19 – DCIM_ OSDeploymentService.UnpackAndShare() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD1	The command was successful	
OSD2	General failure	
OSD3	Lifecycle Controller is being used by another process	
OSD4	Cannot access Driver Pack partition in Lifecycle Controller	
OSD5	Driver Pack not found in Lifecycle Controller	
OSD10	Installation not supported for the selected operating system	
OSD11	Driver Pack does not have drivers for the selected operating system	
OSD16	Mount network share failed - incorrect IP address or share name	
OSD19	The fork() command for a child process to do the task failed	
OSD20	Unable to get size or label from Driver Pack for selected operating system	
OSD31	Copying operating system drivers to network share failed	
OSD35	Lifecycle Controller is not enabled	
OSD47	Inaccessible network share	

430

8.5 DCIM_OSDeploymentService.BootToNetworkISO()

The BootToNetworkISO() method is used to boot to the iDRAC pre-operating system image that was already downloaded. The following table lists the return values for BootToNetworkISO() method, where the method-execution behavior matches the return-code description.

Table 20 – DCIM_OSDeploymentService.BootToNetworkISO() Method: Return Code Values

Value	Description
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob

The following table lists the input and output parameters for the BootToNetworkISO() method.

437 **Table 21 – DCIM_OSDeploymentService.BootToNetworkISO() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	IPAddress	String	NFS or CIFS share IPv4 address. For example, 192.168.10.100
IN, REQ	ShareName	String	NFS or CIFS share name. For example, "/home/guest" or “guest_smb” respectively.
IN, REQ	ImageName	String	ISO image name
IN, REQ	ShareType	Uint32	0=NFS or CIFS = 2
IN, REQ	Workgroup	String	Workgroup name, if applicable.
IN	UserName	String	User name, if applicable.
IN	Password	String	Password, if applicable.
IN	Port	Uint32	Port number, if applicable.
IN	ExposeDuration	DateTime	Identifies the amount of time (up to 18 hours) for the ISO Image to be exposed as a local CD-ROM device to the host.
IN	HashType	Uint16	Type of hash algorithm used to compute checksum (1=MD5 or 2=SHA1)
IN	HashValue	String	Checksum value in string format computed using the HashType algorithm
OUT, REQ	Job	CIM_ConcreteJob REF	Returned to keep track of OSD – UnpackAndShare job.
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	string	Substitution variables for dynamic error messages

438 **Table 22 – DCIM__OSDeploymentService.BootToNetworkISO() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD1	The command was successful	
OSD3	Lifecycle Controller is being used by another process	
OSD9	Failed to reboot the system using IPMI command	
OSD16	Mount network share failed - incorrect IP address or share name	
OSD17	Exposing ISO image as internal device to the host system failed	
OSD19	The fork() command for a child process to do the task failed	
OSD21	Unable to boot to ISO image	
OSD28	Hash verification on the ISO image failed	
OSD30	Invalid value for ExposeDuration - must be 60-65535 seconds	
OSD35	Lifecycle Controller is not enabled	
OSD36	Boot to ISO Image has been	

MessageID (OUT parameter)	Message	MessageArguments[]
	cancelled by user using CTLR+E option on the server	
OSD47	Inaccessible network share	
OSD50	Lifecycle Controller is in field service mode	
OSD51	Reboot the system to run pending Lifecycle Controller Tasks	

8.6 DCIM_OSDeploymentService.DetachISOImage()

The DetachISOImage() method is used to detach the ISO Image from the host server. The following table lists the return values for DetachISOImage() method, where the method-execution behavior matches the return-code description. The following table lists the return values for BootToNetworkISO() method, where the method-execution behavior matches the return-code description.

Table 23 – DCIM_OSDeploymentService.DetachISOImage() Method: Return Code Values

Value	Description
0	Request was successfully executed.
2	Error occurred.

The following table lists the output parameters for the UnpackAndShare() method.

448 **Table 24 – DCIM_OSDeploymentService.DetachISOImage() Method: Parameters**

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	String	Substitution variables for dynamic error messages

449 **Table 25 – DCIM_OSDeploymentService.DetachISOImage() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD7	Unable to retrieve Lifecycle Controller handle	
OSD22	Unable to detach ISO image from the host	
OSD23	Unable to continue with DetachISOImage - another command is in the process of exposing ISO Image and booting to it	
OSD32	ISO image is not attached	

450

451 8.7 DCIM_OSDeploymentService.BootToPXE()

452 The BootToPXE() method is used to boot a host system using the PXE mechanism. The following table
453 lists the return values for the BootToPXE() method, where the method-execution behavior matches the
454 return-code description.

455 **Table 26 – DCIM_OSDeploymentService.BootToPXE() Method: Return Code Values**

Value	Description
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob

456 The following table lists the output parameters for the BootToPXE() method.

457 **Table 27 – DCIM_OSDeploymentService.BootToPXE() Method: Parameters**

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	string	Substitution variables for dynamic error messages

458 **Table 28 – DCIM_OSDeploymentService.BootToPXE() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD3	Lifecycle Controller is being used by another process	
OSD8	Setting Boot to PXE through IPMI failed	
OSD9	Failed to reboot the system using IPMI command	
OSD26	Unable to continue with BootToPXE - another command is running	
OSD34	Unable to continue with BootToPXE - ISO image is attached to the system	
OSD35	Lifecycle Controller is disabled	

459

460

461 ## 8.8 Method: DCIM_OSDeploymentService.BootToHD()

462 The BootToHD() method is used for one time boot to the host server's hard disk. Return values for
463 BootToHD() shall be as specified in Table 29, where the method-execution behavior matches the return-
464 code description. BootToHD( ) method's parameters are specified in Table 30.

465 **Table 29 – DCIM_OSDeploymentService.BootToHD() Method: Return Code Values**

Value	Description
0	Request was successfully executed.
2	Error occurred.

466 **Table 30 – DCIM_OSDeploymentService.BootToHD() Method: Parameters**

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	string	Substitution variables for dynamic error messages

467

468 **Table 31 – DCIM_OSDeploymentService.BootToHD() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD3	Lifecycle Controller is being used by another process	
OSD8	Setting Boot to PXE through IPMI failed	
OSD9	Failed to reboot the system using IPMI command	
OSD35	Lifecycle Controller is disabled	

469

470

471

472 ## 8.9 DCIM_OSDeploymentService.DownloadISOToVFlash()

473 The DownloadISOToVFlash() method is used to download the pre-operating system ISO Image to the
474 vFlash SD card. The following table lists the return values for DownloadISOToVFlash() method, where
475 the method-execution behavior matches the return-code description.

476 **Table 32 – DCIM_OSDeploymentService.DownloadISOToVFlash() Method: Return Code Values**

Value	Description
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob

477

478 The following table list the input and output parameters for the DownloadISOToVFlash() method.

479 **Table 33 – DCIM_OSDeploymentService.DownloadISOToVFlash() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	IPAddress	String	TFTP, CIFS, or NFS share IPv4 address. For example, 192.168.10.100
IN, REQ	ShareName	String	NFS or CIFS network share point. For example, "/home/guest" or “guest_smb.”
IN, REQ	ImageName	String	ISO Image name
IN, REQ	ShareType	Uint32	• 0 (NFS) • 1 (TFTP) • 2 (CIFS)
IN	Workgroup	String	Workgroup name, if applicable.
IN	UserName	String	User name, if applicable.
IN	Password	String	Password, if applicable.
IN	Port	Uint32	Port number, if applicable.
IN	HashType	Uint16	Type of hash algorithm used to compute checksum: • 1 (MD5) • 2 (SHA1)
IN	HashValue	String	Checksum value in string format computed using HashType algorithm.
OUT, REQ	Job	CIM_ConcreteJob REF	Returned to keep track of OSD – UnpackAndShare job.
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments[]	string	Substitution variables for dynamic error messages

480 **Table 34 – DCIM_OSDeploymentService.DownloadISOToVFlash() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD1	The command was successful	
OSD3	Lifecycle Controller is being used by another process	
OSD16	Mount network share failed - incorrect IP address or share name	
OSD18	Unable to locate the ISO image on the network share point	
OSD19	The fork() command for a child process to do the task failed	
OSD28	Hash verification on the ISO image failed	

MessageID (OUT parameter)	Message	MessageArguments[]
OSD37	ISO image size too large	
OSD40	VFlash is not Dell-licensed	
OSD42	Downloading ISO File to VFlash failed	
OSD43	VFlash unavailable	
OSD47	Inaccessible network share	
OSD48	ISO Image more than 4GB not supported	
OSD52	VFlash is Disabled	
OSD53	VFlash is write-protected	
OSD54	VFlash already has 16 partitions	
OSD55	ISO Image is attached to host	

8.10 DCIM_OSDeploymentService.BootToISOFromVFlash()

The BootToISOFromVFlash() method is used to boot to the downloaded pre-operating system image on the vFlash SD card. The following table lists the return values for BootToISOFromVFlash() method, where the method-execution behavior matches the return-code description.

Table 35 – DCIM_OSDeploymentService.BootToISOFromVFlash() Method: Return Code Values

Value	Description
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob

The following table list the BootToISOFromVFlash() method.

Table 316 – DCIM_OSDeploymentService.BootToISOFromVFlash() Method: Parameters

Qualifiers	Name	Type	Description/Values
OUT, REQ	Job	CIM_ConcreteJob REF	Returned to keep track of the created job.
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments[]	string	Substitution variables for dynamic error messages

Table 37 – DCIM_OSDeploymentService.BootToISOFromVFlash() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
OSD1	The command was successful	
OSD3	Lifecycle Controller is being used by another process	
OSD9	Failed to reboot the system using IPMI command	

MessageID (OUT parameter)	Message	MessageArguments[]
OSD19	The fork() command for a child process to do the task failed	
OSD21	Unable to boot to ISO image	
OSD36	Boot to ISO Image has been cancelled by user using CTLR+E option on the server	
OSD40	VFlash is not Dell-licensed	
OSD41	ISO Image not found on VFlash	
OSD43	VFlash unavailable	
OSD50	Lifecycle Controller is in field service mode	
OSD51	Reboot the system to run pending Lifecycle Controller Tasks	
OSD52	VFlash is Disabled	
OSD53	VFlash is write-protected	
OSD55	ISO Image is attached to host	

8.11 DCIM_OSDeploymentService.DetachISOFromVFlash()

The DetachISOFromVFlash() method is used to detach the ISO Image (on a vFlash SD card) from the host system.

The following table returns the values for DetachISOFromVFlash(), where the method-execution behavior matches the return-code description.

Table 38 – DCIM_OSDeploymentService.DetachISOFromVFlash() Method: Return Code Values

Value	Description
0	Request was successfully executed.
2	Error occurred.

The following table lists the parameters for the DetachISOFromVFlash() method.

499 **Table 39 – DCIM_OSDeploymentService.DetachISOFromVFlash() Method: Parameters**

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	string	Substitution variables for dynamic error messages.

500 **Table 40 – DCIM_OSDeploymentService.DetachISOFromVFlash() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD23	Unable to continue with DetachISOImage - another command is in the process of exposing ISO Image and booting to it	
OSD39	Unable to find the VFlash	
OSD40	VFlash is not Dell-licensed	
OSD41	ISO Image not found on Vflash	
OSD43	Vflash unavailable	
OSD44	Unable to detach ISO image on Vflash	
OSD52	VFlash is Disabled	
OSD53	VFlash is write-protected	

501

502

503 ## 8.12 DCIM_OSDeploymentService.DeleteISOFromVFlash()

504 The DeleteISOFromVFlash() method is used to delete the ISO Image from vFlash SD card.
505 The following table lists the return values for the DeleteISOFromVFlash() method, where the method-
506 execution behavior matches the return-code description.
507

508 **Table 41 – DCIM_OSDeploymentService.DeleteISOFromVFlash() Method: Return Code Values**

Value	Description
0	Request was successfully executed.
2	Error occurred.

509 The following table lists the parameters for the DeleteISOFromVFlash().

510 **Table 42 – DCIM_OSDeploymentService.DeleteISOFromVFlash() Method: Parameters**

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	String	Substitution variables for dynamic error messages

511 **Table 43 – DCIM_OSDeploymentService.DeleteISOFromVFlash() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD3	Lifecycle Controller is being used by another process	
OSD39	Unable to find the VFlash	
OSD40	VFlash is not Dell-licensed	
OSD41	ISO Image not found on Vflash	
OSD43	Vflash unavailable	
OSD45	Cannot delete ISO image from Vflash	
OSD52	Vflash is Disabled	
OSD53	Vflash is write-protected	

512

513 ## 8.13 DCIM_OSDeploymentService.ConnectNetworkISOImage()
514
515 The ConnectNetworkISOImage() method is used to connect to the ISO present on the network share and
516 expose the ISO as a local USB CD-ROM device to the host system. This method will connect to the ISO
517 located on an NFS/CIFS share and expose it as a virtual CDROM device to the host server. Even though
518 the successful method execution shall not change the boot order of that device, the host shall always
519 boot to the virtual CDROM. Also note that after the ISO is exposed to the host server, Lifecycle Controller
520 shall be locked and no other jobs like configuration/update etc shall be performed until the ISO is
521 detached using the DisconnectNetworkISOImage() method. The successful exection of the
522 DisconnectNetworkISOImage() shall revert the host system to the regular boot list.
523
524 The following table lists the return values for the ConnectNetworkISOImage() method, where the method-
525 execution behavior matches the return-code description.

526 **NOTE: The recommended methodology for connecting to an ISO image is by using the**
527 **ConnectRFSISOImage() method that utilizes the remote file system (RFS). See section 0 for more details.**

528 **Table 44 – DCIM_OSDeploymentService.ConnectNetworkISOImage () Method: Return Code Values**

Value	Description
2	Error occurred.
4096	Job started: REF returned to started CIM_ConcreteJob

529 The following table lists the input and output parameters for the ConnectNetworkISOImage() method.

530 **Table 45 – DCIM_OSDeploymentService.ConnectNetworkISOImage() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	IPAddress	String	CIFS or NFS share IPv4 address. For example, 192.168.10.100
IN, REQ	ShareName	String	NFS or CIFS network share point. For example, "/home/guest" or “guest_smb.”
IN, REQ	ImageName	String	ISO image name
IN, REQ	ShareType	Uint32	• 0 (NFS) • 2 (CIFS)
IN	Workgroup	String	Workgroup name, if applicable
IN	UserName	String	User name, if applicable.
IN	Password	String	Password, if applicable.
IN	HashType	Uint16	Type of hash algorithm used to compute checksum: • 1 (MD5) • 2(SHA1)
IN	HashValue	String	Checksum value in string format computed using HashType algorithm
IN	AutoConnect	Boolean	Auto-connect to ISO image up on iDRAC reset
OUT, REQ	Job	CIM_ConcreteJob REF	Returned to keep track of OSD – UnpackAndShare job.
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	String	Substitution variables for dynamic error messages

531 **Table 46 – DCIM_OSDeploymentService.ConnectNetworkISOImage () Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD1	The command was successful	
OSD3	Lifecycle Controller is being used by another process	
OSD16	Mount network share failed - incorrect IP address or share name	
OSD17	Exposing ISO image as internal device to the host system failed	
OSD19	The fork() command for a child process to do the task failed	
OSD28	Hash verification on the ISO image failed	
OSD35	Lifecycle Controller is not enabled	
OSD47	Inaccessible network share	
OSD50	Lifecycle Controller is in field service mode	
OSD51	Reboot the system to run pending Lifecycle Controller Tasks	

MessageID (OUT parameter)	Message	MessageArguments[]
OSD61	IP Address is Invalid	

8.14 DCIM_OSDeploymentService.DisconnectNetworkISOImage()

The DisconnectNetworkISOImage() method is used to disconnect and detach the ISO Image from the host system. The following table lists the return values for the DisconnectNetworkISOImage() method, where the method-execution behavior matches the return-code description.

Table 47 – DCIM_OSDeploymentService.DisconnectNetworkISOImage () Method: Return Code Values

Value	Description
0	Request was successfully executed.
2	Error occurred.

The following table lists the output parameters for the DisconnectNetworkISOImage().

Table 48 – DCIM_OSDeploymentService.DisconnectNetworkISOImage () Method: Parameters

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments[]	String	Substitution variables for dynamic error messages

Table 49 – DCIM_OSDeploymentService.DisconnectNetworkISOImage () Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
OSD7	Unable to retrieve Lifecycle Controller handle	
OSD22	Unable to detach ISO image from the host	
OSD32	ISO image is not attached	

8.15 DCIM_OSDeploymentService.GetNetworkISOImageConnectionInfo()

The GetNetworkISOImageConnectionInfo() method is used to give the status of the ISO Image that has been exposed to the host system. The following table lists the return values for GetNetworkISOImageConnectionInfo(), where the method-execution behavior matches the return-code description.

552 **Table 50 – DCIM_OSDeploymentService.GetNetworkISOImageConnectionInfo() Method: Return**
553 **Code Values**

Value	Description
0	Request was successfully executed.
2	Error occurred.

554

555 The following table lists the the output parameters for the GetNetworkISOImageConnectionInfo() method.

556 **Table 51 – DCIM_OSDeploymentService.GetNetworkISOImageConnectionInfo() Method:**
557 **Parameters**

Qualifiers	Name	Type	Description/Values
OUT, REQ	IPAddress	String	CIFS, or NFS share IPv4 address. Example 192.168.10.100
OUT, REQ	ShareName	String	Network share point. Here is an example for share name. NFS share name - "/home/guest". CIFS share name - “guest_smb”
OUT, REQ	ImageName	String	ISO Image name
OUT, REQ	ShareType	uint32	• 0 (NFS) • 2 (CIFS)
OUT	Workgroup	String	Workgroup name, if applicable
OUT, REQ	ISOConnectionStatus	Uint8	Describes if the ISO connection status. If the ISO is still accessible or not.
OUT, REQ	HostAttachedStatus	Uint8	Describes ISO attached status. If the ISO is attached to the host server or not.
OUT, REQ	HostBootedFromISO	Uint8	Describes ISO boot status. If the ISO has been booted atleast once or not
OUT	UserName	String	User name, if applicable
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments[]	String	Substitution variables for dynamic error messages

558 **Table 52 – DCIM_OSDeploymentService.GetNetworkISOImageConnectionInfo () Method: Standard**
559 **Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD32	ISO image is not attached	

560

561 8.16 DCIM_OSDeploymentService.SkipISOImageBoot()

562 The SkipISOImageBoot() method allows the BIOS to skip booting to the ISO once and boot normally
563 (boot to the first device in boot list). The following table lists the return values for the SkipISOImageBoot()
564 method, where the method-execution behavior matches the return-code description.

565 **Table 53 – DCIM_OSDeploymentService.SkipISOImageBoot () Method: Return Code Values**

Value	Description
0	Request was successfully executed.
2	Error occurred.

566 The following table lists the output parameters for the SkipISOImageBoot() method.

567 **Table 54 – DCIM_OSDeploymentService.SkipISOImageBoot() Method: Parameters**

Qualifiers	Name	Type	Description/Values
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	string	Substitution variables for dynamic error messages

568 **Table 55 – DCIM_OSDeploymentService.SkipISOImageBoot () Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD32	ISO image is not attached	

569 ## 8.17 DCIM_OSDeploymentService.DisconnectRFSISOImage()

570 The DisconnectRFSISOImage() method is used to disconnect and detach the ISO Image that is mounted
571 through Remote File Share (RFS) and is exposed to the host system as a USB-based CD-ROM device.
572 The following table returns the values for the DisconnectRFSISOImage(), where the method-execution
573 behavior matches the return-code description.

574 **Table 56 – DCIM_OSDeploymentService.DisconnectRFSISOImage() Method: Return Code Values**

Value	Description
0	Request was successfully executed.
2	Error occurred.

575

576 The following table lists the output parameters for the DisconnectRFSISOImage() method.

577 **Table 57 – DCIM_OSDeploymentService.DisconnectRFSISOImage() Method: Parameters**

Qualifiers	Name	Type	Description/Values
OUT, REQ	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT, REQ	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments[]	string	Substitution variables for dynamic error messages

578 **Table 58 – DCIM_OSDeploymentService. DisconnectRFSISOImage() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD59	Cannot disconnect from ISO using RFS	
OSD60	ISO is not connected using RFS	

579

580 ## 8.18 DCIM_OSDeploymentService.ConnectRFSISOImage()

581 The ConnectRFSISOImage() method is used to connect the ISO image that is mounted through Remote
582 File Share (RFS) and is exposed to the host system as a USB-based CD-ROM device. The successful
583 execution of this method shall connect to the ISO located on NFS/CIFS share to the host server and
584 expose it as a virtual CDROM device using RFS USB endpoint. The successful execution of the method
585 shall not change the boot order of that device. In order to boot to the CD-ROM, the CD-ROM shall be
586 configured in the boot order in a separate step (using BIOS and Boot Management Profile), and the host
587 server shall boot to the CD-ROM. Unlike the ConnectNetworkISOImage() method, the Lifecycle Controller
588 is not locked and may perform other management tasks.
589
590 The following table lists the return values for the ConnectRFSISOImage() method, where the method
591 execution behavior matches the return-code description.

592 **Table 59 – DCIM_OSDeploymentService.ConnectRFSISOImage () Method: Return Code Values**

Value	Description
2	Error occurred.
4096	Job Created

593

594 The following table lists the parameters ConnectRFSISOImage().

595 **Table 60 – DCIM_OSDeploymentService.ConnectRFSISOImage() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	IPAddress	String	IP address of the host system that hosts the ISO Image
IN, REQ	ShareName	String	Share name of the host system that hosts the ISO Image
IN, REQ	ImageName	string	ISO Image name on the host system.
IN, REQ	ShareType	Uint16	Type of the share: • 0 (NFS) • 2 (CIFS)
IN	Username	string	User name of the account to access the network share.
IN	Password	string	Password of the account to access the network share.
IN	Workgroup	string	Workgroup of the account to access the share
IN	HashType	uint16	Type of Hash algorithm used to compute checksum: • 1 (MD5) • 2(SHA1)
IN, REQ	HashValue	string	Checksum value in string format computed using HashType algorithm.
OUT, REQ	Job	CIM_ConcreteJob REF	Reference to a CIM_ConcreteJob
OUT	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	string	Substitution variables for dynamic error messages.

596 **Table 61 – DCIM_OSDeploymentService.ConnectRFSISOImage() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD16	Mount network share failed - incorrect IP address or share name	
OSD18	Unable to locate the ISO image on the network share point	
OSD19	The fork() command for a child process to do the task failed	
OSD28	Hash verification on the ISO image failed	
OSD47	Inaccessible network share	
OSD56	An ISO is already connected using RFS	
OSD57	RFS is in auto-attach mode. iDRAC attribute AttachMode value needs to be changed to Attach	
OSD58	Cannot connect to ISO using RFS	

8.19 DCIM_OSDeploymentService.GetRFSISOImageConnectionInfo()

The GetRFSISOImageConnectionInfo() method is used to provide the status of the ISO Image connection that has been exposed to the host system. The following method returns the values for GetRFSISOImageConnectionInfo() method, where the method-execution behavior matches the return-code description.

Table 62 – DCIM_OSDeploymentService.GetRFSISOImageConnectionInfo() Method: Return Code Values

Value	Description
0	Request was successfully executed.
2	Error occurred.

The following table lists the output parameters for the GetRFSISOImageConnectionInfo().

Table 63 – DCIM_OSDeploymentService.GetRFSISOImageConnectionInfo () Method: Parameters

Qualifiers	Name	Type	Description/Values
OUT, REQ	FilePath	String	File Path of ISO Image in the form of URI that includes IP address, share name and Image name
OUT	UserName	String	User Name as specified in the ConnectNetworkISOImage method
OUT, REQ	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT, REQ	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	string	Substitution variables for dynamic error messages.

Table 32 – DCIM_OSDeploymentService.GetRFSISOImageConnectionInfo() Method: Standard Messages

MessageID (OUT parameter)	Message	MessageArguments[]
OSD60	ISO is not connected using RFS	

8.20 DCIM_OSDeploymentService.GetHostMACInfo()

The GetHostMACInfo() method is used to provide the list of mac addresses from the system.

Table 65 – DCIM_OSDeploymentService.GetHostMACInfo() Method: Return Code Values

Value	Description
0	Request was successfully executed.
2	Error occurred.

The following table lists the output parameters for the GetRFSISOImageConnectionInfo().

612 **Table 66 – DCIM_OSDeploymentService.GetHostMACInfo() Method: Parameters**

Qualifiers	Name	Type	Description/Values
OUT, REQ	MACList	String	Contains the list of mac addresses from the system
OUT, REQ	MessageID	String	If the method fails to execute, the error message ID is returned.
OUT, REQ	Message	String	If the method fails to execute, the error message in English is returned.
OUT	MessageArguments []	String	Substitution variables for dynamic error messages.

613 **Table 67 – DCIM_OSDeploymentService.GetHostMACInfo() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
OSD2	General failure	

614 # 9 Use Cases

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

616 # 10 CIM Elements

617 No additional requirements.

618 # 11 Privilege and License Requirement

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

622 **Table 68 – Privilege and License Requirements**

Class and Method	Operation	User Privilege Required	License Required
DCIM_OSDeploymentService	ENUMERATE, GET	Login	None.
DCIM_OSDeploymentService. GetHostMACInfo()	INVOKE	Login	None.
DCIM_OSDeploymentService. GetDriverPackInfo()	INVOKE	Login	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. UnpackAndAttach()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. DetachDrivers()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. DetachISOImage()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT

Class and Method	Operation	User Privilege Required	License Required
DCIM_OSDeploymentService. UnpackAndShare()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. BootToNetworkISO()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. BootToPXE()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. DownloadISOToVFlash()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. BootToISOFromVFlash()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. DetachISOFromVFlash()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. DeleteISOFromVFlash()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. ConnectNetworkISOImage()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. DisconnectNetworkISOImage()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. GetNetworkISOImageConnectionInfo()	INVOKE	Login	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. SkipISOImageBoot()	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. ConnectRFSISOImage	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. DisconnectRFSISOImage	INVOKE	Login, System Control	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. GetRFSISOImageConnectionInfo	INVOKE	Login	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDeploymentService. DeleteISOFromVFlash	INVOKE	Login	LM_REMOTE_OS_DEPLOYMENT
DCIM_OSDConcreteJob	ENUMERATE, GET	Login	None.
DCIM_LCRegisteredProfile	ENUMERATE, GET	Login	None.
DCIM_LCElementConformsToProfile	ENUMERATE, GET	Login	None.

623

624