1 # Power State Management

2 # Profile

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CONTENTS

Figures

Tables

Power State Management Profile

1 Scope

The *Power State Management Profile* describes the classes, associations, properties, and methods used to manage the power of a system.

2 Normative References

Refer to the following documents for more information.

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

- DMTF DSP1027*, Power State Management Profile 2.0.0*
- DMTF DSP1033, *Profile Registration Profile 1.0.0*
- DMTF DSP0226, *Web Services for Management (WS-Management) Specification 1.1.0*
- DMTF DSP0227, *WS-Management CIM Binding Specification 1.0.0*
- *Dell Lifecycle Controller Best Practices Guide 1.0,*
  http://en.community.dell.com/techcenter/extras/m/white_papers/20066173.aspx
- *Dell WSMAN Licenses and Privileges 1.0*
- Dell Tech Center MOF Library:
  http://www.delltechcenter.com/page/DCIM.Library.MOF
- Related Managed Object Format (MOF) files:
  - o DCIM_CSPowerManagementService.mof
  - o DCIM_CSPowerManagementCapabilities.mof
  - o DCIM_CSAssociatedPowerManagementService.mof
  - o DCIM_PMSElementCapabilities.mof
  - o DCIM_SPHostedPowerManagementService.mof

3 Terms and Definitions

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

3.1
Conditional – Indicates requirements to be followed strictly in order to conform to the document when the specified conditions are met.

3.2
Mandatory – Indicates requirements to be followed strictly in order to conform to the document and from which no deviation is permitted.

3.3
May – Indicates a course of action permissible within the limits of the document.

3.4
Optional – Indicates a course of action permissible within the limits of the document.

3.5
can – Used for statements of possibility and capability, whether material, physical, or causal.

3.6
cannot – Used for statements of possibility and capability, whether material, physical, or causal.

3.7
need not – Indicates a course of action permissible within the limits of the document.

3.8
referencing profile – Indicates a profile that owns the definition of this class and can include a reference to this profile in its "Related Profiles" table.

3.9
shall – Indicates requirements to be followed strictly in order to conform to the document and from which no deviation is permitted.

3.10

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

3.11

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

3.12

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

3.13

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

3.14

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

3.15

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

3.16

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

3.17

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

179 4 Symbols and Abbreviated Terms

180 **4.1**
181 **CIM - Common Information Model**

182 **4.2**
183 **iDRAC -** Integrated Dell Remote Access Controller – management controller for blades and monolithic
184 servers

185 **4.3**
186 **CMC -** Chassis Manager Controller – management controller for the modular chassis

187 **4.4**
188 **CS -** Computer System

189 **4.5**
190 **PM -** Power Management

191 **4.6**
192 **SP -** Service Processor

193 **4.7**
194 **LC** - Lifecycle Controller
195

196 5 Synopsis

197 **Profile Name:** Power State Management

198 **Version:** 1.0.0

199 **Organization:** Dell

200 **CIM Schema Version:** 2.26 Experimental

201 **Dell Schema Version:** 1.0.0

202 **Interop Namespace:** root/interop

203 **Implementation Namespace:** root/dcim

204 **Central Class:** DCIM_CSPowerManagementService

205 **Scoping Class:** DCIM_ComputerSystem

206 The Dell Power State Mangement Profile is a component profile that contains the Dell specific
207 implementation requirements for system view.

208 DCIM_CSPowerManagementService is the Central Class.

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

210 **Table 1 – Related Profiles**

Profile Name	Organization	Version	Relationship
Power State Management	DMTF	1.0	Specialize
Profile Registration	DCIM	1.0	Reference

211 6   Description

212 The *Power State Management Profile* defines the behavior of the power management service and the
213 related classes used to describe and control power state and hardware reset management for a system.
214 The profile describes the classes, property values, and methods that constitute Immediate Power State
215 Change.
216
217 Figure 1 represents the class schema of the *Power State Management Profile* and shows the elements of
218 the *Power State Management Profile*, and the dependent relationships between the elements of *Power*
219 *State Management Profile* and the referencing profiles.
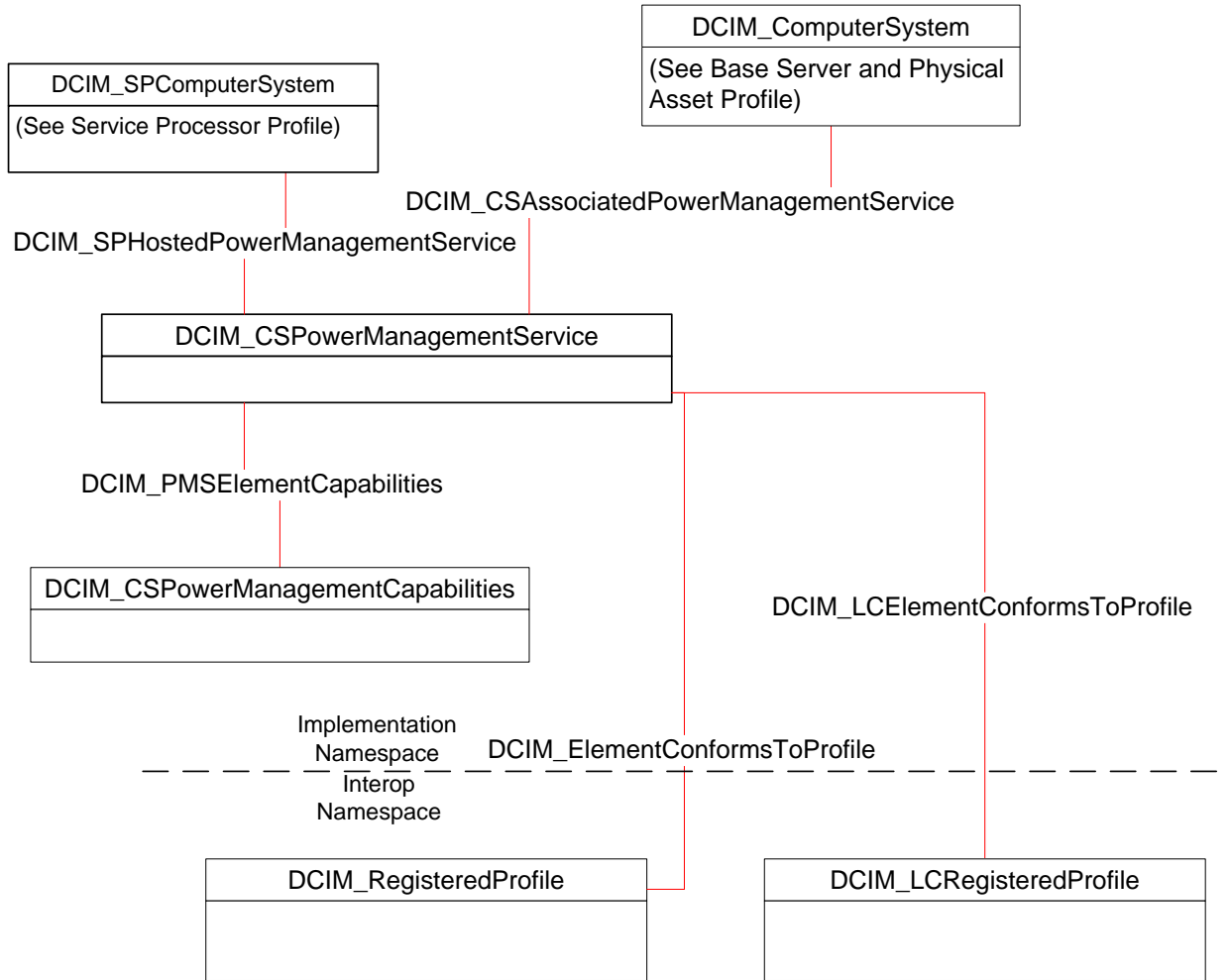
220

221   **Figure 1 – Power State Management Profile Implementation**

7 Implementation Requirement

223 This section describes the implementation of Dell Power State Management Profile.

224 **Table 2 – Class Requirements: Power State Management Profile**

Element Name	Requirement	Description
Classes		
DCIM_CSPowerManagementService	Mandatory	The class shall be implemented in the *Implementation Namespace*. See section 7.1.
DCIM_CSPowerManagementCapabilities	Mandatory	The class shall be implemented in the *Implementation Namespace*. See section 7.2.
DCIM_CSAssociatedPowerManagementService	Mandatory	The class shall be implemented in the *Implementation Namespace*. See section 7.3.
DCIM_PMSElementCapabilities	Mandatory	The class shall be implemented in the *Implementation Namespace*. See section 7.1 and 7.2.
DCIM_SPHostedPowerManagementService	Mandatory	The class shall be implemented in the *Implementation Namespace*. See section 7.1.
DCIM_ElementConformsToProfile	Mandatory	The class shall be implemented in both the *Interop* and *Implementation Namespaces*. See section 7.1, 7.4.1 and 7.4.2.
DCIM_RegisteredProfile	Mandatory	The class shall be implemented in the *Interop Namespace*. See section 7.4.1 and 7.4.2.
DCIM_LCElementConformsToProfile	Mandatory	The class shall be implemented in both the *Interop* and *Implementation Namespaces*. See section 7.4.3.
DCIM_LCRegisteredProfile	Mandatory	The class shall be implemented in the *Interop Namespace*. See section 7.1 and 7.4.3.
Indications		
None defined in this profile		

225 7.1 DCIM_CSPowerManagementService - Power Management Service

226 This section describes the implementation for the DCIM_CSPowerManagementService class that
227 represents the service controlling the system power state.

228 This class is instantiated in the Implementation Namespace.

229 The DCIM_CSPowerManagementService instance is associated to the DCIM_ComputerSystem host
230 computer system instance through the DCIM_CSAssociatedPowerManagementService association. The
231 DCIM_CSAssociatedPowerManagementService.ServiceProvided property references the
232 DCIM_CSPowerManagementService instance.

233 The DCIM_CSPowerManagementService instance is associated to the DCIM_SPComputerSystem
234 service processor instance through the DCIM_SPHostedPowerManagementService association. The
235 DCIM_SPHostedPowerManagementService. Dependent property references the
236 DCIM_CSPowerManagementService instance.

237 The DCIM_ElementConformsToProfile and DCIM_LCElementConformstToProfile association(s)
238 references the DCIM_CSPowerManagementService instance(s).

239 7.1.1 Resource URIs for WinRM®

240 The class Resource URI is:

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

243 The key properties are the SystemCreationClassName, CreationClassName, SystemName, Name

244 The instance Resource URI for DCIM_ CSPowerManagementService instance is:

245 "http://schemas.dell.com/wbem/wscim/1/cim-
246 schema/2/DCIM_CSPowerManagementService?__cimnamespace=root/dcim+SystemCreationClassNam
247 e=DCIM_SPComputerSystem+SystemName=systemmc+CreationClassName=DCIM_CSPowerManage
248 mentService+Name= pwrmgtsvc:1"

249 7.1.2 Operations

250 The following table lists the operations implemented on DCIM_CSPowerManagementService.

251 **Table 3 – DCIM_CSPowerManagementService - Operations**

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

252 7.1.3 Class Properties

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

257 **Table 4 – DCIM_CSPowerManagementService - Properties**

Property Name	Requirement	Type	Additional Requirement
CreationClassName	Mandatory	String	The property value shall be "DCIM_CSPowerManagementService"
Name	Mandatory	String	The property value shall be "pwrmgtsvc:1"
ElementName	Mandatory	String	The property value shall be "Power Management Service"
SystemCreationClassName	Mandatory	String	The property value shall be "DCIM_SPComputerSystem"
SystemName	Mandatory	String	The property value shall be "systemmc"

258 .

7.2 DCIM_CSPowerManagementCapabilities - Power Management Capabilities

This section describes the implementation for the DCIM_CSPowerManagementCapabilities class.

This class is instantiated in the Implementation Namespace.

7.2.1 Resource URIs

The class Resource URI is

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

The key property is the InstanceID.

The instance Resource URI for DCIM_CSPowerManagementCapabilities instance is:

"http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_PowerManagementCapabilities?__cimnamespace=root/dcim+InstanceID= DCIM:pwrmgtcap1"

7.2.2 Operations

The following table lists the operations implemented on DCIM_CSPowerManagementCapabilities.

Table 5 – DCIM_CSPowerManagementCapabiltites - Operations

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

7.2.3 Class Properties

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

Table 6 – DCIM_CSPowerManagementCapabiltites - Properties

Property Name	Requirement	Type	Additional Requirement
InstanceID	Mandatory	string	The property value shall be "DCIM:pwrmgtcap1"
PowerChangeCapabilities	Mandatory[]	uint16	This property value shall have the following array of values: **[**3 (Power State Settable), 4 (Power Cycling Supported), 7 (HW Reset Supported), 8 (Graceful Shutdown Supported)] depend on PowerStatesSupported **]**
ElementName	Mandatory	String	The property value shall be "Power Management Capabilities"

Property Name	Requirement	Type	Additional Requirement
PowerStatesSupported	Mandatory[]	uint16	This property value shall have all the following array of values: [2 (On), 5(Power cycle-off soft), 8 (Off,soft), 10 (Master Bus Reset), 11 (NMI), 12 (Off-soft graceful)]
RequestedPowerStatesSupported	Mandatory[]	uint16	This property value shall have all the following array of values: [2 (On), 5(Power cycle-off soft), 8 (Off,soft), 10 (Master Bus Reset), 11 (NMI), 12 (Off-soft graceful)]

279   **7.3   Associated Power Management Service**

280   This section describes the implementation for the DCIM_CSAssociatedPowerManagementService class.

281   This class is instantiated in the Implementation Namespace.

282   **7.3.1 Resource URIs**

283   The class Resource URI is:

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

286   The key properties are ServiceProvided and UserofService.

287   The instance Resource URI for DCIM_CSAssociatedPowerManagementService instance is:

288   "http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM_
289   SystemEnumeration?__cimnamespace=root/dcim+ServiceProvided=<Reference to
290   DCIM_CSPowerManagementService>+UserofService=<Reference to DCIM_ComputerSystem>"

291   **7.3.2 Operations**

292   The following table lists the operations implemented on DCIM_CSAssociatedPowerManagementService.

293   **Table 7 – DCIM_CSAssociatedPowerManagementService - Operations**

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

294   **7.3.3 Class Properties**

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

Table 8 – DCIM_CSAssociatedPowerManagementService – Properties

Properties	Requirement	Type	Additional Requirements
ServiceProvided	Mandatory	Reference	The property value shall be the Instance URI of DCIM_CSPowerManagementService class.
UserofService	Mandatory	Reference	The property value shall be the Instance URI of DCIM_ComputerSystem.
PowerState	Mandatory	uint16	The property value shall be one of the following: • 2(on), • 13(off) NOTE: In 13 (off) state, although system is off, system has 'flea' or standby power, and iDRAC is powered on.
RequestedPowerState	Mandatory	uint16	The property value is always 0.
PowerOnTime	Mandatory	datetime	The property value is always "NULL",

7.4   Power State Management Profile Registration

301   This section describes the implementation for the DCIM_LCRegisteredProfile class.

302   This class is instantiated in the Interop Namespace.

303   The DCIM_ElementConformsToProfile association(s) shall reference the DCIM_LCRegisteredProfile
304   instance.

7.4.1   DMTF Profile Registration Version 1.0

7.4.1.1 Resource URIs

307   The class Resource URI is:

308   "http://schemas.dmtf.org/wbem/wscim/1/cim-
309   schema/2/CIM_RegisteredProfile?__cimnamespace=root/interop"

310   The key property shall be the InstanceID property.

311   The instance Resource URI is:

312   "http://schemas.dell.com/wbem/wscim/1/cim-
313   schema/2/DCIM_LCRegisteredProfile?__cimnamespace=root/interop+InstanceID=DCIM:PowerStateMan
314   agementRegisteredProfile:1"

7.4.1.2 Operations

316   The following table lists the operations implemented on for DCIM_LCRegisteredProfile.

Table 9 – DCIM_LCRegisteredProfile - Operations

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

318 **7.4.1.3 Class Properties**

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

323 **Table 10 – DCIM_LCRegisteredProfile - Properties**

Property Name	Requirement	Type	Additional Requirements
InstanceID	Mandatory	String	DCIM:PowerStateManagementRegistered Profile:1
RegisteredName	Mandatory	String	This property value shall be "Power State Management"
RegisteredVersion	Mandatory	String	This property value shall be "1.0.0".
RegisteredOrganization	Mandatory	Uint16	This property value shall be 2 (DMTF).

324 **7.4.2 DMTF Profile Registration version 2.0**

325 **7.4.2.1 Resource URIs**

326 The class Resource URI is:

327 "http://schemas.dmtf.org/wbem/wscim/1/cim-
328 schema/2/CIM_RegisteredProfile?__cimnamespace=root/interop"

329 The key property shall be the InstanceID property.

330 The instance Resource URI is:

331 "http://schemas.dell.com/wbem/wscim/1/cim-
332 schema/2/DCIM_LCRegisteredProfile?__cimnamespace=root/interop+InstanceID=DCIM:PowerStateMan
333 agementRegisteredProfile:2"

334 **7.4.2.2 Operations**

335 The following table lists the operations implemented on for DCIM_LCRegisteredProfile.

336 **Table 11 – DCIM_LCRegisteredProfile - Operations**

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

337 **7.4.2.3 Class Properties**

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

342 **Table 12 – DCIM_LCRegisteredProfile - Properties**

Property Name	Requirement	Type	Additional Requirements
InstanceID	Mandatory	String	DCIM:PowerStateManagementRegistered Profile:2
RegisteredName	Mandatory	String	This property value shall be "Power State Management"

Property Name	Requirement	Type	Additional Requirements
RegisteredVersion	Mandatory	String	This property value shall be "2.0.0".
RegisteredOrganization	Mandatory	Uint16	This property value shall be 2 (DMTF).
OtherRegisteredOrganization	Mandatory	String	The property value shall be "DCIM".

343 **7.4.3 Dell Profile Registration version 1.0**

344 **7.4.3.1 Resource URIs**

345 The class Resource URI is:

346 "http://schemas.dmtf.org/wbem/wscim/1/cim-
347 schema/2/CIM_RegisteredProfile?__cimnamespace=root/interop"

348 The key property shall be the InstanceID property.

349 The instance Resource URI is:

350 "http://schemas.dell.com/wbem/wscim/1/cim-
351 schema/2/DCIM_LCRegisteredProfile?__cimnamespace=root/interop+InstanceID=DCIM:PowerStateMan
352 agement:1.0.0"

353 **7.4.3.2 Operations**

354 The following table lists the operations implemented on for DCIM_LCRegisteredProfile.

355 **Table 13 – DCIM_LCRegisteredProfile - Operations**

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

356 **7.4.3.3 Class Properties**

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

361 **Table 14 – DCIM_LCRegisteredProfile - Properties**

Property Name	Requirement	Type	Additional Requirements
InstanceID	Mandatory	String	DCIM:PowerStateManagement:1.0.0
RegisteredName	Mandatory	String	This property value shall be "Power State Management"
RegisteredVersion	Mandatory	String	This property value shall be "1.0.0".
RegisteredOrganization	Mandatory	Uint16	This property value shall be 1 (Other).
OtherRegisteredOrganization	Mandatory	String	The property value shall be "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.

Property Name	Requirement	Type	Additional Requirements
			This property array shall contain the status for the corresponding license in the same element index of the ProfileRequireLicense array property. Each array element shall contain: • "LICENSED" • "NOT_LICENSED" If no license is required for the profile, the property shall have value NULL.
ProfileRequireLicenseStatus[]	Mandatory	String	

362 **8 Methods**

363 This section details the requirements for supporting extrinsic methods for the
364 DCIM_CSPowerManagementService class.

365 **8.1 DCIM_CSPowerManagementService.RequestPowerStateChange( )**

366 The RequestPowerStateChange( ) method is used to set the host system power state. The
367 PowerChangeCapabilities property array of the associated instance of
368 CIM_PowerManagementCapabilities is used to represent the capabilities of the
369 RequestPowerStateChange( ) method. When this method is supported, the PowerChangeCapabilities
370 property shall contain the value 3 (Power State Settable).

371 RequestPowerStateChange( ) method return code values shall be as specified in Table 15.
372 RequestPowerStateChange( ) method parameters are specified in Table 16.

373 Invoking the RequestPowerStateChange( ) method multiple times could result in earlier requests being
374 overwritten or lost.

375 **Table 15 – DCIM_CSPowerManagementService.RequestPowerStateChange( ) Method: Return**
376 **Code Values**

Value	Description
0	The initiation of Pending/Immediate Power State Change was successful.
2	Error occurred

377 **Table 16 – DCIM_CSPowerManagementService.RequestPowerStateChange( ) Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN	PowerState	uint16	See section 8.1.1.
OUT	MessageID	String	Error MessageID
OUT	Message	String	Error Message
OUT	MessageArguments[]	String	Error MessageArguments

378 **Table 17 – DCIM_CSPowerManagementService.RequestPowerStateChange( ) Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
SYS003	Missing parameter(s) %s	PowerState
SYS004	Invalid parameter value for %s	PowerState

MessageID (OUT parameter)	Message	MessageArguments[]
SYS002	The command failed	NA
SYS021	The command failed to set <parameter>	PowerState

8.1.1 PowerState

380 The PowerState parameter indicates the desired power state of the computer system.

381 When the value used for the PowerState parameter is not equal to one of the values in the
382 PowerStatesSupported property array of the associated instance of CIM_PowerManagementCapabilities,
383 the method shall return 2.

384 When the value used for the PowerState parameter is not equal to one of the values in the
385 RequestedPowerStatesSupported property of the associated instance of
386 CIM_PowerManagementCapabilities, the method shall return 2.

387 When the value 5 (Power Cycle (Off–Soft)) or the value 15 (Power Cycle (Off-Soft Graceful)) is supported
388 for the PowerState parameter, the PowerChangeCapabilities property array of the associated instance of
389 CIM_PowerManagementCapabilities shall contain the value 4 (Power Cycling Supported).

390 When the value 6 (Power Cycle (Off–Hard)) or the value 16 (Power Cycle (Off-Hard Graceful)) is
391 supported for the PowerState parameter, the PowerChangeCapabilities property array of the associated
392 instance of CIM_PowerManagementCapabilities shall contain the value 6 (Off Hard Power Cycling
393 Supported).

394 When the values 10 (Master Bus Reset) and 11 (Diagnostic Interrupt (NMI)) are supported for the
395 PowerState parameter, the PowerChangeCapabilities property array of the associated instance of
396 CIM_PowerManagementCapabilities shall contain the value 7 (HW Reset Supported).

397 When the value is 12 (Off-Soft Graceful), 13 (Off-Hard Graceful), 14 (Master Bus Reset Graceful), 15
398 (PowerCycle (Off-Soft Graceful), or 16 (Power Cycle (Off-Hard Graceful)), is supported for the
399 PowerState parameter, the PowerManagementCapabilities property array of the associated instance of
400 CIM_PowerManagementCapabilities shall contain value 8 (Graceful Shutdown supported).

401 When the CIM_PowerManagementService.RequestPowerStateChange( ) method returns a value of 0 or
402 4096, the RequestedPowerState property of the instance of CIM_AssociatedPowerManagementService
403 that references the CIM_PowerManagementService instance and the CIM_ComputerSystem instance
404 indicated by the ManagedElement parameter shall be set to the value of the PowerState parameter of the
405 method.

406 The values of CIM_PowerManagementService.RequestPowerStateChange( ) method PowerState
407 parameter shall have the meaning specified in Table 18.

408 **Table 18 – PowerState Parameter Values**

409

PowerState enum Value	Description
2 (Power On)	Initiate the transition of the system to full on state (corresponding ACPI state G0/S0).
5 (Power Cycle (Off Soft))	Transition the system to off state (corresponding ACPI state G2/S5), in which the system consumes a minimal amount of power, followed by a transition to on state (corresponding ACPI state G0/S0).
8 (Power Off – Soft)	Initiate the transition of the system to off state (corresponding ACPI state G2/S5), in which the system consumes a minimal amount of power.
10 (Master Bus Reset)	Perform hardware reset on the system.
11 (Diagnostic Interrupt (NMI))	Assert an NMI on the system.

PowerState enum Value	Description
12 (Power Off - Soft Graceful)	Perform an orderly transition to power off state (corresponding ACPI state G2/S5), in which the system consumes a minimal amount of power.

410

9 Use Cases

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

10 CIM Elements

414 No additional details specified.

415

11 Privilege and License Requirement

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

420 **Table 19 – Privilege and License Requirements**

Class and Method	Operation	User Privilege Required	License Required
DCIM_CSPowerManagementService	ENUMERATE, GET	Login	None.
DCIM_CSPowerManagementService. RequestPowerStateChange()	INVOKE	Login, System Control	None.
DCIM_CSPowerManagementCapabilities	ENUMERATE, GET	Login	None.
DCIM_CSAssociatedPowerManagement Service	ENUMERATE, GET	Login	None.
DCIM_PMSElementCapabilities	ENUMERATE, GET	Login	None.
DCIM_SPHostedPowerManagementServ ice	ENUMERATE, GET	Login	None.
DCIM_ElementConformsToProfile	ENUMERATE, GET	Login	None.
DCIM_RegisteredProfile	ENUMERATE, GET	Login	None.
DCIM_LCRegisteredProfile	ENUMERATE, GET	Login	None.
DCIM_LCElementConformsToProfile	ENUMERATE, GET	Login	None.

421