

System Quick Sync Profile

Document Number:	DCIM1044
Document Type:	Specification
Document Status:	Published
Document Language:	E
Date:	2017-06-20
Version:	4.0.0

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Contents

1.	Scope	5
2.	Normative References	5
3.	Terms and Definitions	5
3.1.	Conditional	5
3.2.	Mandatory	5
3.3.	May	5
3.4.	Optional	5
3.5.	Referencing profile	5
3.6.	Shall	5
3.7.	FQDD	6
3.8.	Interop Namespace	6
3.9.	Implementation Namespace	6
3.10.	ENUMERATE	6
3.11.	GET	6
4.	Symbols and Abbreviated Terms	6
4.1.	CIM	6
4.2.	iDRAC	6
4.3.	CMC	6
4.4.	WBEM	6
4.5.	NFC	6
5.	Synopsis	6
6.	Description	7
7.	Implementation Description	8
7.1.	SystemQuickSync View	9
7.1.1.	Resource URIs for WinRM®	9
7.1.2.	Operations	9
7.1.3.	Properties	9
7.2.	SystemQuickSync Profile Registration	10
7.2.1.	Resource URIs for WinRM®	10
7.2.2.	Operations	10
7.2.3.	Properties	10
8.	Methods	11
9.	Use Cases	11

10.	CIM Elements	11
11.	Privilege and License Requirement	11
12.	Change log	11

1. Scope

The DCIM SystemQuickSync Profile describes the properties and interfaces for executing system management tasks related to the management of QuickSync/NFC devices within a system. The profile standardizes and aggregates the description for the QuickSync properties into a SystemQuickSync view representation as well as provides static methodology for the clients to query the SystemQuickSync views without substantial traversal of the model.

2. Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- DMTF DSP1033, Profile Registration Profile 1.0.0
- DMTF 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>
 - o DCIM_SystemQuickSyncView.mof
 - o DCIM_LCEnumeration.mof
 - o DCIM_LCRegisteredProfile.mof

3. Terms and Definitions

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

3.1. Conditional

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

3.2. Mandatory

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

3.3. May

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

3.4. Optional

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

3.5. Referencing profile

Indicates a profile that owns the definition of this class and can include a reference to this profile in its “Related Profiles” table

3.6. Shall

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

3.7. FQDD

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

3.8. Interop Namespace

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

3.9. Implementation Namespace

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

3.10. ENUMERATE

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

3.11. GET

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

4. Symbols and Abbreviated Terms

4.1. CIM

Common Information Model

4.2. iDRAC

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

4.3. CMC

Chassis Manager Controller – management controller for the modular chassis

4.4. WBEM

Web-Based Enterprise Management

4.5. NFC

Near Field Communication.

5. Synopsis

Profile Name: SystemQuickSync

Version: 4.0.0

Organization: Dell

CIM Schema Version: 2.41 Final

Dell Schema Version: 1.0.0

Interop Namespace: root/interop Implementation Namespace: root/dcim Central Class:

DCIM_SystemQuickSyncView Scoping Class: DCIM_ComputerSystem

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

DCIM_SystemQuickSyncView shall be the Central Class.

Table 1 identifies profiles that are related to this profile.

Table 1. Related Profiles

Profile Name	Organization	Version	Relationship
Profile Registration	DCIM	1.0	Reference

6. Description

The Dell SystemQuickSync Profile describes platform's QuickSync/NFC device. NFC information is represented by an instance of DCIM_SystemQuickSyncView class.

Figure 1 details the class diagram of the Dell SystemQuickSync Profile.

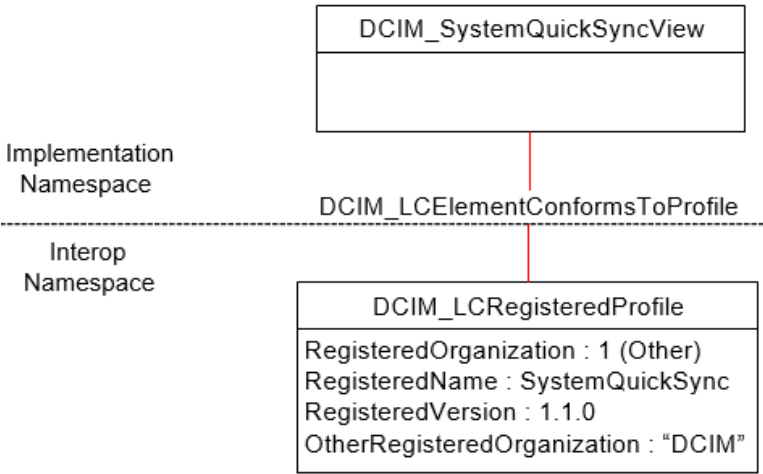


Figure 1. Class Diagram

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

QuickSync1 is the SystemQuickSync view representing the QuickSync/NFC device in the Implementation Namespace. They are associated to the Interop namespace's SystemQuickSync Profile instance.

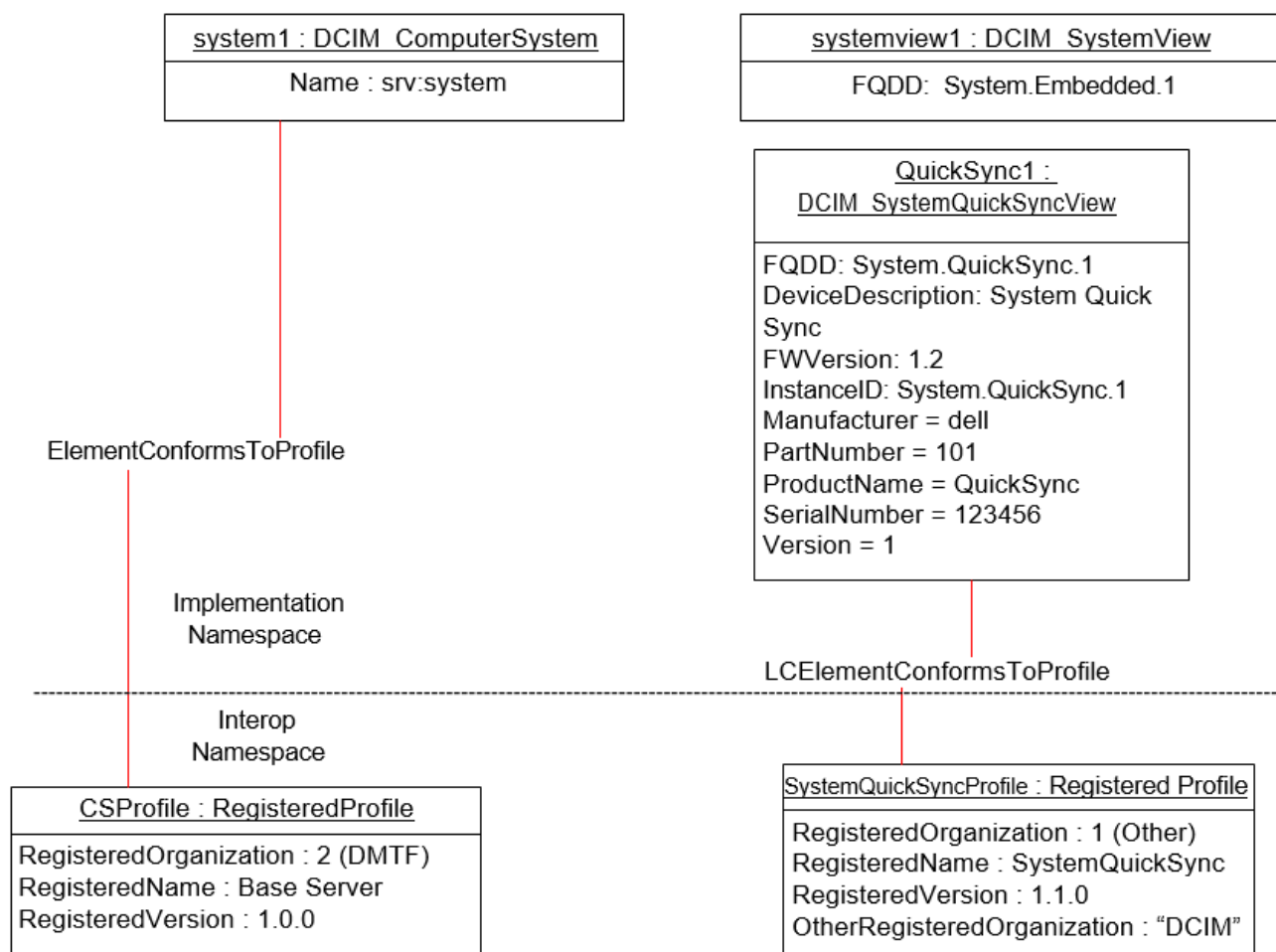


Figure 2. SystemQuickSync Profile Implementation

7. Implementation Description

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

Table 2. Class Requirements: SystemQuickSync Profile

Element Name	Requirement	Description
Classes		
DCIM_SystemQuickSyncView	Mandatory	The class shall be implemented in the Implementation Namespace. See section 7.1.
DCIM_LCElementConformsToProfile	Mandatory	The class shall be implemented in the Implementation Namespace.
DCIM_LCElementConformsToProfile	Mandatory	The class shall be implemented in the Interop Namespace.
DCIM_LCRegisteredProfile	Mandatory	The class shall be implemented in the Interop Namespace. See section 7.2.
Indications		
None defined in this profile		

7.1. SystemQuickSync View

This section describes the implementation for the DCIM_SystemQuickSyncView class. This class shall be instantiated in the Implementation Namespace.

The DCIM_LCElementConformsToProfile association(s) shall reference the DCIM_SystemQuickSyncViewinstance(s).

7.1.1. Resource URIs for WinRM®

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

The key property shall be the InstanceID.

The instance Resource URI for DCIM_SystemQuickSyncView instance shall be:

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

7.1.2. Operations

The following table details the implemented operations on DCIM_SystemQuickSyncView.

Table 3. DCIM_SystemQuickSyncView - Operations

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

7.1.3. Properties

The following table details the implemented properties for DCIM_SystemQuickSyncView instance representing a QuickSync/NFC device in a system. The “Requirements” column shall denote the implementation requirement for the corresponding property. If the column “Property Name” matches the property name, the property either shall have the value denoted in the corresponding column “Additional Requirement”, or shall be implemented according to the requirements in the corresponding column “Additional Requirement”.

Table 4. DCIM_SystemQuickSyncView - Properties

Property Name	Requirements	Type	Requirement and description
InstanceID	Mandatory	String	The property value shall be the FQDD property value.
FQDD	Mandatory	String	The property shall represent, a string containing the Fully Qualified Device Description, a user-friendly name for the object.
DeviceDescription	Mandatory	String	The property shall represent, a string containing the friendly Fully Qualified Device Description, a user-friendly name for the object.
Manufacturer	Mandatory	String	The property shall represent the name of the organization responsible for producing the QuickSync device.
ProductName	Mandatory	String	The property shall represent the product name of the Quick Sync device.
Version	Mandatory	String	The property shall represent the hardware version of the QuickSync device.
FWVersion	Mandatory	String	The property shall represent the firmware version of the Quick Sync device.

Property Name	Requirements	Type	Requirement and description
HWStatus	Mandatory	Uint16	The property represents the HW status corresponding to the Titan package and contain one of the following values: • 0 - (Unknown) • 1 - (OK) • 2 - (Degraded) • 3 - (Error).

7.2. SystemQuickSync Profile Registration

This section describes the implementation for the DCIM_LCRegisteredProfile class. This class shall be instantiated in the Interop Namespace.

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

7.2.1. Resource URIs for WinRM®

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

The key property shall be the InstanceID property.

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

7.2.2. Operations

The following table details the implemented operations on DCIM_LCRegisteredProfile.

Table 5. DCIM_LCRegisteredProfile - Operations

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

7.2.3. Properties

The following table details the implemented properties for DCIM_LCRegisteredProfile instance representing SystemQuickSync Profile implementation. The "Requirements" column shall denote the implementation requirement for the corresponding property. If the column "Name" matches the property name, the property either shall have the value denoted in the corresponding column "Additional Requirements", or shall be implemented according to the requirements in the corresponding column "Additional Requirements".

Table 6. DCIM_LCRegisteredProfile

Property Name	Requirement	String	Additional Requirements
InstanceID	Mandatory	String	DCIM:SystemQuickSync:1.0.0
RegisteredName	Mandatory	String	This property shall have a value of "SystemQuickSync".
RegisteredVersion	Mandatory	String	This property shall have a value of "1.1.0".
RegisteredOrganization	Mandatory	Uint16	This property shall have a value of 1 (Other).
OtherRegisteredOrganization	Mandatory	String	The property value shall match "DCIM".
AdvertisedTypes[]	Mandatory	Uint16	This property array shall contain [1(Other), 1 (Other)].
AdvertiseTypeDescriptions[]	Mandatory	String	This property array shall contain ["WS- Identify", "Interop Namespace"].

Property Name	Requirement	String	Additional Requirements
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: • "LICENSED" • "NOT_LICENSED" If no license is required for the profile, the property shall have value NULL.

8. Methods

No methods are defined for this profile and class.

9. Use Cases

See Lifecycle Controller (LC) Integration Best Practices Guide.

10. CIM Elements

No additional details specified.

11. Privilege and License Requirement

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

Table 7. Privilege and License Requirements

Class and Method	Operation	User Privilege Required	License Required
DCIM_SystemQuickSyncView	ENUMERATE, GET	Login	None
DCIM_LCRegisteredProfile	ENUMERATE, GET	Login	None
DCIM_LCElementConformsToProfile	ENUMERATE, GET	Login	None

12. Change log

Version	Date	Description
4.0.0	20-Jun-2017	New property HWStatus added in DCIM_SystemQuickSyncView Class.