

# Simple NIC Profile

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# Simple NIC Profile

## 170 1 Scope

171 The Simple NIC Profile extends the management capabilities of referencing profiles by adding the  
 172 capability to represent the configuration of NIC network controllers. The NIC controllers are modeled as  
 173 views and attributes where there is a view for each individual controller and multiple attributes that allow  
 174 NIC configuration.

## 175 2 Normative References

176 Refer to the following documents for more information.

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

- 179 • DMTF DSP1033, *Profile Registration Profile 1.0.0*
- 180 • DMTF DSP1061, *Management Profile 1.0.0*
- 181 • DMTF DSP0200, *CIM Operations over HTTP 1.2.0*
- 182 • DMTF DSP0004, *CIM Infrastructure Specification 2.3.0*
- 183 • DMTF DSP1000, *Management Profile Specification Template*
- 184 • DMTF DSP1001, *Management Profile Specification Usage Guide*
- 185 • DMTF DSP0226, *Web Services for Management (WS-Management) Specification 1.1.0*
- 186 • DMTF DSP0227, *WS-Management CIM Binding Specification 1.0.0*
- 187 • *Dell Lifecycle Controller Best Practices Guide 1.0*,
- 188 [http://en.community.dell.com/techcenter/extras/m/white\\_papers/20066173.aspx](http://en.community.dell.com/techcenter/extras/m/white_papers/20066173.aspx)
- 189 • *Dell WSMAN Licenses and Privileges 1.0*
- 190 • ISO/IEC Directives, Part 2, Rules for the structure and drafting of International Standards:
- 191 <http://isotc.iso.org/livelink/livelink.exe?func=ll&objId=4230456&objAction=browse&sort=subtype>
- 192 • Unified Modeling Language (UML) from the Open Management Group (OMG):
- 193 <http://www.uml.org>
- 194 • Dell Tech Center MOF Library:
- 195 <http://www.delltechcenter.com/page/DCIM.Library.MOF>
- 196 • Related Managed Object Format (MOF) files:
  - 197 ○ DCIM\_NICService.mof
  - 198 ○ DCIM\_NICView.mof
  - 199 ○ DCIM\_NICEnumeration.mof
  - 200 ○ DCIM\_NICInteger.mof
  - 201 ○ DCIM\_NICString.mof
  - 202 ○ DCIM\_LCElementConformsToProfile.mof
  - 203 ○ DCIM\_LCRegisteredProfile.mof

204

## 205 **3 Terms and Definitions**

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

### 207 **3.1**

208 **can** - Used for statements of possibility and capability, whether material, physical, or causal.

### 209 **3.2**

210 **cannot** - Used for statements of possibility and capability, whether material, physical, or causal.

### 211 **3.3**

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

### 214 **3.4**

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

### 217 **3.5**

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

### 219 **3.6**

220 **need not** - Indicates a course of action permissible within the limits of the document.

### 221 **3.7**

222 **optional** - Indicates a course of action permissible within the limits of the document.

### 223 **3.8**

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

### 226 **3.9**

227 **shall** - Indicates requirements to be followed strictly in order to conform to the document and from which  
228 no deviation is permitted

### 229 **3.10**

230 **shall not** – Indicates requirements to be followed strictly in order to conform to the document and from  
231 which no deviation is permitted.

### 232 **3.11**

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

### 235 **3.12**

236 **should not** – Indicates that a certain possibility or course of action is deprecated but not prohibited.



237 **3.13**  
238 **Interop Namespace: root/interop**  
239 Interop Namespace: root/interop is where instrumentation instantiates classes to advertise its capabilities  
240 for client discovery.

241 **3.14**  
242 **Implementation Namespace: root/dcim**

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

245 **3.15**  
246 **ENUMERATE** – Refers to WS-MAN **ENUMERATE** operation as described in Section 8.2 of  
247 DSP0226\_V1.1 and Section 9.1 of DSP0227\_V1.0

248 **3.16**  
249 **GET** – Refers to WS-MAN **GET** operation as defined in Section 7.3 of DSP00226\_V1.1 and Section  
250 7.1 of DSP0227\_V1.0

## 251 **4 Symbols and Abbreviated Terms**

252 **4.1**  
253 **CIM** - Common Information Model

254 **4.2**  
255 **iDRAC** - Integrated Dell Remote Access Controller – management controller for blades and monolithic  
256 servers

257 **4.3**  
258 **CMC** - Chassis Management Controller – management controller for the modular chassis

259 **4.4**  
260 **iSCSI** - Internet Small Computer System Interface, an Internet Protocol (IP)-based storage networking  
261 standard for linking data storage facilities.

262 **4.5**  
263 **WBEM** - Web-Based Enterprise Management

264 **4.6**  
265 **SRIOV** - Singel Root I/O Virtualization

266 **4.7**  
267 **NPIV** - N\_Port ID Virtualization

268 **4.8**  
269 **DCB** - Data Center Bridging

270 **4.9**  
271 **FCF** - FCoE Forwarders

272  
273

## 274 5 Synopsis

275 **Profile Name:** Simple NIC

276 **Version:** 1.3.0

277 **Organization:** Dell Inc.

278 **CIM Schema Version:** 2.26 Experimental

279 **Central Class:** DCIM\_NICService

280 **Scoping Class:** CIM\_ComputerSystem

281 The Simple NIC Profile extends the management capability of the referencing profiles by adding the  
282 capability to describe NIC controllers in a simple way. In this profile, a NIC is represented by a view  
283 instance that aggregates zero or more instances of the DCIM\_NICAttribute class, each representing a  
284 NIC controller related configurable property.

285 DCIM\_NICService shall be the Central Class.

286 CIM\_ComputerSystem shall be the Scoping Class.

287 Instance of DCIM\_NICService shall be the Central Instance.

288 Instance of CIM\_ComputerSystem shall be the Scoping Instance.

289 Table 1 identifies profiles that are related to this profile.

290

**Table 1 – Related Profiles**

Profile Name	Organization	Version	Relationship
Profile Registration	DCIM	1.0	Reference

## 291 6 Description

292 The Simple NIC Profile describes NIC controller's representation and configuration. The profile also  
293 describes the relationship of the Simple NIC classes to the DMTF/Dell profile version information.

294 Figure 1 represents the class schema for the Simple NIC Profile. For simplicity, the prefix CIM\_ has been  
295 removed from the names of the classes.

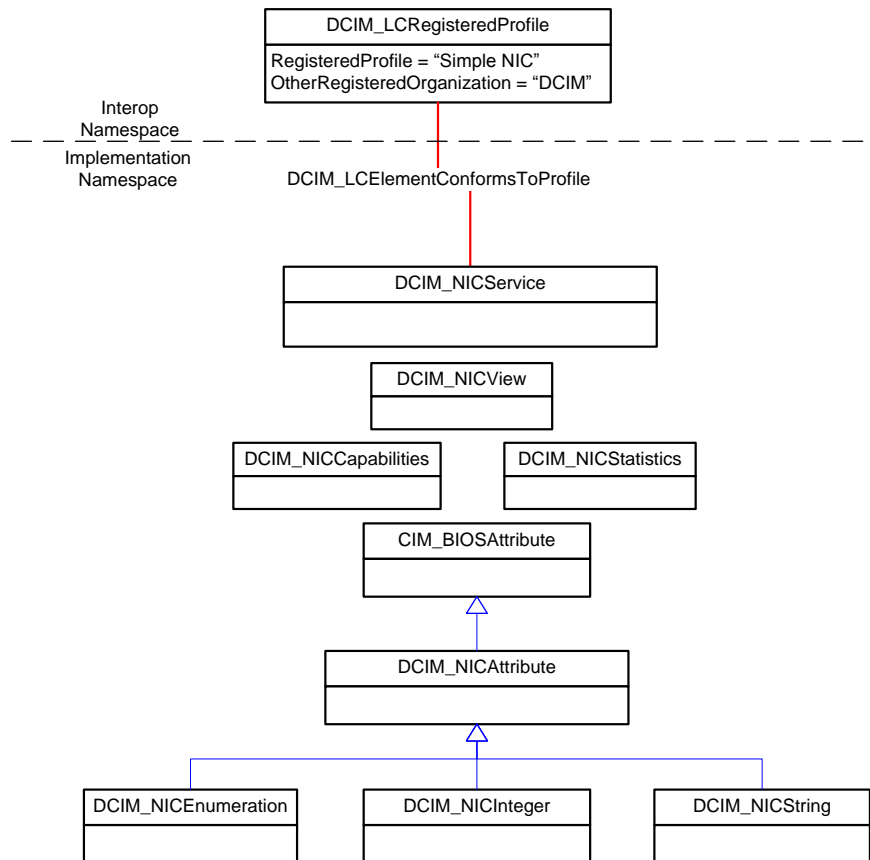
296 The DCIM\_NICView class is a NIC controller's representation that contains controllers' properties.

297 The DCIM\_NICAttribute class derives from the CIM\_BIOSAttribute class and represents each NIC's  
298 configurable attribute. Depending on the data type of the attribute, DCIM\_NICAttribute is either  
299 instantiated as DCIM\_NICEnumeration, DCIM\_NICString, or DCIM\_NICInteger instance.

300 DCIM\_NICView instance represents the NIC/CNA properties.

301 The DCIM\_NICService class is used to configure the NIC through its attributes. The SetAttribute() and  
302 SetAttributes() methods on the DCIM\_NICService class configure NIC attributes, DCIM\_NICAttribute  
303 subclass instances.

304 The Simple NIC profile information is represented with the instance of CIM\_RegisteredProfile.



305

306

**Figure 1 – Simple NIC Profile: Class Diagram**

### 307 **6.1 Fully Qualified Device Descriptor (FQDD)**

308 Fully Qualified Device Descriptor (FQDD) is a component identifier that uniquely represents a specific  
 309 system device or component in a platform independent of the operating system, and the device vendor.

310 The Dell CIM data model utilizes FQDDs to correlate different aspects of representing a component, such  
 311 as hardware inventory view, configurable attribute, software inventory and so on. FQDDs are used by  
 312 software, such as BIOS, UEFI applications that link Unified Server Configurator (USC), and remote  
 313 management applications to identify various system components in a persistent way.

314 For NIC devices, the FQDD is used to uniquely identify a particular port. For CNA devices, FQDD is used  
 315 to uniquely identify a partition. See Table 2 - NIC FQDD examples and Table 3 - CNA FQDD Example for  
 316 examples.

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**Table 2 - NIC FQDD examples**

FQDD	Friendly Name
NIC.Integrated.1-2-3	Integrated NIC 1 Port 2 Partition 3
NIC.Slot.3-2-1	NIC in Slot 3 Port 2 Partition 1
NIC.Mezzanine.1B-1-2	NIC in Mezzanine 1 Port 1 Partition 2

321

322

**Table 3 - CNA FQDD Example**

Physical Port	Function Instance off Physical Port	PCI Func #	Config 1 NIC.Slot.n	Config 2 NIC.Slot.n
1	1	0	NIC.Slot.1-1-1	NIC.Slot.1-1-1
	2	2	NIC.Slot.1-1-2	NIC.Slot.1-1-2
	3	4	NIC.Slot.1-1-3	NIC.Slot.1-1-3
	4	6	NIC.Slot.1-1-4	NIC.Slot.1-1-4
2	1	1	NIC.Slot.1-2-1	NIC.Slot.1-2-1
	2	3	NIC.Slot.1-2-2	NIC.Slot.1-2-2
	3	5	NIC.Slot.1-2-3	Disabled
	4	7	NIC.Slot.1-2-4	NIC.Slot.1-2-4

323

**324 6.2 CNA Representation**

325 For CNA devices, an instance of DCIM\_NICView is created for each partition of a port. Each partition can  
326 have the following personalities:

- 327 • NIC
- 328 • Fibre Channel Over Ethernet (FCoE)
- 329 • Internet Small Computer System Interface Over Ethernet (ISOE).

330 DCIM\_NICView instances are read-only. For traditional NIC devices or CNA devices that have partitioning  
331 turned off, one instance of DCIM\_NICView is created for each device port.

332 The following DCIM\_NICView properties represent the CNA behavior. See Table 4 – CNA Properties in  
333 DCIM\_NICView.

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**Table 4 – CNA Properties in DCIM\_NICView**

Personality	Detail
NicMode	Indicates if the NIC personality is enabled or disabled on the current partition
FCoEOffloadMode	Indicates if the Fibre Channel over Ethernet (FCoE) personality is enabled or disabled on the current partition.
iScsiOffloadMode	Indicates if the Internet Small Computer System Interface (iSCSI) personality is enabled or disabled on current partition
MaxBandwidth	Indicates maximum bandwidth on current partition.
MinBandwidth	Indicates minimum bandwidth on current partition.
WWPN	Indicates World Wide Port Name of a port.

341 CNA devices allow a user to provide a range of bandwidth for each partition, which is represented in  
342 terms of percentage of total bandwidth.

### 343 **6.3 Changing personalities on a partition**

344 User can enable or disable a personality of a partition by changing the corresponding attribute. Table 5  
345 lists the attribute names that represent each personality.

346 **Table 5 – Changing personalities on a partition**

Personality	AttributeName	Detail
NIC	NicMode	Enables or disables NIC personality on the partition.
Fibre Channel Over Ethernet (FCoE)	FCoEOffloadMode	Enables or disables FC personality on the partition.
Internet Small Computer System Interface (iSCSI)	iScsiOffloadMode	Enables or disable iSCSI personality on the partition.

347 Use SetAttribute() or SetAttributes() method on an attribute to change its value. See Section 8.1 and 8.2  
348 for more details.

### 349 **6.4 Enabling or disabling a partition**

350 There are four partitions on each port of a CNA device. Partition 1 cannot be disabled on any port.  
351 Enabling any personality on a partition enables the partition. Disabling all the personalities on a partition  
352 disables the partition (see section 6.3 for information to enable or disable a partition personality).

353 To disable partitioning functionality altogether on all ports simultaneously, set the NicPartitioning attribute  
354 to Disabled. After the host system restarts, the CNA device will no longer expose multiple partitions to the  
355 host system. Instead, a DCIM\_NICView will be created for each port. See section 7.7.2 for more details.

### 356 **6.5 Changing bandwidth on a partition**

357 Use the MaxBandwidth and MinBandwidth attributes to change the bandwidth range of a partition.  
358 MinBandwidth is the relative bandwidth allocated to a partition with respect to the entire port. Make sure  
359 that the sum of all MinBandwidth should not be greater than 100% and MinBandwidth should be less than  
360 MaxBandwidth. See Section 7.7.2 for more details.

361 **6.6 Virtual Address attributes**

362 Virtual address attributes include the following attributes:

- 363 • VirtMacAddr
- 364 • VirtIscsiMacAddr
- 365 • VirtFIPMacAddr
- 366 • VirtWWN
- 367 • VirtWWPN
- 368 • VirtualizationMode

369 The default values of these virtual attributes is equal to the permanent addresses programmed onto the  
370 controller. For example, the VirtMacAddr default value is MacAddr on that port or partition.

371 To set these attributes, see Section 8.1 and 8.2 for more details. Virtual address attributes behave  
372 differently from the other attributes in the following way:

373 **6.6.1 Read Write behavior**

374 The virtual address attributes listed above behave as Read-Only attributes if accessed via the System  
375 Settings (F2 during POST) → Device Settings menu. However, they behave as Read-Write attributes  
376 through the Lifecycle Controller Remote Services interface used by WSMAN clients. This allows a remote  
377 application to change the virtual identities of NIC/CNA controllers, similar to the FlexAddress feature that  
378 allows a chassis management controller (CMC) to distribute a predefined list of identities across all blade  
379 NIC/CNA controllers on a chassis.

380 **6.6.2 Reset behavior**

381 Setting a particular Input/Output (IO) attribute to zeros causes that particular address to be erased and  
382 reset to the default permanent address. The attributes can be set to default permanent values: as  
383 equivalent to resetting to factory default and removing a virtual address attribute from a system.

384 When there is AC Power loss to the system, all the virtual address attributes are erased and reset to  
385 default addresses when AC Power is restored to the system. AC Power loss includes power loss to both  
386 MAIN and AUX power bus.

387 NOTE: This behavior may not be available on the Broadcom CNA.

388 **6.7 Behavior Differences between Broadcom and QLogic CNAs**

389 There are few key differences between CNA manufacturers: Broadcom and QLogic. The supported CNAs  
390 for Broadcom and QLogic include:

391 **Broadcom:**

392 M710HD Dual Port 10Gig 57712 NDC,

393 **QLogic:**

394 Qlogic QMD8252-K Dual Port 10GbE NDC

395 Qlogic QME8242 10GbE Embedded Mezz Card

396

397 Table 6 – Behavior Differences between Broadcom and QLogic CNAs lists the behavioral differences.

398 **Table 6 – Behavior Differences between Broadcom and QLogic CNAs**

Difference	Broadcom	QLogic
Offload personalities	Only two Offload personalities (FCoEOffloadMode and iScsiOffloadMode) are allowed per port.	Partition 3 allows iScsiOffloadMode personality and Partition 4 allows FCoEOffloadMode personality.

Difference	Broadcom	QLogic
Port level	If NicPartitioning attribute is disabled, then enumeration and get operations only displays port level attributes.	Not applicable as NicPartitioning cannot be disabled.

Difference	Broadcom	QLogic															
MinBandwith	<p>If the MinBandwidth attribute(s) are set, the total sum of all the MinBandwidth attributes for all partitions on a port must add up to 0 or 100 at the conclusion of set operation. For example, if the MinBandwidth needs to be changed to 50 on partition 1, then the Minbandwidth must be changed on other partition(s) to make sure the MinBandwidth for all partitions on the port adds to a 100.</p> <table border="1" data-bbox="386 506 1008 695"> <thead> <tr> <th>Port Partition</th> <th>Current Minbandwidth</th> <th>New Minbandwidth</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>30</td> <td>50</td> </tr> <tr> <td>2</td> <td>30</td> <td>20</td> </tr> <tr> <td>3</td> <td>20</td> <td>20</td> </tr> <tr> <td>4</td> <td>20</td> <td>10</td> </tr> </tbody> </table> <p>If the Minbandwidth does not add up to 0 or 100, then USC advanced configuration may not set any other attribute until this error condition of MinBandWidth is rectified. USC Advanced Configuration does not notify about this error condition.</p> <p>Note: MinBandwidth summation can be done independently through USC Advanced Configuration or through Remote Services interface that is used by WSMAN clients.</p>	Port Partition	Current Minbandwidth	New Minbandwidth	1	30	50	2	30	20	3	20	20	4	20	10	The same behavior is applicable for QLogic.
Port Partition	Current Minbandwidth	New Minbandwidth															
1	30	50															
2	30	20															
3	20	20															
4	20	10															
NicPartitioning and partition specific attributes	<p>After NicPartitioning attribute is disabled, partition specific attributes (See the following table) does not exist anymore. Therefore, do not disable NicPartitioning attribute and set partition specific attributes together, and then invoke the CreateTargetedConfigJob() method.</p> <table border="1" data-bbox="386 1125 776 1493"> <thead> <tr> <th>Partition specific attributes</th> </tr> </thead> <tbody> <tr> <td>MinBandwidth</td> </tr> <tr> <td>MaxBandwidth</td> </tr> <tr> <td>NicMode</td> </tr> <tr> <td>iScsiOffloadMode</td> </tr> <tr> <td>FCoEOffloadMode</td> </tr> <tr> <td>VirtMacAddr</td> </tr> <tr> <td>VirtIscsiMacAddr</td> </tr> <tr> <td>VirtFIPMacAddr</td> </tr> <tr> <td>VirtWWN</td> </tr> <tr> <td>VirtWWPN</td> </tr> <tr> <td>VirtualizationMode</td> </tr> </tbody> </table>	Partition specific attributes	MinBandwidth	MaxBandwidth	NicMode	iScsiOffloadMode	FCoEOffloadMode	VirtMacAddr	VirtIscsiMacAddr	VirtFIPMacAddr	VirtWWN	VirtWWPN	VirtualizationMode	Not applicable as NicPartitioning cannot be disabled in QLogic.			
Partition specific attributes																	
MinBandwidth																	
MaxBandwidth																	
NicMode																	
iScsiOffloadMode																	
FCoEOffloadMode																	
VirtMacAddr																	
VirtIscsiMacAddr																	
VirtFIPMacAddr																	
VirtWWN																	
VirtWWPN																	
VirtualizationMode																	



Difference	Broadcom	QLogic
NicMode	NicMode is used to enable or disable NIC personality on a partition. NIC personality can be disabled on all partitions.	NIC personality cannot be disabled on partition 1, but can be disabled on remaining partitions.

## 399 7 Implementation Description

400 Requirements and guidelines for propagating and formulating certain properties of the classes are  
401 discussed in this section. Methods are listed in section 8.

402 Table 7 shows the instances of CIM Elements for this profile. Instances of the CIM Elements shall be  
403 implemented as described in Table 7. Sections 7 ("Implementation Requirements" and "Methods") may  
404 impose additional requirements on these elements.

405 **Table 7 – CIM Elements: Simple NIC Profile**

Element Name	Requirement	Description
<b>Classes</b>		
DCIM_NICService	Mandatory	The class maybe implemented in the <i>Implementation Namespace: root/dcim</i> . See sections 7.8
DCIM_NICView	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.1
DCIM_NICCapabilities	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.2
DCIM_NICStatistics	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.3
DCIM_NICEnumeration	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.4
DCIM_NICInteger	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.6
DCIM_NICString	Mandatory	The class shall be implemented in the <i>Implementation Namespace: root/dcim</i> . See section 7.5
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
<b>Indications</b>		
None defined in this profile		

## 406 7.1 NIC View – DCIM\_NICView

407 This section describes the implementation for the DCIM\_NICView class.

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

### 409 7.1.1 Resource URIs for WinRM®

410 The class Resource URI shall be “http://schemas.dell.com/wbem/wscim/1/cim-  
411 schema/2/DCIM\_NICView?\_\_cimnamespace=root/dcim”

412 The key property shall be the InstanceID.

413 The instance Resource URI for DCIM\_NICView instance shall be:  
414 “http://schemas.dell.com/wbem/wscim/1/cim-  
415 schema/2/DCIM\_NICView?\_\_cimnamespace=root/dcim+InstanceID=<FQDD>”

### 416 7.1.2 Operations

417 The following table lists the implemented operations on DCIM\_NICView.

418 **Table 8 – DCIM\_NICView - Operations**

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

### 419 7.1.3 Class Properties

420 The following table details the implemented properties for DCIM\_NICView instance representing a NIC in  
421 a system. The “Requirements” column shall denote whether the property is implemented (for requirement  
422 definitions, see section 3). The “Additional Requirements” column shall denote either possible values for  
423 the property, or requirements on the value formulation.

424 **Table 9 – DCIM\_NICView - Properties**

Property Name	Requirement	Type	Requirement and description
InstanceID	Mandatory	String	The property value shall be the FQDD property 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
AutoNegotiation	Mandatory	uint8	Indicates if the auto negotiation is Off/On/Unknown.
BusNumber	Mandatory	uint8	The bus number where this PCI device resides.
ControllerBIOSVersion	Mandatory	String	Controller BIOS Version.
CurrentMACAddress	Mandatory	String	A string containing the current MAC address.
DataBusWidth	Mandatory	String	DataBusWidth of the PCI.
DeviceNumber	Mandatory	uint8	The device number assigned to this PCI device for this bus.
EFIVersion	Mandatory	String	EFI Version.
FCoEOffloadMode	Mandatory	String	Indicates if the partition has FC personality enabled.

Property Name	Requirement	Type	Requirement and description
FCoEWWNN	Mandatory	String	Indicates FCoE World Wide Node Name.
FamilyVersion	Mandatory	String	Indicates the firmware family version.
FunctionNumber	Mandatory	uint8	The function number for this PCI device.
LinkDuplex	Mandatory	String	Indicates whether the Link is full or half duplex.
LinkSpeed	Mandatory	String	Indicates the link speed.
MaxBandwidth	Mandatory	uint16	Indicates the maximum bandwidth of current partition of this NIC or Converged Network Adapter. It is represented in percentage.
MediaType	Mandatory	String	Indicates the different media types.
MinBandwidth	Mandatory	uint16	Indicates the minimum bandwidth of current partition of this NIC or Converged Network Adapter. It is represented in percentage.
NicMode	Mandatory	String	Indicates if the partition has NIC personality enabled.
PCIDeviceID	Mandatory	string	The property contains a value assigned by the device manufacturer used to identify the type of device.
PCISubDeviceID	Mandatory	string	The property contains a value assigned by the vendor manufacturer used to identify the type of device.
PCISubVendorID	Mandatory	string	Indicates the subsystem vendor ID.
PCIVendorID	Mandatory	string	The property contains a value assigned by the PCI SIG used to identify the manufacturer of the device.
PermanentFCOEMACAddress	Mandatory	string	Indicates the permanent FCoE MAC Address.
PermanentMACAddress	Mandatory	string	PermanentMACAddress defines the network address that is hardcoded into a port.
PermanentiSCSIMACAddress	Mandatory	string	Defines the network address that is hardcoded into a port and dedicated to iSCSI usage.
ProductName	Mandatory	string	A string containing the product name.
ReceiveFlowControl	Mandatory	string	Indicates if receive flow control is Off or On.
SlotLength	Mandatory	string	Slot length of the PCI.
SlotType	Mandatory	string	Slot type of the PCI.
TransmitFlowControl	Mandatory	string	Indicates if the transmit flow control is Off or On.
VendorName	Mandatory	string	Indicates the NIC Vendor Name.
WWPN	Mandatory	String	Indicates the Worldwide Port Name of this port.
iScsiOffloadMode	Mandatory	String	Indicates if the partition has iSCSI personality enabled.
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.
VirtWWN	Mandatory	String	Indicates Programmatically assignable Fibre Channel World Wide Node Name identifier for FCoE

Property Name	Requirement	Type	Requirement and description
VirtWWPN	Mandatory	String	Programmatically assignable Fibre Channel World Wide Port Name identifier for partition FCoE

425

## 426 7.2 NIC Capabilities – DCIM\_NICCapabilities

427 This section describes the implementation for the DCIM\_NICCapabilities class.

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

### 429 7.2.1 Resource URIs for WinRM®

430 The class Resource URI shall be “http://schemas.dell.com/wbem/wscim/1/cim-  
431 schema/2/DCIM\_NICCapabilities?\_\_cimnamespace=root/dcim”

432 The key property shall be the InstanceID.

433 The instance Resource URI for DCIM\_NICCapabilities instance shall be:  
434 “http://schemas.dell.com/wbem/wscim/1/cim-  
435 schema/2/DCIM\_NICCapabilities?\_\_cimnamespace=root/dcim+InstanceID=<FQDD>”

### 436 7.2.2 Operations

437 The following table lists the implemented operations on DCIM\_NICCapabilities.

438 **Table 10 – DCIM\_NICCapabilities - Operations**

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

439

### 440 7.2.3 Class Properties

441 The following table lists the implemented properties for DCIM\_NICCapabilities instance representing a  
442 NIC in a system. The “Requirements” column shall denote whether the property is implemented (for  
443 requirement definitions, see section 3). The “Additional Requirements” column shall denote either  
444 possible values for the property, or requirements on the value formulation.

445 **Table 11 – DCIM\_NICCapabilities - Properties**

Property Name	Requirement	Type	Requirement and description
BPESupport	Mandatory	uint8	The property shall represent the BPE support for a NIC port.
CongestionNotification	Mandatory	uint8	The property shall represent congestion notification support for a NIC port.
DCBExchangeProtocol	Mandatory	uint8	The property shall represent DCB Exchange protocol support for a NIC port.
ETS	Mandatory	uint8	The property shall represent Enhanced Transmission Selection support for a NIC port.
EVBModesSupport	Mandatory	uint8	The property shall represent EVB - Edge Virtual Bridging modes support for a NIC port.
EnergyEfficientEthernet	Mandatory	uint8	The property shall represent energy efficient ethernet support for a NIC port.
FCoEBootSupport	Mandatory	uint8	The property shall represent FCoE boot support for a NIC port.

Property Name	Requirement	Type	Requirement and description
FCoEMaxIOsPerSession	Mandatory	uint16	The property shall represent maximum number of IOs per connection supported for the NIC.
FCoEMaxNPIVPerPort	Mandatory	uint16	The property shall represent maximum number of FCoE targets supported for the NIC.
FCoEMaxNumberExchanges	Mandatory	uint16	The property shall represent maximum number of exchanges for the NIC.
FCoEMaxNumberLogins	Mandatory	uint16	The property shall represent maximum logins per port for the NIC.
FCoEMaxNumberOfFCTargets	Mandatory	uint16	The property shall represent maximum number of FCoE targets supported for the NIC.
FCoEMaxNumberOutStandingCommands	Mandatory	uint16	The property shall represent maximum number of outstanding commands supported across all connections for the NIC.
FCoEOffloadSupport	Mandatory	uint8	The property shall represent FCoE offload support for the NIC.
FQDD	Mandatory	string	A string containing the Fully Qualified Device Description a user-friendly name for the object.
FeatureLicensingSupport	Mandatory	uint8	The property shall represent feature licensing support for the NIC.
FlexAddressingSupport	Mandatory	uint8	The property shall represent flex addressing support for a NIC port.
IPSecOffloadSupport	Mandatory	uint8	The property shall represent IPSec offload support for a NIC port.
InstanceID	Mandatory	string	The property value shall be the FQDD property value.
MACSecSupport	Mandatory	uint8	The property shall represent secure MAC support for a NIC port.
NWManagementPassThrough	Mandatory	uint8	The property shall represent network management pass through support for a NIC port.
NicPartitioningSupport	Mandatory	uint8	The property shall represent partitioning support for the NIC.
OSBMCManagementPassThrough	Mandatory	uint8	The property shall represent OS-inband to BMC-out-of-band management pass through support for a NIC port.
OnChipThermalSensor	Mandatory	uint8	The property shall represent on chip thermal sensor support for the NIC.
OpenFlowSupport	Mandatory	uint8	The property shall represent open flow support for a NIC port.
PXEBootSupport	Mandatory	uint8	The property shall represent PXE boot support for a NIC port.
PartitionWOLSupport	Mandatory	uint8	The property shall represent Wake-On-LAN support for a NIC partition.
PriorityFlowControl	Mandatory	uint8	The property shall represent priority flow control support for a NIC port.
RDMASupport	Mandatory	uint8	The property shall represent RDMA support for a NIC port.

Property Name	Requirement	Type	Requirement and description
RXFlowControl	Mandatory	uint8	The property shall represent RX flow control support for a NIC port.
RemotePHY	Mandatory	uint8	The property shall represent remote PHY support for a NIC port.
TCPChimneySupport	Mandatory	uint8	The property shall represent TCP Chimney support for a NIC port.
TXBandwidthControlMaximum	Mandatory	uint8	The property shall represent open flow support for a NIC partition.
TXBandwidthControlMinimum	Mandatory	uint8	The property shall represent open flow support for a NIC partition.
TXFlowControl	Mandatory	uint8	The property shall represent TX flow control support for a NIC partition.
VEBVEPAMultiChannel	Mandatory	uint8	The property shall represent VEB-VEPA (Virtual Ethernet Bridging and Virtual Ethernet Port Aggregator) multi channel for a NIC port.
VEBVEPASingleChannel	Mandatory	uint8	The property shall represent VEB-VEPA (Virtual Ethernet Bridging and Virtual Ethernet Port Aggregator) - single channel support for a NIC port.
VFSRIOVSupport	Mandatory	uint8	The property shall represent for Virtual Function of Single Root I/O Virtualization support for a NIC port.
VirtualLinkControl	Mandatory	uint8	The property shall represent virtual link control support for a NIC partition.
WOLSupport	Mandatory	uint8	The property shall represent Wake-On-LAN support for a NIC port.
iSCSIBootSupport	Mandatory	uint8	The property shall represent iSCSI boot support for a NIC port.
iSCSIOffloadSupport	Mandatory	uint8	The property shall represent iSCSI offload support for a NIC port.
uEFISupport	Mandatory	uint8	The property shall represent UEFI support for a NIC port.

### 446 7.3 NIC Statistics – DCIM\_NICStatistics

447 This section describes the implementation for the DCIM\_NICStatistics class.

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

#### 449 7.3.1 Resource URIs for WinRM®

450 The class Resource URI shall be “http://schemas.dell.com/wbem/wscim/1/cim-  
451 schema/2/DCIM\_NICStatistics?\_\_cimnamespace=root/dcim”

452 The key property shall be the InstanceID.

453 The instance Resource URI for DCIM\_NICStatistics instance shall be:

454 “http://schemas.dell.com/wbem/wscim/1/cim-  
455 schema/2/DCIM\_NICStatistics?\_\_cimnamespace=root/dcim+InstanceID=<FQDD>”

#### 456 7.3.2 Operations

457 The following table lists the implemented operations on DCIM\_NICStatistics.

**Table 12 – DCIM\_NICStatistics - Operations**

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

### 459 7.3.3 Properties

460 The following table details the implemented properties for DCIM\_NICStatistics instance representing a  
 461 NIC in a system. The “Requirements” column shall denote whether the property is implemented (for  
 462 requirement definitions, see section 3). The “Additional Requirements” column shall denote either  
 463 possible values for the property, or requirements on the value formulation.

**Table 13 – DCIM\_NICStatistics - Properties**

Property Name	Requirement	Type	Requirement and description
DiscardedPkts	Mandatory	uint32	Counts the total number of discarded packets.
FCCRCErrCount	Mandatory	uint32	Counts the number of FC frames with CRC errors.
FCOELinkFailures	Mandatory	uint32	Counts the number of FCoE/FIP Login failures.
FCOEPktRxCount	Mandatory	uint64	Counts the number of good (FCS valid) packets received with the
FCOEPktTxCount	Mandatory	uint64	Counts the number of good (FCS valid) packets transmitted that
FCOERxPktDroppedCount	Mandatory	uint32	Counts the number of receive packets with FCS errors.
FQDD	Mandatory	string	A string containing the Fully Qualified Device Description, a user-friendly name for the object.
InstanceID	Mandatory	string	The property value shall be the FQDD property value.
LinkStatus	Mandatory	uint8	Indicates whether the link is up (OK) or down (Error).
OSDriverState	Mandatory	uint8	Indicates operating system driver states.
PartitionLinkStatus	Mandatory	uint8	Indicates whether the partition link is up (OK) or down (Error).
PartitionOSDriverState	Mandatory	uint8	Indicates partitions operating system driver states.
RxBroadcast	Mandatory	uint64	Counts the total number of good broadcast packets received.
RxBytes	Mandatory	uint64	Counts the total number of bytes received, including host and remote management pass through traffic (remote management pass through traffic is applicable to LOMs only).
RxErrorPktAlignmentErrors	Mandatory	uint32	Counts the total number of packets received with alignment errors.
RxErrorPktFCSErrors	Mandatory	uint32	Counts the total number of packets received with FCS errors.
RxFalseCarrierDetection	Mandatory	uint32	Counts the total number of false carrier errors received from PHY.
RxJabberPkt	Mandatory	uint32	Counts the total number of frames that are too long.
RxMutlicast	Mandatory	uint64	Counts the total number of good multicast packets transmitted.
RxPauseXOFFFrames	Mandatory	uint32	Counts the flow control frames from the network to pause transmission.



Property Name	Requirement	Type	Requirement and description
RxPauseXONFrames	Mandatory	uint32	Counts the flow control frames from the network to resume transmission.
RxRuntPkt	Mandatory	uint32	Counts the total number of frames that are too short (< 64 bytes).
RxUnicast	Mandatory	uint64	Counts the total number of good unicast packets transmitted.
StartStatisticTime	Mandatory	datetime	Indicates the measurement time for the first NIC statistics. The property shall be used with the StatisticTime property to calculate the duration over which the NIC statistics has been gathered.
StatisticTime	Mandatory	datetime	Indicates the most recent measurement time for NIC statistics. The property shall be used with the StatisticStartTime property to calculate the duration over which the NIC statistics has been gathered.
TxBroadcast	Mandatory	uint64	Counts the total number of good broadcast packets transmitted.
TxBytes	Mandatory	uint64	Counts the total number of bytes transmitted, including host and remote management pass through traffic (remote management pass through traffic is applicable to LOMs only).
TxErrorPktExcessiveCollision	Mandatory	uint32	Counts the number of times that 16 or more collisions occurred on a single transmit packet.
TxErrorPktLateCollision	Mandatory	uint32	Counts the number of collisions that occurred after one slot time (defined by IEEE 802.3).
TxErrorPktMultipleCollision	Mandatory	uint32	Counts the number of times that a transmitted packet encountered more than one collision but fewer than 16.
TxErrorPktSingleCollision	Mandatory	uint32	Counts the number of times that a successfully transmitted packet encountered a single collision.
TxMutlicast	Mandatory	uint64	Counts the total number of good multicast packets transmitted.
TxPauseXONFrames	Mandatory	uint32	Counts the number of XON packets transmitted to the network.
TxPauseXOFFFrames	Mandatory	uint32	Counts the number of XOFF packets transmitted to the network.
TxUnicast	Mandatory	uint64	Counts the total number of good unicast packets transmitted.
LanUnicastPktRXCount	Mandatory	uint64	Counts the total number of Lan Unicast Packets Received
LanUnicastPktTXCount	Mandatory	uint64	Counts the total number of Lan Unicast Packets Transmitted
LanFCSRxErros	Mandatory	Uint32	Lan FCS Receive Erros

465 **7.4 DCIM\_NICEenumeration**

466 This section describes the implementation for the DCIM\_NICEenumeration class.

467 Each DCIM\_NICEenumeration instance is logically associated to a DCIM\_NICView instance, where the  
468 DCIM\_NICEenumeration.FQDD property is equal to the FQDD property on the DCIM\_NICView instance.

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

470 **7.4.1 Resource URIs for WinRM®**

471 The class Resource URI shall be “http://schemas.dell.com/wbem/wscim/1/cim-  
472 schema/2/DCIM\_NICEenumeration?\_\_cimnamespace=root/dcim”

473 The key property shall be the InstanceID.

474 The instance Resource URI for DCIM\_NICEenumeration instance shall be:

475 “http://schemas.dell.com/wbem/wscim/1/cim-

476 schema/2/DCIM\_NICEenumeration?\_\_cimnamespace=root/dcim+InstanceID= <FQDD>:<AttributeName>”

477 where <FQDD> is the FQDD property value and <AttributeName> is the AttributeName property value.

478 **7.4.2 Operations**

479 The following table lists the implemented operations on DCIM\_NICEenumeration.

480 **Table 14 – DCIM\_NICEenumeration - Operations**

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

481 **7.4.3 Class Properties**

482 The following table details the implemented properties for DCIM\_NICEenumeration instance representing  
483 a NIC controller enumeration attribute. The “Requirements” column shall denote whether the property is  
484 implemented (for requirement definitions, see section 3). The “Additional Requirements” column shall  
485 denote either possible values for the property, or requirements on the value formulation.

**Table 15 – Class: DCIM\_NICEnumeration**

Properties	Type	Notes	Additional Requirements
InstanceID	String	Mandatory	The property value shall be formed as follows: “<FQDD property value>:<AttributeName property value>”.
AttributeName	String	Mandatory	The property value shall be from the “AttributeName” column in Tables in section 7.7.
AttributeDisplayName	String	Mandatory	The property value shall be from the “AttributeDisplayName” column in Tables in section 7.7.
GroupID	String	Mandatory	See section 7.7.
GroupDisplayName	String	Mandatory	See section 7.7.
CurrentValue[]	String	Mandatory	The property value shall be one of the values in the “PossibleValues” column in the corresponding row in Tables in section 7.7.
PendingValue[]	String	Mandatory	The property value shall be one of the values in the “PossibleValues” column in the corresponding row in Tables in section 7.7.
IsReadOnly	Boolean	Mandatory	The property value shall be from the “IsReadOnly” column in Tables in section 7.7.
FQDD	String	Mandatory	FQDD of the NIC 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 NIC attributes.
Dependency	String	Optional	The property shall be formatted as XML describing the attributes dependence on other attribute(s).
PossibleValues	String	Mandatory	The property value shall be equal to the array of the values in “PossibleValues” column in the corresponding row in in Tables in section 7.7.
PossibleValuesDescription	String	Mandatory	The array property’s each value shall represent the description of the value in the PossibleValue array property at the corresponding index.

## 487 **7.5 DCIM\_NICString**

488 This section describes the implementation for the DCIM\_NICString class.

489 Each DCIM\_NICString instance is logically associated to a DCIM\_NICView instance, where the  
490 DCIM\_NICString.FQDD property is equal to the FQDD property on the DCIM\_NICView instance.

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

### 492 **7.5.1 Resource URIs for WinRM®**

493 The class Resource URI shall be “http://schemas.dell.com/wbem/wscim/1/cim-  
494 schema/2/DCIM\_NICString?\_\_cimnamespace=root/dcim”

495 The key property shall be the InstanceID.

496 The instance Resource URI for DCIM\_NICString instance shall be:

497 [499 where <FQDD> is the FQDD property value, and <AttributeName> is the AttributeName property value.](http://schemas.dell.com/wbem/wscim/1/cim-<br/>498 schema/2/DCIM_NICString?__cimnamespace=root/dcim+InstanceID=<FQDD>:<AttributeName</a></p>
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500 **7.5.2 Operations**

501 The following table lists the implemented operations on DCIM\_NICString.

502 **Table 16 – DCIM\_NICString - Operations**

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

503

504 **7.5.3 Class Properties**

505 The following table details the implemented properties for DCIM\_NICString instance representing a NIC  
506 controller string attribute. The “Requirements” column shall denote whether the property is implemented  
507 (for requirement definitions, see section 3). The “Additional Requirements” column shall denote either  
508 possible values for the property, or requirements on the value formulation.

**Table 17 – Class: DCIM\_NICString**

Properties	Type	Notes	Additional Requirements
InstanceID	String	Mandatory	The property value shall be formed as follows: "<FQDD property value>:<AttributeName property value>".
AttributeName	String	Mandatory	The property value shall be from the "AttributeName" column in Tables in section 7.7.
AttributeDisplayName	String	Mandatory	The property value shall be from the "AttributeDisplayName" column in in Tables in section 7.7.
GroupID	String	Mandatory	See section 7.7.
GroupDisplayName	String	Mandatory	See section 7.7.
CurrentValue[]	String	Mandatory	The property value shall be one of the values in the "PossibleValues" column at the corresponding row in Tables in section 7.7.
PendingValue[]	String	Mandatory	The property value shall be one of the values in the "PossibleValues" column at the corresponding row in Tables in section 7.7.
IsReadOnly	Boolean	Mandatory	The property value shall be from the "IsReadOnly" column in Tables in section 7.7.
FQDD	String	Mandatory	FQDD of the NIC 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 NIC attributes.
Dependency	String	Optional	The property shall be formatted as XML describing the attributes dependence on other attribute(s).
MinLength	uint64	Mandatory	The property value shall be the value in the "MinLength" column at the corresponding row in Tables in section 7.7. 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 7.7 The omission or NULL shall denote that no known constraint exists on the CurrentValue and PendingValue properties.
ValueExpression	String	Conditional	The property shall be implemented, if the IsReadOnly property has value FALSE. The omission or NULL shall denote that no known constraint exists on the CurrentValue and PendingValue properties.

510

**511 7.6 DCIM\_NICInteger**

512 This section describes the implementation for the DCIM\_NICInteger class.

513 Each DCIM\_NICInteger instance is logically associated to a DCIM\_NICView instance, where the  
514 DCIM\_NICInteger.FQDD property is equal to the FQDD property on the DCIM\_NICView instance.

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

516 **7.6.1 Resource URIs for WinRM®**

517 The class Resource URI shall be “http://schemas.dell.com/wbem/wscim/1/cim-  
518 schema/2/DCIM\_NICInteger?\_\_cimnamespace=root/dcim”

519 The key property shall be the InstanceID.

520 The instance Resource URI for DCIM\_NICInteger instance shall be:

521 [523 where <FQDD> is the FQDD property value, and <AttributeName> is the AttributeName property value.](http://schemas.dell.com/wbem/wscim/1/cim-<br/>522 schema/2/DCIM_NICInteger?__cimnamespace=root/dcim+InstanceID= <FQDD>:<AttributName</a></p></div><div data-bbox=)

524 **7.6.2 Operations**

525 The following table lists the implemented operations on DCIM\_NICInteger.

526 **Table 18 – DCIM\_NICInteger - Operations**

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

527

528 **7.6.3 Properties**

529 The following table details the implemented properties for DCIM\_NICInteger instance representing a NIC  
530 controller integer attribute. The “Requirements” column shall denote whether the property is implemented  
531 (for requirement definitions, see section 3). The “Additional Requirements” column shall denote either  
532 possible values for the property, or requirements on the value formulation.

**Table 19 – Class: DCIM\_NICInteger**

Properties	Type	Requirement	Additional Requirements
InstanceID	String	Mandatory	The property value shall be formed as follows: “<FQDD property value>:<AttributeName property value>”.
AttributeName	String	Mandatory	The property value shall be from the “AttributeName” column in Tables in section 7.7.
AttributeDisplayName	String	Mandatory	The property value shall be from the “AttributeDisplayName” column in in Tables in section 7.7.
GroupID	String	Mandatory	See section 7.7.
GroupDisplayName	String	Mandatory	See section 7.7.
CurrentValue[]	String	Mandatory	The property value shall be one of the values in the “PossibleValues” column at the corresponding row in Tables in section 7.7.
PendingValue[]	String	Mandatory	The property value shall be one of the values in the “PossibleValues” column at the corresponding row in Tables in section 7.7.
IsReadOnly	Boolean	Mandatory	The property value shall be from the “IsReadOnly” column in Tables in section 7.7.
FQDD	String	Mandatory	FQDD of the NIC 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 NIC attributes.
Dependency	String	Optional	The property shall be formatted as XML describing the attributes dependence on other attribute(s).
LowerBound	uint64	Mandatory	The property value shall be the value in the “LowerBound” column in the corresponding row in Tables in section 7.7. The omission or NULL shall denote that no known constraint exists on the CurrentValue and PendingValue properties.
UpperBound	uint64	Mandatory	The property value shall be the value in the “UpperBound” column at the corresponding row in Tables in section 7.7. The omission or NULL shall denote that no known constraint exists on the CurrentValue and PendingValue properties.

534

**535 7.7 NIC Attributes**

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

**537 7.7.1 NIC Configuration**

538 This section describes the attributes for NIC’s Configuration.

539 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
540 “NICConfig”.541 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
542 DCIM\_NICInteger shall be “NIC Configuration”.

543 The following table describes the values for the DCIM\_NICEnumeration of this group. Each of the column  
 544 headings correspond to a property name on the DCIM\_NICEnumeration class. The Description column  
 545 contains the description for each of the attribute. Each of the rows contain the values for the properties  
 546 listed in the column headings. The PossibleValues property is an array property represented in the table  
 547 as comma delimited list.

548 **Table 20 – DCIM\_NICEnumeration NIC Configuration**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
LegacyBootProto <sup>1</sup>	Legacy Boot Protocol	FALSE	1105	“PXE”, “iSCSI” <sup>1</sup> , “iSCSIPrimary” <sup>1</sup> , “iSCSISecondary” <sup>1</sup> , “FCoE”, “NONE”	Non-UEFI Boot Protocol
LnkSpeed	Configure link speed for Managed Boot Agent.	FALSE	1106	“AutoNeg”, “10Mbps Half”, “10Mbps Full”, “100Mbps Half”, “100Mbps Full”	Link Speed
VlanMode	Virtual LAN mode for Managed Boot Agent.	FALSE	1108	“Disabled”, “Enabled”	Virtual LAN mode
WakeOnLan	Preboot Wake on LAN (WOL) for Managed Boot Agent..	FALSE	1109	“Disabled”, “Enabled”	Preboot Wake on LAN
WakeOnLanLnkSpeed	WOL Link Speed**	FALSE	1110	“AutoNeg”, “10Mbps Half”, “10Mbps Full”, “100Mbps Half”, “100Mbps Full”	Wake On LAN(WOL) link speed

549 NOTE: 1 – PossibleValues property shall contain either “iSCSI” value or “iSCSIPrimary” and “iSCSISecondary”  
 550 values. “iSCSI” value denotes that the selection of the NIC in the non-UEFI boot sequence shall boot the  
 551 system to an iSCSI target. Further, the IPVer attribute in the iSCSI General Parameters group shall denote  
 552 the IP version of the configured target’s IP address for iSCSI.

553 “iSCSIPrimary” value denotes that the NIC is the primary iSCSI boot source in the non-UEFI boot sequence.  
 554 Thus, if the booting to this iSCSI NIC fails, the iSCSI target configured in the secondary iSCSI NIC shall be  
 555 attempted automatically. The secondary iSCSI NIC shall be denoted by “iSCSISecondary” value for this  
 556 attribute.

557 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
 558 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
 559 values for the properties listed in the column headings.

560 **Table 21 – DCIM\_NICInteger NIC Configuration**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
VlanId	Virtual LAN ID	FALSE	1107	0	4095

561 **7.7.2 Main Configuration**

562 This section describes the attributes for NIC’s Main Configuration.

563 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
 564 “VndrConfigPage”.

565 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
 566 DCIM\_NICInteger shall be “Main Configuration Page”.



567 The following table describes the values for the DCIM\_NICEenumeration of this group. Each of the column  
 568 headings correspond to a property name on the DCIM\_NICEenumeration class. The Description column  
 569 contains the description for each of the attribute. Each of the rows contain the values for the properties  
 570 listed in the column headings. The PossibleValues property is an array property represented in the table  
 571 as comma delimited list.

572 **Table 22 – DCIM\_NICEenumeration Main Configuration Page**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
FCoEOffloadMode	Enable/Disable FC personality on the partition.	FALSE	1208	“Disabled”, “Enabled”	FCoE Offload Mode
iScsiOffloadMode	iSCSI personality on the partition.	FALSE	1214	“Disabled”, “Enabled”	iSCSI Offload Mode
LinkStatus	Link Status	TRUE	1216	“Connected”, “Disconnected”	Link Status
NicMode	Enable/Disable NIC personality on the partition.	FALSE	1218	“Disabled”, “Enabled”	NIC Mode
VirtualizationMode (Mellanox only)	The Virtualization Mode setting for the device	FALSE	110	“None”, “NPar”, “SR-IOV”, “NPar + SR-IOV”	Virtualization Mode

573 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
 574 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
 575 contains constraints on string value formulation. Each of the rows contain the values for the properties  
 576 listed in the column headings.

577 **Table 23 – DCIM\_NICString Main Configuration Page**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength	Value Expression
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AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength	Value Expression
BusDeviceFunction	Bus, Device, Function values	TRUE	1202			
ChipMdl	Chip Type/Revision	TRUE	1203			
DCBXSUPPORT	DCB XSupport	TRUE	1204	0	0	
DeviceName	This name should be consistent with the name displayed in the operating system.	TRUE	1205			
EnergyEfficientEthernet	Energy efficient Ethernet (EEE)	TRUE	1206	0	0	
FCoEBootSupport	FCoE Boot Support	TRUE	1207	0	0	
FCoEOffloadSupport	FCoE offload support	TRUE	1209	0	0	
FeatureLicensingSupport	Feature Licensing Support	TRUE	1210	0	0	
FIPMacAddr	CNA FIP MAC Address	FALSE	1211			MAC Address
FlexAddressing	Flex Addressing	TRUE	1212	0	0	
iSCSIBootSupport	iSCSI Boot Support	TRUE	1213	0	0	
iSCSIOffloadSupport	iSCSI offload support	TRUE	1215	0	0	
MacAddr	CNA MAC Address	TRUE	1217			
NicPartitioningSupport	Nic Partitioning Support	TRUE	1219	0	0	
NWManagementPassThrough	NW Management Pass Through	TRUE	1220	0	0	
OnChipThermalSensor	On-Chip Thermal Sensor	TRUE	1221	0	0	
OSBMCManagementPassThrough	OS BMC Management Pass Through	TRUE	1222	0	0	
PCIDeviceID	PCI Device ID	TRUE	1223			
PXEBootSupport	PXE Boot Support	TRUE	1224	0	0	
RemotePHY	RemotePHY	TRUE	1225	0	0	

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength	Value Expression
RXFlowControl	RX Flow Control	TRUE	1226	0	0	
TOESupport	TOE Support	TRUE	1227	0	0	
TXBandwidthControlMaximum	TX Bandwidth Control Maximum	TRUE	1229	0	0	
TXBandwidthControlMaximum	TX Bandwidth Control Maximum	TRUE	1228	0	0	
TXBandwidthControlMinimum	TX Bandwidth Control Minimum	TRUE	1230	0	0	
TXBandwidthControlMinimum	TX Bandwidth Control Minimum	TRUE	1231	0	0	
TXFlowControl	TX Flow Control	TRUE	1232	0	0	
TXFlowControl	TX Flow Control	TRUE	1233	0	0	
VirtFIPMacAddr	Virtual FIP Mac Address	FALSE	1234	0	0	MAC Address
VirtIscsiMacAddr	Virtual iSCSI MAC Address	FALSE	1235			MAC Address
VirtMacAddr	CNA Part1 Virtual MAC Address	FALSE	1236			MAC Address
VirtualLinkControl	Virtual Link Control	TRUE	1237	0	0	
VirtWWN	CNA Virtual World Wide Name	FALSE	1238			
VirtWWPN	CNA Virtual World Wide Part Name	FALSE	1202			
WWN	CNA World Wide Name	TRUE	1203			
WWPN	CNA World Wide Part Name	TRUE	1204			

578 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
579 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
580 values for the properties listed in the column headings.

581 **Table 24 – DCIM\_NICInteger Main Configuration Page**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
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AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
BlnkLeds	Blink LEDs for a duration up to 15 seconds.	FALSE	1201	0	15

582 **7.7.3 NIC Partitioning Configuration**

583 This section describes the attributes for NIC's Partitioning Configuration.

584 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
585 "NICPartitioningConfig".

586 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
587 DCIM\_NICInteger shall be "NIC Partitioning Configuration".

588 The following table describes the values for the DCIM\_NICEnumeration of this group. Each of the column  
589 headings correspond to a property name on the DCIM\_NICEnumeration class. The Description column  
590 contains the description for each of the attribute. Each of the rows contain the values for the properties  
591 listed in the column headings. The PossibleValues property is an array property represented in the table  
592 as comma delimited list.

593 **Table 25 – DCIM\_NICEnumeration NIC Partitioning Configuration**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
NicPartitioning	NIC Partitioning	FALSE	1101	"Disabled", "Enabled"	NIC Partitioning

594 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
595 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
596 values for the properties listed in the column headings.

597 **Table 26 – DCIM\_NICInteger NIC Partitioning Configuration**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
NParNumberPartitions	Number of Partitions Supported per port.	TRUE	1111	1	
NumberPCIEFunctionsEnabled	Number of Functions currently enabled per port	TRUE	1102	1	
NumberPCIEFunctionsSupported	Number of PCI-e functions supported per port	TRUE	1103	1	

598 **7.7.4 Partition Configuration**

599 This section describes the attributes for NIC's Partition 1 Configuration. Partition attributes are also used  
600 to configure the physical port.

601 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
602 "ConfigureForm<n>" where <n> is the partition number.

603 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
604 DCIM\_NICInteger shall be "Partition <n> Configuration" where <n> is the partition number.

605 The following table describes the values for the DCIM\_NICEnumeration of this group. Each of the column  
 606 headings correspond to a property name on the DCIM\_NICEnumeration class. The Description column  
 607 contains the description for each of the attribute. Each of the rows contain the values for the properties  
 608 listed in the column headings. The PossibleValues property is an array property represented in the table  
 609 as comma delimited list.

610 **Table 27 – DCIM\_NICEnumeration Partition Configuration**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
SRIOVConfigure	SRIOV Configure	FALSE	104	“Disabled”, “Enabled”	SRIOV Configure

611 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
 612 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
 613 contains constraints on string value formulation. Each of the rows contain the values for the properties  
 614 listed in the column headings.

615 **Table 28 – DCIM\_NICString Partition Configuration**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength
DeviceClassCode	Device Class Code	TRUE	101	0	0

616 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
 617 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
 618 values for the properties listed in the column headings.

619 **Table 29 – DCIM\_NICInteger Partition Configuration**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
InstanceNumber	Instance Number	FALSE	102	1	
PortNumber	Port Number	FALSE	103	1	

620 **7.7.5 DCB Settings**

621 This section describes the attributes for the NIC’s DCB Settings.

622 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
 623 “DCBSettings”.

624 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
 625 DCIM\_NICInteger shall be “DCB Settings”.

626 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
 627 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
 628 contains constraints on string value formulation. Each of the rows contain the values for the properties  
 629 listed in the column headings.

630 **Table 30 – DCIM\_NICString DCB Settings**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength
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AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength
CongestionNotification	Congestion Notification	TRUE	201	0	0
DCBExchangeProtocol	DCB Exchange Protocol	TRUE	202	0	0
EnhancedTransmissionSelection	Enhanced Transmission Selection	TRUE	203	0	0
PriorityFlowControl	Priority Flow Control	TRUE	204	0	0

631 **7.7.6 Device Level Configuration**

632 This section describes the attributes for the NIC's Device Level Configuration.

633 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
634 "DeviceLevelConfig".

635 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
636 DCIM\_NICInteger shall be "Device Level Configuration".

637 The following table describes the values for the DCIM\_NICEnumeration of this group. Each of the column  
638 headings correspond to a property name on the DCIM\_NICEnumeration class. The Description column  
639 contains the description for each of the attribute. Each of the rows contain the values for the properties  
640 listed in the column headings. The PossibleValues property is an array property represented in the table  
641 as comma delimited list.

642 **Table 31 – DCIM\_NICEnumeration Device Level Configuration**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
FlowControlSetting	Flow Control Setting	FALSE	1101	"Auto (default)", "TX Flow Control", "RX Flow Control", "TX / RX Flow Control"	Flow Control Setting

643

644 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
645 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
646 contains constraints on string value formulation. Each of the rows contain the values for the properties  
647 listed in the column headings.

648 **Table 32 – DCIM\_NICString Device Level Configuration**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength
EVBModesSupport	EVB Modes Support	TRUE	301	0	0
VFSRIOVSupport	VF/SR-IOV Support	TRUE	302	0	0

649

650 **7.7.7 FCoE Capabilities**

651 This section describes the attributes for NIC’s FCoE Capabilities.

652 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
653 “FCOECapabilities”.

654 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
655 DCIM\_NICInteger shall be “FCoE Capabilities”.

656 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
657 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
658 contains constraints on string value formulation. Each of the rows contain the values for the properties  
659 listed in the column headings.

660 **Table 33 – DCIM\_NICString FCoE Capabilities**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength
AddressingMode	Addressing Mode	TRUE	401	0	0
MTUReconfigurationSupport	MTU Reconfiguration Support	TRUE	409	0	0

661 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
662 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
663 values for the properties listed in the column headings.

664 **Table 34 – DCIM\_NICInteger FCoE Capabilities**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
MaxFrameSize	Max Frame Size	TRUE	402	0	
MaxIOsPerSession	Max Number of IOs per session supported	TRUE	407		
MaxNPIVPerPort	Max NPIV WWN per port	TRUE	403		
MaxNumberExchanges	Max Number of exchanges	TRUE	405		
MaxNumberLogins	Max Number LOGINs per port	TRUE	404		
MaxNumberOfFCTargets	Max Number of FC Targets Supported	TRUE	406		
MaxNumberOutStandingCommands	Max Number of outstanding commands supported across all sessions	TRUE	408		

665 **7.7.8 FCoE Configuration**

666 This section describes the attributes for NIC’s FCoE Configuration.

667 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
668 “FCoEConfiguration”.

669 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
670 DCIM\_NICInteger shall be “FCoE Configuration”.

671 The following table describes the values for the DCIM\_NICEnumeration of this group. Each of the column  
 672 headings correspond to a property name on the DCIM\_NICEnumeration class. The Description column  
 673 contains the description for each of the attribute. Each of the rows contain the values for the properties  
 674 listed in the column headings. The PossibleValues property is an array property represented in the table  
 675 as comma delimited list.

676 **Table 35 – DCIM\_NICEnumeration FCoE Configuration**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
ConnectFirstFCoETarget	Connect	FALSE	411	“Disabled”, “Enabled”	Connect FCoE Boot Lun Target
MTUParams	CNA MTU Setting	FALSE	410	“Global”, “Per DCB”, “Priority”, “Per VLAN”	MTU Parameters

677 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
 678 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
 679 contains constraints on string value formulation. Each of the rows contain the values for the properties  
 680 listed in the column headings.

681 **Table 36 – DCIM\_NICString FCoE Configuration**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength
FirstFCoEWWPNTarget	World Wide Port Name FCoE Target	FALSE	414		

682 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
 683 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
 684 values for the properties listed in the column headings.

685 **Table 37 – DCIM\_NICInteger FCoE Configuration**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
FirstFCoEBootTargetLUN	FCoE Boot Lun Target	FALSE	412		
FirstFCoEFCFVLANID	FCoE FCF VLAN ID	FALSE	413		

686

687 **7.7.9 Firmware Image Properties**

688 This section describes the attributes for NIC’s Firmware Image Properties.

689 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
 690 “FrmwImgMenu”.

691 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
 692 DCIM\_NICInteger shall be “Firmware Image Properties”.

693 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
 694 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
 695 contains constraints on string value formulation. Each of the rows contain the values for the properties  
 696 listed in the column headings.



697

**Table 38 – DCIM\_NICString Firmware Image Properties**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength
FamilyVersion	Family Version	TRUE	415		

698 **7.7.10 Global Bandwidth Allocation**

699 This section describes the attributes for NIC’s Partition 1 Configuration.

700 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
701 “GlobalBandwidthAllocation”.

702 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
703 DCIM\_NICInteger shall be “Global Bandwidth Allocation”.

704 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
705 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
706 values for the properties listed in the column headings.

707

**Table 39 – DCIM\_NICInteger Global Bandwidth Allocation**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
MaxBandwidth	Maximum bandwidth of current partition of this NIC or Converged Network Adapter.	FALSE	501	0	100
MinBandwidth	Minimum bandwidth of current partition of this NIC or Converged Network Adapter.	FALSE	502	0	100

708 **7.7.11 iSCSI First Target Parameters**

709 This section describes the attributes for NIC’s iSCSI First Target Parameters.

710 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
711 “IscsiFirstTgtParams”.

712 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
713 DCIM\_NICInteger shall be “iSCSI First Target Parameters”.

714 The following table describes the values for the DCIM\_NICEnumeration of this group. Each of the column  
715 headings correspond to a property name on the DCIM\_NICEnumeration class. The Description column  
716 contains the description for each of the attribute. Each of the rows contain the values for the properties  
717 listed in the column headings. The PossibleValues property is an array property represented in the table  
718 as comma delimited list.

719

**Table 40 – DCIM\_NICEnumeration iSCSI First Target Parameters**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
ConnectFirstTgt	First target establishment for iSCSI.	FALSE	601	“Disabled”, “Enabled”	First Target establishment

720 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
721 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column

722 contains constraints on string value formulation. Each of the rows contain the values for the properties  
 723 listed in the column headings.

724 **Table 41 – DCIM\_NICString iSCSI First Target Parameters**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength	Value Expression
FirstTgtChapId	iSCSI first target CHAP ID.	FALSE	604	0	32	String
FirstTgtIpAddress	iSCSI first target IP address.	FALSE	605	2	39	IP Address
FirstTgtIscsiName	iSCSI first target name.	FALSE	606	0	128	String

725 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
 726 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
 727 values for the properties listed in the column headings.

728 **Table 42 – DCIM\_NICInteger iSCSI First Target Parameters**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
FirstTgtBootLun	First Target Boot LUN number (0 .. 255)	FALSE	602	0	255
FirstTgtTcpPort	First Target TCP Port number (1..65535)	FALSE	603	1	65535

729 **7.7.12 iSCSI General Parameters**

730 This section describes the attributes for NIC’s iSCSI General Parameters.

731 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
 732 “IscsiGenParams”.

733 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
 734 DCIM\_NICInteger shall be “iSCSI General Parameters”.

735 The following table describes the values for the DCIM\_NICEnumeration of this group. Each of the column  
 736 headings correspond to a property name on the DCIM\_NICEnumeration class. The Description column  
 737 contains the description for each of the attribute. Each of the rows contain the values for the properties  
 738 listed in the column headings. The PossibleValues property is an array property represented in the table  
 739 as comma delimited list.

740 **Table 43 – DCIM\_NICEnumeration iSCSI General Parameters**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
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AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
BootToTarget	Boot to iSCSI target after connection	FALSE	701	"Disabled", "Enabled"	Boot to iSCSI target after connection
ChapAuthEnable	CHAP Authentication	FALSE	702	"Disabled", "Enabled"	CHAP Authentication
ChapMutualAuth	CHAP Mutual Authentication	FALSE	703	"Disabled", "Enabled", "NONE"	CHAP Mutual Authentication
IpAutoConfig	TCP/IP Configuration via Stateful or Stateless AutoConfiguration	FALSE	710	"Disabled", "Enabled"	TCP/IP Configuration via Stateful or Stateless AutoConfiguration
IpVer	IP Version support.	FALSE	704	"IPv4", "IPv6"	IP Version support. Modifying this parameter will reset all IP-related fields
IscsiViaDHCP	iSCSI parameters via DHCP	FALSE	705	"Disabled", "Enabled"	iSCSI parameters via DHCP
TcpIpViaDHCP	TCP/IP configuration via DHCP	FALSE	709	"Disabled", "Enabled"	TCP/IP configuration via DHCP
TcpTimestmp	TCP Timestamp	FALSE	708	"Disabled", "Enabled"	TCP Timestamp
WindowsHBABootMode	Windows HBA Boot Mode	FALSE	712	"Disabled", "Enabled"	

741 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
742 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
743 contains constraints on string value formulation. Each of the rows contain the values for the properties  
744 listed in the column headings.

745 **Table 44 – DCIM\_NICString iSCSI General Parameters**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength	Value Expression
DhcpVndorID	Vendor ID for DHCP configuration	FALSE	711	0	0	

746 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
747 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
748 values for the properties listed in the column headings.

749 **Table 45 – DCIM\_NICInteger iSCSI General Parameters**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
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AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
LinkUpDelayTime	Link Up Delay Time	FALSE	706		
LunBusyRetryCnt	Number of retries in 2 sec intervals when LUN is busy (0..60)	TRUE	707	0	

750 **7.7.13 iSCSI Initiator Parameters**

751 This section describes the attributes for NIC's iSCSI Initiator Parameters.

752 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
753 "IscsiInitiatorParams".

754 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
755 DCIM\_NICInteger shall be "iSCSI Initiator Parameters".

756 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
757 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
758 contains constraints on string value formulation. Each of the rows contain the values for the properties  
759 listed in the column headings.

760 **Table 46 – DCIM\_NICString iSCSI Initiator Parameters**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength	Value Expression
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AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength	Value Expression
IscsiInitiatorChapId	iSCSI initiator CHAP ID.	FALSE	804	0	32	String
IscsiInitiatorChapPwd	Initiator CHAP Secret (12 to 16 characters in length).Note: this attribute can either take a value of '0' or 12 to 16.	FALSE	801			
IscsiInitiatorGateway	iSCSI initiator default gateway IP address.	FALSE	805	2	39	IP Address
IscsiInitiatorIpAddr	iSCSI initiator IP address.	FALSE	806	2	39	IP Address
IscsiInitiatorName	iSCSI initiator name.	FALSE	803	0	128	String
IscsiInitiatorPrimDns	iSCSI initiator primary DNS IP address.	FALSE	807	2	39	IP Address
IscsiInitiatorSecDns	iSCSI initiator secondary DNS IP address.	FALSE	808	2	39	IP Address
IscsiInitiatorSubnet	iSCSI initiator subnet mask.	FALSE	809	2	39	IP Address
IscsiInitiatorSubnetPrefix	Initiator IP Subnet Mask Prefix	FALSE	802			
IscsiMacAddr	iSCSI MAC Address	FALSE	810			MAC Address

761 **7.7.14 iSCSI Secondary Device Parameters**

762 This section describes the attributes for NIC's iSCSI Secondary Device Parameters.

763 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
764 "IscsiSecondaryDeviceParams".

765 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
766 DCIM\_NICInteger shall be "iSCSI Secondary Device Parameters".

767 The following table describes the values for the DCIM\_NICEnumeration of this group. Each of the column  
768 headings correspond to a property name on the DCIM\_NICEnumeration class. The Description column  
769 contains the description for each of the attribute. Each of the rows contain the values for the properties  
770 listed in the column headings. The PossibleValues property is an array property represented in the table  
771 as comma delimited list.

772 **Table 47 – DCIM\_NICEnumeration iSCSI Secondary Device Parameters**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
---------------	----------------------	------------	---------------	----------------	-------------

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
UseIndTgtName	Use independent target name when multipath I/O is enabled.	FALSE	902	"Disabled", "Enabled"	Use Independent Target Name when multipath I/O is enabled
UseIndTgtPortal	Use independent target portal when multipath I/O is enabled.	FALSE	903	"Disabled", "Enabled"	Use Independent Target Portal when multipath I/O is enabled

773 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
774 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
775 contains constraints on string value formulation. Each of the rows contain the values for the properties  
776 listed in the column headings.

777 **Table 48 – DCIM\_NICString iSCSI Secondary Device Parameters**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength	Value Expression
SecondaryDeviceMacAddr	Secondary device MAC address.	FALSE	901	17	17	IP address

### 778 7.7.15 iSCSI Second Target Parameters

779 This section describes the attributes for NIC's iSCSI Second Target Parameters.

780 The GroupID property for the DCIM\_NICEnumeration, DCIM\_NICString, and DCIM\_NICInteger shall be  
781 "IscsiSecondTgtParams".

782 The GroupDisplayName property for the DCIM\_NICEnumeration, DCIM\_NICString, and  
783 DCIM\_NICInteger shall be "iSCSI Second Target Parameters".

784 The following table describes the values for the DCIM\_NICEnumeration of this group. Each of the column  
785 headings correspond to a property name on the DCIM\_NICEnumeration class. The Description column  
786 contains the description for each of the attribute. Each of the rows contain the values for the properties  
787 listed in the column headings. The PossibleValues property is an array property represented in the table  
788 as comma delimited list.

789 **Table 49 – DCIM\_NICEnumeration iSCSI Second Target Parameters**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	PossibleValues	Description
ConnectSecondTgt	First target establishment for iSCSI.	FALSE	1002	"Disabled", "Enabled"	Second Target establishment

790 The following table describes the values for the DCIM\_NICString of this group. Each of the column  
791 headings correspond to a property name on the DCIM\_NICString class. The Value Expression column  
792 contains constraints on string value formulation. Each of the rows contain the values for the properties  
793 listed in the column headings.

794

**Table 50 – DCIM\_NICString iSCSI Second Target Parameters**

AttributeName	Attribute Description	IsReadOnly	Display Order	MinLength	MaxLength	Value Expression
SecondTgtChapId	iSCSI second target CHAP ID.	FALSE	1003	0	32	String
SecondTgtChapPwd	CHAP Secret	FALSE	1001			N/A
SecondTgtIpAddress	iSCSI second target IP address.	FALSE	1004	2	39	IP address
SecondTgtIscsiName	iSCSI second target name.	FALSE	1005	0	128	String

795 The following table describes the values for the DCIM\_NICInteger of this group. Each of the column  
 796 headings correspond to a property name on the DCIM\_NICInteger class. Each of the rows contain the  
 797 values for the properties listed in the column headings.

798

**Table 51 – DCIM\_NICInteger iSCSI Second Target Parameters**

AttributeName	AttributeDisplayName	IsReadOnly	Display Order	LowerBound	UpperBound
SecondTgtBootLun	Second Target Boot LUN number (0 .. 255)	FALSE	1006	0	255
SecondTgtTcpPort	Second Target TCP Port number (1..65535)	FALSE	1007	1	65535

## 799 **7.8 DCIM\_NICService**

800 This section describes the implementation for the DCIM\_NICService class.

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

802 The DCIM\_LCElementConformsToProfile association(s)' ManagedElement property shall reference the  
 803 DCIM\_NICService instance(s).

### 804 **7.8.1 Resource URIs for WinRM®**

805 The class Resource URI shall be "http://schemas.dell.com/wbem/wscim/1/cim-  
 806 schema/2/DCIM\_NICService?\_\_cimnamespace=root/dcim"

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

809 The instance Resource URI for DCIM\_NICService instance shall be:  
 810 "http://schemas.dell.com/wbem/wscim/1/cim-  
 811 schema/2/DCIM\_NICService?\_\_cimnamespace=root/dcim+SystemCreationClassName=DCIM\_ComputerSyst  
 812 em+CreationClassName=DCIM\_NICService+ SystemName=DCIM:ComputerSystem+Name= DCIM:NICService"

### 813 **7.8.2 Operations**

814 The following table lists the implemented operations on DCIM\_NICService.

815

**Table 52 – DCIM\_NICService – Operations**

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

Invoke	Mandatory	Instance URI
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816

### 817 7.8.3 Properties

818 The following table details the implemented properties for DCIM\_NICService instance representing a  
 819 system in a system. The “Requirements” column shall denote whether the property is implemented (for  
 820 requirement definitions, see section 3). The “Additional Requirements” column shall denote either  
 821 possible values for the property, or requirements on the value formulation.

822

823

**Table 53 – Class: DCIM\_NICService**

Properties and Methods	Requirement	Description
SystemCreationClassName	Mandatory	The property value shall be “DCIM_ComputerSystem”.
CreationClassName	Mandatory	The property value shall be “DCIM_NICService”.
ElementName	Mandatory	The property value shall be “NIC Service”
SystemName	Mandatory	The property value shall be “DCIM:ComputerSystem”.
Name	Mandatory	The property value shall be “DCIM:NICService”

### 824 7.9 Simple NIC Profile Registration

825 This section describes the implementation for the DCIM\_LCRegisteredProfile class.

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

827 The DCIM\_ElementConformsToProfile association(s)’ ConformantStandard property shall reference the  
 828 DCIM\_LCRegisteredProfile instance.

#### 829 7.9.1 Resource URIs for WinRM®

830 The class Resource URI shall be "http://schemas.dmtf.org/wbem/wscim/1/cim-  
 831 schema/2/CIM\_RegisteredProfile?\_\_cimnamespace=root/interop"

832 The key property shall be the InstanceID property.

833 The instance Resource URI shall be: “http://schemas.dell.com/wbem/wscim/1/cim-  
 834 schema/2/DCIM\_LCRegisteredProfile?\_\_cimnamespace=root/interop+InstanceID=  
 835 DCIM:SimpleNIC:1.0.0”

#### 836 7.9.2 Operations

837 The following table lists the implemented operations on DCIM\_NICView.

838

**Table 54 – DCIM\_LCRegisteredProfile - Operations**

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

839



840 **7.9.3 Properties**

841 The following table details the implemented properties for DCIM\_LCRegisteredProfile instance  
 842 representing Simple NIC Profile implementation. The “Requirements” column shall denote whether the  
 843 property is implemented (for requirement definitions, see section 3). The “Additional Requirements”  
 844 column shall denote either possible values for the property, or requirements on the value formulation.

845 **Table 55 – Class: DCIM\_LCRegisteredProfile**

Properties	Requirement	Type	Description
InstanceID	Mandatory	String	"DCIM:SimpleNIC:1.0.0"
RegisteredName	Mandatory	String	This property shall have a value of "Simple NIC".
RegisteredVersion	Mandatory	String	This property shall have a value of "1.3.0".
RegisteredOrganization	Mandatory	String	This property shall have a value of 1 (Other).
OtherRegisteredOrganization	Mandatory	Uint16	This property 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"> <li>• "LICENSED"</li> <li>• "NOT_LICENSED"</li> </ul> If no license is required for the profile, the property shall have value NULL.

846 **8 Methods**

847 This section details the requirements for supporting intrinsic operations and extrinsic methods for the CIM  
 848 elements defined by this profile.

849 **8.1 DCIM\_NICService.SetAttribute()**

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

851 Invocation of the SetAttribute() method shall change the value of the DCIM\_NICAttribute.CurrentValue or  
 852 DCIM\_NICAttribute.PendingValue property to the value specified by the AttributeValue parameter if the

853 DCIM\_NICAttribute.IsReadOnly property is FALSE. Invocation of this method when the  
 854 DCIM\_NICAttribute.IsReadOnly property is TRUE shall result in no change to the value of the  
 855 DCIM\_NICAttribute.CurrentValue property. The results of changing this value is described with the  
 856 SetResult parameter.

857 Return code values for the SetAttribute() method are specified in Table 56 and parameters are specified  
 858 in Table 57. Invoking the SetAttribute() method multiple times can result in the earlier requests being  
 859 overwritten or lost.

860 **Table 56 – DCIM\_NICService.SetAttribute() Method: Return Code Values**

Value	Description
0	Completed with no error
2	Failed

861 **Table 57 – DCIM\_NICService.SetAttribute() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the NIC
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 desired attribute value. 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"> <li>• "Set CurrentValue property" when the attributes current value is set.</li> <li>• "Set PendingValue" when the attributes pending value is set.</li> </ul>
OUT	RebootRequired[]	String	Returns: <ul style="list-style-type: none"> <li>• "Yes" if reboot is required,</li> <li>• "No" if reboot is not required.</li> </ul>
OUT	MessageID[]	String	Error MessageID
OUT	Message[]	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

862 **Table 58 – DCIM\_NICService.SetAttribute() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
NIC001	The command was successful	
NIC002	Resource allocation failure	
NIC003	Missing required parameter	
NIC004	Invalid parameter value for <parameter name>	Parameter
NIC005	Mismatch in AttributeName and AttributeValue count	
NIC006	Configuration job already created, cannot set attribute on specified target until existing job is completed	

MessageID (OUT parameter)	Message	MessageArguments[]
	or is cancelled	
NIC007	Configuration job already created, cannot create another config job on specified target until existing job is completed or is cancelled	
NIC008	No pending data is present to create a Configuration job	
NIC009	System Services is currently in use, cannot create Configuration job	
NIC010	System Services is disabled, cannot create Configuration job	
NIC011	Configuration job already created, pending data cannot be deleted	
NIC012	No pending data present to delete	
NIC013	Invalid AttributeName %s	AttributeName
NIC014	Invalid AttributeValue for AttributeName %s	AttributeName
NIC015	AttributeValue cannot be changed for ReadOnly AttributeName %s	AttributeName
NIC016	AttributeValue cannot be changed for Disabled AttributeName %s	AttributeName
NIC017	Unable to delete vFlash pending one-time boot configuration	
LC062	An instance of Export or Import System Configuration is already running.	

863

## 864 **8.2 DCIM\_NICService.SetAttributes()**

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

866 Successful SetAttributes() method invocation shall change the values of the CurrentValue or  
867 PendingValue properties of the DCIM\_NICAttribute instance that correspond to the names specified by  
868 the AttributeName parameter, with the values specified by the AttributeValue parameter.

869 If the respective DCIM\_NICAttribute.IsReadOnly property is TRUE, the method invocation shall fail and  
870 shall result in no change to the corresponding value of the DCIM\_NICAttribute.CurrentValue property.

871 Return code values for the SetAttributes() method are specified in Table 59, and parameters are  
872 specified in Table 60.

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

875 **Table 59 – DCIM\_NICService.SetAttributes() Method: Return Code Values**

Value	Description
0	Completed with no error
2	Failed

**Table 60 – DCIM\_NICService.SetAttributes() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the NIC
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	SetResult[]	String	Returns: <ul style="list-style-type: none"> <li>• "Set CurrentValue property" when the attributes current value is set.</li> <li>• "Set PendingValue property" when the attributes pending value is set.</li> </ul>
OUT	RebootRequired[]	String	Returns: <ul style="list-style-type: none"> <li>• "Yes" if reboot is required,</li> <li>• "No" if reboot is not required.</li> </ul>
OUT	MessageID[]	String	Error MessageID
OUT	Message[]	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

**Table 61 – DCIM\_NICService.SetAttribute() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
NIC001	The command was successful	
NIC002	Resource allocation failure	
NIC003	Missing required parameter	
NIC004	Invalid parameter value for <parameter name>	Parameter
NIC005	Mismatch in AttributeName and AttributeValue count	
NIC013	Invalid AttributeName %s	AttributeName
NIC014	Invalid AttributeValue for AttributeName %s	AttributeName
NIC015	AttributeValue cannot be changed for ReadOnly AttributeName %s	AttributeName
NIC016	AttributeValue cannot be changed for Disabled AttributeName %s	AttributeName
LC062	An instance of Export or Import System Configuration is already running.	

878 **8.3 DCIM\_NICService.CreateTargetedConfigJob()**

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

882 CreateTargetedConfigJob method supports the following optional input parameters

- 883 1. RebootJobType: When provided in the input parameters, creates a specific reboot job to  
 884 "PowerCycle", "Graceful Reboot without forced shutdown", or "Graceful Reboot with forced shutdown".  
 885 This parameter only creates the RebootJob and does not schedule it.
- 886 2. ScheduledStartTime: When provided in the input parameters, schedules the "configuration job" and the  
 887 optional "reboot job" at the specified start time. A special value of "TIME\_NOW" schedules the job(s)  
 888 immediately.
- 889 3. UntilTime: This parameter has a dependency on "ScheduledStartTime", together "ScheduledStartTime" and  
 890 "UntilTime" define a time window for scheduling the job(s). Once scheduled, jobs will be executed within the  
 891 time window.

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

897 Return code values for the CreateTargetedConfigJob() method are specified in Table 62, and parameters  
 898 are specified in Table 63.

899 Subsequent calls to CreateTargetedConfigJob after the first CreateTargetedConfigJob will result in error  
 900 until the first job is completed.

901 **Table 62 – DCIM\_NICService.CreateTargetedConfigJob() Method: Return Code Values**

Value	Description
2	Failed
4096 <sup>1</sup>	Job Created <sup>1</sup>

902 **Table 63 – DCIM\_NICService.CreateTargetedConfigJob() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the NIC
IN	RebootJobType	Uint16	Shall contain the requested reboot type: <ul style="list-style-type: none"> <li>• 1 - PowerCycle</li> <li>• 2 - Graceful Reboot without forced shutdown</li> <li>• 3 - Graceful Reboot with forced shutdown.</li> </ul>
IN	ScheduledStartTime	String	Start time for the job execution in format: yyyymmddhhmmss. The string "TIME_NOW" means immediate.
IN	UntilTime	String	End time for the job execution in format: yyyymmddhhmmss. : If this parameter is not NULL, then ScheduledStartTime parameter shall also be specified.

Qualifiers	Name	Type	Description/Values
OUT	Job <sup>1</sup>	CIM_ConcreteJob REF	Reference to the newly created pending value application job. <sup>1</sup>
OUT	MessageID	String	Error MessageID
OUT	Message	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

903 NOTE: 1 – If return code is 4096 (Job Created), the newly created job will not execute if the LC core services are not  
904 running (DCIM\_LCEnumeration with AttributeName equal to “LifecycleControllerState” has the CurrentValue property  
905 equal to “Disabled”).

906

907 **Table 64 – DCIM\_NICService.CreateTargetedConfigJob() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
NIC001	The command was successful	
NIC002	Resource allocation failure	
NIC003	Missing required parameter	
NIC004	Invalid parameter value for <parameter name>	Parameter
NIC007	Configuration job already created, cannot create another config job on specified target until existing job is completed or is cancelled	
NIC008	No pending data is present to create a Configuration job	
NIC009	System Services is currently in use, cannot create Configuration job	
NIC010	System Services is disabled, cannot create Configuration job	
NIC011	Configuration job already created, pending data cannot be deleted	
NIC012	No pending data present to delete	
NIC017	Unable to delete vFlash pending one- time boot configuration	
LC062	An instance of Export or Import System Configuration is already running.	

#### 908 **8.4 DCIM\_NICService.DeletePendingConfiguration()**

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

915 Return code values for the DeletePendingConfiguration() method are specified in Table 65, and  
916 parameters are specified in Table 66.

917 **Table 65 – DCIM\_NICService.DeletePendingConfiguration() Method: Return Code Values**

Value	Description
0	Success
2	Failed

918 **Table 66 – DCIM\_NICService.DeletePendingConfiguration() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	Target	String	FQDD of the NIC
OUT	MessageID	String	Error MessageID
OUT	Message	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

919 **Table 67 – DCIM\_NICService.DeletePendingConfiguration() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
NIC001	The command was successful	
NIC002	Resource allocation failure	
NIC003	Missing required parameter	
NIC004	Invalid parameter value for <parameter name>	Parameter
NIC011	Configuration job already created, pending data cannot be deleted	
NIC012	No pending data present to delete	
NIC017	Unable to delete vFlash pending one-time boot configuration	
LC062	An instance of Export or Import System Configuration is already running.	

## 920 **9 Use Cases**

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

## 922 **10 CIM Elements**

923 No additional details specified.

## 924 **11 Privilege and License Requirement**

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

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

Class and Method	Operation	User Privilege Required	License Required
------------------	-----------	-------------------------	------------------

<b>Class and Method</b>	<b>Operation</b>	<b>User Privilege Required</b>	<b>License Required</b>
DCIM_NICEnumeration	ENUMERATE, GET	Login	LM_REMOTE_CONFIGURATION
DCIM_NICInteger	ENUMERATE, GET	Login	LM_REMOTE_CONFIGURATION
DCIM_NICString	ENUMERATE, GET	Login	LM_REMOTE_CONFIGURATION
DCIM_NICView	ENUMERATE, GET	Login	LM_REMOTE_ASSET_INVENTORY
DCIM_NICStatistics	ENUMERATE, GET	Login	LM_DEVICE_MONITORING
DCIM_NICCapabilities	ENUMERATE, GET	Login	LM_REMOTE_ASSET_INVENTORY
DCIM_NICService	ENUMERATE, GET	Login	None.
DCIM_NICService.SetAttribute()	INVOKE	Login, Server Control	LM_REMOTE_CONFIGURATION
DCIM_NICService.SetAttributes()	INVOKE	Login, Server Control	LM_REMOTE_CONFIGURATION
DCIM_NICService.CreateTargetedConfigJob()	INVOKE	Login, Server Control	LM_REMOTE_CONFIGURATION
DCIM_NICService.DeletePendingConfiguration()	INVOKE	Login, Server Control	LM_REMOTE_CONFIGURATION
DCIM_LCRegisteredProfile	ENUMERATE, GET	Login	None.
DCIM_LCElementConformsToProfile	ENUMERATE, GET	Login	None.

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## ANNEX A (informative)

### Change Log

Version	Date	Description
1.3.0	2012	Added LC062 error message to the SetAttribute(), SetAttributes(), CreateTargetedConfigJob(), and DeletePendingConfiguration() methods.
1.3.1	3/18/2013	Added VirWWN VirtWWPN properties in the Nic View which were missing

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936  
937